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SITE ASSESSMENT REPORT NAVAL HOSPITAL PENSACOLA BUILDING 2269 AND 2270
NAS PENSACOLA FL
07/06/2011
AEROSTAR ENVIRONMENTAL SERVICES, INC.

# SITE ASSESSMENT REPORT
# BUILDINGS 2269 & 2270
# NAVAL HOSPITAL PENSACOLA
# PENSACOLA, ESCAMBIA COUNTY, FLORIDA

**Contract No. N69450-11-M-0020**

**PREPARED FOR:**

NAVFAC
Naval Facilities Engineering Command

United States Naval Facilities
Engineering Command
Southeast Division
Ajax Street, Building 903
Jacksonville, Florida 32212

**PREPARED BY:**

AEROSTAR
ENVIRONMENTAL SERVICES, INC.

Aerostar Environmental Services, Inc.
803 Government Street, Suite A
Mobile, Alabama 36602
(251) 432-2664

AES Project # 0411-089-24

JULY 2011

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# PENSACOLA, ESCAMBIA COUNTY, FLORIDA

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Curtis R. Mills, Project Manager — Date

7-6-11

Geoffrey Reichold, P.G., Senior Project Manager — Date

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## PROFESSIONAL REVIEW
## PROFESSIONAL GEOLOGIST LICENSED IN THE STATE OF FLORIDA

This is to certify that the ***Site Assessment Report*** for **Buildings 2269 & 2270*, located at Naval Hospital Pensacola, Pensacola, Escambia County, Florida,*** has been examined by the undersigned and complies with the standard professional practices, other rules of the Department and any other applicable laws and rules governing the profession.

Signature: _____
Geoffrey Reichold, P.G.
Florida Registration No. 2483
Signature Date 7-6-11

# 1.0 SITE DESCRIPTION AND BACKGROUND

Aerostar Environmental Services, Inc. (AEROSTAR) has prepared the Site Assessment Report (SAR) for Buildings 2269 and 2270, Naval Hospital (NH) Pensacola, Pensacola, Escambia County, Florida, hereafter referred to as the site. The report summarizes the results of Site Assessment (SA) activities conducted from April 18 through May 12, 2011. This work is being performed under Contract No. N69450-11-M-0020.

## 1.1 Site Location

The site is located in Township 2 South, Range 30 West, Sections 56 on the 7.5-Minute Series United States Geologic Survey (USGS) West Pensacola, Florida Quadrangle Map. The site is located at 6000 US Highway 98 in Pensacola, Florida. A Topographic Site Location Map is included as Figure 1.

## 1.2 Site Description

NH Pensacola is owned by the United States Navy and is used to provide medical services for Navy personnel. NH Pensacola occupies approximately 32 acres and is bounded by South 61st Street to the west and US Highway 98 to the south. The site is surrounded by Corry Station Naval Technical Training Center to the north and east, residential property to the west and vacant land to the south. The topography of the site is relatively flat with a slight downward slope to the south. Land elevation ranges between approximately 25 and 30 feet above National Geodetic Vertical Datum (NGVD, 1929) based on the USGS topographic map. Stormwater drainage either collects as standing water on flat paved areas or flows into underground storm sewers.

## 1.3 Site History

The site has been owned by the United States Navy since 1923, when it was part of Corry Station Airfield. The airfield was decommissioned is the late 1940s and the site was converted into a training center. The site has operated as a hospital since 1976. The site consists of two contaminated areas on the grounds of NH Pensacola. One area is located on the southwestern portion of the NH facility, which encompasses one brick building (Building 2270), two 20,000 gallon diesel fuel Aboveground Storage Tanks (ASTs), two HVAC cooling towers, and a metal outbuilding. The second area is located at a phone pedestal along the western boundary of the

property between South 61st Avenue and Building 2269. This site is in the area of a former skeet target range. A site map and site vicinity map are included as Figures 2 and 3, respectively.

## 1.4 Previous Environmental Studies

**Building 2270**

An Initial SAR prepared by Professional Service Industries, Inc. in October 2000 identified an area of possible petroleum hydrocarbon contamination. The source of contamination was believed to be from an underground diesel fuel transfer line. A total of ten soil borings were advanced in the believed source area and to the north, south and west of the source area. Soil samples were collected from land surface to the water table and screened with an Organic Vapor Analyzer (OVA). Soil vapor concentrations were detected above 50 parts per million (ppm) in soil borings A-1, A-2, A-5 and A-10. Soil samples were collected from soil borings A-1 and A-5 for laboratory analysis. Three permanent groundwater monitoring wells were installed down gradient of the believed source area and groundwater samples were collected. Soil boring and permanent monitoring well locations from the Initial SAR are shown in Figure 4. Soil analytical results showed concentrations of Total Recoverable Petroleum Hydrocarbons (TRPH), 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, ethyl benzene and total xylenes above the Florida Department of Environmental Protection (FDEP) cleanup criteria in the soil samples collected from soil boring A-1. Groundwater analytical data showed concentrations of lead above the FDEP Groundwater Cleanup Target Level (GCTL) in all three wells.

**Building 2269**

Fuel line closure activities were conducted by BEM Systems, Inc. in January 2007. Closure activities included removing 1,675 linear feet of an underground fuel transfer line that ran from a 144,000-gallon AST located in the northern portion of NH Pensacola to Building 2270. Soil samples were collected every twenty feet and screened with an OVA. No soil vapor concentrations were detected above 10 ppm and no soil staining or petroleum odors were observed. Three confirmatory soil samples (one at the start of the fuel transfer line, one near a phone pedestal located northwest of Building 2269 and one at the termination of the fuel line) were collected for laboratory analysis. The soil sample collected near the phone pedestal located northwest of Building 2269 showed concentrations of benzo(a)pyrene above the FDEP Soil Cleanup Target Level (SCTL).

# 2.0 METHODS OF INVESTIGATION

## 2.1 Soil Boring Advancement

### Building 2270

Between April 18 and 21, 2011, AEROSTAR advanced a total of seven soil borings (AES-1 through AES-7) to further evaluate soil quality at the site. Soil boring AES-1 was advanced in the source area identified in the October 2000 Initial SAR followed by step out borings in the north, south, east and west directions. Soil lithology was recorded during the advancement of each soil boring. All soil borings were advanced to the water table, which was encountered at approximately eight feet below land surface (BLS) at the time of the investigation. Soil samples were collected at one foot intervals and inspected for signs of petroleum impacts such as staining and odors. Each soil sample was also screened with an OVA equipped with a Flame Ionization Detector (OVA-FID). Soil boring locations are shown on Figure 5. The soil boring logs are provided in Appendix A.

### Building 2269

Between April 18 and 21, 2011, AEROSTAR advanced a total of thirteen soil borings (AES-1P through AES-13P) to further evaluate soil quality at the site. Soil boring AES-1P was advanced at the phone pedestal followed by step out borings in the north, south, east and west directions. Soil borings AES-1P through AES-3P were advanced to eight feet BLS; soil borings AES-4P through AES-7P and AES-10P were advanced to seven feet BLS; and soil borings AES-8P, AES-9P and AES-11P through AES 13P were advanced to two feet BLS. Soil lithology was recorded during the advancement of each soil boring. The water table was encountered at approximately seven feet BLS at the time of the investigation. Soil samples were collected at six inches BLS, followed by two foot intervals and inspected for signs of petroleum impacts such as staining and odors. Each soil sample was also screened with an OVA-FID. Soil boring locations are shown on Figure 6. The soil boring logs are provided in Appendix A.

## 2.2 Soil Sample Collection and Laboratory Analyses

### Building 2270

The soil sample from each boring that showed the highest soil vapors and/or evidence of soil staining or petroleum odors was submitted to a mobile laboratory that was staged onsite. Each soil

sample was collected in laboratory supplied containers and submitted for analysis of Polynuclear Aromatic Hydrocarbons (PAHs) and TRPH.

**Building 2269**

All soil samples collected from soil borings AES-1P though AES-5P were submitted to the mobile laboratory for analysis. For soil borings AES-6P through AES-13P, soil samples were submitted for laboratory analysis at intervals where the same interval from the previous step-out boring showed elevated contaminant concentrations. Each soil sample was collected in laboratory supplied containers and analyzed for PAHs and TRPH.

Soil sampling was conducted in accordance with the guidelines established in FDEP Standard Operating Procedures (SOP)-001/01, effective date December 3, 2008. Results of the soil laboratory analyses are discussed in Section 4.1 and summarized in Tables 1 and 2.

## 2.3 Temporary Monitor Well Installation

**Building 2270**

Between April 18 and 21, 2011, AEROSTAR installed seven temporary monitoring wells to further evaluate groundwater quality in the shallow and deep aquifers. Temporary monitoring wells were installed at the location of soil borings AES-1 through AES-6. An existing permanent monitoring well was located adjacent to soil boring AES-7, therefore a temporary monitoring well was not installed in that location. The temporary monitoring wells were installed four feet into the shallow aquifer to a depth of approximately 12 feet BLS. Each well was constructed with 10 feet of one-inch diameter, Schedule-40 PVC, 0.01-inch slotted screen. Temporary monitoring well AES-1I was installed at the location of soil boring AES-1. AES-1I was installed to a depth of 25 feet BLS using direct push technology (DPT). Temporary monitoring well AES-1I was constructed with five feet of one-inch diameter, Schedule-40 PVC, 0.01-inch slotted screen. Temporary monitor well locations are shown in Figure 5.

**Building 2269**

Between April 18 and 21, 2011, AEROSTAR installed six temporary monitoring wells to further evaluate groundwater quality in the shallow and deep aquifers. Temporary monitoring wells were installed at the locations of soil borings AES-1P through AES-5P. The temporary monitoring

wells were installed four feet into the shallow aquifer to a depth of approximately 11 feet BLS. Each well was constructed with 10 feet of one-inch diameter, Schedule-40 PVC, 0.01-inch slotted screen. Temporary monitoring well AES-1PI was installed at the location of soil boring AES-1P. AES-1PI was installed to a depth of 25 feet BLS using DPT. Temporary monitoring well AES-1PI was constructed with five feet of one-inch diameter, Schedule-40 PVC, 0.01-inch slotted screen. Temporary monitor well locations are shown in Figure 6.

## 2.4 Temporary Monitor Well Sampling and Laboratory Analyses

Groundwater samples were collected from each temporary monitoring well installed at Buildings 2269 and 2270. Prior to sampling, each temporary monitoring well was developed to assure hydraulic connection with the aquifer and to remove suspended sediments introduced during well installation. In addition, a groundwater sample was collected from existing monitoring well MW-1. Groundwater samples were collected using a variable speed peristaltic pump and dedicated polyethylene tubing. The groundwater samples were collected in laboratory supplied containers and submitted to the mobile laboratory for analysis of PAHs and TRPH.

Groundwater sampling was conducted in accordance with the guidelines established in FDEP SOP-001/01, effective date, December 3, 2008. Results of the groundwater laboratory analyses are discussed in Section 4.2 and summarized in Tables 3 and 4.

## 2.5 Permanent Monitor Well Installation

### Building 2270

Between May 4 and 6, 2011, AEROSTAR installed five shallow permanent monitoring wells (MW-4 through MW-8) and one deep permanent monitoring well (DMW-1). Monitoring well locations were determined based on the results of SA activities conducted between April 18 and April 21, 2011. Monitoring well installation activities were performed using a Geoprobe equipped with hollow stem augers. The shallow monitor wells (MW-4 through MW-8) were completed to a depth of approximately 15 feet BLS and constructed with 10 feet of two-inch diameter, Schedule-40 PVC, 0.01-inch slotted well screen. Monitoring well DMW-1 was completed to a depth of 30 feet BLS and constructed with 25 feet of four-inch diameter, PVC outer casing and five feet of one-inch diameter, Schedule-40 PVC, 0.01-inch slotted pre-packed well screen.

The monitor wells were completed by filling the annular space between the borehole and the well screen with 20/30 silica sand from the bottom of the well to approximately two foot above the top of the well screen. Approximately two feet of 30/65 fine sand seal was placed above the 20/30 silica filter sand. The remaining annular space was filled with Portland Type-I cement grout to surface grade and topped with concrete. A watertight well cap was installed on each well upon completion. The wells were completed in 5.5-inch diameter steel manholes finished in concrete pads set flush with the ground surface. Following installation, the monitor wells were developed using an electric submersible pump to assure proper hydraulic communication with the aquifer.

Monitor well construction details are summarized in Table 5. Monitor well locations are shown on Figure 7. Well construction and development logs are included in Appendix B.

## 2.6 Confirmatory Soil Sampling and Laboratory Analyses

**Building 2270**

During monitor well installation activities, soil samples were collected for confirmatory laboratory analysis. Soils samples were collected from each boring at one foot BLS, six inches above the water table, and every two feet in between and inspected for signs of petroleum impacts such as staining and/or odors. Each soil sample was also screened hydrocarbon vapors with a calibrated OVA-FID. Three soils samples representing the low, medium and high OVA-FID screening results were collected for laboratory analysis. Soil sample MW-5 (8') was collected representing the low OVA-FID reading (0 ppm), soil sample DMW-1 (8') was collected representing the medium OVA-FID reading (43 ppm), and soil sample MW-4 (8') was collected representing the high OVA-FID reading (75 ppm). Each soil sample was collected in laboratory supplied containers and submitted to Gulf Coast Labnet, Inc., in Spanish Fort, Alabama, for analyses by Test America Laboratories, in Pensacola, Florida for the parameters listed in Environmental Protection Agency (EPA) Method 8021 for benzene, toluene, ethylbenzene, total xylenes and methyl tert-butyl ether (BTEX/MTBE), EPA Method 8270 for PAHs and TRPH by the FL-PRO Method.

Soil sampling was conducted in accordance with the guidelines established in FDEP SOP-001/01, effective date December 3, 2008. Results of the soil laboratory analyses are discussed in Section 4.1 and summarized in Table 6.

## 2.7 Permanent Monitor Well Sampling and Laboratory Analyses

**Building 2270**

On May 12, 2011, AEROSTAR mobilized to the site to collect groundwater samples from monitor wells AES-1 through AES-8 and AES-11 for laboratory analyses of the parameters listed in the FDEP Kerosene Analytical Group (KAG). Monitor well MW-3 could not be sampled due to an obstruction or sedimentation that was observed at approximately six feet BLS. The groundwater samples were collected using a variable speed peristaltic pump and dedicated polyethylene tubing.

The samples were placed in laboratory supplied containers and submitted to Gulf Coast Labnet, Inc., in Spanish Fort, Alabama, for analyses by Test America Laboratories, in Pensacola, Florida. Groundwater samples were analyzed for Volatile Organic Compounds (VOCs) per EPA Method 8260, PAHs per EPA Method 8260, Total lead per EPA Method 6010 and TRPH per the FL-PRO Method. Groundwater sampling procedures were conducted in accordance with the guidelines established in the FDEP SOP-001/01, revision date December 3, 2008. Results of the groundwater laboratory analyses are discussed in Section 4.2 and summarized in Table 7. Groundwater Sampling Logs and Field Instrument Calibration Records are included in Appendix C.

## 2.8 Professional Top of Casing Survey and Groundwater Flow Determination

**Building 2270**

On May 12, 2011, Empire Surveying, Inc. performed a top of casing (TOC) elevation survey of the site monitor wells. TOC elevations are based on TOC measurements of monitoring wells MW-1 through MW-3 provided in the October 2000 Initial SAR. The TOC elevations are summarized in Table 5. The Empire Land Surveying, Inc. Specific Purpose Survey is included in Appendix D.

Depth to water measurements were collected and subtracted from the corresponding TOC elevation of each monitor well to estimate the groundwater flow direction. Results of the groundwater flow direction investigation are discussed in Section 4.3.

## 2.9 Investigation Derived Waste Disposal

During all SA activities, all Investigation Derived Waste (IDW), including soil cuttings and purged groundwater, were containerized in 55-gallon drums, placed in a secure Navy specified location, and properly labeled to await disposal. One representative soil and one representative purged groundwater sample was collecting for waste characterization.

On May 18, 2011, all drums containing IDW were removed by Perma Fix Environmental Services and transported to Perma Fix of South Georgia for proper disposal. A copy of the waste manifest is provided in Appendix E.

# 3.0 SITE CHARACTERISTICS

## 3.1 Regional Geology

Escambia County is divided into two geomorphic provinces, the Western Highlands and the Gulf Coastal Lowlands. The Gulf Coastal Lowlands covers the southern one-quarter of Escambia County. It extends southward from the base of the Western Highlands to the present coastline and includes the Escambia River Valley and coastal barrier islands. The terrain in the Gulf Coastal Lowlands is generally flat and sandy, reflecting erosion and subsequent deposition. The land surface of the Gulf Coastal Lowlands slopes gently from an elevation of approximately 100 feet above mean seal level (MSL) at the northern edge of the lowlands to MSL at the coast.

Escambia County is underlain by thousands of feet of Mesozoic and Cenozoic sedimentary rocks. The oldest known sediments, consisting of Jurassic quartzitic sandstone and gray shale are located at approximately 17,950 feet BLS. These sediments are parts of the Smackover Formation. The youngest sediments are Pleistocene and Holocene undifferentiated sands, clayey sands and alluvium. The rock strata underlying Escambia County dip and thicken gently to the southwest in a homoclinal structure.

Locally, the thick sequence of Miocene and younger siliciclastic rock units function as a freshwater aquifer systems, and are a source of non-petroleum economic mineral commodities (Rupert, 1993).

## 3.2 Regional Hydrogeology

The primary aquifer systems present under Escambia County are the surficia aquifer, also called the Sand and Gravel Aquifer, and the deeper Floridan aquifer system. These units are separated by an aquiclude commonly containing water-bearing units, named the Intermediate Aquifer/Confining Unit.

The majority of water wells in Escambia County draw water from the Sand and Gravel Aquifer. This aquifer is formed in the porous siliciclastic sediments of the Coarse Clastics, the Citronelle Formation, and the surficial undifferentiated sand and clay units. It extends under the entire county, overlying Oligocene carbonate in the northern part of the county, and overlying the Pensacola Clay

in the southern portion of the county. It is variable in thickness ranging from the surface down to depths of 200 to 600 feet BLS.

The Floridan aquifer system is composed of porous carbonate rocks of Miocene and Eocene age. The top of the unit lies at depths generally in excess of 600 feet beneath Escambia County. Water within the Floridan aquifer system is harder, with a higher dissolved mineral content than the overlying Sand and Gravel Aquifer (Rupert, 1993).

## 3.3 Site Geology

**Building 2270**

The evaluation of the site's shallow subsurface geology is based on descriptions of the soil borings installed by AEROSTAR and from the soil samples collected at the site. Mostly fine sand with silt are present from just below land surface to depths ranging from approximately four to six feet BLS in the vicinity of Building 2270. Medium to coarse sand was observed from a depth of approximately six feet BLS to 30 feet BLS. The locations of the lithologic cross sections are depicted on Figure 8. The subsurface cross sections of the site lithology are depicted on Figure 9.

**Building 2269**

The evaluation of the site's shallow subsurface geology is based on descriptions of the soil borings installed by AEROSTAR and from the soil samples collected at the site. Mostly fine sand with silt are present from just below land surface to depths ranging from approximately four to seven feet BLS in the vicinity of Building 2269. Pieces of what appear to be former skeet targets were observed at depths from land surface to approximately four feet BLS. Medium to coarse sand was observed from a depth of approximately six feet BLS to 30 feet BLS. The locations of the lithologic cross sections are depicted on Figure 10. The subsurface cross sections of the site lithology are depicted on Figure 11.

## 3.4 Site Hydrogeology

The upper and intermediate surficial aquifer, composed of saturated fine and medium sand was the only aquifer evaluated by the AEROSTAR SA activities.

Groundwater elevation measurements recorded on May 12 and 18, 2011, in the upper surficial aquifer indicated groundwater flow to be generally toward the south. Results of the groundwater elevation investigation are discussed in Section 4.3 and illustrated on Figures 12 and 13.

On May 12, 2011, AEROSTAR performed a slug test at shallow monitor wells MW-1, MW-4 and MW-6. The slug test data was used to determine hydraulic properties of the water-bearing unit in the immediate vicinity of the wells. The tests were conducted by introducing a decontaminated, one-inch diameter, five foot-long slug into each respective monitor well. Once the water table returned to the pre-measured static water table elevation, the slug was removed. AEROSTAR collected readings measuring the groundwater recharge in the well over time, until the groundwater recovered to a minimum of 90% of the static level. The Bower-Rice and Cooper et al Time Lag Slug Test Data and Calculations were used to analyze the slug test data and calculate the hydraulic properties of the water-bearing unit, such as an estimate of transmissivity, hydraulic conductivity, and storativity in the vicinity of the wells. Results of the shallow aquifer tests are discussed in section 4.4. Aquifer data sheets are included in Appendix F.

# 4.0 RESULTS OF INVESTIGATION

## 4.1 Results of Soil Laboratory Analyses

### Building 2270

Results of the soil mobile laboratory analyses showed tested concentrations of TRPH above the SCTLs established in Chapter 62-777, FAC. TRPH was detected in the soil samples AES-1 (7-8') and AES-4 (7-8') at concentrations of 7,021.5 milligrams per kilogram (mg/kg) and 4,987.9 mg/kg, respectively, above the FDEP Residential SCTL of 460 mg/kg, the Commercial SCTL of 2,700 mg/kg and SCTL Leachability Criteria of 340 mg/kg established in Chapter 62-777, FAC. TRPH was detected in the soil sample AES-6 (8-9') at a concentration of 836.35 mg/kg, above the FDEP Residential SCTL of 460 mg/kg and the SCTL Leachability Criteria of 340 mg/kg but below the FDEP Commercial SCTL of 2,700 mg/kg established in Chapter 62-777, FAC. TRPH was detected below the FDEP Residential SCTL in the soil sample collected from AES-2 (7-8').

Concentrations of phenanthrene and pyrene were detected below the FDEP Residential SCTLs in the soil sample AES-1 (7-8').

Concentrations of fluoranthene, naphthalene, phenanthrene, pyrene, 1-methylnaphthalene and 2-methylnaphthalene were detected below the FDEP Residential SCTLs in the soil sample AES-4 (7-8').

All other tested parameters were not detected above the laboratory method detection limits (MDLs). The results of the soil laboratory analyses are summarized in Table 1. TRPH concentrations in the soil are depicted in Figure 14. The laboratory analytical reports with the appropriate chain of custody (COC) records are included as Appendix G.

### Building 2269

Results of the soil mobile laboratory analyses showed tested concentrations of PAHs, primarily benzo(a)pyrene, above the FDEP SCTLs established in Chapter 62-777, FAC. In soil samples where concentrations of benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene or indeno(1,2,3-cd)pyrene were detected above laboratory MDLs, the concentrations were inserted into the FDEP Benzo(a)pyrene

Conversion Table to determine the benzo(a)pyrene equivalent concentrations. Elevated benzo(a)pyrene equivalent concentrations were detected primarily in the upper surficial soil, six inches BLS to four feet BLS, throughout the site ranging from 0.122 mg/kg in soil sample AES-5P (6-7') to 226.968 mg/kg in the soil sample AES-4P (6"). The Benzo(a)pyrene Conversion Tables are included in Appendix H.

Concentrations of acenaphthene were detected above the FDEP SCTL Leachability Criteria of 2.1 mg/kg established in Chapter 62-777, FAC in the soil samples AES-4P (6") (16.36 mg/kg), AES-6P (6") (2.30 mg/kg) and AES-7P (6") (6.42 mg/kg).

Concentrations of benzo(a)anthracene were detected above the FDEP SCTL Leachability Criteria of 0.8 mg/kg established in Chapter 62-777, FAC at concentrations ranging from 0.94 mg/kg in the soil sample AES-5P (4-5') to 189.23 mg/kg in the soil sample AES-4P (6").

Concentrations of benzo(a)pyrene were detected above the Residential SCTL of 0.1 mg/kg, the Commercial SCTL of 0.7 mg/kg and the FDEP SCTL Leachability Criteria of 8.0 mg/kg established in Chapter 62-777, FAC at concentrations ranging from 14.72 mg/kg in the soil sample AES-1P (6") to 150.49 mg/kg in the soil sample AES-4P (6").

Concentrations of benzo(b)fluoranthene were detected above the FDEP SCTL Leachability Criteria of 2.4 mg/kg established in Chapter 62-777, FAC at concentrations ranging from 2.42 mg/kg in the soil sample AES-2P (0-2') to 408.08 mg/kg in the soil sample AES-4P (6").

Concentrations of benzo(k)fluoranthene were detected above the FDEP SCTL Leachability Criteria of 24 mg/kg established in Chapter 62-777, FAC at concentrations ranging from 31.8 mg/kg in the soil sample AES-2P (6") to 207.7 mg/kg in the soil sample AES-4P (6").

Concentrations of chrysene were detected above the FDEP SCTL Leachability Criteria of 77 mg/kg established in Chapter 62-777, FAC at concentrations of 183.23 mg/kg in the soil sample AES-4P (6") and 136.01 mg/kg in the soil sample AES-7P (6").

Concentrations of dibenzo(a,h)anthracene were detected above the FDEP SCTL Leachability Criteria of 0.7 mg/kg established in Chapter 62-777, FAC at concentrations ranging from 0.89 mg/kg in the soil sample AES-5P (6") to 9.56 mg/kg in the soil sample AES-4P (6").

Concentrations of naphthalene were detected above the FDEP SCTL Leachability Criteria of 1.2 mg/kg established in Chapter 62-777, FAC at concentrations of 1.62 mg/kg in the soil sample AES-2P (6"), 16.35 mg/kg in the soil sample AES-4P (6") and 5.82 mg/kg in the soil sample AES-7P (6").

Concentrations of TRPH were detected above the FDEP Residential SCTL of 460 mg/kg and the FDEP SCTL Leachability Criteria of 340 mg/kg established in Chapter 62-777, FAC at concentrations ranging from 771.78 mg/kg in the soil sample AES-2P (6") to 2293.12 mg/kg in the soil sample AES-4P (6").

All other tested parameters were either not detected above FDEP SCTLs or the laboratory MDLs. The results of the soil mobile laboratory analyses are summarized in Table 2. The highest benzo(a)pyrene equivalent concentrations from each boring are depicted in Figure 15. The laboratory analytical reports with the appropriate COC records are included as Appendix G.

**Confirmatory Soil Laboratory Analytical Results**

**Building 2270**

Results of the confirmatory soil laboratory analyses showed total xylenes and TRPH above the FDEP SCTLs leachability criteria established in Chapter 62-777, FAC. Total xylenes were detected in soil sample DMW-1 (8') at a concentration of 0.77 mg/kg, above the FDEP SCTL Leachability Criteria of 0.2 mg/kg but below the FDEP Residential SCTL of 30 mg/kg. TRPH was detected in the soil samples MW-4 (8') and DMW-1 (8') at concentrations of 11,000 mg/kg and 2,100 mg/kg, respectively, above the FDEP Residential SCTL of 460 mg/kg.

Concentrations of toluene, ethylbenzene and total xylenes were detected above laboratory MDLs, but below the FDEP SCTLs established in Chapter 62-777, FAC in the soil sample MW-4 (8').

Concentrations of toluene, ethylbenzene, MTBE, naphthalene, pyrene, 1-methylnaphthalene and 2-methylnaphthalene were detected below their respective FDEP Residential SCTLs established in Chapter 62-777, FAC in the soil sample DMW-1 (8').

Due to a higher laboratory dilution factor, the laboratory MDLs for benzene in soil samples MW-4 (8') and DMW-1 (8') are above the FDEP SCTL Leachability criteria of 0.007 mg/kg but below the FDEP SCTL of 1.2 mg/kg established in Chapter 62-777, FAC.

All other tested parameters were not detected above the laboratory MDLs. The results of the soil laboratory analyses are summarized in Table 6. Total xylenes and TRPH concentrations in the soil are depicted in Figures 16 and 17, respectively. The laboratory analytical reports with the appropriate COC records are included as Appendix G.

## 4.2 Results of Groundwater Laboratory Analyses

**Temporary Monitor Well Laboratory Analytical Results**

AEROSTAR installed the temporary monitor wells at Buildings 2269 and 2270 to collect groundwater samples for screening with the mobile laboratory. The results of the mobile laboratory analyses were used to determine the location of the permanent monitor wells.

**Building 2270**

The results of the groundwater screening at Building 2270 showed PAH and TRPH concentrations above their respective GCTLs established in Chapter 62-777, FAC.

Concentrations of 1-methylnaphthalene and 2-methylnaphthalene were detected in the groundwater sample collected from temporary monitor well AES-6 at concentrations of 35.6 and 58.25 ug/L, respectively, above their respective FDEP GCTLs of 28 ug/L.

TRPH was detected in the groundwater sample collected from temporary monitor well AES-1 at 15,104.3 ug/L, above the FDEP GCTL of 5,000 ug/L.

**Building 2269**

The results of the groundwater screening at Building 2269 showed no PAH or TRPH concentrations above their respective GCTLs established in Chapter 62-777, FAC.

The laboratory analytical reports with the appropriate COC records are included as Appendix G.

**Permanent Monitor Well Laboratory Analytical Results**

**Building 2270**

Results of the laboratory analyses of the groundwater samples collected on May 12, 2011 from the permanent monitor wells at Building 2270 showed no parameters were detected above their respective GCTLs established in Chapter 62-777, FAC. However the laboratory MDLs for 1,3-dichloropropane and 1,1,2,2-tetrachloroethane were reported above their respective GCTLs.

## 4.3 Results of Groundwater Flow Determination

On May 12 and 18, 2011, depth to water measurements were collected from the shallow monitor wells to estimate the direction of groundwater flow at the site. The depth to water measured from the shallow monitor wells at the site ranged from approximately 7.54 feet BLS in monitoring well MW-7 to 8.76 feet BLS in monitoring well MW-8 on May 12, 2011; and approximately 7.60 feet BLS in monitoring well MW-7 to 8.79 feet BLS in monitoring well MW-8 on May 18, 2011. The depth to water at each monitor well was subtracted from the corresponding TOC elevation to determine groundwater elevations at each well. The predominant direction of groundwater flow was estimated to be towards the south during the May 12 and 18, 2011 sampling events. The predominant direction of groundwater flow was estimated to be towards the south during the previous sampling event conducted by the Professional Service Industries, Inc. in 2000. The water table elevations are summarized in Table 8. The shallow groundwater flow map for May 12 and 18, 2011 is presented as Figures 12 and 13, respectively.

## 4.4 Shallow Aquifer Testing Results

AEROSTAR utilized the results from the May 12, 2011 slug tests, site-specific lithology, and site characteristic information to calculate aquifer characteristics at the site.

Hydraulic Gradient Calculation

I = $(h^1-h^2)/L$ where;

I = Hydraulic Gradient

$h^1,h^2$ = Groundwater Elevations (feet)

L = Distance between wells (feet)

Hydraulic Gradient between MW-6 and MW-1:

I = (91.23 ft – 90.90 ft)/50 ft = 0.0066 ft/ft

Slug Test Calculations

The Bower-Rice and Cooper et al Time Lag Slug Test Data and Calculations computer model was used to analyze the slug test data from MW-1, MW-4 and MW-6, and estimate values for hydraulic conductivity (K). The average conductivity obtained from the data sets is K = 0.004613 ft/min = 6.64 ft/day. Graphical representations of the curve solutions are included in Appendix F.

Porosity

Soil samples advanced at the site were used to estimate soil porosity. The porosity of the sediments located in the surficial water-bearing unit is a factor in calculating the velocity of the groundwater. The porosity was estimated by visual inspection of soils, and considering normal porosity of soil types proposed by Fetter (Applied Hydrogeology, C.W. Fetter). The estimated average porosity of a well-sorted fine to medium grain sand is approximately 25 percent.

Horizontal Velocity of Groundwater Flow

V = (K*I)/P where;

| | | | | |
|---|---|---|---|---|
| I | = | Hydraulic Gradient | = | 0.0066 ft/ft |
| K | = | Hydraulic Conductivity | = | 6.64 ft/day |
| P | = | Porosity | = | 0.25 |
| V | = | (6.64 ft/day * 0.0066 ft/ft)/0.25 | = | 0.175296 ft/day |

# 5.0 QUALITY CONTROL

## 5.1 Field Duplicate Samples

A duplicate groundwater sample (identified as DUP) was collected simultaneously with groundwater sample MW-4. Ethylbenzene was detected in the DUP sample at a concentration of 5.1 micrograms per liter (ug/L), which is lower than the concentration detected in the groundwater sample MW-4 (6.2 ug/L). The RPD between the detected concentrations of ethyl benzene in the MW-4 sample and the DUP sample is 19.5 percent.

Total xylenes were detected in the DUP sample at a concentration of 11.0 ug/L, which is lower than the concentration detected in the groundwater sample MW-4 (12.0 ug/L). The RPD between the detected concentrations of total xylenes in the MW-4 sample and the DUP sample is 8.7 percent.

Acenaphthene was detected in the DUP sample at a concentration of 0.19 ug/L, which is lower than the concentration detected in the groundwater sample MW-4 (0.25 ug/L). The RPD between the detected concentrations of acenaphthene in the MW-4 sample and the DUP sample is 27.3 percent.

Fluorene was detected in the DUP sample at a concentration of 1.5 ug/L, which is lower than the concentration detected in the groundwater sample MW-4 (1.6 ug/L). The RPD between the detected concentrations of fluorene in the MW-4 sample and the DUP sample is 6.5 percent.

The constituent 1-methylnaphthalene was detected in the DUP sample at a concentration of 16.0 ug/L, which is lower than the concentration detected in the groundwater sample MW-4 (17.0 ug/L). The RPD between the detected concentrations of 1-methylnaphthalene in the MW-4 sample and the DUP sample is 6.1 percent.

The constituent 2-methylnaphthalene was detected in the DUP sample at a concentration of 19.0 ug/L, which is lower than the concentration detected in the groundwater sample MW-4 (27 ug/L). The RPD between the detected concentrations of 2-methylnaphthalene in the MW-4 sample and the DUP sample is 34.8 percent.

Naphthalene was detected in the DUP sample at a concentration of 8.4 ug/L, which is lower than

the concentration detected in the groundwater sample MW-4 (9.0 ug/L). The RPD between the detected concentrations of naphthalene in the MW-4 sample and the DUP sample is 6.9 percent.

Phenanthrene was detected in the DUP sample at a concentration of 1.1 ug/L, which is equal to the concentration detected in the groundwater sample MW-4 (1.1 ug/L). The RPD between the detected concentrations of phenanthrene in the MW-4 sample and the DUP sample is 0 percent.

TRPH was detected in the DUP sample at a concentration of 2,700 ug/L, which is lower than the concentration detected in the groundwater sample MW-4 (3,200 ug/L). The RPD between the detected concentrations of TRPH in the MW-4 sample and the DUP sample is 16.9 percent.

Total lead was detected in the DUP sample at a concentration of 0.0025 mg/L, which is lower than the concentration detected in the groundwater sample MW-4 (0.0031 mg/L). The RPD between the detected concentrations of total lead in the MW-4 sample and the DUP sample is 21.4 percent.

## 5.2 Laboratory Quality Control Summary

Test America, Inc. prepared a quality control laboratory report for each type of matrix collected. Laboratory reports are presented in Appendix F. Complete documentation of laboratory Quality Assurance data is presented in the narratives to each laboratory report.

The RPD for all laboratory control samples (LCS) and LCS duplicates (LCSD) were within the control limits for all analytes.

The RPD for matrix spike samples (MS) and MS duplicates (MSD) were within the control limits for all analytes.

# 6.0 CONCLUSIONS AND RECOMMENDATIONS

## Building 2270

Laboratory analytical results for the soil samples collected by Professional System Industries, Inc. in 2000 indicated concentrations of TRPH above the FDEP Residential SCTL and concentrations of 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, total xylenes, ethylbenzene and benzene above the FDEP leachability criteria. Groundwater samples from monitoring wells MW-1 through MW-3 showed concentrations of lead above the FDEP GCTL.

Laboratory analytical results for the soil samples collected by AEROSTAR in April and May 2011 indicated TRPH concentrations above the FDEP Commercial SCTL in soil samples AES-1 (7-8), AES-4 (7-8) and MW-4 (8'). TRPH concentrations exceeded the FDEP Residential SCTL in the soil samples AES-6 (8-9) and DMW-1 (8'). The soil sample locations were located on the northeast corner of the AST containment and in between the AST containment and Building 2270, indicating that soil contamination may be present beneath the AST containment and Building 2270.

Laboratory analytical results for the groundwater samples collected from the temporary monitoring wells in April 2011 showed TRPH concentrations above the FDEP GCTL in temporary monitoring well AES-1 and 1-methylnaphthalene and 2-methylnaphthalene concentrations above the FDEP GCTL in temporary monitoring well AES-6.

Laboratory analytical results for the groundwater samples collected in May 2011 from monitoring wells MW-1, MW-2, MW-4 through MW-8 and DMW-1 showed no tested parameters above the FDEP GCTLs.

The groundwater flow direction on May 12 and 18, 2011 was determined to be towards the south, which was consistent with historical data.

Results of this site assessment show that petroleum compounds are present in the soil above FDEP SCTLs at the site. Petroleum compounds were present in the groundwater samples collected from permanent monitoring wells, though below FDEP GCTLs. No free product was detected during

the SA activities. Based on the number of structures and underground utilities in the area of contamination, source removal is not a viable option.

AEROSTAR recommends collecting soil samples at AES-1(7-8) and AES-4(7-8) for laboratory analysis by TRPH Speciation. TRPH Speciation fractionates the carbon compounds into groups of aromatics and aliphatics that can be compared to individual standards to determine what the source of the potential contaminant may be. If the results of the TRPH Speciation show concentrations above the Calculated SCTLs for TRPH Fractions, AEROSTAR recommends implementing engineering or institutional controls to address the soil contamination.

The engineering controls may consist of placing an impervious cap over the area of impacted soils, however, there are currently at least two feet of non-impacted soil between land surface and the impacted soil, therefore engineering controls may already be in place. Institutional controls may consist of the implementation of a restrictive covenant on the property, land use control restriction, or groundwater use controls.

Based on the results of the TRPH Speciation analysis, AEROSTAR will recommend No Further Action (NFA), with or without conditions, be assigned to the site, whichever appropriate. If conditions are present as part of the NFA, AEROSTAR will recommend pursuing NFA status via Risk Management Option Level II, as established in Chapter 62-770.680, FAC.

**Building 2269**

Laboratory analytical results indicated concentrations of benzo(a)pyrene in the soil sample collected by BEM, Inc. in 2007 above the FDEP Commercial SCTL.

Laboratory analytical results in the soil samples collected by AEROSTAR in April 2011 indicated concentrations of PAHs, primarily benzo(a)pryene above FDEP SCTLs throughout the site. Elevated PAH concentrations are primarily in the upper four feet of the surficial soil.

Laboratory analytical results in the groundwater samples collected by AEROSTAR from the temporary monitoring wells in April 2011 indicated no PAH or TRPH concentrations above the

FDEP GCTLs.

Results of this assessment show elevated PAH concentrations present in the surficial soil throughout the site. The large area of PAH concentrations suggest that contamination at the site is the result of the historical use of the property as a skeet range and not from a petroleum discharge. The site area investigated at Building 2269 is currently being investigated under the Navy's Munitions Response Program (MRP). Therefore, AEROSTAR recommends that the site be transferred from the Navy's Petroleum Program to the MRP for future investigations.

## REFERENCES

BEM Systems, Inc. 2007. Fuel Pipeline Closure Report, Fuel Line Removal at Naval Hospital (Bldg #2270) Pensacola, FL

Florida Administrative Code, Chapter 63-777. Cleanup Target Levels (CTLs). February 2001.

Florida Department of Environmental Protection. 2008. Standard Operating Procedures for Field Activities. DEP-SOP-001/01. March.

Professional Service Industries, Inc. 2000. Initial Site Assessment Report

Rupert, Frank 1993. The Geomorphology and Geology of Escambia County, Florida

# TABLES

# TABLE 1: SOIL BORING ANALYTICAL SUMMARY (BUILDING 2270)

Facility Name: Naval Hospital Pensacola (Building 2270)
Facility Address: 6000 US Highway 98, Pensacola, Escambia County, Florida

| Sample | | | Polynuclear Aromatic Hydrocarbons | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Boring No. | Date Collected | Sample Depth (fbls) | Acenaphthene | Acenaphthylene | Anthracene | Benzo(a) anthracene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(g,h,i) perylene | Benzo(k) fluoranthene | Chrysene | Dibenzo(a,h) anthracene | Fluoranthene | Fluorene | Indeno(1,2,3-cd) pyrene | Naphthalene | Phenanthrene | Pyrene | 1-Methyl naphthalene | 2-Methyl naphthalene |
| Units | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| **FDEP Residential SCTL** | | | **2400** | **1800** | **21000** | ** | **0.100** | ** | **2500** | ** | ** | ** | **3200** | **2600** | ** | **55** | **2200** | **2400** | **200** | **210** |
| **FDEP Commercial SCTL** | | | **20000** | **20000** | **300000** | ** | **0.700** | ** | **52000** | ** | ** | ** | **59000** | **33000** | ** | **300** | **36000** | **45000** | **1800** | **2100** |
| **FDEP SCTL Leachability Criteria** | | | **2.1** | **27** | **2500** | **0.8** | **8.00** | **2.4** | **32000** | **24** | **77** | **0.7** | **700** | **1200** | **160** | **1.2** | **250** | **880** | **3.1** | **8.5** |
| AES-1 (7-8) | 4/18/2011 | 7-8 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.75 | 0.36 | 0.080 U | 0.080 U |
| AES-2 (7-8) | 4/18/2011 | 7-8 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U |
| AES-3 (7-8) | 4/18/2011 | 7-8 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U |
| AES-4 (7-8) | 4/18/2011 | 7-8 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 1.91 | 0.117 U | 1.19 | 3.66 | 0.5 | 2.44 | 4.69 |
| AES-5 (5-6) | 4/18/2011 | 5-6 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U |
| AES-6 (8-9) | 4/19/2011 | 8-9 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U |
| AES-7 (7-8) | 4/19/2011 | 7-8 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U |

| Sample | | | Total Petroleum Range Organics | | | |
|---|---|---|---|---|---|---|
| Boring No. | Date Collected | Sample Depth (fbls) | GRO | DRO | LRO | TRPH |
| Units | | | mg/kg | mg/kg | mg/kg | mg/kg |
| **FDEP Residential SCTL** | | | – | – | – | **460** |
| **FDEP Commercial SCTL** | | | – | – | – | **2700** |
| **FDEP SCTL Leachability Criteria** | | | – | – | – | **340** |
| AES-1 (7-8) | 4/18/2011 | 7-8 | **626.7 *** | **4132.9 *** | **2261.9 *** | **7021.5 *** |
| AES-2 (7-8) | 4/18/2011 | 7-8 | 23.62 | 15 U | 15 U | 23.62 |
| AES-3 (7-8) | 4/18/2011 | 7-8 | 15 U | 15 U | 15 U | 15 U |
| AES-4 (7-8) | 4/18/2011 | 7-8 | **476.7 *** | **2908.3 *** | **1602.9 *** | **4987.9 *** |
| AES-5 (5-6) | 4/18/2011 | 5-6 | 15 U | 15 U | 15 U | 15 U |
| AES-6 (8-9) | 4/19/2011 | 8-9 | 15 U | **494.12 *** | 342.23 * | **836.35 *** |
| AES-7 (7-8) | 4/19/2011 | 7-8 | 15 U | 15 U | 15 U | 15 U |

**Notes:**

*All results in milligrams per kilogram (mg/kg)*
*NA = Not Analyzed / Applicable*
*FDEP = Florida Department of Environmental Protection*
*GRO = Gasoline Range Organics*
*DRO = Diesel Range Organics*
*LRO = Lube OilRange Organics*
***Bold** = Value in bold idetifies a result exceeding a Residential FDEP SCTL*
***RED** = Value in red idetifies a result exceeding a Commercial FDEP SCTL*
** = Value identifies a result exceeding the FDEP Leachability Based on Groundwater Criteria*
*** No Value set for individual constituent; therefore, default to the Benzo(a)pyrene table for a cummulative Direct Exposure SCTL for Industrial and Residential use*
bbls = feet below land surface

**Data Qualifiers:**

*U=The analyte was below detection limits*

## CAL SUMMARY (BUILDING 2269)

| ıatic Hydrocarbons | | | | | | | | | | Total Petroleum Range Organics | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (a,h) ene | Fluoranthene | Fluorene | Indeno(1,2,3-cd) pyrene | Naphthalene | Phenan threne | Pyrene | 1-Methyl naphthalene | 2-Methyl naphthalene | Benzo(a)pyrene Equivalent | GRO | DRO | LRO | TRPH |
| g | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | **3200** | **2600** | ** | **55** | **2200** | **2400** | **200** | **210** | **0.1** | -- | -- | -- | **460** |
| | **59000** | **33000** | ** | **300** | **36000** | **45000** | **1800** | **2100** | **0.7** | -- | -- | -- | **2700** |
| | **700** | **1200** | **160** | **1.2** | **250** | **880** | **3.1** | **8.5** | **NA** | -- | -- | -- | **340** |
| * | 17.5 | 0.24 | 9.82 | 0.2 | 7.44 | 15.04 | 0.2 | 0 17 | **19.998** | 15 U | 15 U | 259.29 | 259.29 |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 0.16 | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.16 | 0.080 U | 0.080 U | **0.233** | 41.24 | <15 | 168.08 | 209.32 |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0 063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| * | 69.25 | 1.12 | 21.53 | 1.62 * | 32 02 | 60.49 | 0.36 | 0.4 | **63.243** | 15 U | 15 U | **771.78 *** | **771.78 *** |
| U | 7.13 | 0.128 U | 1.71 | 0.11 | 1.99 | 6.15 | 0.080 U | 0.080 U | **1.907** | 15 U | 15 U | 41.93 | 41.93 |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 0.107 U | 0 128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0 080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 3 18 | 0.128 U | 1.18 | 0.071 U | 1.33 | 2.6 | 0.080 U | 0.080 U | **2.439** | 15 U | 15 U | 15 U | 15 U |
| 9 | 4.77 | 0.128 U | 2.5 | 0.07 | 1.26 | 4.4 | 0.080 U | 0.080 U | **5.583** | 15 U | 15 U | 36.22 | 36.22 |
| U | 1.06 | 0.128 U | 0.33 | 0.071 U | 0.29 | 0.97 | 0.080 U | 0.080 U | **0.907** | 15 U | 15 U | 15 U | 15 U |
| U | 1.94 | 0.128 U | 0.49 | 0.071 U | 0.48 | 1.82 | 0.080 U | 0.080 U | **1.38** | 15 U | 15 U | 15 U | 15 U |
| U | 1.53 | 0.128 U | 0.73 | 0.071 U | 0.44 | 1.51 | 0.080 U | 0.080 U | **1.66** | 15 U | 15 U | 15 U | 15 U |
| * | 233.04 | 7.47 | 49.27 | 16.35 * | 56.48 | 222.95 | 3.07 | 5.1 | **226.968** | 15 U | 230.73 | **2062.39 *** | **2293.12 *** |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 0 107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 0 107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| * | 16.92 | 0.128 U | 5.02 | 0.071 U | 3.01 | 13.61 | 0.080 U | 0.080 U | **9.653** | 15 U | 15 U | 134.61 | 134.61 |
| U | 3.58 | 0.128 U | 0.93 | 0.071 U | 0.56 | 2 82 | 0.080 U | 0.080 U | **1.688** | 15 U | 15 U | 15 U | 15 U |
| U | 0.21 | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.19 | 0 080 U | 0.080 U | **0.241** | 15 U | 15 U | 15 U | 15 U |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0 080 U | NA | 15 U | 15 U | 15 U | 15 U |
| 5 | 3.35 | 0.128 U | 0.76 | 0.071 U | 0.56 | 2.67 | 0 080 U | 0.080 U | **1.581** | 15 U | 15 U | 15 U | 15 U |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 0.12 | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.09 | 0.080 U | 0 080 U | **0.122** | 15 U | 15 U | 15 U | 15 U |
| * | 50.09 | 0.76 | 22.93 | 0.94 | 17.66 | 46.95 | 0.37 | 0.32 | **33.979** | 15 U | 15 U | **804.78 *** | **804.78 *** |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| * | 165.72 | 2.66 | 28.39 | 5.82 * | 48.56 | 151.48 | 1.22 | 1.71 | **73.407** | 15 U | 53 77 | **1540.85 *** | **1594.62 *** |
| U | 0 56 | 0.128 U | 0.22 | 0.071 U | 0.22 | 0.56 | 0.080 U | 0.080 U | **0.652** | 15 U | 15 U | 15 U | 15 U |
| U | 0.11 | 0.128 U | 0.117 U | 0 071 U | 0.063 U | 0.1 | 0.080 U | 0.080 U | 0.131 | 15 U | 15 U | 15 U | 15 U |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 0.16 | 0.128 U | 0.17 | 0.071 U | 0.063 U | 0.2 | 0.080 U | 0.080 U | **0.543** | 15 U | 15 U | 15 U | 15 U |
| U | 0.107 U | 0.128 U | 0 117 U | 0.071 U | 0 063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 0.42 | 0.128 U | 0.18 | 0.071 U | 0.12 | 0.43 | 0.080 U | 0.080 U | **0.611** | 15 U | 15 U | 15 U | 15 U |
| U | 0.35 | 0.128 U | 0.14 | 0.071 U | 0.11 | 0.35 | 0.080 U | 0.080 U | **0.510** | 15 U | 15 U | 15 U | 15 U |
| U | 0 107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 0.45 | 0.128 U | 0.117 U | 0.071 U | 0.12 | 0.43 | 0.080 U | 0.080 U | **0.769** | 15 U | 15 U | 15 U | 15 U |
| U | 0 107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 21.15 | 0.128 U | 13.04 | 0.59 | 5.48 | 20.29 | 0.17 | 0.15 | **25.942** | 15 U | 15 U | 248.89 | 248.89 |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | **0.156** | 15 U | 15 U | 15 U | 15 U |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U | NA | 15 U | 15 U | 15 U | 15 U |
| U | 0.79 | 0.38 U | 0.32 | 0.21 U | 0.23 | 0.75 | 0.24 U | 0.24 U | **0.931** | 45 U | 45 U | 45 U | 45 U |
| U | 0.82 | 0.38 U | 0.36 | 0.21 U | 0.18 U | 0.71 | 0.24 U | 0.24 U | **1.057** | 45 U | 45 U | 45 U | 45 U |
| U | 0.39 | 0.38 U | 0.35 U | 0.21 U | 0.14 | 0.35 | 0.24 U | 0.24 U | **0.445** | 45 U | 45 U | 45 U | 45 U |
| U | 0.32 U | 0.38 U | 0.35 U | 0.21 U | 0.19 U | 0.27 U | 0.24 U | 0.24 U | NA | 45 U | 45 U | 45 U | 45 U |

# TABLE 3: TEMPORARY MONITOR WELL ANALYTICAL SUMMARY (BUILDING 2270)

**Facility Name:** Naval Hospital Pensacola (Building 2270)
**Facility Address:** 6000 US Highway 98, Pensacola, Escambia County, Florida

| Sample | | Polynuclear Aromatic Hydrocarbons | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Boring No. | Date Collected | Acenaphthene | Acenaphthylene | Anthracene | Benzo(a) anthracene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(g,h,i) perylene | Benzo(k) fluoranthene | Chrysene | Dibenzo(a,h) anthracene | Fluoranthene | Fluorene | Indeno(1,2,3-cd) pyrene | Naphthalene | Phenanthrene | Pyrene | 1-Methyl naphthalene | 2-Methyl naphthalen |
| Units | | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| FDEP GCTL | | **20** | **210** | **2100** | **0.05** | **0.2** | **0.05** | **210** | **0.5** | **4.8** | **0.005** | **280** | **280** | **0.05** | **14** | **210** | **210** | **28** | **28** |
| AES-1 | 4/18/2011 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 4.5 | 0.117 U | 0.071 U | 6.1 | 0.090 U | 7.6 | 14.4 |
| AES-2 | 4/18/2011 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U |
| AES-3 | 4/18/2011 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U |
| AES-4 | 4/18/2011 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 12.4 | 0.063 U | 0.090 U | 10.6 | 11.1 |
| AES-5 | 4/19/2011 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U |
| AES-6 | 4/19/2011 | 1.15 | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 4.25 | 0.117 U | 2.9 | 2.85 | 0.090 U | **35.6** | **58.25** |
| MW-1 | 4/18/2011 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U |
| AES-1I | 4/19/2011 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.55 | 0.65 |

| Sample | | Total Petroleum Range Organics | | | |
|---|---|---|---|---|---|
| Boring No. | Collected | GRO | DRO | LRO | TRPH |
| Units | | ug/L | ug/L | ug/L | ug/L |
| FDEP GCTL | | -- | -- | -- | **5,000** |
| AES-1 | 4/18/2011 | 2097 | **8801.7** | 4205.6 | **15104.3** |
| AES-2 | 4/18/2011 | 186.3 | 25 U | 25 U | 186.3 |
| AES-3 | 4/18/2011 | 195.9 | 25 U | 25 U | 195.9 |
| AES-4 | 4/18/2011 | 169 | 25 U | 25 U | 169 |
| AES-5 | 4/19/2011 | 191.5 | 25 U | 25 U | 191.5 |
| AES-6 | 4/19/2011 | 701.15 | 809 | 25 U | 1,510.15 |
| MW-1 | 4/18/2011 | 195.1 | 25 U | 25 U | 195.1 |
| AES-1I | 4/19/2011 | 100.45 | 25 U | 25 U | 100.45 |

**Notes:**
*ug/L = micrograms per liter*
***Bold*** *=Valune in bold idetifies a result exceeding an FDEP GCTL*
*GRO = Gasoline Range Organics*
*DRO = Diesel Range Organics*
*LRO = Lube Oil Range Organics*

**Data Qualifiers:**
*U=The analyte was below detection limits*

# TABLE 4: TEMPORARY MONITOR WELL ANALYTICAL SUMMARY (BUILDING 2269)

Facility Name: Naval Hospital Pensacola (Building 2269)
Facility Address: 6000 US Highway 98, Pensacola, Escambia County, Florida

| Sample | | Polynuclear Aromatic Hydrocarbons | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Boring No. | Date Collected | Acenaphthene | Acenaphthylene | Anthracene | Benzo(a) anthracene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(g,h,i) perylene | Benzo(k) fluoranthene | Chrysene | Dibenzo(a,h) anthracene | Fluoranthene | Fluorene | Indeno(1,2,3-cd) pyrene | Naphthalene | Phenanthrene | Pyrene | 1-Methyl naphthalene | 2-Methyl naphthalen |
| Units | | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| **FDEP GCTL** | | **20** | **210** | **2100** | **0.05** | **0.2** | **0.05** | **210** | **0.5** | **4.8** | **0.005** | **280** | **280** | **0.05** | **14** | **210** | **210** | **28** | **28** |
| AES-1P | 4/18/2011 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U |
| AES-2P | 4/18/2011 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U |
| AES-3P | 4/18/2011 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U |
| AES-4P | 4/19/2011 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U |
| AES-5P | 4/19/2011 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U |
| AES-1PI | 4/19/2011 | 0.221 U | 0.104 U | 0.111 U | 0.054 U | 0.092 U | 0.056 U | 0.077 U | 0.069 U | 0.094 U | 0.116 U | 0.107 U | 0.128 U | 0.117 U | 0.071 U | 0.063 U | 0.090 U | 0.080 U | 0.080 U |

| Sample | | Total Petroleum Range Organics | | | |
|---|---|---|---|---|---|
| Boring No. | Collected | GRO | DRO | LRO | TRPH |
| Units | | ug/L | ug/L | ug/L | ug/L |
| **FDEP GCTL** | | -- | -- | -- | **5,000** |
| AES-1P | 4/18/2011 | 204 | 25 U | 25 U | 204 |
| AES-2P | 4/18/2011 | 103.35 | 25 U | 25 U | 103.35 |
| AES-3P | 4/18/2011 | 99.5 | 25 U | 25 U | 99.5 |
| AES-4P | 4/19/2011 | 103.3 | 25 U | 25 U | 130 |
| AES-5P | 4/19/2011 | 87.8 | 25 U | 25 U | 87.8 |
| AES-1PI | 4/19/2011 | 109.6 | 25 U | 25 U | 109.6 |

**Notes:**
*All results in micrograms per liter (ug/L)*
***Bold*** *=Valune in bold idetifies a result exceeding an FDEP GCTL*
*GRO = Gasoline Range Organics*
*DRO = Diesel Range Organics*
*LRO = Lube Oil Range Organics*

**Data Qualifiers:**
*U=The analyte was below d*

## TABLE 5: MONITOR WELL CONSTRUCTION DETAILS

**Facility Name: Naval Hospital Pensacola (Building 2270)**
**Facility Address: 6000 US Hwy 98, Pensacola, Escambia County, Florida**

**A/G = Aboveground** **FBLS = Feet below land surface** **NA = Not applicable**

| WELL NO. | DATE INSTALLED | INSTALLATION METHOD | TOP OF CASING ELEVATION | A/G RISER LENGTH (FEET) | TOTAL WELL DEPTH (FBLS) | SCREENED INTERVAL (FBLS) | WELL DIAMETER (INCHES) |
|---|---|---|---|---|---|---|---|
| MW-1 | 9/1/2000 | Hollow Stem | 98.95 | N/A | 19.24 | 4.24-19.24 | 2.0 |
| MW-2 | 9/1/2000 | Hollow Stem | 98.37 | N/A | 19.12 | 4.12-19.12 | 2.0 |
| MW-3 | 9/1/2000 | Hollow Stem | 98.85 | N/A | 19.36 | 4.36-19.36 | 2.0 |
| MW-4 | 5/4/2011 | Hollow Stem | 99.60 | N/A | 15 | 5-15 | 2.0 |
| MW-5 | 5/4/2011 | Hollow Stem | 99.68 | N/A | 15 | 5-15 | 2.0 |
| MW-6 | 5/4/2011 | Hollow Stem | 100.03 | N/A | 15 | 5-15 | 2.0 |
| MW-7 | 5/4/2011 | Hollow Stem | 99.00 | N/A | 15 | 5-15 | 2.0 |
| MW-8 | 5/4/2011 | Hollow Stem | 99.99 | N/A | 15 | 5-15 | 2.0 |
| DMW-1 | 5/4/2011 | Hollow Stem | 99.70 | N/A | 30 | 25-30 | 1.0 |

# TABLE 6: CONFIRMATORY SOIL ANALYTICAL SUMMARY (BUILDING 2270)

Facility Name: Naval Hospital Pensacola (Building 2270)
Facility Address: 6000 US Highway 98, Pensacola, Escambia County, Florida

| Sample | | | | Volatile Organic Aromatics | | | | |
|---|---|---|---|---|---|---|---|---|
| Boring No. | Date Collected | OVA-FID (ppm) | Sample Depth (fbls) | Benzene | Toluene | Ethyl benzene | Total Xylenes | Methyl-tert butyl ether |
| Units | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| **FDEP Residential SCTL** | | | | **1.2** | **7500** | **1500** | **130** | **4400** |
| **FDEP Commercial SCTL** | | | | **1.7** | **60000** | **9200** | **700** | **2400** |
| **FDEP SCTL Leachability Criteria** | | | | **0.007** | **0.5** | **0.6** | **0.2** | **0.09** |
| MW-4 (8') | 5/4/2011 | 75 | 8 | 0.028 U | 0.051 I | 0.032 I | 0.14 I | 0.036 U |
| MW-5 (8') | 5/4/2011 | <10 | 8 | 0.00058 U | 0.00041 U | 0.00049 U | 0.00098 U | 0.00073 U |
| DMW-1 (8') | 5/4/2011 | 43 | 8 | 0.031 U | 0.067I | 0.12 | 0.77 * | 0.042 I |

| Sample | | | | Polynuclear Aromatic Hydrocarbons | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Boring No. | Date Collected | OVA-FID (ppm) | Sample Depth (fbls) | Acenaph thene | Acenaph thylene | Anthracene | Benzo(a) anthracene | Benzo(a) pyrene | Benzo(b) fluoranthene | Benzo(g,h,i) perylene | Benzo(k) fluoranthene | Chrysene | Dibenzo(a,h) anthracene | Fluoran thene | Fluorene | Indeno(1,2,3-cd) pyrene | Naphthalene | Phenan threne | Pyrene | 1-Methyl naphthalene | 2-Methyl naphthalene | TRPH |
| Units | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| **FDEP Residential SCTL** | | | | **2400** | **1800** | **21000** | ** | **0.100** | ** | **2500** | ** | ** | ** | **3200** | **2600** | ** | **55** | **2200** | **2400** | **200** | **210** | **460** |
| **FDEP Commercial SCTL** | | | | **20000** | **20000** | **300000** | ** | **0.700** | ** | **52000** | ** | ** | ** | **59000** | **33000** | ** | **300** | **36000** | **45000** | **1800** | **2100** | **2700** |
| **FDEP SCTL Leachability Criteria** | | | | **2.1** | **27** | **2500** | **0.8** | **8** | **2.4** | **32000** | **24** | **77** | **0.7** | **700** | **1200** | **160** | **1.2** | **250** | **880** | **3.1** | **8.5** | **340** |
| MW-4 (8') | 5/4/2011 | 75 | 8 | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | **11000 *** |
| MW-5 (8') | 5/4/2011 | <10 | 8 | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 2.2 I |
| DMW-1 (8') | 5/4/2011 | 43 | 8 | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.035 U | 0.07 I | <0.035 | 0.12 I | 0.65 | 1.1 | **2100 *** |

**Notes:**
*All results in milligrams per kilogram (mg/kg)*
*NA = Not Analyzed / Applicable*
*FDEP = Florida Department of Environmental Protection*
***Bold** =Value in bold idetifies a result exceeding a Residential FDEP SCTL*
***RED** =Value in red idetifies a result exceeding a Commercial FDEP SCTL*
** = Value identifies a result exceeding the FDEP Leachability Based on Groundwater Criteria*
*** No Value set for individual constituent; therefore, defualt to the Benzo(a)pyrene table for a cummulative Direct Exposure SCTL for Industrial and Residential use*
bbls = feet below land surface

**Data Qualifiers:**
*U=The analyte was below detection limits*

# TABLE 7: PERMANENT MONITOR WELL ANALYTICAL SUMMARY (BUILDING 2270)

Facility Name: Naval Hospital Pensacola (Building 2270)
Facility Address: 6000 US Highway 98, Pensacola, Escambia County, Florida

| Sample | | Volatile Organic Hydrocarbons | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Boring No. | Date Collected | Benzene | Bromo benzene | Dichloro bromomethane | 1,3-Dichloro propene, trans- | Bromo form | Bromo methane | Carbon tetrachloride | Chloro benzene | Chloro ethane | Chloroform | Chloro methane | Chlorodibromo methane | Dibromo methane | 1,2-Dichloro benzene | 1,3-Dichloro benzene | 1,4-Dichloro benzene | Dichloro difluoro methane | 1,1-Dichloro ethane | 1,2-Dichloro ethane | 1,1-Dichloro ethene |
| Units | | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| FDEP GCTL | | 1 | NA | NA | NA | 4.4 | 9.8 | 3 | NA | 12 | 70 | 2.7 | NA | NA | NA | 210 | NA | 1400 | 70 | 5 | NA |
| MW-1 | 5/12/2011 | 0.34 U | 0.54 U | 0.50 U | 0.50 U | 0.58 U | 0.91 U | 0.50 U | 0.50 U | 0.63 U | 0.60 U | 0.83 U | 0.50 U | 0.59 U | 0.50 U | 0.54 U | 0.64 U | 0.85 U | 0.50 U | 0.50 U | 0.50 U |
| MW-2 | 5/12/2011 | 0.34 U | 0.54 U | 0.50 U | 0.50 U | 0.58 U | 0.91 U | 0.50 U | 0.50 U | 0.63 U | 0.60 U | 0.83 U | 0.50 U | 0.59 U | 0.50 U | 0.54 U | 0.64 U | 0.85 U | 0.50 U | 0.50 U | 0.50 U |
| MW-4 | 5/12/2011 | 0.34 U | 0.54 U | 0.50 U | 0.50 U | 0.58 U | 0.91 U | 0.50 U | 0.50 U | 0.63 U | 0.60 U | 0.83 U | 0.50 U | 0.59 U | 0.50 U | 0.54 U | 0.64 U | 0.85 U | 0.50 U | 0.50 U | 0.50 U |
| MW-5 | 5/12/2011 | 0.34 U | 0.54 U | 0.50 U | 0.50 U | 0.58 U | 0.91 U | 0.50 U | 0.50 U | 0.63 U | 0.60 U | 0.83 U | 0.50 U | 0.59 U | 0.50 U | 0.54 U | 0.64 U | 0.85 U | 0.50 U | 0.50 U | 0.50 U |
| MW-6 | 5/12/2011 | 0.34 U | 0.54 U | 0.50 U | 0.50 U | 0.58 U | 0.91 U | 0.50 U | 0.50 U | 0.63 U | 0.60 U | 0.83 U | 0.50 U | 0.59 U | 0.50 U | 0.54 U | 0.64 U | 0.85 U | 0.50 U | 0.50 U | 0.50 U |
| MW-7 | 5/12/2011 | 0.34 U | 0.54 U | 0.50 U | 0.50 U | 0.58 U | 0.91 U | 0.50 U | 0.50 U | 0.63 U | 0.60 U | 0.83 U | 0.50 U | 0.59 U | 0.50 U | 0.54 U | 0.64 U | 0.85 U | 0.50 U | 0.50 U | 0.50 U |
| MW-8 | 5/12/2011 | 0.34 U | 0.54 U | 0.50 U | 0.50 U | 1.1 I | 0.91 U | 0.50 U | 0.50 U | 0.63 U | 0.60 U | 0.83 U | 0.50 U | 0.59 U | 0.50 U | 0.54 U | 0.64 U | 0.85 U | 0.50 U | 0.50 U | 0.50 U |
| DMW-1 | 5/12/2011 | 0.34 U | 0.54 U | 0.50 U | 0.50 U | 0.58 U | 0.91 U | 0.50 U | 0.50 U | 0.63 U | 0.60 U | 0.83 U | 0.50 U | 0.59 U | 0.50 U | 0.54 U | 0.64 U | 0.85 U | 0.50 U | 0.50 U | 0.50 U |

| Sample | | Volatile Organic Hydrocarbons | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Boring No. | Date Collected | 1,2-Dichloro ethene, cis- | 1,2-Dichloro ethene, trans- | 1,2-Dichloro propane | 1,3-Dichloro propene, cis | Ethyl benzene | Methylene Chloride | Methyl tert-butyl ether | 1,1,1,2-Tetra chloro ethane | 1,1,2,2-Tetra chloro ethane | Tetrachloro ethene | Toluene | 1,1,1-Trichloro ethane | 1,1,2-Trichloro ethane | Trichloro ethene | Trichloro fluoro methane | 1,2,3-Trichloro propane | Vinyl Chloride | Total Xylenes | Lead |
| Units | | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| FDEP GCTL | | NA | NA | 5 | 0.4 | 30 | 5 | 20 | 1.3 | 0.2 | NA | 40 | 200 | 5 | NA | 2100 | 0.02 | 1 | 20 | 15 |
| MW-1 | 5/12/2011 | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 1.0 I | 1.0 U | 0.74 U | 0.52 U | 0.50 U | 0.58 U | 0.70 U | 0.50 U | 0.50 U | 0.50 U | 0.52 U | 0.86 U | 0.50 U | 1.6 U | 2.0 U |
| MW-2 | 5/12/2011 | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 0.74 U | 0.52 U | 0.50 U | 0.58 U | 0.70 U | 0.50 U | 0.50 U | 0.50 U | 0.52 U | 0.86 U | 0.50 U | 1.6 U | 2.0 U |
| MW-4 | 5/12/2011 | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 6.2 | 1.0 U | 0.74 U | 0.52 U | 0.50 U | 0.58 U | 0.70 U | 0.50 U | 0.50 U | 0.50 U | 0.52 U | 0.86 U | 0.50 U | 12 | 3.1 |
| MW-5 | 5/12/2011 | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 2.3 I | 1.0 U | 0.74 U | 0.52 U | 0.50 U | 0.58 U | 0.70 U | 0.50 U | 0.50 U | 0.50 U | 0.52 U | 0.86 U | 0.50 U | 11 | 2.0 U |
| MW-6 | 5/12/2011 | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 0.74 U | 0.52 U | 0.50 U | 0.58 U | 0.70 U | 0.50 U | 0.50 U | 0.50 U | 0.52 U | 0.86 U | 0.50 U | 1.6 U | 2.0 U |
| MW-7 | 5/12/2011 | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 0.74 U | 0.52 U | 0.50 U | 0.58 U | 0.70 U | 0.50 U | 0.50 U | 0.50 U | 0.52 U | 0.86 U | 0.50 U | 1.6 U | 2.0 U |
| MW-8 | 5/12/2011 | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 0.74 U | 0.52 U | 0.50 U | 0.58 U | 0.70 U | 0.50 U | 0.50 U | 0.50 U | 0.52 U | 0.86 U | 0.50 U | 1.6 U | 2.2 I |
| DMW-1 | 5/12/2011 | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 1.0 U | 0.74 U | 0.52 U | 0.50 U | 0.58 U | 0.70 U | 0.50 U | 0.50 U | 0.50 U | 0.52 U | 0.86 U | 0.50 U | 1.6 U | 2.0 U |

| Sample | | Polynuclear Aromatic Hydrocarbons | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Boring No. | Date Collected | Acenaphthene | Acenaph thylene | Anthracene | Benzo(a) anthracene | Benzo(a) pyrene | Benzo(b) fluor anthene | Benzo(g,h,i) perylene | Benzo(k) fluor anthene | Chrysene | Dibenzo(a,h) anthracene | Fluor anthene | Fluorene | Indeno (1,2,3-cd) pyrene | Naphthalene | Phenan threne | Pyrene | 1-Methyl naphthalene | 2-Methyl naphthalene | Ethylene Dibromide | TRPH |
| Units | | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| FDEP GCTL | | 20 | 210 | 2100 | 0.05 | 0.2 | 0.05 | 210 | 0.5 | 4.8 | 0.005 | 280 | 280 | 0.05 | 14 | 210 | 210 | 28 | 28 | 0.02 | 5,000 |
| MW-1 | 5/12/2011 | 0.22 | 0.019 U | 0.019 U | 0.038 U | 0.036 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | <0.019 | 1.2 | 0.038 U | 11 | 0.27 | 0.019 U | 16 | 20 | 0.0051 U | 1600 |
| MW-2 | 5/12/2011 | 0.019 U | 0.019 U | 0.019 U | 0.037 U | 0.037 U | 0.037 U | 0.037 U | 0.037 U | 0.037 U | 0.037 U | <0.019 | <0.020 | 0.037 U | 0.019 U | 0.019 U | 0.019 U | 0.019 U | 0.019 U | 0.0050 U | 18 U |
| MW-4 | 5/12/2011 | 0.25 | 0.019 U | 0.019 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | <0.019 | 1.6 | 0.038 U | 9 | 1.1 | 0.019 U | 17 | 27 | 0.0050 U | 3200 |
| MW-5 | 5/12/2011 | 0.095 I | 0.019 U | 0.019 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | <0.019 | <0.020 | 0.038 U | 4.9 | 0.019 U | 0.019 U | 3.9 | 4.3 | 0.0051 U | 1900 |
| MW-6 | 5/12/2011 | 0.019 U | 0.019 U | 0.019 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | <0.019 | <0.020 | 0.038 U | 0.019 U | 0.019 U | 0.019 U | 0.019 U | 0.019 U | 0.0051 U | 390 |
| MW-7 | 5/12/2011 | 0.019 U | 0.019 U | 0.019 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | <0.019 | <0.020 | 0.038 U | 0.019 U | 0.019 U | 0.019 U | 0.019 U | 0.019 U | 0.0051 U | 19 I |
| MW-8 | 5/12/2011 | 0.019 U | 0.019 U | 0.019 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | <0.019 | <0.020 | 0.038 U | 0.019 U | 0.019 U | 0.019 U | 0.019 U | 0.019 U | 0.0050 U | 21 U |
| DMW-1 | 5/12/2011 | 0.019 U | 0.019 U | 0.019 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | 0.038 U | <0.019 | <0.020 | 0.038 U | 0.063 I | 0.019 U | 0.019 U | 0.074 I | 0.11 I | 0.0051 U | 25 U |

**Notes:**

*ug/L = micrograms per liter*
***Bold** =Valune in bold idetifies a result exceeding an FDEP GCTL*
*GCTL = Groundwater Cleanup Target Level*
*GRO = Gasoline Range Organics*
*DRO = Diesel Range Organics*
*LRO = Lube Oil Range Organics*

**Data Qualifiers:**

*U=The analyte was below detection limits*

## TABLE 8: GROUNDWATER ELEVATION SUMMARY

**Facility Name: Naval Hospital Pensacola (Building 2270)**
**Facility Address: 6000 US Hwy 98, Pensacola, Escambia County, Florida**

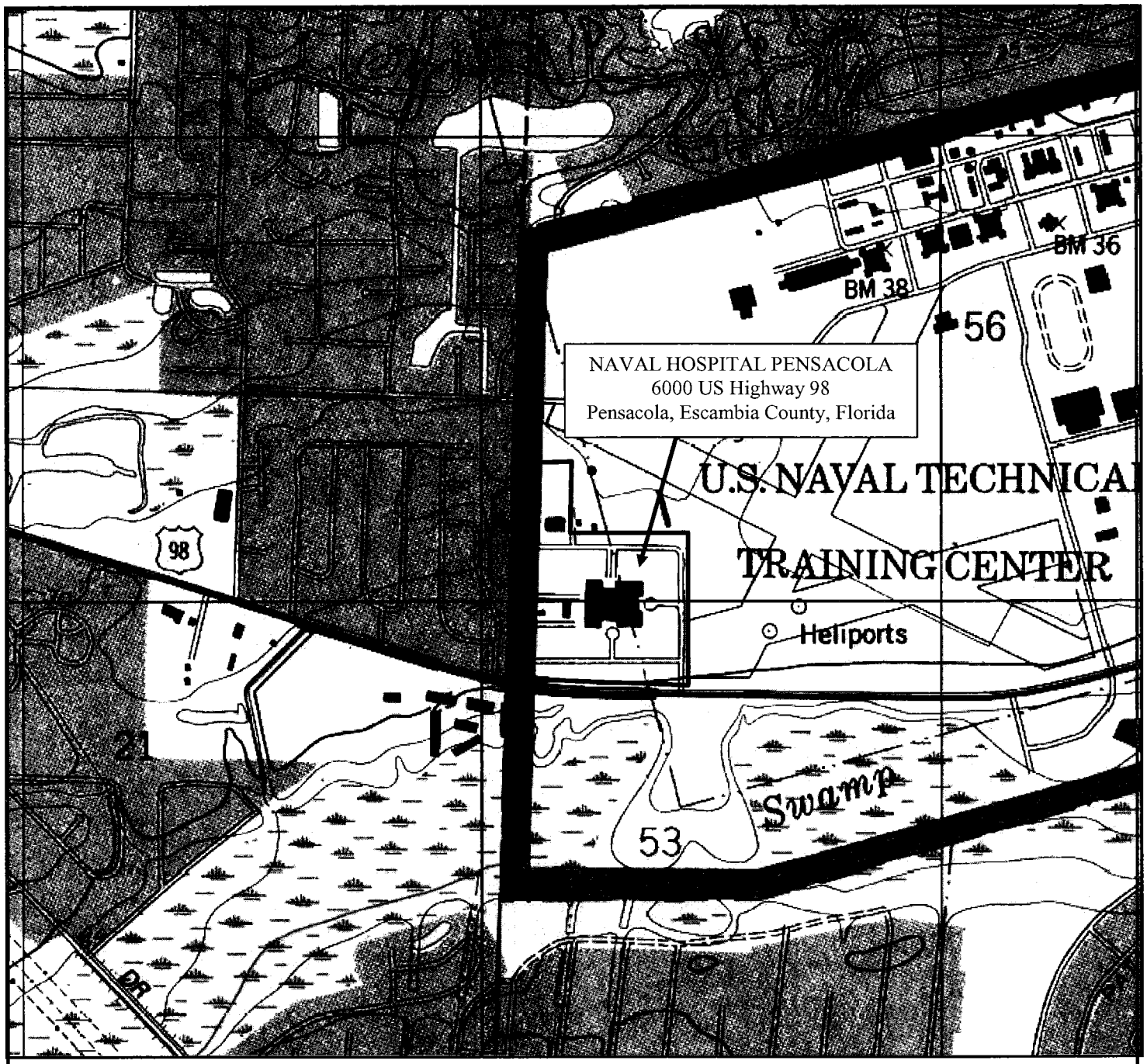
**All Measurements (Except Well Diameter) = Feet**
**DTW = Depth to Water**

**NI = Not Installed**
**NS = Not Sampled**
**TOC = Top of Casing**
**ELEV = Elevation**
**FP = Free Product**
**ND = Not Detected**

| WELL NO. | MW-1 | | | MW-2 | | | MW-3 | | | MW-4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIAMETER (INCHES) | 2 | | | 2 | | | 2 | | | 2 | | |
| WELL DEPTH | 19.24 | | | 19.12 | | | 19.36 | | | 15 | | |
| SCREEN INTERVAL | 4.94-19.24 | | | 4.12-19.12 | | | 4.36-19.36 | | | 5-15 | | |
| TOC ELEVATION [1] | 98.95 | | | 98.37 | | | 98.85 | | | 99.60 | | |
| DATE | ELEV | DTW | FP | ELEV | DTW | FP | ELEV | DTW | FP | ELEV | DTW | FP |
| 9/1/2000 | 89.05 | 9.9 | ND | 88.55 | 9.82 | ND | 88.44 | 10.41 | ND | NI | NI | NI |
| 9/5/2000 | 89.47 | 9.48 | ND | 88.59 | 9.78 | ND | 88.47 | 10.38 | ND | NI | NI | NI |
| 5/12/2011 | 90.90 | 8.05 | ND | 90.53 | 7.84 | ND | NS | NS | ND | 91.08 | 8.52 | ND |
| 5/18/2011 | 90.87 | 8.08 | ND | 90.48 | 7.89 | ND | NS | NS | ND | 91.04 | 8.56 | ND |

| WELL NO. | MW-5 | | | MW-6 | | | MW-7 | | | MW-8 | | | DMW-1 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIAMETER (INCHES) | 2 | | | 2 | | | 2 | | | 2 | | | 1 | | |
| WELL DEPTH | 15 | | | 15 | | | 15 | | | 15 | | | 30 | | |
| SCREEN INTERVAL | 5-15 | | | 5-15 | | | 5-15 | | | 5-15 | | | 25-30 | | |
| TOC ELEVATION [1] | 99.68 | | | 100.03 | | | 99.00 | | | 99.99 | | | 99.70 | | |
| DATE | ELEV | DTW | FP | ELEV | DTW | FP | ELEV | DTW | FP | ELEV | DTW | FP | ELEV | DTW | FP |
| 11/8/2010 | NI | NI | NI | NI | NI | NI | NI | NI | NI | NI | NI | NI | NI | NI | NI |
| 9/5/2000 | NI | NI | NI | NI | NI | NI | NI | NI | NI | NI | NI | NI | NI | NI | NI |
| 5/12/2011 | 91.18 | 8.5 | ND | 91.28 | 8.75 | ND | 91.31 | 7.54 | ND | 91.23 | 8.76 | ND | 91.00 | 8.7 | ND |
| 5/18/2011 | 91.15 | 8.53 | ND | 91.23 | 8.80 | ND | 91.40 | 7.6 | ND | 91.20 | 8.79 | ND | 90.96 | 8.74 | ND |

# FIGURES




WEST PENSACOLA
QUADRANGLE

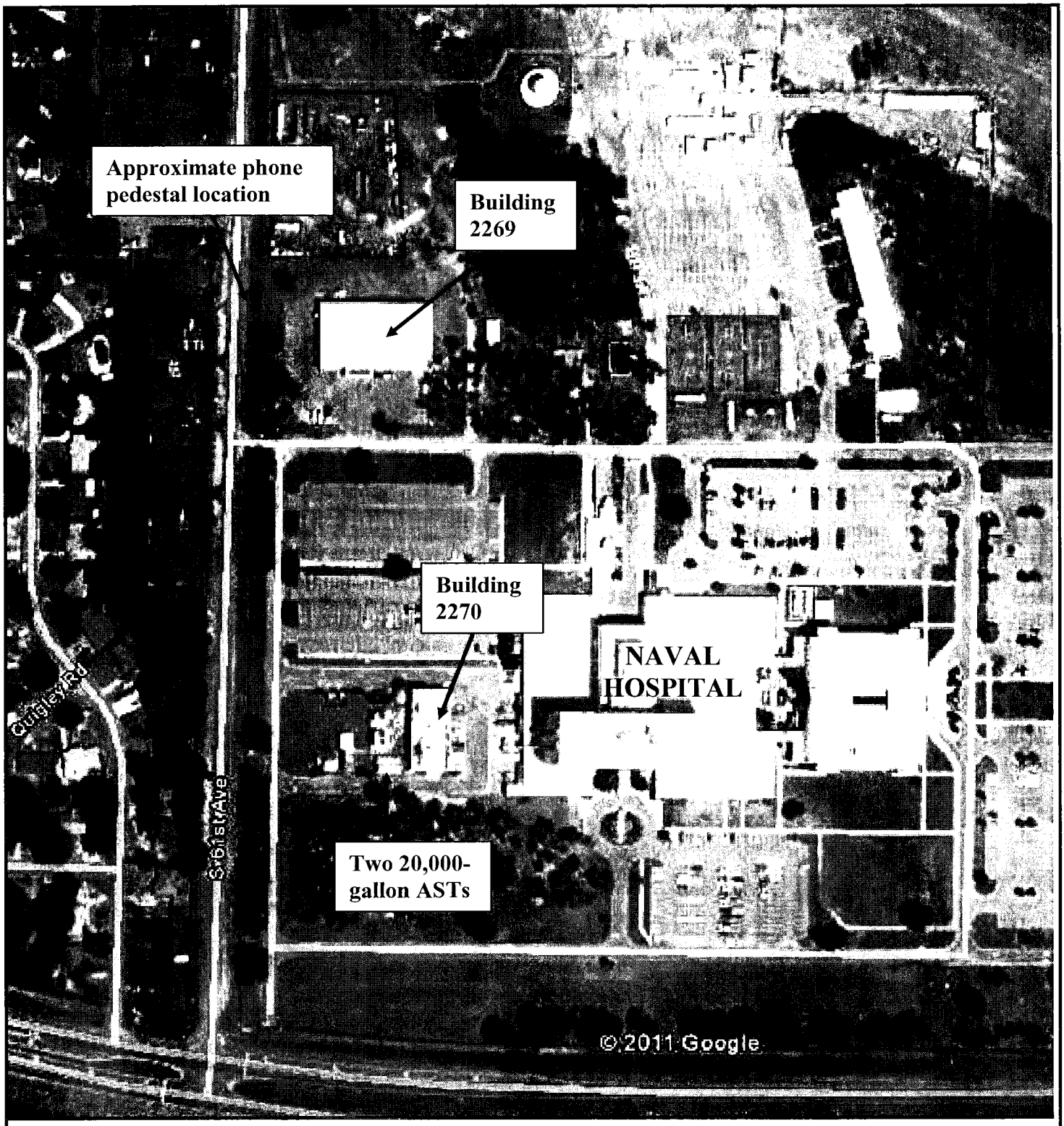
ISSUED 1994

7.5 MINUTE SERIES
(TOPOGRAPHIC)
CONTOUR INTERVAL 5 FEET
SCALE 1:24,000

N

# FIGURE 1 – TOPOGRAPHIC SITE LOCATION MAP

| | | |
|---|---|---|
| AEROSTAR ENVIRONMENTAL SERVICES, INC. | NAVAL HOSPITAL PENSACOLA<br>6000 US HIGHWAY 98<br>PENSACOLA, ESCAMBIA COUNTY, FLORIDA | DRAWN BY: CRM<br>REFERENCE: MAP OF WEST PENSACOLA, FLORIDA PREPARED BY: USGS. |




0 150 300

FEET

N

FIGURE 2 – SITE MAP

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA
6000 US HIGHWAY 98
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

DRAWN BY: CRM

REFERENCE: MAP OF PENSACOLA, FLORIDA PREPARED BY: GOOGLE.

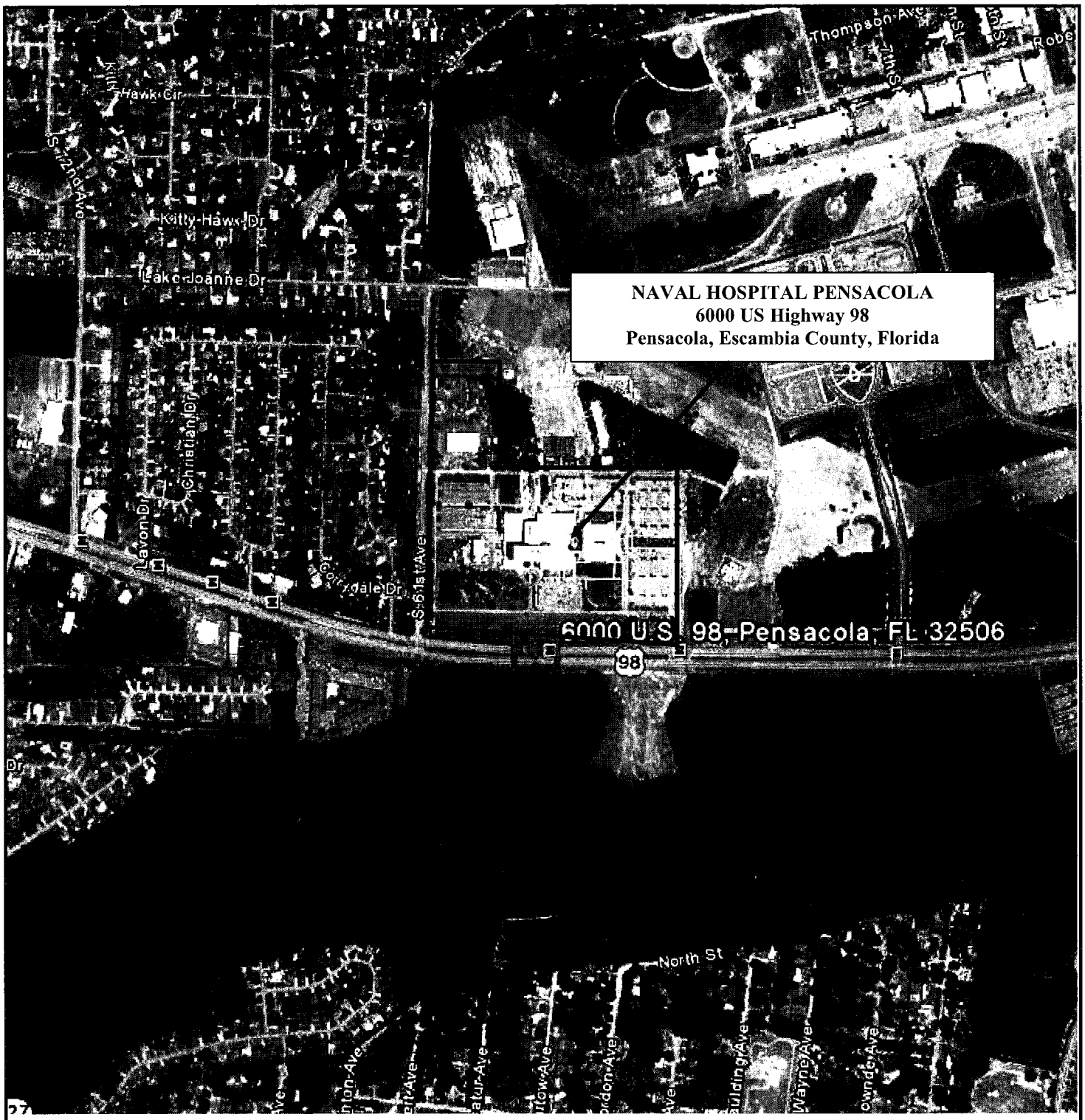



FIGURE 3 – SITE VICINITY MAP

| | | |
|---|---|---|
| AEROSTAR ENVIRONMENTAL SERVICES, INC. | NAVAL HOSPITAL PENSACOLA<br>6000 US HIGHWAY 98<br>PENSACOLA, ESCAMBIA COUNTY, FLORIDA | DRAWN BY: CRM<br>REFERENCE: MAP OF PENSACOLA, FLORIDA PREPARED BY: GOOGLE. |

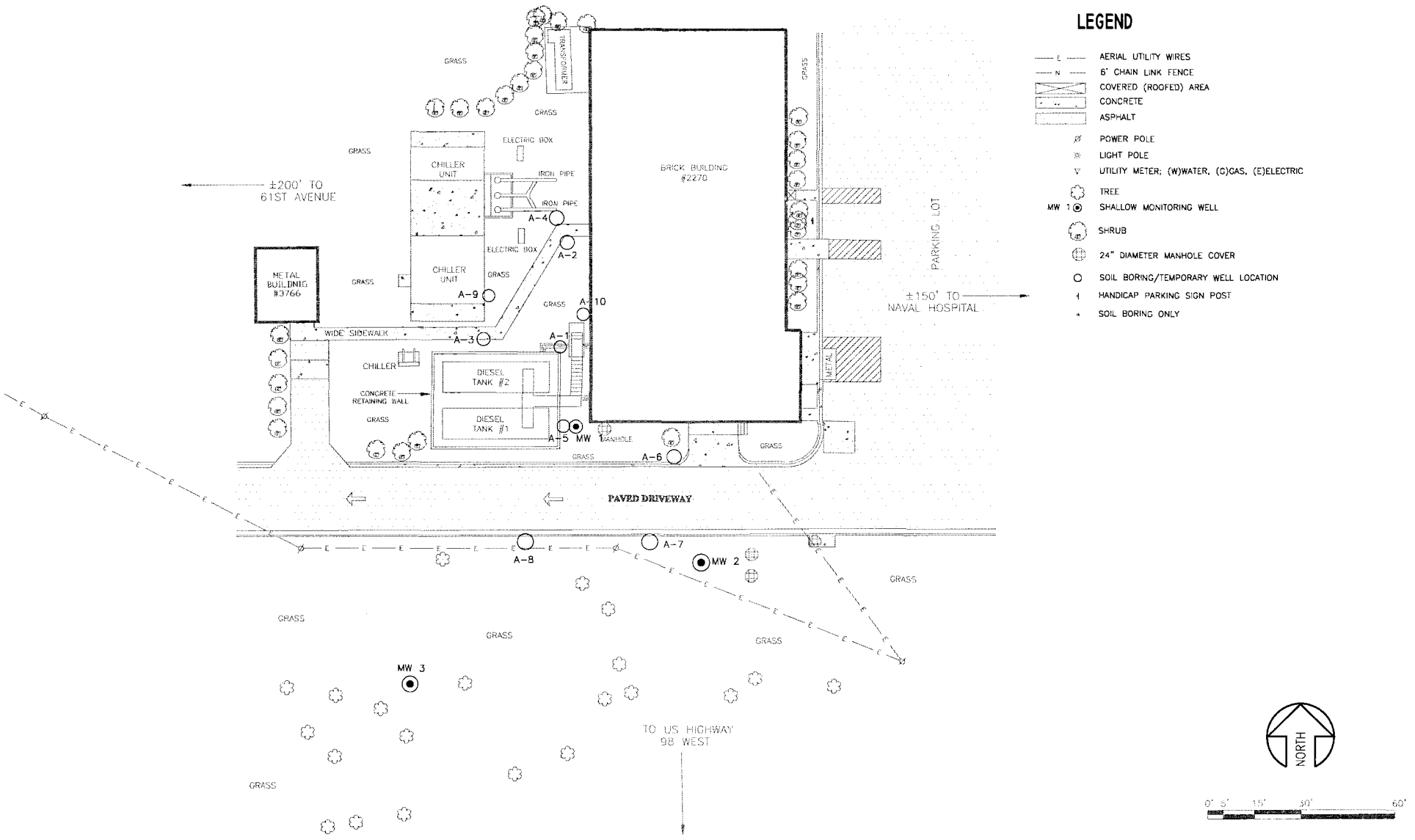
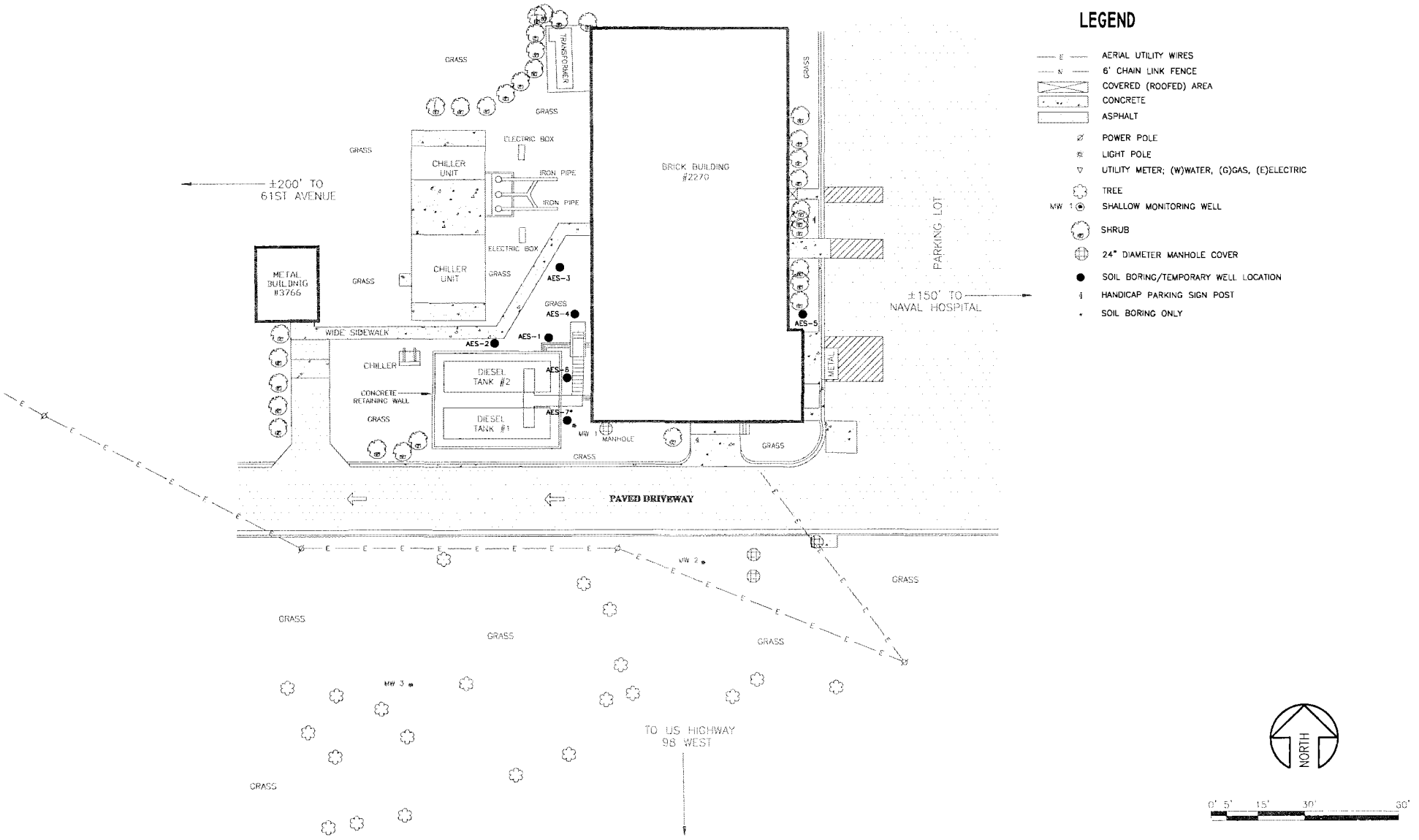



FIGURE 4. PREVIOUS SOIL BORING/TEMPORARY WELL LOCATION MAP (BUILDING 2270)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA
6000 US HIGHWAY 98
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

JOB # 0411-089-24
DATE: JUNE 2011
DRAWN BY: MILLS

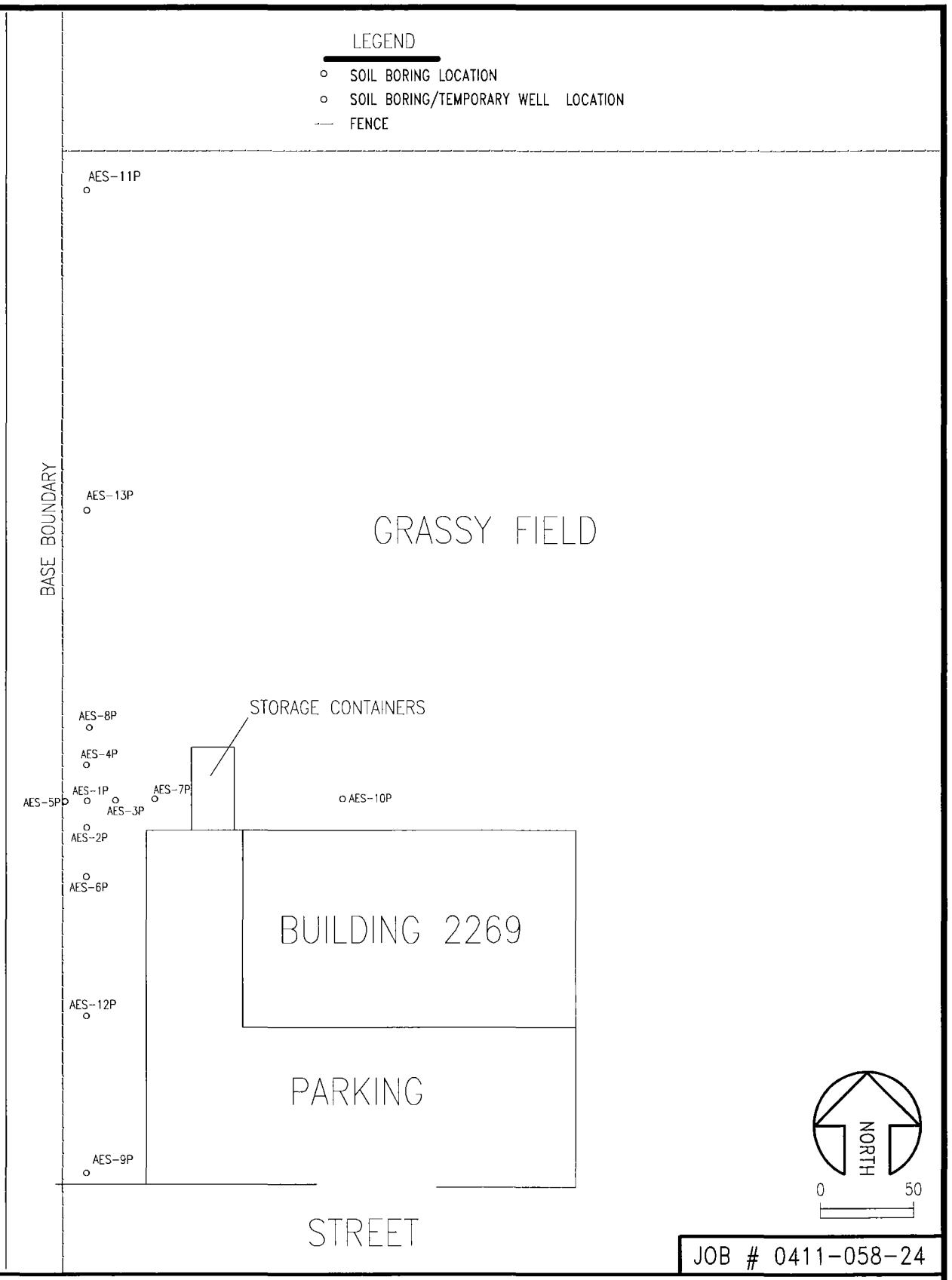



# FIGURE 5. SOIL BORING/TEMPORARY WELL LOCATION MAP (BUILDING 2270)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA
6000 US HIGHWAY 98
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

JOB # 0411-089-24
DATE: JUNE 2011
DRAWN BY: MILLS



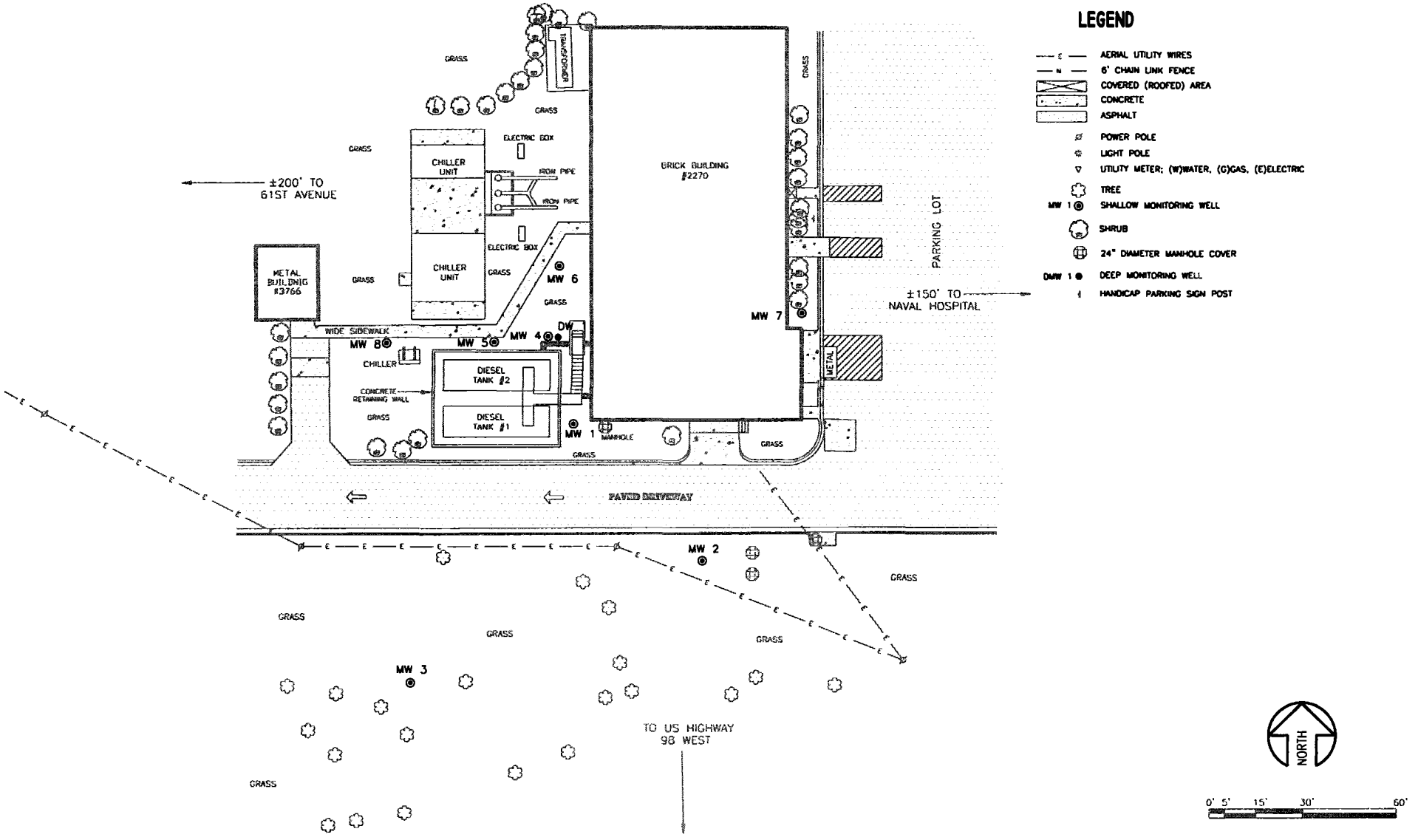

JOB # 0411-058-24

FIGURE 6. SOIL BORING/TEMPORARY WELL LOCATION MAP (BUILDING 2269)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL-BUILDING 2269
6000 US HIGHWAY 98 WEST
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

SCALE: 1" = 50'
DATE: JUNE 2011
DRAWN BY: MILLS




# FIGURE 7. PERMANENT MONITOR WELL LOCATION MAP (BUILDING 2270)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA
6000 US HIGHWAY 98
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

JOB # 0411-089-24
DATE: JUNE 2011
DRAWN BY: MILLS

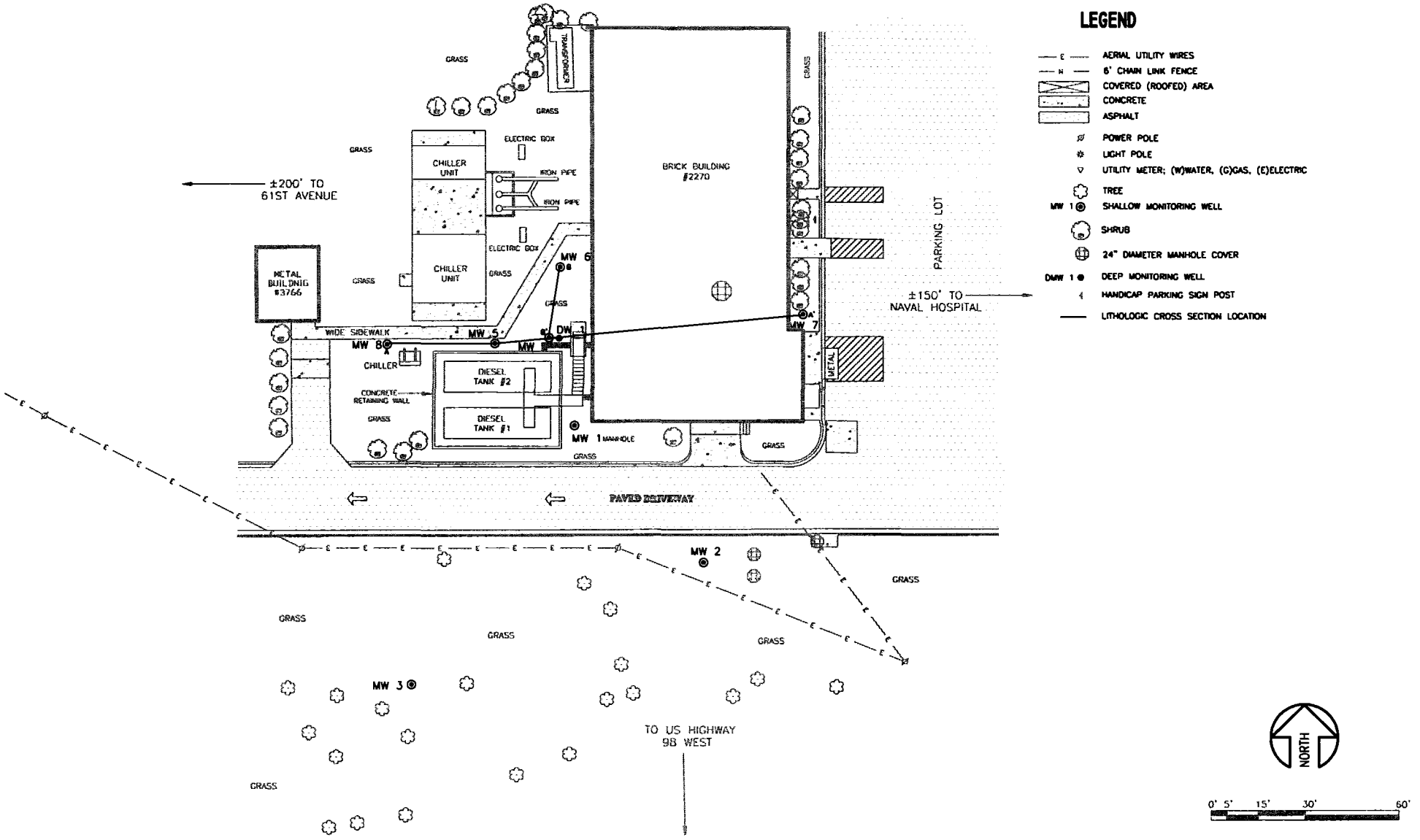
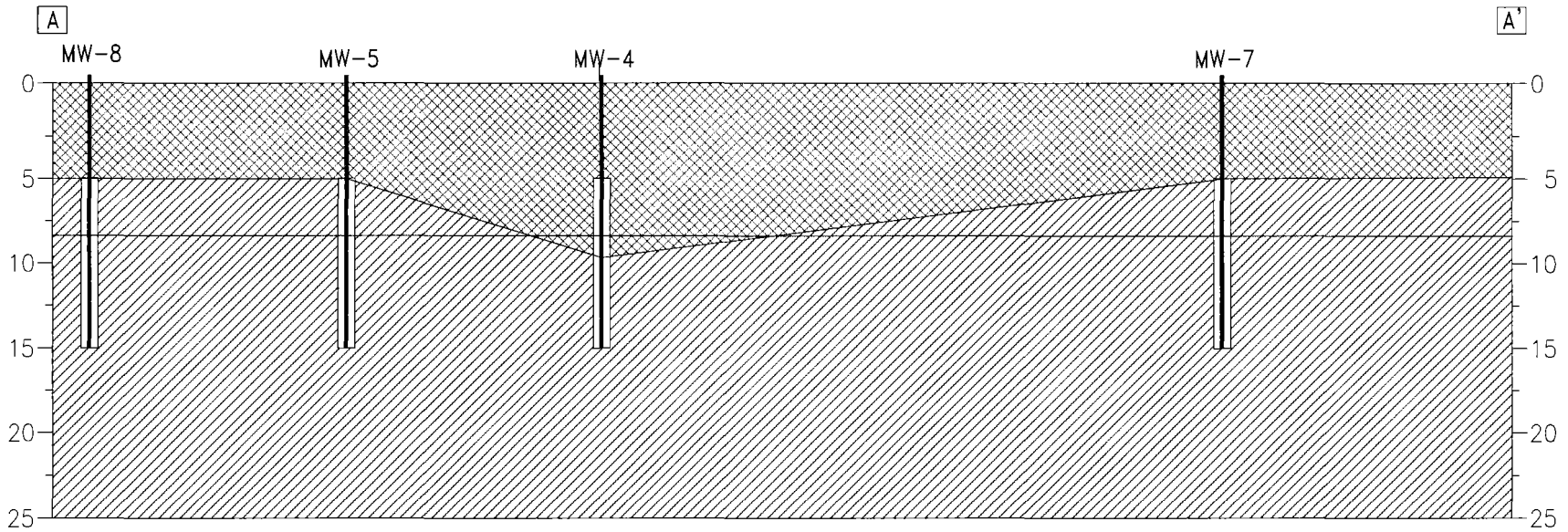


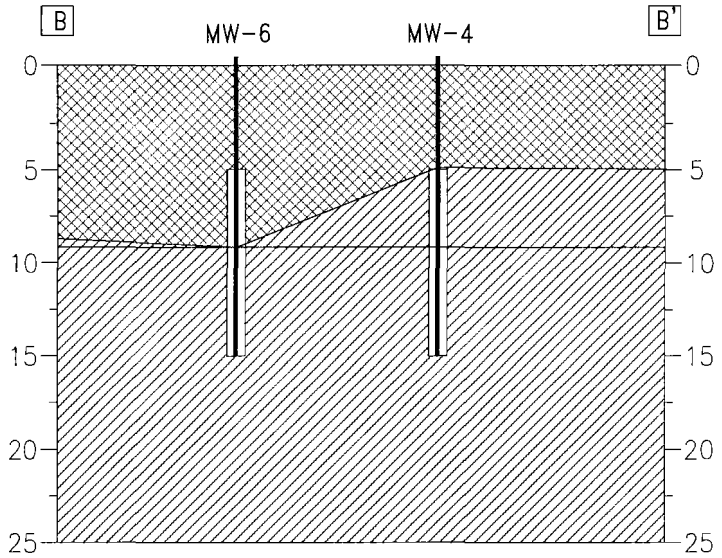

FIGURE 8. LITHOLOGIC CROSS SECTION LOCATION MAP (BUILDING 2270)

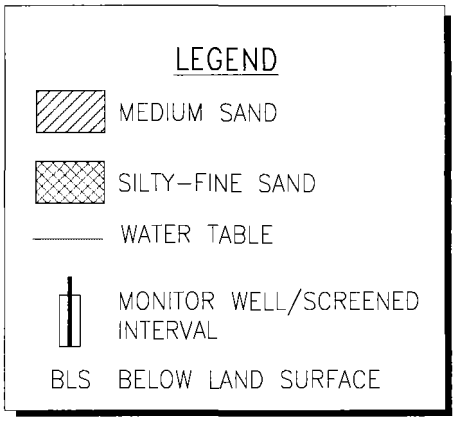
AEROSTAR ENVIRONMENTAL SERVICES, INC.

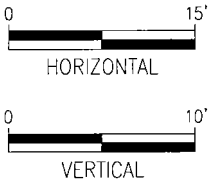
NAVAL HOSPITAL PENSACOLA
6000 US HIGHWAY 98
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

JOB # 0411-089-24
DATE: JUNE 2011
DRAWN BY: MILLS



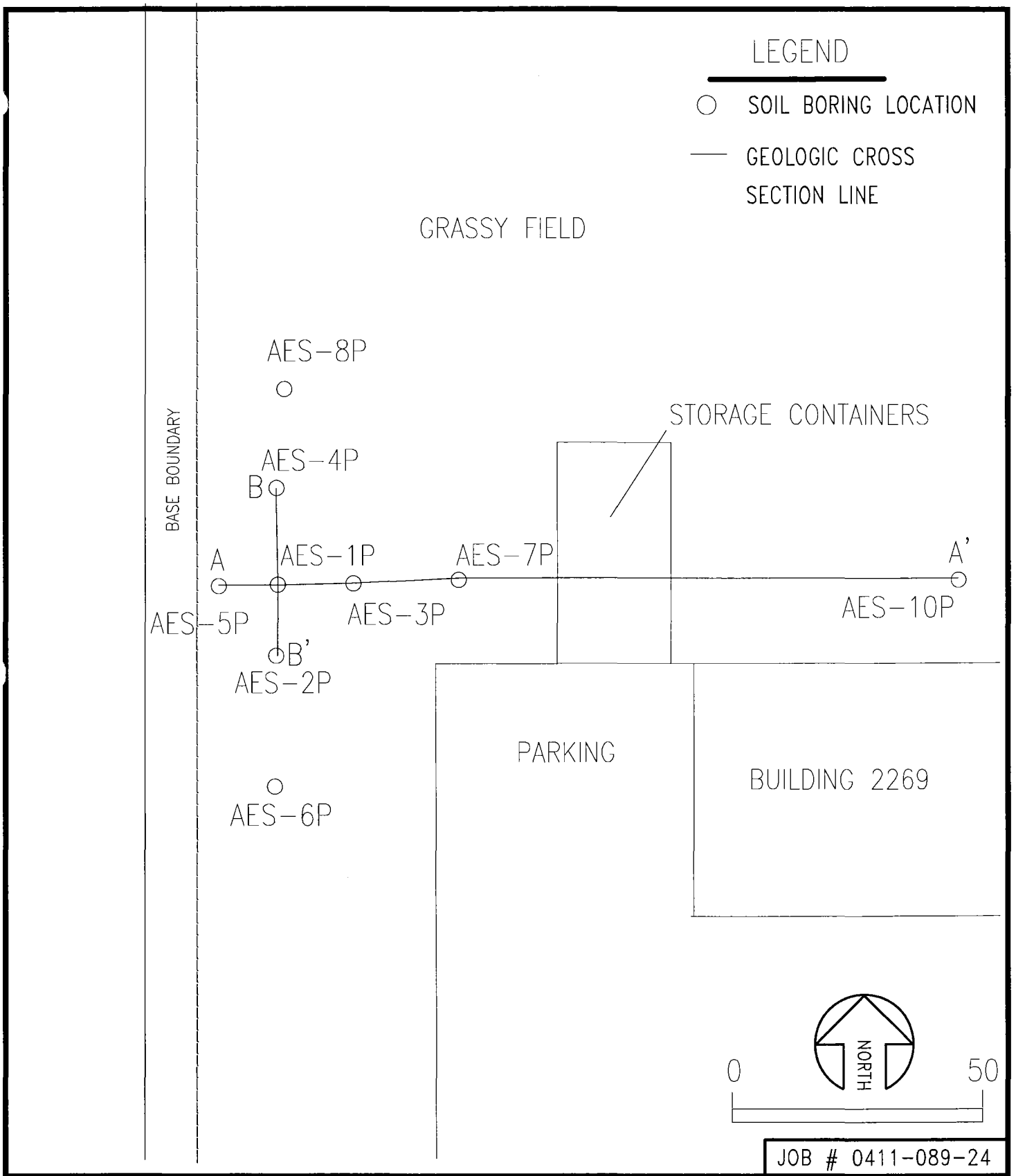

JOB # 0411-089-24

# FIGURE 9. LITHOLOGIC CROSS SECTION (BUILDING 2270)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA SAR (BUILDING 2270)
6000 US HWY 98
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

SCALE: AS NOTED
DATE: JUNE 2011
DRAWN BY: MILLS



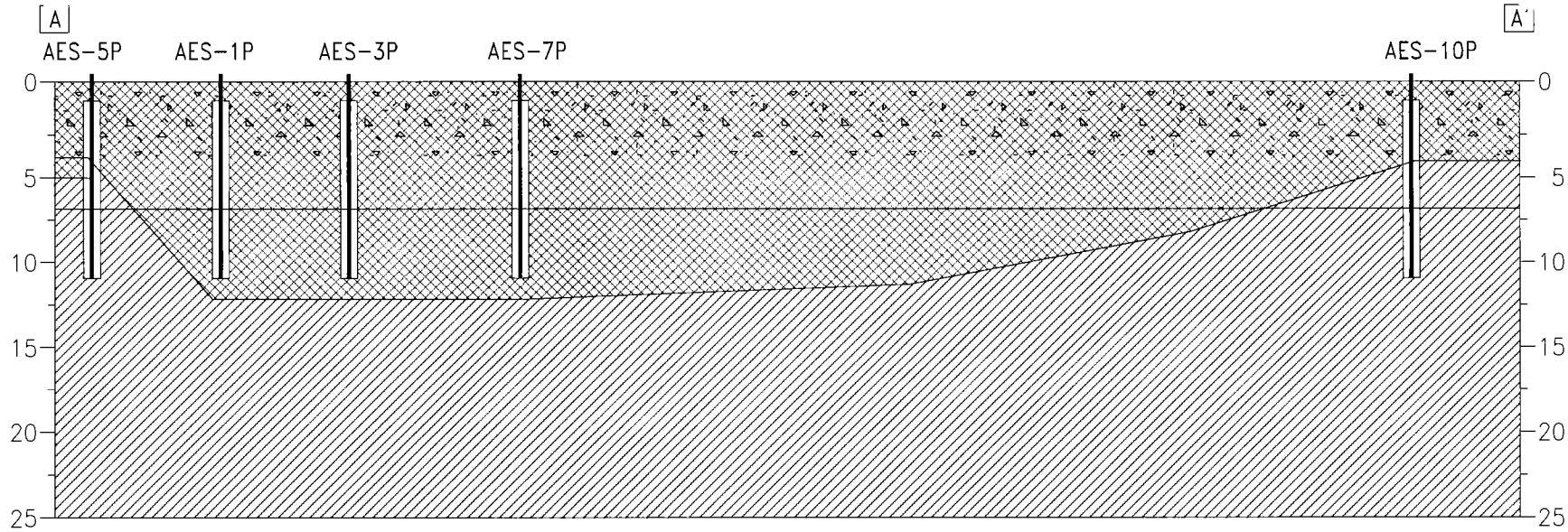

JOB # 0411-089-24

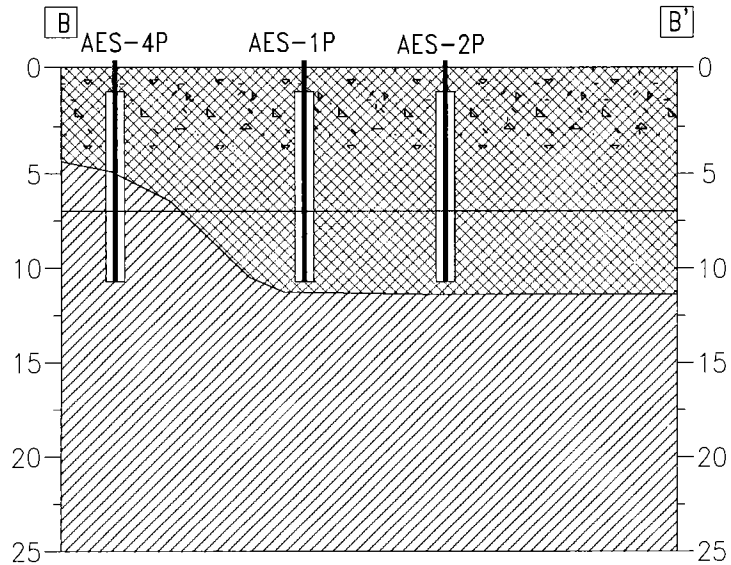
FIGURE 10. LITHOLOGIC CROSS SECTION LOCATION MAP (BUILDING 2269)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL-BUILDING 2269
6000 US HIGHWAY 98 WEST
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

SCALE: 1" = 50'
DATE: JUNE 2011
DRAWN BY: MILLS




LEGEND

- FORMER SKEET TARGETS
- MEDIUM SAND
- SILTY-FINE SAND
- WATER TABLE
- TEMPORARY WELL/SCREENED INTERVAL

BLS BELOW LAND SURFACE

0 20' HORIZONTAL

0 10' VERTICAL

JOB # 0411-089-24

# FIGURE 11. LITHOLOGIC CROSS SECTION (BUILDING 2269)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA SAR (BUILDING 2269)
6000 US HWY 98
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

SCALE: AS NOTED
DATE: JUNE 2011
DRAWN BY: MILLS

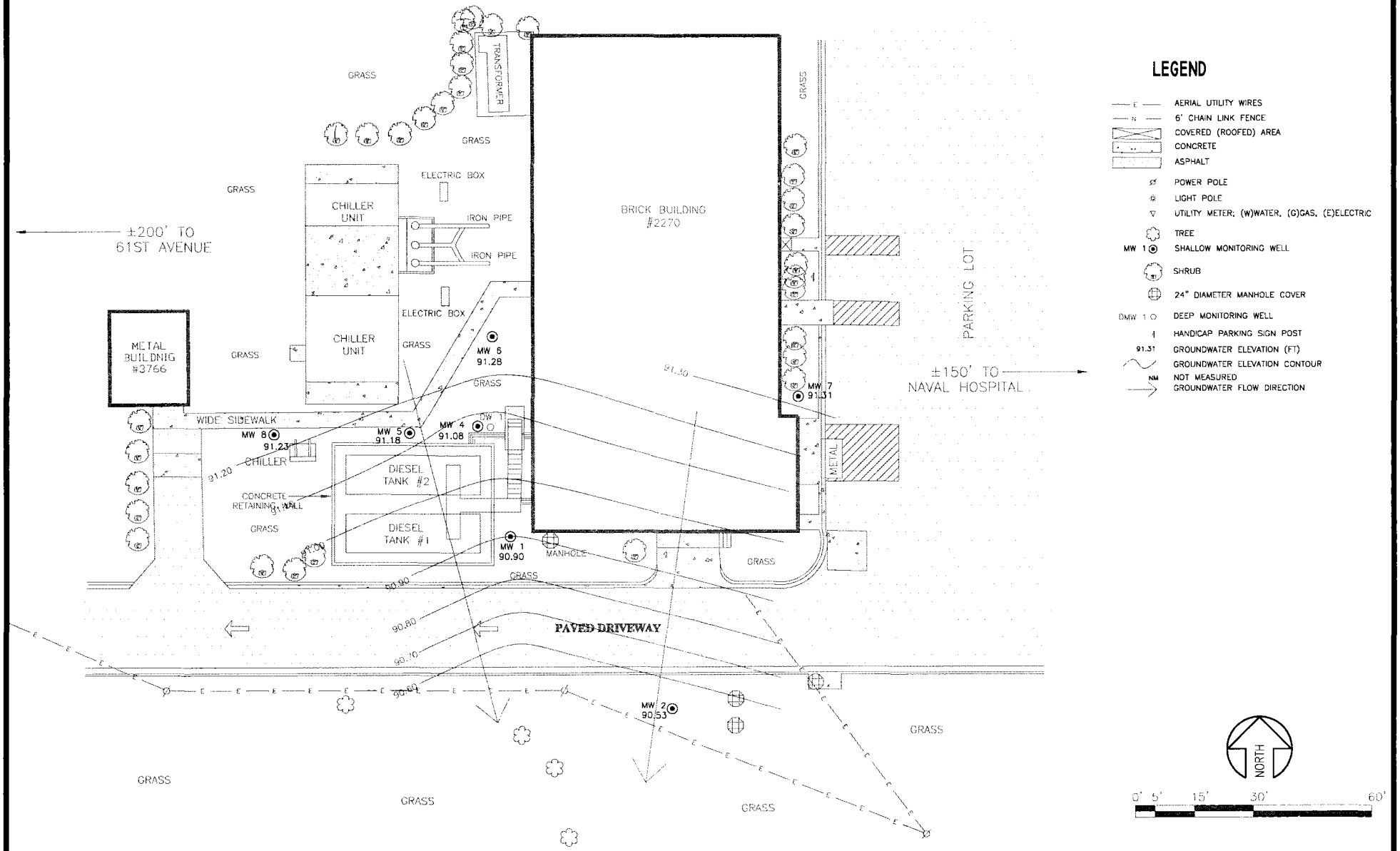



FIGURE 12. BUILDING 2270 SHALLOW GROUNDWATER FLOW MAP (MAY 12, 2011)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA
6000 US HIGHWAY 98
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

JOB # 0411-089-24
DATE: JUNE 2011
DRAWN BY: MILLS

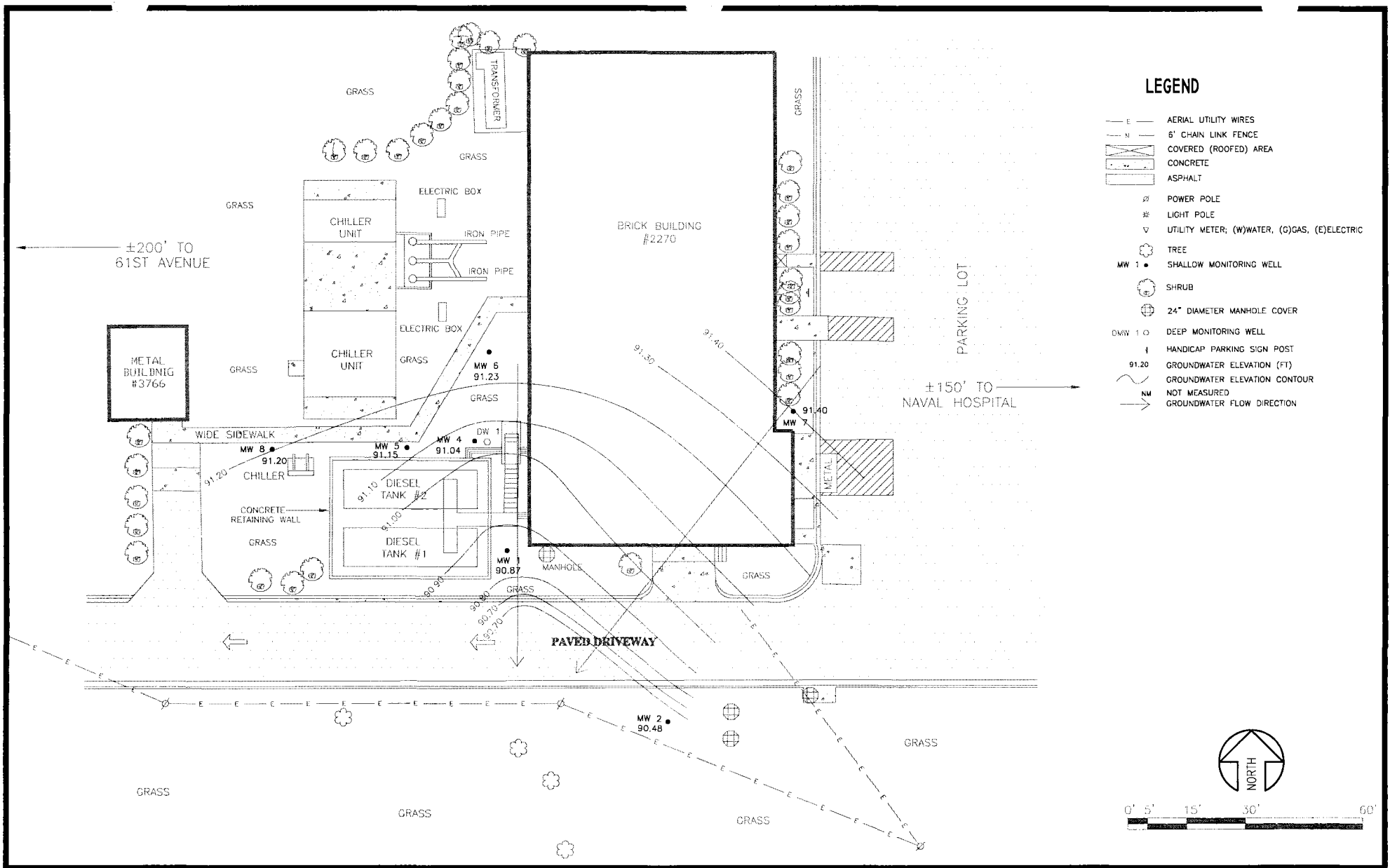
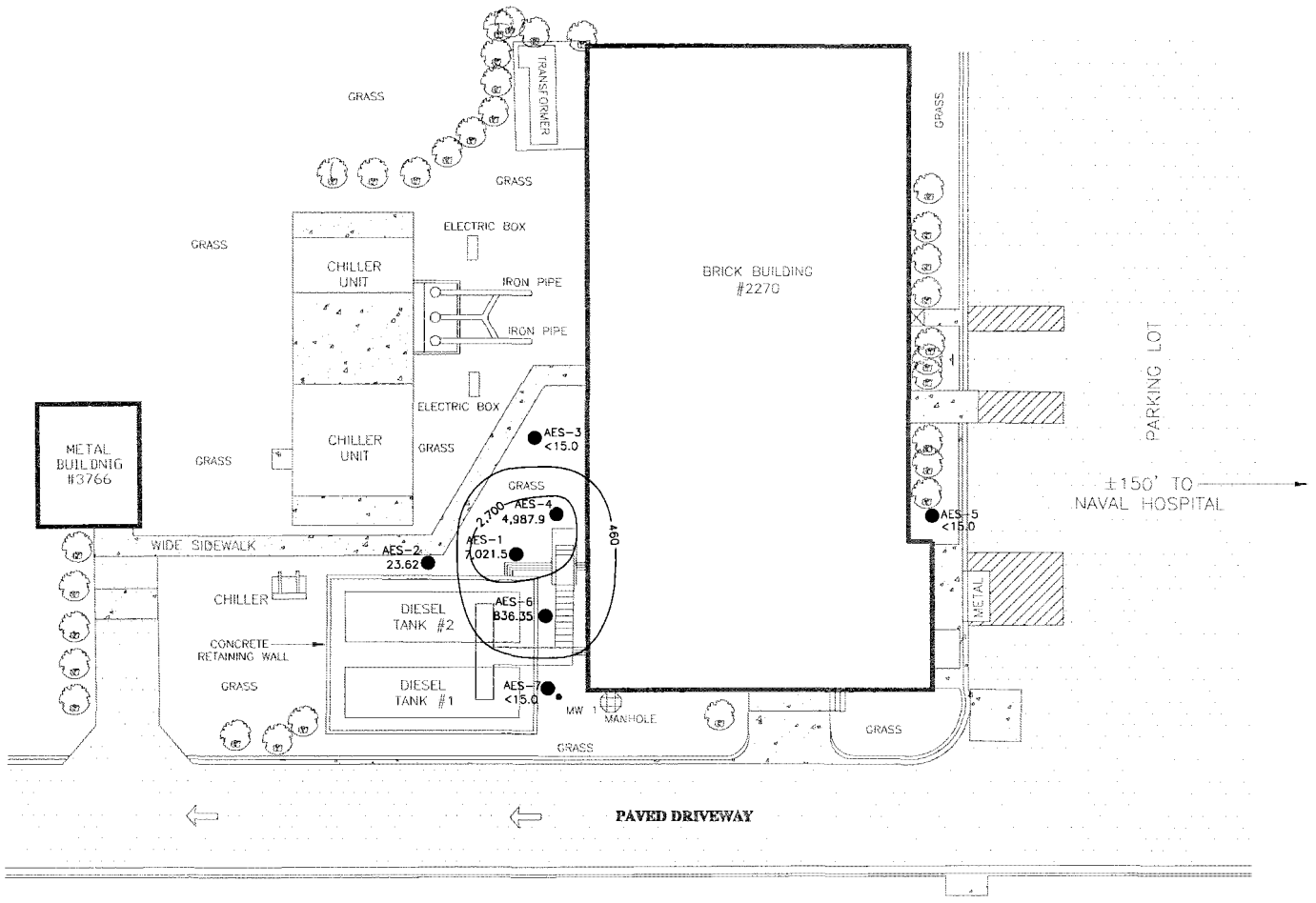



FIGURE 13. BUILDING 2270 SHALLOW GROUNDWATER FLOW MAP (MAY 18, 2011)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA
6000 US HIGHWAY 98
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

JOB # 0411-089-24
DATE: JUNE 2011
DRAWN BY: MILLS




## LEGEND

- COVERED (ROOFED) AREA
- CONCRETE
- ASPHALT
- POWER POLE
- LIGHT POLE
- UTILITY METER; (W)WATER, (G)GAS, (E)ELECTRIC
- TREE
- MW 1 ● SHALLOW MONITORING WELL
- SHRUB
- 24" DIAMETER MANHOLE COVER
- ● SOIL BORING LOCATION
- HANDICAP PARKING SIGN POST
- • SOIL BORING ONLY
- —460— FDEP RESIDENTIAL SCTL CONTOUR
- —2,700— FDEP COMMERCIAL SCTL CONTOUR

INDICATES CONCENTRATIONS ABOVE FDEP SCTL
CONCENTRATION UNITS ARE IN mg/kg

NORTH

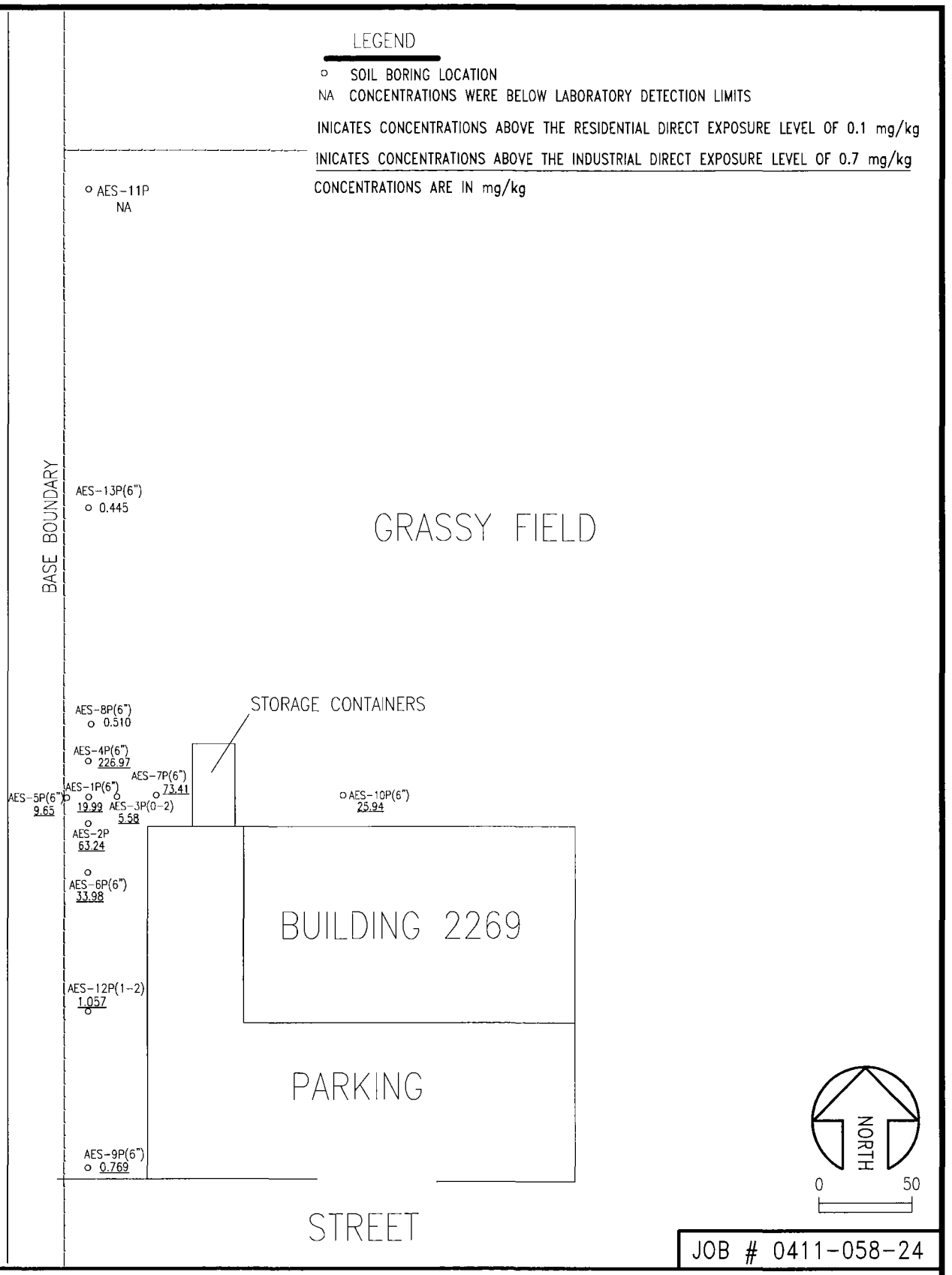
0' 5' 15' 30' 60'

# FIGURE 14. SOIL BORING TRPH CONCENTRATION MAP (BUILDING 2270)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA
6000 US HIGHWAY 98
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

JOB # 0411-089-24
DATE: JUNE 2011
DRAWN BY: MILLS



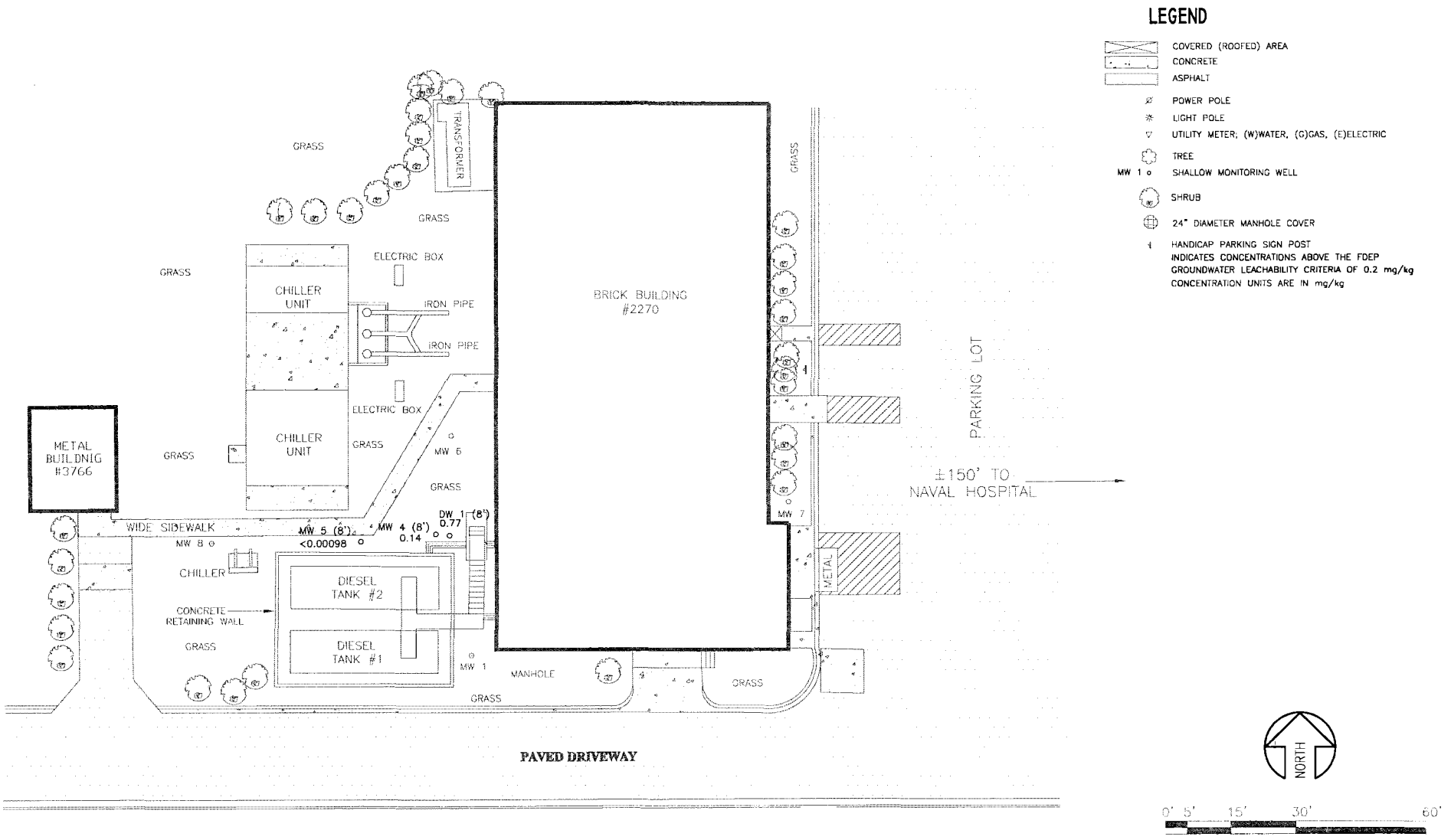

JOB # 0411-058-24

FIGURE 15. SOIL BORING BENZO(A)PYRENE EQUIVALENT CONCENTRATION MAP (BUILDING 2269)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL-BUILDING 2269
6000 US HIGHWAY 98 WEST
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

SCALE: 1" = 50'
DATE: JUNE 2011
DRAWN BY: MILLS

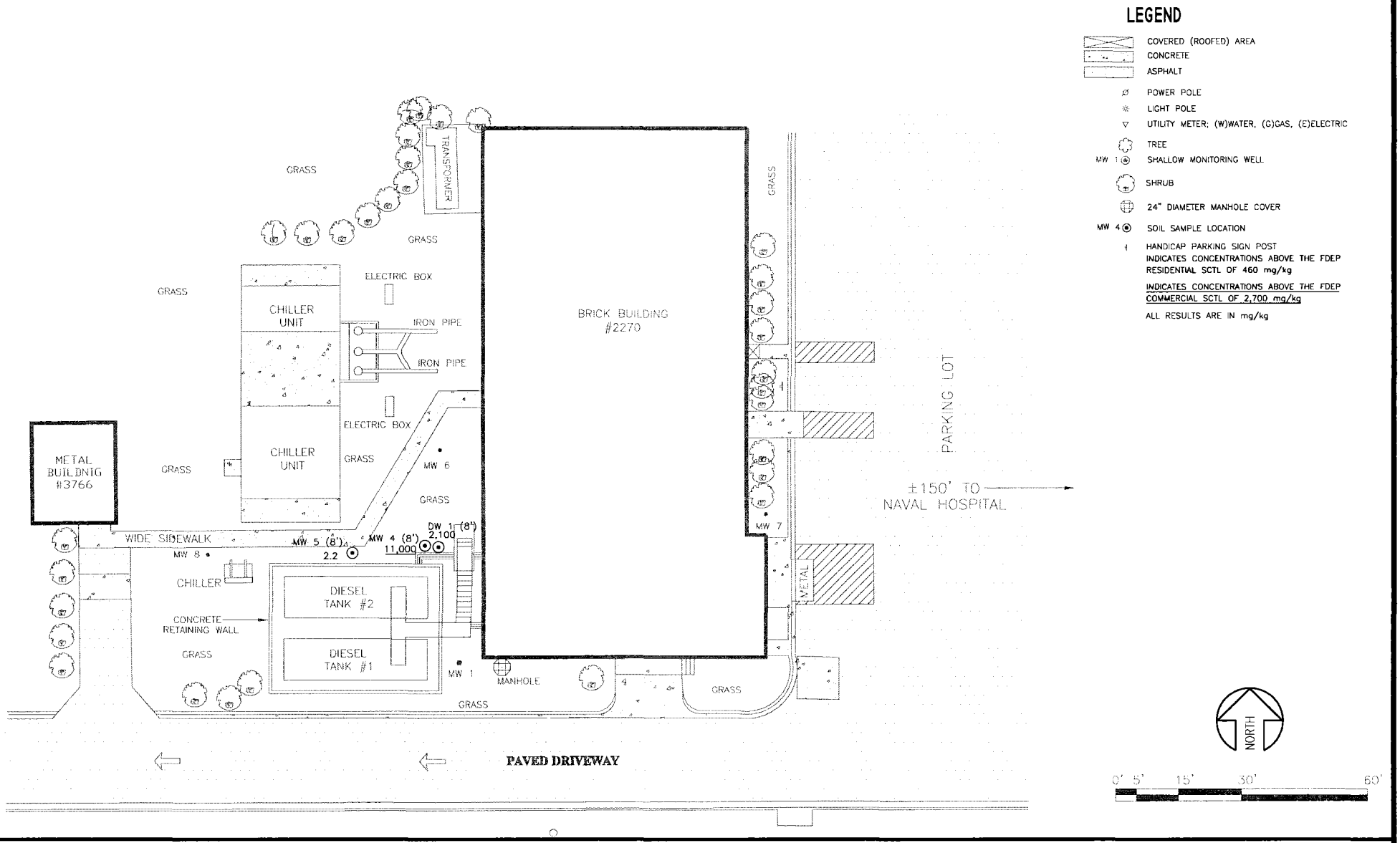



# FIGURE 16. CONFIRMATORY TOTAL XYLENES CONCENTRATION MAP (BUILDING 2270)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA
6000 US HIGHWAY 98
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

JOB # 0411-089-24
DATE: JUNE 2011
DRAWN BY: MILLS




# FIGURE 17. CONFIRMATORY TRPH CONCENTRATION MAP (BUILDING 2270)

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA
6000 US HIGHWAY 98
PENSACOLA, ESCAMBIA COUNTY, FLORIDA

JOB # 0411-089-24
DATE: JUNE 2011
DRAWN BY: MILLS

# APPENDIX A

## SOIL BORING LOGS

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-1 |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/18/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/18/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 1-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | 2 |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | 1-inch diameter, schedule 40 PVC, 0.01-inch slotted screen/ 10 feet |
| **TOTAL DEPTH DRILLED (FT):** | 12 | **SCREENED INTERVAL (FT):** | 2' to 12' |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | 8.5 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 0-1 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 1-2 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 2-3 | | NA | <10 | <10 | <10 | | | tan/brown fine sand, dry, no odor or staining |
| 3-4 | | NA | <10 | <10 | <10 | | | white/tan fine sand, dry, no odor or staining |
| 4-5 | | NA | <10 | <10 | <10 | | | white/tan fine sand, dry, no odor or staining |
| 5-6 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 6-7 | | NA | 21.8 | 2.1 | 19.7 | | | brown fines sand, moist, petro odor, no staining |
| 7-8 | * ^ | NA | 123.7 | 2.2 | 121.5 | | | white/tan fine sand, moist, petro odor, no staining |
| 8-9 | | NA | 1493 | 15.9 | 1477.1 | | | white/tan fine sand, saturated, strong petro odor, no staining |
| 9-10 | | NA | NA | NA | NA | | | white/tan fine sand, saturated, strong petro odor, no staining |
| 10-11 | | NA | NA | NA | NA | | | white/tan fine sand, saturated, strong petro odor, no staining |
| 11-12 | | NA | NA | NA | NA | | | white/tan fine sand, saturated, strong petro odor, no staining |
| 12-13 | | NA | NA | NA | NA | | | END BORING |
| 13-14 | | NA | NA | NA | NA | | | |
| 14-15 | | NA | NA | NA | NA | | | |
| 15-16 | | NA | NA | NA | NA | | | |
| 16-17 | | NA | NA | NA | NA | | | |
| 17-18 | | NA | NA | NA | NA | | | |
| 18-19 | | NA | NA | NA | NA | | | |
| 19-20 | | NA | NA | NA | NA | | | |
| 20-21 | | NA | NA | NA | NA | | | |
| 21-22 | | NA | NA | NA | NA | | | |
| 22-23 | | NA | NA | NA | NA | | | |
| 23-24 | | NA | NA | NA | NA | | | |
| 24-25 | | NA | NA | NA | NA | | | |
| 25-26 | | NA | NA | NA | NA | | | |
| 26-27 | | NA | NA | NA | NA | | | |
| 27-28 | | NA | NA | NA | NA | | | |
| 28-29 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-2 |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/18/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/18/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 1-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | 2 |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | 1-inch diameter, schedule 40 PVC, 0.01-inch slotted screen/ 10 feet |
| **TOTAL DEPTH DRILLED (FT):** | 12 | **SCREENED INTERVAL (FT):** | 2' to 12' |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | 8.5 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 0-1 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 1-2 | | NA | <10 | <10 | <10 | | | dark brown fine sand, dry, no odor or staining |
| 2-3 | | NA | <10 | <10 | <10 | | | brown medium sand, dry, no odor or staining |
| 3-4 | | NA | <10 | <10 | <10 | | | light brown medium sand, dry, no odor or staining |
| 4-5 | | NA | <10 | <10 | <10 | | | brown medium sand, dry, no odor or staining |
| 5-6 | | NA | <10 | <10 | <10 | | | light brown/white medium sand, dry, no odor or st |
| 6-7 | | NA | <10 | <10 | <10 | | | white medium sand, moist, no odor, no staining |
| 7-8 | * ^ | NA | <10 | <10 | <10 | | | brown/white medium sand, moist, no odor, no staining |
| 8-9 | | NA | <10 | <10 | <10 | | | dark brown/black silty sand, saturated, no odor, no staining |
| 9-10 | | NA | NA | NA | NA | | | dark brown/black silty sand, saturated, no odor, no staining |
| 10-11 | | NA | NA | NA | NA | | | dark brown/black silty sand, saturated, no odor, no staining |
| 11-12 | | NA | NA | NA | NA | | | dark brown/black silty sand, saturated, no odor, no staining |
| 12-13 | | NA | NA | NA | NA | | | **END BORING** |
| 13-14 | | NA | NA | NA | NA | | | |
| 14-15 | | NA | NA | NA | NA | | | |
| 15-16 | | NA | NA | NA | NA | | | |
| 16-17 | | NA | NA | NA | NA | | | |
| 17-18 | | NA | NA | NA | NA | | | |
| 18-19 | | NA | NA | NA | NA | | | |
| 19-20 | | NA | NA | NA | NA | | | |
| 20-21 | | NA | NA | NA | NA | | | |
| 21-22 | | NA | NA | NA | NA | | | |
| 22-23 | | NA | NA | NA | NA | | | |
| 23-24 | | NA | NA | NA | NA | | | |
| 24-25 | | NA | NA | NA | NA | | | |
| 25-26 | | NA | NA | NA | NA | | | |
| 26-27 | | NA | NA | NA | NA | | | |
| 27-28 | | NA | NA | NA | NA | | | |
| 28-29 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-3 |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/18/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/18/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 1-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | 2 |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | 1-inch diameter, schedule 40 PVC, 0.01-inch slotted screen/ 10 feet |
| **TOTAL DEPTH DRILLED (FT):** | 12 | **SCREENED INTERVAL (FT):** | 2' to 12' |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | 8.5 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 0-1 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 1-2 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 2-3 | | NA | <10 | <10 | <10 | | | tan fine sand, dry, no odor or staining |
| 3-4 | | NA | <10 | <10 | <10 | | | white/tan sand, dry, no odor or staining |
| 4-5 | | NA | <10 | <10 | <10 | | | white fine sand, dry, no odor or staining |
| 5-6 | | NA | <10 | <10 | <10 | | | white fine sand, dry, no odor or staining |
| 6-7 | | NA | <10 | <10 | <10 | | | white fine sand, dry, no odor or staining |
| 7-8 | * ^ | NA | <10 | <10 | <10 | | | white fine sand, dry, no odor or staining |
| 8-9 | | NA | <10 | <10 | <10 | | | brown fine sand, saturated, no odor, no staining |
| 9-10 | | NA | NA | NA | NA | | | brown fine sand, saturated, no odor, no staining |
| 10-11 | | NA | NA | NA | NA | | | brown fine sand, saturated, no odor, no staining |
| 11-12 | | NA | NA | NA | NA | | | brown fine sand, saturated, no odor, no staining |
| | | | | | | | | **END BORING** |
| 12-13 | | NA | NA | NA | NA | | | |
| 13-14 | | NA | NA | NA | NA | | | |
| 14-15 | | NA | NA | NA | NA | | | |
| 15-16 | | NA | NA | NA | NA | | | |
| 16-17 | | NA | NA | NA | NA | | | |
| 17-18 | | NA | NA | NA | NA | | | |
| 18-19 | | NA | NA | NA | NA | | | |
| 19-20 | | NA | NA | NA | NA | | | |
| 20-21 | | NA | NA | NA | NA | | | |
| 21-22 | | NA | NA | NA | NA | | | |
| 22-23 | | NA | NA | NA | NA | | | |
| 23-24 | | NA | NA | NA | NA | | | |
| 24-25 | | NA | NA | NA | NA | | | |
| 25-26 | | NA | NA | NA | NA | | | |
| 26-27 | | NA | NA | NA | NA | | | |
| 27-28 | | NA | NA | NA | NA | | | |
| 28-29 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-4 |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/18/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/18/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 1-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | 2 |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | 1-inch diameter, schedule 40 PVC, 0.01-inch slotted screen/ 10 feet |
| **TOTAL DEPTH DRILLED (FT):** | 12 | **SCREENED INTERVAL (FT):** | 2' to 12' |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | 8.5 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 0-1 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 1-2 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 2-3 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 3-4 | | NA | 12.7 | 3.6 | 9.1 | | | brown fine sand, dry, no odor or staining |
| 4-5 | | NA | 32.6 | 3.4 | 29.2 | | | brown fine sand, dry, petro odor or staining |
| 5-6 | | NA | 66.7 | 3 | 63.7 | | | brown fine sand, dry, petro odor or staining |
| 6-7 | | NA | 98.9 | 3.2 | 95.7 | | | brown fine sand, moist, strong petro odor, no staining |
| 7-8 | * ^ | NA | NA | NA | NA | | | brown fine sand, moist, strong petro odor, no staining |
| 8-9 | | NA | NA | NA | NA | | | brown fine sand, saturated, strong petro odor, no staining |
| 9-10 | | NA | NA | NA | NA | | | brown fine sand, saturated, strong petro odor, no staining |
| 10-11 | | NA | NA | NA | NA | | | brown fine sand, saturated, strong petro odor, no staining |
| 11-12 | | NA | NA | NA | NA | | | brown fine sand, saturated, strong petro odor, no staining |
| | | | | | | | | **END BORING** |
| 12-13 | | NA | NA | NA | NA | | | |
| 13-14 | | NA | NA | NA | NA | | | |
| 14-15 | | NA | NA | NA | NA | | | |
| 15-16 | | NA | NA | NA | NA | | | |
| 16-17 | | NA | NA | NA | NA | | | |
| 17-18 | | NA | NA | NA | NA | | | |
| 18-19 | | NA | NA | NA | NA | | | |
| 19-20 | | NA | NA | NA | NA | | | |
| 20-21 | | NA | NA | NA | NA | | | |
| 21-22 | | NA | NA | NA | NA | | | |
| 22-23 | | NA | NA | NA | NA | | | |
| 23-24 | | NA | NA | NA | NA | | | |
| 24-25 | | NA | NA | NA | NA | | | |
| 25-26 | | NA | NA | NA | NA | | | |
| 26-27 | | NA | NA | NA | NA | | | |
| 27-28 | | NA | NA | NA | NA | | | |
| 28-29 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-5 |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/18/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/18/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 1-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | 2 |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | 1-inch diameter, schedule 40 PVC, 0.01-inch slotted screen/ 10 feet |
| **TOTAL DEPTH DRILLED (FT):** | 12 | **SCREENED INTERVAL (FT):** | 2' to 12' |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | 8.5 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 0-1 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 1-2 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 2-3 | | NA | <10 | <10 | <10 | | | white fine sand, dry, no odor or staining |
| 3-4 | | NA | <10 | <10 | <10 | | | white fine sand, dry, no odor or staining |
| 4-5 | | NA | <10 | <10 | <10 | | | white fine sand, dry, no odor or staining |
| 5-6 | * | NA | <10 | <10 | <10 | | | white fine sand, dry, no odor or staining |
| 6-7 | | NA | <10 | <10 | <10 | | | brown/white fine sand, moist, no odor or staining |
| 7-8 | | NA | <10 | <10 | <10 | | | brown fine sand, moist, no odor or staining |
| 8-9 | ^ | NA | <10 | <10 | <10 | | | brown fine sand, saturated, no odor, no staining |
| 9-10 | | NA | NA | NA | NA | | | brown fine sand, saturated, no odor, no staining |
| 10-11 | | NA | NA | NA | NA | | | brown fine sand, saturated, no odor, no staining |
| 11-12 | | NA | NA | NA | NA | | | brown fine sand, saturated, no odor, no staining |
| 12-13 | | NA | NA | NA | NA | | | END BORING |
| 13-14 | | NA | NA | NA | NA | | | |
| 14-15 | | NA | NA | NA | NA | | | |
| 15-16 | | NA | NA | NA | NA | | | |
| 16-17 | | NA | NA | NA | NA | | | |
| 17-18 | | NA | NA | NA | NA | | | |
| 18-19 | | NA | NA | NA | NA | | | |
| 19-20 | | NA | NA | NA | NA | | | |
| 20-21 | | NA | NA | NA | NA | | | |
| 21-22 | | NA | NA | NA | NA | | | |
| 22-23 | | NA | NA | NA | NA | | | |
| 23-24 | | NA | NA | NA | NA | | | |
| 24-25 | | NA | NA | NA | NA | | | |
| 25-26 | | NA | NA | NA | NA | | | |
| 26-27 | | NA | NA | NA | NA | | | |
| 27-28 | | NA | NA | NA | NA | | | |
| 28-29 | | NA | NA | NA | NA | | | |

| | | |
|---|---|---|
| ^ | Depth to Saturation | Moisture Content - dry, damp, moist, wet, saturation |
| * | Sample Submitted for Lab Analysis | Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5% |
| NA | Not Analyzed | Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft |
| ND | Not Detected | Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft |

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-6 |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/19/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/19/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 1-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | 2 |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | 1-inch diameter, schedule 40 PVC, 0.01-inch slotted screen/ 10 feet |
| **TOTAL DEPTH DRILLED (FT):** | 12 | **SCREENED INTERVAL (FT):** | 2' to 12' |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | 8.5 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 0-1 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 1-2 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 2-3 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 3-4 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 4-5 | | NA | <10 | <10 | <10 | | | tan/brown medium sand, dry, no odor or staining |
| 5-6 | | NA | <10 | <10 | <10 | | | tan/brown medium sand, dry, no odor or staining |
| 6-7 | | NA | <10 | <10 | <10 | | | brown/white medium sand, dry, no odor or staining |
| 7-8 | | NA | <10 | <10 | <10 | | | brown/white medium sand, moist, no odor or staining |
| 8-9 | ^ * | NA | 2333 | 48 | 2285 | | | brown/white medium sand, saturated, strong petroleum odor, no staining |
| 9-10 | | NA | NA | NA | NA | | | brown/white medium sand, saturated, strong petroleum odor, no staining |
| 10-11 | | NA | NA | NA | NA | | | brown/white medium sand, saturated, strong petroleum odor, no staining |
| 11-12 | | NA | NA | NA | NA | | | brown/white medium sand, saturated, strong petroleum odor, no staining |
| 12-13 | | NA | NA | NA | NA | | | **END BORING** |
| 13-14 | | NA | NA | NA | NA | | | |
| 14-15 | | NA | NA | NA | NA | | | |
| 15-16 | | NA | NA | NA | NA | | | |
| 16-17 | | NA | NA | NA | NA | | | |
| 17-18 | | NA | NA | NA | NA | | | |
| 18-19 | | NA | NA | NA | NA | | | |
| 19-20 | | NA | NA | NA | NA | | | |
| 20-21 | | NA | NA | NA | NA | | | |
| 21-22 | | NA | NA | NA | NA | | | |
| 22-23 | | NA | NA | NA | NA | | | |
| 23-24 | | NA | NA | NA | NA | | | |
| 24-25 | | NA | NA | NA | NA | | | |
| 25-26 | | NA | NA | NA | NA | | | |
| 26-27 | | NA | NA | NA | NA | | | |
| 27-28 | | NA | NA | NA | NA | | | |
| 28-29 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-7 |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/19/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/19/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 1-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | 2 |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | 1-inch diameter, schedule 40 PVC, 0.01-inch slotted screen/ 10 feet |
| **TOTAL DEPTH DRILLED (FT):** | 12 | **SCREENED INTERVAL (FT):** | 2' to 12' |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | 8.5 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 0-1 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 1-2 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 2-3 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 3-4 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 4-5 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 5-6 | | NA | <10 | <10 | <10 | | | brown/tan medium sand, dry, no odor or staining |
| 6-7 | | NA | <10 | <10 | <10 | | | white medium sand, dry, no odor or staining |
| 7-8 | * ^ | NA | <10 | <10 | <10 | | | white medium sand, moist, no odor or staining |
| 8-9 | | NA | <10 | <10 | <10 | | | white medium sand, saturated, no odor or staining |
| 9-10 | | NA | NA | NA | NA | | | white medium sand, saturated, no odor or staining |
| 10-11 | | NA | NA | NA | NA | | | white medium sand, saturated, no odor or staining |
| 11-12 | | NA | NA | NA | NA | | | white medium sand, saturated, no odor or staining |
| 12-13 | | NA | NA | NA | NA | | | **END BORING** |
| 13-14 | | NA | NA | NA | NA | | | |
| 14-15 | | NA | NA | NA | NA | | | |
| 15-16 | | NA | NA | NA | NA | | | |
| 16-17 | | NA | NA | NA | NA | | | |
| 17-18 | | NA | NA | NA | NA | | | |
| 18-19 | | NA | NA | NA | NA | | | |
| 19-20 | | NA | NA | NA | NA | | | |
| 20-21 | | NA | NA | NA | NA | | | |
| 21-22 | | NA | NA | NA | NA | | | |
| 22-23 | | NA | NA | NA | NA | | | |
| 23-24 | | NA | NA | NA | NA | | | |
| 24-25 | | NA | NA | NA | NA | | | |
| 25-26 | | NA | NA | NA | NA | | | |
| 26-27 | | NA | NA | NA | NA | | | |
| 27-28 | | NA | NA | NA | NA | | | |
| 28-29 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | MW-4 |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 5/4/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 5/5/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 2-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HS | **TOTAL CASING (FT):** | 5 |
| **BOREHOLE DIAMETER (IN):** | 4.25 | **SCREEN TYPE/LENGTH (FT):** | 2-inch diameter, schedule 40 PVC, 0.01-inch slotted screen/ 10 feet |
| **TOTAL DEPTH DRILLED (FT):** | 15 | **SCREENED INTERVAL (FT):** | 5' to 15' |
| **GROUT TYPE:** | Type I Cement | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | 1'-3' | **SAND PACK INTERVAL (FT):** | 3'-15' |
| **DEPTH TO GROUNDWATER (FT):** | 8.5 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 0-1 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 1-3 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 3-5 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 5-7 | | NA | <10 | <10 | <10 | | | brown fine sand, moist, petro odor, no staining |
| 7-8 | * ^ | NA | 80 | 5 | 75 | | | brown fine sand, moist, strong petro odor, no staining |
| 8-10 | | NA | NA | NA | NA | | | dark brown medium sand, saturated strong petro odor, no staining |
| 10-12 | | NA | NA | NA | NA | | | dark brown medium sand, saturated strong petro odor, no staining |
| 12-14 | | NA | NA | NA | NA | | | dark brown medium sand, saturated strong petro odor, no staining |
| 14-16 | | NA | NA | NA | NA | | | **END BORING** |
| 16-18 | | NA | NA | NA | NA | | | |
| 18-20 | | NA | NA | NA | NA | | | |
| 20-22 | | NA | NA | NA | NA | | | |
| 22-24 | | NA | NA | NA | NA | | | |
| 24-26 | | NA | NA | NA | NA | | | |
| 26-28 | | NA | NA | NA | NA | | | |
| 28-30 | | NA | NA | NA | NA | | | |
| 30-32 | | NA | NA | NA | NA | | | |
| 32-34 | | NA | NA | NA | NA | | | |
| 34-36 | | NA | NA | NA | NA | | | |
| 36-38 | | NA | NA | NA | NA | | | |
| 38-40 | | NA | NA | NA | NA | | | |
| 40-42 | | NA | NA | NA | NA | | | |
| 42-44 | | NA | NA | NA | NA | | | |
| 44-46 | | NA | NA | NA | NA | | | |
| 46-48 | | NA | NA | NA | NA | | | |
| 48-50 | | NA | NA | NA | NA | | | |
| 50-52 | | NA | NA | NA | NA | | | |
| 52-54 | | NA | NA | NA | NA | | | |
| 54-56 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | MW-5 |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 5/4/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 5/5/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 2-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HS | **TOTAL CASING (FT):** | 5 |
| **BOREHOLE DIAMETER (IN):** | 4.25 | **SCREEN TYPE/LENGTH (FT):** | 2-inch diameter, schedule 40 PVC, 0.01-inch slotted screen/ 10 feet |
| **TOTAL DEPTH DRILLED (FT):** | 15 | **SCREENED INTERVAL (FT):** | 5' to 15' |
| **GROUT TYPE:** | Type I Cement | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | 1'-3' | **SAND PACK INTERVAL (FT):** | 3'-15' |
| **DEPTH TO GROUNDWATER (FT):** | 8.5 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 0-1 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 1-3 | | NA | <10 | <10 | <10 | | | brown/orange fine sand, dry, no odor or staining |
| 3-5 | | NA | <10 | <10 | <10 | | | white medium sand, dry, no odor or staining |
| 5-7 | | NA | <10 | <10 | <10 | | | white medium sand, moist, no odor or staining |
| 7-8 | * ^ | NA | <10 | <10 | <10 | | | brown/white medium sand, moist, petro odor, no staining |
| 8-10 | | NA | NA | NA | NA | | | brown/white medium sand, saturated, petro odor, no staining |
| 10-12 | | NA | NA | NA | NA | | | brown/white medium sand, saturated, petro odor, no staining |
| 12-14 | | NA | NA | NA | NA | | | brown/white medium sand, saturated, petro odor, no staining |
| 14-16 | | NA | NA | NA | NA | | | **END BORING** |
| 16-18 | | NA | NA | NA | NA | | | |
| 18-20 | | NA | NA | NA | NA | | | |
| 20-22 | | NA | NA | NA | NA | | | |
| 22-24 | | NA | NA | NA | NA | | | |
| 24-26 | | NA | NA | NA | NA | | | |
| 26-28 | | NA | NA | NA | NA | | | |
| 28-30 | | NA | NA | NA | NA | | | |
| 30-32 | | NA | NA | NA | NA | | | |
| 32-34 | | NA | NA | NA | NA | | | |
| 34-36 | | NA | NA | NA | NA | | | |
| 36-38 | | NA | NA | NA | NA | | | |
| 38-40 | | NA | NA | NA | NA | | | |
| 40-42 | | NA | NA | NA | NA | | | |
| 42-44 | | NA | NA | NA | NA | | | |
| 44-46 | | NA | NA | NA | NA | | | |
| 46-48 | | NA | NA | NA | NA | | | |
| 48-50 | | NA | NA | NA | NA | | | |
| 50-52 | | NA | NA | NA | NA | | | |
| 52-54 | | NA | NA | NA | NA | | | |
| 54-56 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | MW-6 |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 5/4/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 5/5/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 2-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HS | **TOTAL CASING (FT):** | 5 |
| **BOREHOLE DIAMETER (IN):** | 4.25 | **SCREEN TYPE/LENGTH (FT):** | 2-inch diameter, schedule 40 PVC, 0.01-inch slotted screen/ 10 feet |
| **TOTAL DEPTH DRILLED (FT):** | 15 | **SCREENED INTERVAL (FT):** | 5' to 15' |
| **GROUT TYPE:** | Type I Cement | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | 1'-3' | **SAND PACK INTERVAL (FT):** | 3'-15' |
| **DEPTH TO GROUNDWATER (FT):** | 8.5 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 0-1 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 1-3 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 3-5 | | NA | <10 | <10 | <10 | | | white medium sand, dry, no odor or staining |
| 5-7 | | NA | <10 | <10 | <10 | | | white medium sand, moist, no odor or staining |
| 7-8 | * ^ | NA | <10 | <10 | <10 | | | dark brown medium sand, moist, no odor or staining |
| 8-10 | | NA | NA | NA | NA | | | dark brown medium sand, saturated, no odor or staining |
| 10-12 | | NA | NA | NA | NA | | | dark brown medium sand, saturated, no odor or staining |
| 12-14 | | NA | NA | NA | NA | | | dark brown medium sand, saturated, no odor or staining |
| 14-16 | | NA | NA | NA | NA | | | END BORING |
| 16-18 | | NA | NA | NA | NA | | | |
| 18-20 | | NA | NA | NA | NA | | | |
| 20-22 | | NA | NA | NA | NA | | | |
| 22-24 | | NA | NA | NA | NA | | | |
| 24-26 | | NA | NA | NA | NA | | | |
| 26-28 | | NA | NA | NA | NA | | | |
| 28-30 | | NA | NA | NA | NA | | | |
| 30-32 | | NA | NA | NA | NA | | | |
| 32-34 | | NA | NA | NA | NA | | | |
| 34-36 | | NA | NA | NA | NA | | | |
| 36-38 | | NA | NA | NA | NA | | | |
| 38-40 | | NA | NA | NA | NA | | | |
| 40-42 | | NA | NA | NA | NA | | | |
| 42-44 | | NA | NA | NA | NA | | | |
| 44-46 | | NA | NA | NA | NA | | | |
| 46-48 | | NA | NA | NA | NA | | | |
| 48-50 | | NA | NA | NA | NA | | | |
| 50-52 | | NA | NA | NA | NA | | | |
| 52-54 | | NA | NA | NA | NA | | | |
| 54-56 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | MW-7 |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 5/4/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 5/5/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 2-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HS | **TOTAL CASING (FT):** | 5 |
| **BOREHOLE DIAMETER (IN):** | 4.25 | **SCREEN TYPE/LENGTH (FT):** | 2-inch diameter, schedule 40 PVC, 0.01-inch slotted screen/ 10 feet |
| **TOTAL DEPTH DRILLED (FT):** | 15 | **SCREENED INTERVAL (FT):** | 5' to 15' |
| **GROUT TYPE:** | Type I Cement | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | 1'-3' | **SAND PACK INTERVAL (FT):** | 3'-15' |
| **DEPTH TO GROUNDWATER (FT):** | 8.5 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 0-1 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 1-3 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 3-5 | | NA | <10 | <10 | <10 | | | white medium sand, dry, no odor or staining |
| 5-7 | | NA | <10 | <10 | <10 | | | white/brown medium sand, moist, no odor or staining |
| 7-8 | * ^ | NA | <10 | <10 | <10 | | | dark brown medium sand, moist, no odor or staining |
| 8-10 | | NA | NA | NA | NA | | | dark brown medium sand, saturated, no odor or staining |
| 10-12 | | NA | NA | NA | NA | | | dark brown medium sand, saturated, no odor or staining |
| 12-14 | | NA | NA | NA | NA | | | dark brown medium sand, saturated, no odor or staining |
| 14-16 | | NA | NA | NA | NA | | | **END BORING** |
| 16-18 | | NA | NA | NA | NA | | | |
| 18-20 | | NA | NA | NA | NA | | | |
| 20-22 | | NA | NA | NA | NA | | | |
| 22-24 | | NA | NA | NA | NA | | | |
| 24-26 | | NA | NA | NA | NA | | | |
| 26-28 | | NA | NA | NA | NA | | | |
| 28-30 | | NA | NA | NA | NA | | | |
| 30-32 | | NA | NA | NA | NA | | | |
| 32-34 | | NA | NA | NA | NA | | | |
| 34-36 | | NA | NA | NA | NA | | | |
| 36-38 | | NA | NA | NA | NA | | | |
| 38-40 | | NA | NA | NA | NA | | | |
| 40-42 | | NA | NA | NA | NA | | | |
| 42-44 | | NA | NA | NA | NA | | | |
| 44-46 | | NA | NA | NA | NA | | | |
| 46-48 | | NA | NA | NA | NA | | | |
| 48-50 | | NA | NA | NA | NA | | | |
| 50-52 | | NA | NA | NA | NA | | | |
| 52-54 | | NA | NA | NA | NA | | | |
| 54-56 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | MW-8 |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 5/4/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 5/5/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 2-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HS | **TOTAL CASING (FT):** | 5 |
| **BOREHOLE DIAMETER (IN):** | 4.25 | **SCREEN TYPE/LENGTH (FT):** | 2-inch diameter, schedule 40 PVC, 0.01-inch slotted screen/ 10 feet |
| **TOTAL DEPTH DRILLED (FT):** | 15 | **SCREENED INTERVAL (FT):** | 5' to 15' |
| **GROUT TYPE:** | Type I Cement | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | 1'-3' | **SAND PACK INTERVAL (FT):** | 3'-15' |
| **DEPTH TO GROUNDWATER (FT):** | 8.5 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 0-1 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 1-3 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 3-5 | | NA | <10 | <10 | <10 | | | brown medium sand, dry, no odor or staining |
| 5-7 | | NA | <10 | <10 | <10 | | | brown medium sand, moist, no odor or staining |
| 7-8 | * ^ | NA | <10 | <10 | <10 | | | dark brown medium sand, moist, no odor or staining |
| 8-10 | | NA | NA | NA | NA | | | dark brown medium sand, saturated, no odor or staining |
| 10-12 | | NA | NA | NA | NA | | | dark brown medium sand, saturated, no odor or staining |
| 12-14 | | NA | NA | NA | NA | | | dark brown medium sand, saturated, no odor or staining |
| 14-16 | | NA | NA | NA | NA | | | END BORING |
| 16-18 | | NA | NA | NA | NA | | | |
| 18-20 | | NA | NA | NA | NA | | | |
| 20-22 | | NA | NA | NA | NA | | | |
| 22-24 | | NA | NA | NA | NA | | | |
| 24-26 | | NA | NA | NA | NA | | | |
| 26-28 | | NA | NA | NA | NA | | | |
| 28-30 | | NA | NA | NA | NA | | | |
| 30-32 | | NA | NA | NA | NA | | | |
| 32-34 | | NA | NA | NA | NA | | | |
| 34-36 | | NA | NA | NA | NA | | | |
| 36-38 | | NA | NA | NA | NA | | | |
| 38-40 | | NA | NA | NA | NA | | | |
| 40-42 | | NA | NA | NA | NA | | | |
| 42-44 | | NA | NA | NA | NA | | | |
| 44-46 | | NA | NA | NA | NA | | | |
| 46-48 | | NA | NA | NA | NA | | | |
| 48-50 | | NA | NA | NA | NA | | | |
| 50-52 | | NA | NA | NA | NA | | | |
| 52-54 | | NA | NA | NA | NA | | | |
| 54-56 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | DMW-1 |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 5/4/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 5/5/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 1-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HS | **TOTAL CASING (FT):** | 25 |
| **BOREHOLE DIAMETER (IN):** | 4.25 | **SCREEN TYPE/LENGTH (FT):** | 1-inch diameter, schedule 40 PVC, 0.01-inch slotted pre pack screen/ 5 feet |
| **TOTAL DEPTH DRILLED (FT):** | 30 | **SCREENED INTERVAL (FT):** | 25'-30' |
| **GROUT TYPE:** | Type I Cement | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | 1'-23' | **SAND PACK INTERVAL (FT):** | 23'-30' |
| **DEPTH TO GROUNDWATER (FT):** | 8.5 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 0-1 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 1-3 | | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 3-5 | | NA | <10 | <10 | <10 | | | brown medium sand, dry, no odor or staining |
| 5-7 | | NA | 28 | 3 | 25 | | | brown medium sand, moist, petro odor, no staining |
| 7-8 | * ^ | NA | 45 | 2 | 43 | | | brown medium sand, moist, strong petro odor, no staining |
| 8-10 | | NA | NA | NA | NA | | | brown medium sand, saturated, strong petro odor, no staining |
| 10-12 | | NA | NA | NA | NA | | | brown medium sand, saturated, strong petro odor, no staining |
| 12-14 | | NA | NA | NA | NA | | | brown medium sand, saturated, strong petro odor, no staining |
| 14-16 | | NA | NA | NA | NA | | | brown medium sand, saturated, slight petro odor, no staining |
| 16-18 | | NA | NA | NA | NA | | | brown medium sand, saturated, slight petro odor, no staining |
| 18-20 | | NA | NA | NA | NA | | | brown medium sand, saturated, slight petro odor, no staining |
| 20-22 | | NA | NA | NA | NA | | | brown medium sand, saturated, slight petro odor, no staining |
| 22-24 | | NA | NA | NA | NA | | | brown medium sand, saturated, slight petro odor, no staining |
| 24-26 | | NA | NA | NA | NA | | | brown medium sand, saturated, slight petro odor, no staining |
| 26-28 | | NA | NA | NA | NA | | | brown medium sand, saturated, slight petro odor, no staining |
| 28-30 | | NA | NA | NA | NA | | | brown medium sand, saturated, slight petro odor, no staining |
| | | | | | | | | **END BORING** |
| 30-32 | | NA | NA | NA | NA | | | |
| 32-34 | | NA | NA | NA | NA | | | |
| 34-36 | | NA | NA | NA | NA | | | |
| 36-38 | | NA | NA | NA | NA | | | |
| 38-40 | | NA | NA | NA | NA | | | |
| 40-42 | | NA | NA | NA | NA | | | |
| 42-44 | | NA | NA | NA | NA | | | |
| 44-46 | | NA | NA | NA | NA | | | |
| 46-48 | | NA | NA | NA | NA | | | |
| 48-50 | | NA | NA | NA | NA | | | |
| 50-52 | | NA | NA | NA | NA | | | |
| 52-54 | | NA | NA | NA | NA | | | |
| 54-56 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-1P |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/18/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/18/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 1-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | 2 |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | 1-inch diameter, schedule 40 PVC, 0.01-inch slotted screen/ 10 feet |
| **TOTAL DEPTH DRILLED (FT):** | 11 | **SCREENED INTERVAL (FT):** | 2' to 12' |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | 8 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 6" | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets, dry, no odor or staining |
| 1-2 | * | NA | <10 | <10 | <10 | | | brown fine sand, piesces of former skeet targets, dry, no odor or staining |
| 2-4 | * | NA | 50 | 6 | 44 | | | brown fine sand, pieces of former skeet targets, dry, no odor or staining |
| 4-6 | * | NA | <10 | <10 | <10 | | | brown fine sand, moist, no odor or staining |
| 6-8 | ^ * | NA | <10 | <10 | <10 | | | brown fine sand, saturated no odor or staining |
| 8-10 | | NA | <10 | <10 | <10 | | | brown fine sand, saturated no odor or staining |
| 10-12 | | NA | <10 | <10 | <10 | | | brown fine sand, saturated no odor or staining |
| | | | | | | | | END BORING |
| 12-14 | | NA | NA | NA | NA | | | |
| 14-16 | | NA | NA | NA | NA | | | |
| 16-18 | | NA | NA | NA | NA | | | |
| 18-20 | | NA | NA | NA | NA | | | |
| 20-22 | | NA | NA | NA | NA | | | |
| 22-24 | | NA | NA | NA | NA | | | |
| 24-26 | | NA | NA | NA | NA | | | |
| 26-28 | | NA | NA | NA | NA | | | |
| 28-30 | | NA | NA | NA | NA | | | |
| 30-32 | | NA | NA | NA | NA | | | |
| 32-34 | | NA | NA | NA | NA | | | |
| 34-36 | | NA | NA | NA | NA | | | |
| 36-38 | | NA | NA | NA | NA | | | |
| 38-40 | | NA | NA | NA | NA | | | |
| 40-42 | | NA | NA | NA | NA | | | |
| 42-44 | | NA | NA | NA | NA | | | |
| 44-46 | | NA | NA | NA | NA | | | |
| 46-48 | | NA | NA | NA | NA | | | |
| 48-50 | | NA | NA | NA | NA | | | |
| 50-52 | | NA | NA | NA | NA | | | |
| 52-54 | | NA | NA | NA | NA | | | |
| 54-56 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-2P |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/18/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/18/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 1-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | 2 |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | 1-inch diameter, schedule 40 PVC, 0.01-inch slotted screen/ 10 feet |
| **TOTAL DEPTH DRILLED (FT):** | 11 | **SCREENED INTERVAL (FT):** | 2' to 12' |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | 8 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 6" | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 1-2 | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets, dry, no odor or staining |
| 2-4 | * | NA | <10 | <10 | <10 | | | tan fine sand, pieces of former skeet targets dry, no odor or staining |
| 4-6 | * | NA | <10 | <10 | <10 | | | tan fine sand, moist, no odor or staining |
| 6-8 | ^ * | NA | <10 | <10 | <10 | | | brown fine sand, saturated no odor or staining |
| 8-10 | | NA | <10 | <10 | <10 | | | brown fine sand, saturated no odor or staining |
| 10-12 | | NA | <10 | <10 | <10 | | | brown fine sand, saturated no odor or staining |
| | | | | | | | | END BORING |
| 12-14 | | NA | NA | NA | NA | | | |
| 14-16 | | NA | NA | NA | NA | | | |
| 16-18 | | NA | NA | NA | NA | | | |
| 18-20 | | NA | NA | NA | NA | | | |
| 20-22 | | NA | NA | NA | NA | | | |
| 22-24 | | NA | NA | NA | NA | | | |
| 24-26 | | NA | NA | NA | NA | | | |
| 26-28 | | NA | NA | NA | NA | | | |
| 28-30 | | NA | NA | NA | NA | | | |
| 30-32 | | NA | NA | NA | NA | | | |
| 32-34 | | NA | NA | NA | NA | | | |
| 34-36 | | NA | NA | NA | NA | | | |
| 36-38 | | NA | NA | NA | NA | | | |
| 38-40 | | NA | NA | NA | NA | | | |
| 40-42 | | NA | NA | NA | NA | | | |
| 42-44 | | NA | NA | NA | NA | | | |
| 44-46 | | NA | NA | NA | NA | | | |
| 46-48 | | NA | NA | NA | NA | | | |
| 48-50 | | NA | NA | NA | NA | | | |
| 50-52 | | NA | NA | NA | NA | | | |
| 52-54 | | NA | NA | NA | NA | | | |
| 54-56 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-3P |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/18/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/18/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 1-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | 2 |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | 1-inch diameter, schedule 40 PVC, 0.01-inch slotted screen/ 10 feet |
| **TOTAL DEPTH DRILLED (FT):** | 11 | **SCREENED INTERVAL (FT):** | 2' to 12' |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | 8 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 6" | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 1-2 | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets, dry, no odor or staining |
| 2-4 | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets, dry, no odor or staining |
| 4-6 | * ^ | NA | <10 | <10 | <10 | | | brown fine sand, moist, no odor or staining |
| 6-8 | * | NA | <10 | <10 | <10 | | | brown fine sand, saturated no odor or staining |
| 8-10 | | NA | <10 | <10 | <10 | | | brown fine sand, saturated no odor or staining |
| 10-12 | | NA | <10 | <10 | <10 | | | brown fine sand, saturated no odor or staining |
| | | | | | | | | **END BORING** |
| 12-14 | | NA | NA | NA | NA | | | |
| 14-16 | | NA | NA | NA | NA | | | |
| 16-18 | | NA | NA | NA | NA | | | |
| 18-20 | | NA | NA | NA | NA | | | |
| 20-22 | | NA | NA | NA | NA | | | |
| 22-24 | | NA | NA | NA | NA | | | |
| 24-26 | | NA | NA | NA | NA | | | |
| 26-28 | | NA | NA | NA | NA | | | |
| 28-30 | | NA | NA | NA | NA | | | |
| 30-32 | | NA | NA | NA | NA | | | |
| 32-34 | | NA | NA | NA | NA | | | |
| 34-36 | | NA | NA | NA | NA | | | |
| 36-38 | | NA | NA | NA | NA | | | |
| 38-40 | | NA | NA | NA | NA | | | |
| 40-42 | | NA | NA | NA | NA | | | |
| 42-44 | | NA | NA | NA | NA | | | |
| 44-46 | | NA | NA | NA | NA | | | |
| 46-48 | | NA | NA | NA | NA | | | |
| 48-50 | | NA | NA | NA | NA | | | |
| 50-52 | | NA | NA | NA | NA | | | |
| 52-54 | | NA | NA | NA | NA | | | |
| 54-56 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-4P |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/19/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/19/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 1-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | 2 |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | 1-inch diameter, schedule 40 PVC, 0.01-inch slotted screen/ 10 feet |
| **TOTAL DEPTH DRILLED (FT):** | 11 | **SCREENED INTERVAL (FT):** | 2' to 12' |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | 8 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 6" | * | NA | <10 | <10 | <10 | | | dark brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 1-2 | * | NA | <10 | <10 | <10 | | | dark brown fine sand, pieces of former skeet targets, dry, no odor or staining |
| 2-3 | * | NA | <10 | <10 | <10 | | | tan fine sand, pieces of former skeet targets, dry, no odor or staining |
| 3-4 | * | NA | <10 | <10 | <10 | | | tan fine sand, pieces of former skeet targets, dry, no odor or staining |
| 4-5 | * | NA | <10 | <10 | <10 | | | tan fine sand, dry, no odor or staining |
| 5-6 | * | NA | <10 | <10 | <10 | | | dark brown coarse sand, dry, no odor or staining |
| 6-7 | * | NA | <10 | <10 | <10 | | | dark brown coarse sand, moist, no odor or staining |
| 7-8 | ^ | NA | <10 | <10 | <10 | | | dark brown coarse sand, saturated, no odor or staining |
| 8-9 | | NA | <10 | <10 | <10 | | | dark brown coarse sand, saturated, no odor or staining |
| 9-10 | | NA | NA | NA | NA | | | dark brown coarse sand, saturated, no odor or staining |
| 10-11 | | NA | NA | NA | NA | | | dark brown coarse sand, saturated, no odor or staining |
| 11-12 | | NA | NA | NA | NA | | | END BORING |
| 12-13 | | NA | NA | NA | NA | | | |
| 13-14 | | NA | NA | NA | NA | | | |
| 14-15 | | NA | NA | NA | NA | | | |
| 15-16 | | NA | NA | NA | NA | | | |
| 16-17 | | NA | NA | NA | NA | | | |
| 17-18 | | NA | NA | NA | NA | | | |
| 18-19 | | NA | NA | NA | NA | | | |
| 19-20 | | NA | NA | NA | NA | | | |
| 20-21 | | NA | NA | NA | NA | | | |
| 21-22 | | NA | NA | NA | NA | | | |
| 22-23 | | NA | NA | NA | NA | | | |
| 23-24 | | NA | NA | NA | NA | | | |
| 24-25 | | NA | NA | NA | NA | | | |
| 25-26 | | NA | NA | NA | NA | | | |
| 26-27 | | NA | NA | NA | NA | | | |
| 27-28 | | NA | NA | NA | NA | | | |
| 28-29 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-5P |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/19/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/19/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | 1-inch diameter, schedule 40 PVC |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | 2 |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | 1-inch diameter, schedule 40 PVC, 0.01-inch slotted screen/ 10 feet |
| **TOTAL DEPTH DRILLED (FT):** | 11 | **SCREENED INTERVAL (FT):** | 2' to 12' |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | 20-30 silica sand |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | 8 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 6" | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 1-2 | * | NA | <10 | <10 | <10 | | | tan fine sand, pieces of former skeet targets, dry, no odor or staining |
| 2-3 | * | NA | <10 | <10 | <10 | | | tan fine sand, pieces of former skeet targets, dry, no odor or staining |
| 3-4 | * | NA | <10 | <10 | <10 | | | gray/white medium sand, pieces of former skeet targets, dry, no odor or staining |
| 4-5 | * | NA | <10 | <10 | <10 | | | gray/white medium sand, dry, no odor or staining |
| 5-6 | * | NA | <10 | <10 | <10 | | | tan medium sand, dry, no odor or staining |
| 6-7 | * | NA | <10 | <10 | <10 | | | tan medium sand, moist, no odor or staining |
| 7-8 | ^ | NA | NA | NA | NA | | | tan medium sand, saturated, no odor or staining. |
| 8-9 | | NA | NA | NA | NA | | | tan medium sand, saturated, no odor or staining. |
| 9-10 | | NA | NA | NA | NA | | | tan medium sand, saturated, no odor or staining. |
| 10-11 | | NA | NA | NA | NA | | | tan medium sand, saturated, no odor or staining. |
| 11-12 | | NA | NA | NA | NA | | | **END BORING** |
| 12-13 | | NA | NA | NA | NA | | | |
| 13-14 | | NA | NA | NA | NA | | | |
| 14-15 | | NA | NA | NA | NA | | | |
| 15-16 | | NA | NA | NA | NA | | | |
| 16-17 | | NA | NA | NA | NA | | | |
| 17-18 | | NA | NA | NA | NA | | | |
| 18-19 | | NA | NA | NA | NA | | | |
| 19-20 | | NA | NA | NA | NA | | | |
| 20-21 | | NA | NA | NA | NA | | | |
| 21-22 | | NA | NA | NA | NA | | | |
| 22-23 | | NA | NA | NA | NA | | | |
| 23-24 | | NA | NA | NA | NA | | | |
| 24-25 | | NA | NA | NA | NA | | | |
| 25-26 | | NA | NA | NA | NA | | | |
| 26-27 | | NA | NA | NA | NA | | | |
| 27-28 | | NA | NA | NA | NA | | | |
| 28-29 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-6P |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/19/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/19/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | NA |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | NA |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | NA |
| **TOTAL DEPTH DRILLED (FT):** | 11 | **SCREENED INTERVAL (FT):** | NA |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | NA |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | 8 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 6" | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 1-2 | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 2-3 | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 3-4 | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 4-5 | * | NA | <10 | <10 | <10 | | | white medium sand, dry, no odor or staining |
| 5-6 | * | NA | <10 | <10 | <10 | | | tan medium sand, dry, no odor or staining |
| 6-7 | * | NA | <10 | <10 | <10 | | | tan medium sand, moist, no odor or staining |
| 7-8 | ^ | NA | NA | NA | NA | | | tan medium sand, saturated, no odor or staining. |
| 8-9 | | NA | NA | NA | NA | | | tan medium sand, saturated, no odor or staining. |
| 9-10 | | NA | NA | NA | NA | | | tan medium sand, saturated, no odor or staining. |
| 10-11 | | NA | NA | NA | NA | | | tan medium sand, saturated, no odor or staining. |
| | | | | | | | | **END BORING** |
| 11-12 | | NA | NA | NA | NA | | | |
| 12-13 | | NA | NA | NA | NA | | | |
| 13-14 | | NA | NA | NA | NA | | | |
| 14-15 | | NA | NA | NA | NA | | | |
| 15-16 | | NA | NA | NA | NA | | | |
| 16-17 | | NA | NA | NA | NA | | | |
| 17-18 | | NA | NA | NA | NA | | | |
| 18-19 | | NA | NA | NA | NA | | | |
| 19-20 | | NA | NA | NA | NA | | | |
| 20-21 | | NA | NA | NA | NA | | | |
| 21-22 | | NA | NA | NA | NA | | | |
| 22-23 | | NA | NA | NA | NA | | | |
| 23-24 | | NA | NA | NA | NA | | | |
| 24-25 | | NA | NA | NA | NA | | | |
| 25-26 | | NA | NA | NA | NA | | | |
| 26-27 | | NA | NA | NA | NA | | | |
| 27-28 | | NA | NA | NA | NA | | | |
| 28-29 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-7P |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/19/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/19/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | NA |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | NA |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | NA |
| **TOTAL DEPTH DRILLED (FT):** | 11 | **SCREENED INTERVAL (FT):** | NA |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | NA |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | 8 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 6" | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 1-2 | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 2-3 | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 3-4 | * | NA | <10 | <10 | <10 | | | tan medium sand, pieces of former skeet targets dry, no odor or staining |
| 4-5 | * | NA | <10 | <10 | <10 | | | white medium sand, dry, no odor or staining |
| 5-6 | * | NA | <10 | <10 | <10 | | | white medium sand, dry, no odor or staining |
| 6-7 | * | NA | <10 | <10 | <10 | | | white medium sand, moist, no odor or staining |
| 7-8 | ^ | NA | NA | NA | NA | | | white medium sand, saturated, no odor or staining. |
| 8-9 | | NA | NA | NA | NA | | | white medium sand, saturated, no odor or staining. |
| 9-10 | | NA | NA | NA | NA | | | white medium sand, saturated, no odor or staining. |
| 10-11 | | NA | NA | NA | NA | | | white medium sand, saturated, no odor or staining. |
| | | | | | | | | END BORING |
| 11-12 | | NA | NA | NA | NA | | | |
| 12-13 | | NA | NA | NA | NA | | | |
| 13-14 | | NA | NA | NA | NA | | | |
| 14-15 | | NA | NA | NA | NA | | | |
| 15-16 | | NA | NA | NA | NA | | | |
| 16-17 | | NA | NA | NA | NA | | | |
| 17-18 | | NA | NA | NA | NA | | | |
| 18-19 | | NA | NA | NA | NA | | | |
| 19-20 | | NA | NA | NA | NA | | | |
| 20-21 | | NA | NA | NA | NA | | | |
| 21-22 | | NA | NA | NA | NA | | | |
| 22-23 | | NA | NA | NA | NA | | | |
| 23-24 | | NA | NA | NA | NA | | | |
| 24-25 | | NA | NA | NA | NA | | | |
| 25-26 | | NA | NA | NA | NA | | | |
| 26-27 | | NA | NA | NA | NA | | | |
| 27-28 | | NA | NA | NA | NA | | | |
| 28-29 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-8P |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/19/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/19/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | NA |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | NA |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | NA |
| **TOTAL DEPTH DRILLED (FT):** | 11 | **SCREENED INTERVAL (FT):** | NA |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | NA |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | 8 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 6" | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 1-2 | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 2-3 | * | NA | <10 | <10 | <10 | | | tan fine sand, pieces of former skeet targets dry, no odor or staining |
| 3-4 | * | NA | <10 | <10 | <10 | | | tan medium sand, pieces of former skeet targets dry, no odor or staining |
| 4-5 | * | NA | <10 | <10 | <10 | | | brown medium sand, dry, no odor or staining |
| 5-6 | * | NA | <10 | <10 | <10 | | | brown medium sand, dry, no odor or staining |
| 6-7 | * | NA | <10 | <10 | <10 | | | brown medium sand, moist, no odor or staining |
| 7-8 | ^ | NA | NA | NA | NA | | | brown medium sand, saturated, no odor or staining. |
| 8-9 | | NA | NA | NA | NA | | | brown medium sand, saturated, no odor or staining. |
| 9-10 | | NA | NA | NA | NA | | | brown medium sand, saturated, no odor or staining. |
| 10-11 | | NA | NA | NA | NA | | | brown medium sand, saturated, no odor or staining. |
| | | | | | | | | **END BORING** |
| 11-12 | | NA | NA | NA | NA | | | |
| 12-13 | | NA | NA | NA | NA | | | |
| 13-14 | | NA | NA | NA | NA | | | |
| 14-15 | | NA | NA | NA | NA | | | |
| 15-16 | | NA | NA | NA | NA | | | |
| 16-17 | | NA | NA | NA | NA | | | |
| 17-18 | | NA | NA | NA | NA | | | |
| 18-19 | | NA | NA | NA | NA | | | |
| 19-20 | | NA | NA | NA | NA | | | |
| 20-21 | | NA | NA | NA | NA | | | |
| 21-22 | | NA | NA | NA | NA | | | |
| 22-23 | | NA | NA | NA | NA | | | |
| 23-24 | | NA | NA | NA | NA | | | |
| 24-25 | | NA | NA | NA | NA | | | |
| 25-26 | | NA | NA | NA | NA | | | |
| 26-27 | | NA | NA | NA | NA | | | |
| 27-28 | | NA | NA | NA | NA | | | |
| 28-29 | | NA | NA | NA | NA | | | |

| | | |
|---|---|---|
| ^ | Depth to Saturation | Moisture Content - dry, damp, moist, wet, saturation |
| * | Sample Submitted for Lab Analysis | Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5% |
| NA | Not Analyzed | Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft |
| ND | Not Detected | Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft |

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-9P |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/20/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/20/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | NA |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | NA |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | NA |
| **TOTAL DEPTH DRILLED (FT):** | 2 | **SCREENED INTERVAL (FT):** | NA |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | NA |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | NA | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 6" | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 1-2 | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| | | | | | | | | **END BORING** |
| 2-3 | * | NA | <10 | <10 | <10 | | | |
| 3-4 | * | NA | <10 | <10 | <10 | | | |
| 4-5 | * | NA | <10 | <10 | <10 | | | |
| 5-6 | * | NA | <10 | <10 | <10 | | | |
| 6-7 | * | NA | <10 | <10 | <10 | | | |
| 7-8 | ^ | NA | NA | NA | NA | | | |
| 8-9 | | NA | NA | NA | NA | | | |
| 9-10 | | NA | NA | NA | NA | | | |
| 10-11 | | NA | NA | NA | NA | | | |
| 11-12 | | NA | NA | NA | NA | | | |
| 12-13 | | NA | NA | NA | NA | | | |
| 13-14 | | NA | NA | NA | NA | | | |
| 14-15 | | NA | NA | NA | NA | | | |
| 15-16 | | NA | NA | NA | NA | | | |
| 16-17 | | NA | NA | NA | NA | | | |
| 17-18 | | NA | NA | NA | NA | | | |
| 18-19 | | NA | NA | NA | NA | | | |
| 19-20 | | NA | NA | NA | NA | | | |
| 20-21 | | NA | NA | NA | NA | | | |
| 21-22 | | NA | NA | NA | NA | | | |
| 22-23 | | NA | NA | NA | NA | | | |
| 23-24 | | NA | NA | NA | NA | | | |
| 24-25 | | NA | NA | NA | NA | | | |
| 25-26 | | NA | NA | NA | NA | | | |
| 26-27 | | NA | NA | NA | NA | | | |
| 27-28 | | NA | NA | NA | NA | | | |
| 28-29 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-10P |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/20/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/20/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | NA |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | NA |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | NA |
| **TOTAL DEPTH DRILLED (FT):** | 11 | **SCREENED INTERVAL (FT):** | NA |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | NA |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | 8 | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 6" | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 1-2 | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 2-3 | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 3-4 | * | NA | <10 | <10 | <10 | | | orange tan medium sand, pieces of former skeet targets dry, no odor or staining |
| 4-5 | * | NA | <10 | <10 | <10 | | | orange tan medium sand, pieces of former skeet targets dry, no odor or staining |
| 5-6 | * | NA | <10 | <10 | <10 | | | black medium sand, dry, no odor or staining |
| 6-7 | * | NA | <10 | <10 | <10 | | | black medium sand, moist, no odor or staining |
| 7-8 | ^ | NA | NA | NA | NA | | | black medium sand, saturated, no odor or staining. |
| 8-9 | | NA | NA | NA | NA | | | black medium sand, saturated, no odor or staining. |
| 9-10 | | NA | NA | NA | NA | | | black medium sand, saturated, no odor or staining. |
| 10-11 | | NA | NA | NA | NA | | | black medium sand, saturated, no odor or staining. |
| | | | | | | | | **END BORING** |
| 11-12 | | NA | NA | NA | NA | | | |
| 12-13 | | NA | NA | NA | NA | | | |
| 13-14 | | NA | NA | NA | NA | | | |
| 14-15 | | NA | NA | NA | NA | | | |
| 15-16 | | NA | NA | NA | NA | | | |
| 16-17 | | NA | NA | NA | NA | | | |
| 17-18 | | NA | NA | NA | NA | | | |
| 18-19 | | NA | NA | NA | NA | | | |
| 19-20 | | NA | NA | NA | NA | | | |
| 20-21 | | NA | NA | NA | NA | | | |
| 21-22 | | NA | NA | NA | NA | | | |
| 22-23 | | NA | NA | NA | NA | | | |
| 23-24 | | NA | NA | NA | NA | | | |
| 24-25 | | NA | NA | NA | NA | | | |
| 25-26 | | NA | NA | NA | NA | | | |
| 26-27 | | NA | NA | NA | NA | | | |
| 27-28 | | NA | NA | NA | NA | | | |
| 28-29 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-11P |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/20/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/20/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | NA |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | NA |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | NA |
| **TOTAL DEPTH DRILLED (FT):** | 2 | **SCREENED INTERVAL (FT):** | NA |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | NA |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | NA | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 6" | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| 1-2 | * | NA | <10 | <10 | <10 | | | brown fine sand, pieces of former skeet targets dry, no odor or staining |
| | | | | | | | | **END BORING** |
| 2-3 | * | NA | <10 | <10 | <10 | | | |
| 3-4 | * | NA | <10 | <10 | <10 | | | |
| 4-5 | * | NA | <10 | <10 | <10 | | | |
| 5-6 | * | NA | <10 | <10 | <10 | | | |
| 6-7 | * | NA | <10 | <10 | <10 | | | |
| 7-8 | ^ | NA | NA | NA | NA | | | |
| 8-9 | | NA | NA | NA | NA | | | |
| 9-10 | | NA | NA | NA | NA | | | |
| 10-11 | | NA | NA | NA | NA | | | |
| 11-12 | | NA | NA | NA | NA | | | |
| 12-13 | | NA | NA | NA | NA | | | |
| 13-14 | | NA | NA | NA | NA | | | |
| 14-15 | | NA | NA | NA | NA | | | |
| 15-16 | | NA | NA | NA | NA | | | |
| 16-17 | | NA | NA | NA | NA | | | |
| 17-18 | | NA | NA | NA | NA | | | |
| 18-19 | | NA | NA | NA | NA | | | |
| 19-20 | | NA | NA | NA | NA | | | |
| 20-21 | | NA | NA | NA | NA | | | |
| 21-22 | | NA | NA | NA | NA | | | |
| 22-23 | | NA | NA | NA | NA | | | |
| 23-24 | | NA | NA | NA | NA | | | |
| 24-25 | | NA | NA | NA | NA | | | |
| 25-26 | | NA | NA | NA | NA | | | |
| 26-27 | | NA | NA | NA | NA | | | |
| 27-28 | | NA | NA | NA | NA | | | |
| 28-29 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-12P |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/20/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/20/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | NA |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | NA |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | NA |
| **TOTAL DEPTH DRILLED (FT):** | 2 | **SCREENED INTERVAL (FT):** | NA |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | NA |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | NA | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 6" | * | NA | <10 | <10 | <10 | | | gray fine sand, dry, no odor or staining |
| 1-2 | * | NA | <10 | <10 | <10 | | | gray/white fine sand, no odor or staining |
| | | | | | | | | **END BORING** |
| 2-3 | * | NA | <10 | <10 | <10 | | | |
| 3-4 | * | NA | <10 | <10 | <10 | | | |
| 4-5 | * | NA | <10 | <10 | <10 | | | |
| 5-6 | * | NA | <10 | <10 | <10 | | | |
| 6-7 | * | NA | <10 | <10 | <10 | | | |
| 7-8 | ^ | NA | NA | NA | NA | | | |
| 8-9 | | NA | NA | NA | NA | | | |
| 9-10 | | NA | NA | NA | NA | | | |
| 10-11 | | NA | NA | NA | NA | | | |
| 11-12 | | NA | NA | NA | NA | | | |
| 12-13 | | NA | NA | NA | NA | | | |
| 13-14 | | NA | NA | NA | NA | | | |
| 14-15 | | NA | NA | NA | NA | | | |
| 15-16 | | NA | NA | NA | NA | | | |
| 16-17 | | NA | NA | NA | NA | | | |
| 17-18 | | NA | NA | NA | NA | | | |
| 18-19 | | NA | NA | NA | NA | | | |
| 19-20 | | NA | NA | NA | NA | | | |
| 20-21 | | NA | NA | NA | NA | | | |
| 21-22 | | NA | NA | NA | NA | | | |
| 22-23 | | NA | NA | NA | NA | | | |
| 23-24 | | NA | NA | NA | NA | | | |
| 24-25 | | NA | NA | NA | NA | | | |
| 25-26 | | NA | NA | NA | NA | | | |
| 26-27 | | NA | NA | NA | NA | | | |
| 27-28 | | NA | NA | NA | NA | | | |
| 28-29 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **PROJECT NO.:** | 0411-089-24 | **WELL/BORING NO.:** | AES-13P |
| **PROJECT:** | Naval Hospital Pensacola SAR | **DATE DRILLED:** | 4/20/2011 |
| **LOCATION:** | Pensacola, Escambia County, Florida | **DATE COMPLETED:** | 4/20/2011 |
| **DRILLING COMPANY:** | Walker-Hill Environmental | **CASING TYPE:** | NA |
| **DRILLING METHOD:** | HA | **TOTAL CASING (FT):** | NA |
| **BOREHOLE DIAMETER (IN):** | 3.5 | **SCREEN TYPE/LENGTH (FT):** | NA |
| **TOTAL DEPTH DRILLED (FT):** | 2 | **SCREENED INTERVAL (FT):** | NA |
| **GROUT TYPE:** | NA | **SAND PACK TYPE:** | NA |
| **GROUT INTERVAL (FT):** | NA | **SAND PACK INTERVAL (FT):** | NA |
| **DEPTH TO GROUNDWATER (FT):** | NA | **GEOLOGIST:** | Curtis Mills |
| **WELL HEAD ELEVATION (TOC):** | NA | **PERMIT NO.:** | NA |

| BORING DEPTH (ft) | SAMPLE I.D. | SAMPLE DEPTH (ft) | UNFILTERED OVA (PPM) | FILTERED OVA (PPM) | CORRECTED OVA (PPM) | BLOW COUNT (ft) | % RECOVERY | GEOLOGIC DESCRIPTION (Color, Major Constituent, Adjective, Density, Moisture Content) |
|---|---|---|---|---|---|---|---|---|
| 6" | * | NA | <10 | <10 | <10 | | | brown fine sand, dry, no odor or staining |
| 1-2 | * | NA | <10 | <10 | <10 | | | brown fine sand, no odor or staining |
| | | | | | | | | **END BORING** |
| 2-3 | * | NA | <10 | <10 | <10 | | | |
| 3-4 | * | NA | <10 | <10 | <10 | | | |
| 4-5 | * | NA | <10 | <10 | <10 | | | |
| 5-6 | * | NA | <10 | <10 | <10 | | | |
| 6-7 | * | NA | <10 | <10 | <10 | | | |
| 7-8 | ^ | NA | NA | NA | NA | | | |
| 8-9 | | NA | NA | NA | NA | | | |
| 9-10 | | NA | NA | NA | NA | | | |
| 10-11 | | NA | NA | NA | NA | | | |
| 11-12 | | NA | NA | NA | NA | | | |
| 12-13 | | NA | NA | NA | NA | | | |
| 13-14 | | NA | NA | NA | NA | | | |
| 14-15 | | NA | NA | NA | NA | | | |
| 15-16 | | NA | NA | NA | NA | | | |
| 16-17 | | NA | NA | NA | NA | | | |
| 17-18 | | NA | NA | NA | NA | | | |
| 18-19 | | NA | NA | NA | NA | | | |
| 19-20 | | NA | NA | NA | NA | | | |
| 20-21 | | NA | NA | NA | NA | | | |
| 21-22 | | NA | NA | NA | NA | | | |
| 22-23 | | NA | NA | NA | NA | | | |
| 23-24 | | NA | NA | NA | NA | | | |
| 24-25 | | NA | NA | NA | NA | | | |
| 25-26 | | NA | NA | NA | NA | | | |
| 26-27 | | NA | NA | NA | NA | | | |
| 27-28 | | NA | NA | NA | NA | | | |
| 28-29 | | NA | NA | NA | NA | | | |

^ Depth to Saturation
* Sample Submitted for Lab Analysis
NA Not Analyzed
ND Not Detected

Moisture Content - dry, damp, moist, wet, saturation
Adjective - Some = 30-45%, Little = 15-25%, Few = 5-10%, Trace = <5%
Density - Very Loose=0-5, Loose=6-10, Medium=11-30, Dense-30-50 blows/ft
Cohesive-Very Soft=0-3, Soft=4-5, Medium Stiff=6-10, Very Stiff=16-30, Hard=>31 blows/ft

# APPENDIX B

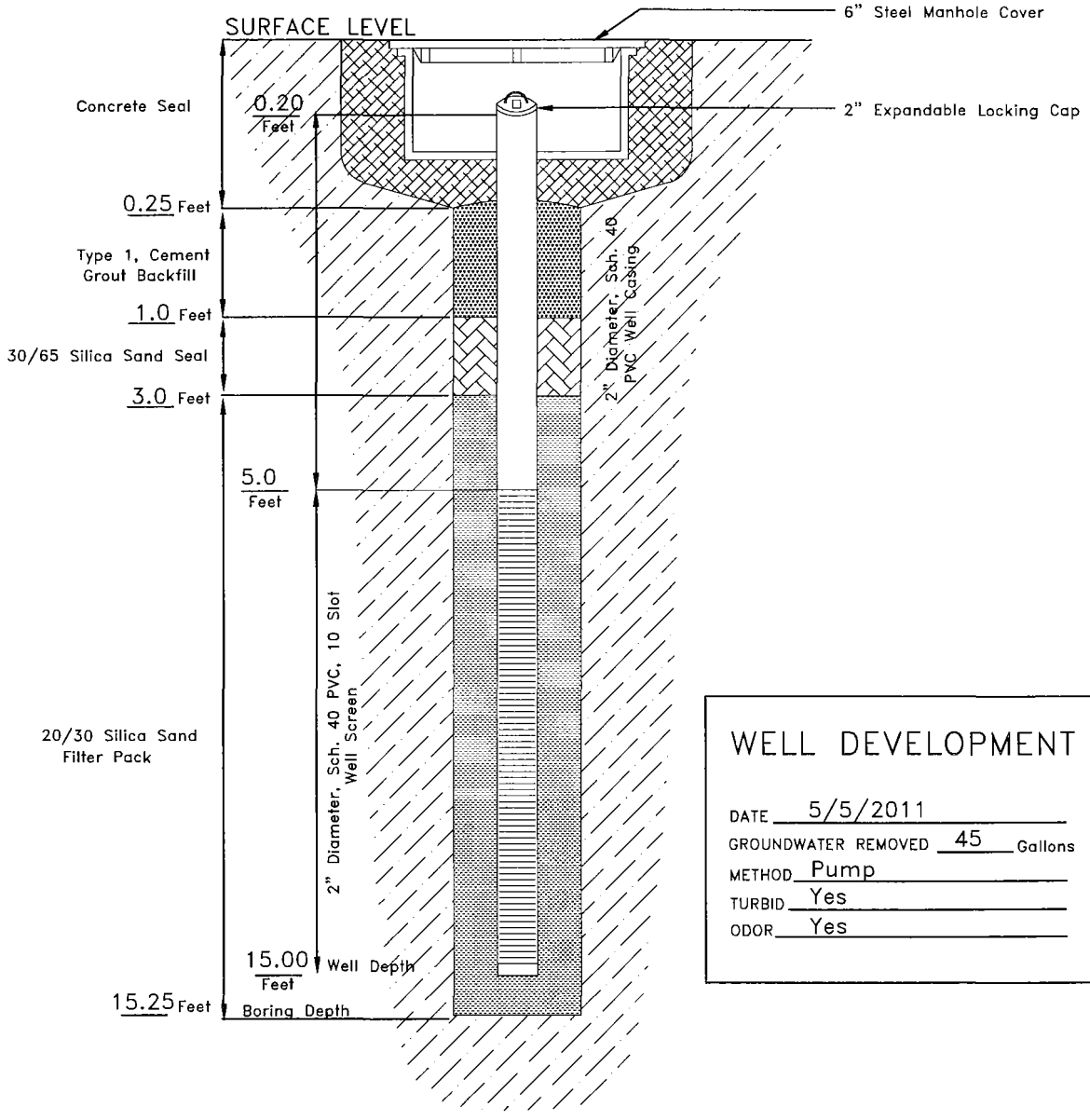
## WELL CONSTRUCTION
## AND
## DEVELOPMENT LOGS

AEROSTAR
ENVIRONMENTAL SERVICES, INC.

Project No. 0411-089-24
Project NAVAL HOSPITAL PENSACOLA SAR
Location Naval Hospital Pensacola
Date 5/5/2011
Project Manager Curtis Mills
Drilling Method Hollow Stem Auger
Drilled By Walker Hill
TOC Elevation 99.60

Well No. MW-4

# MONITOR WELL CONSTRUCTION DIAGRAM




## WELL DEVELOPMENT

DATE 5/5/2011
GROUNDWATER REMOVED 45 Gallons
METHOD Pump
TURBID Yes
ODOR Yes

MONITOR WELL CONSTRUCTION DIAGRAM

AEROSTAR
ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA SAR
NAVAL HOSPITAL PENSACOLA
PENSACOLA,
ESCAMBIA COUNTY, FLORIDA

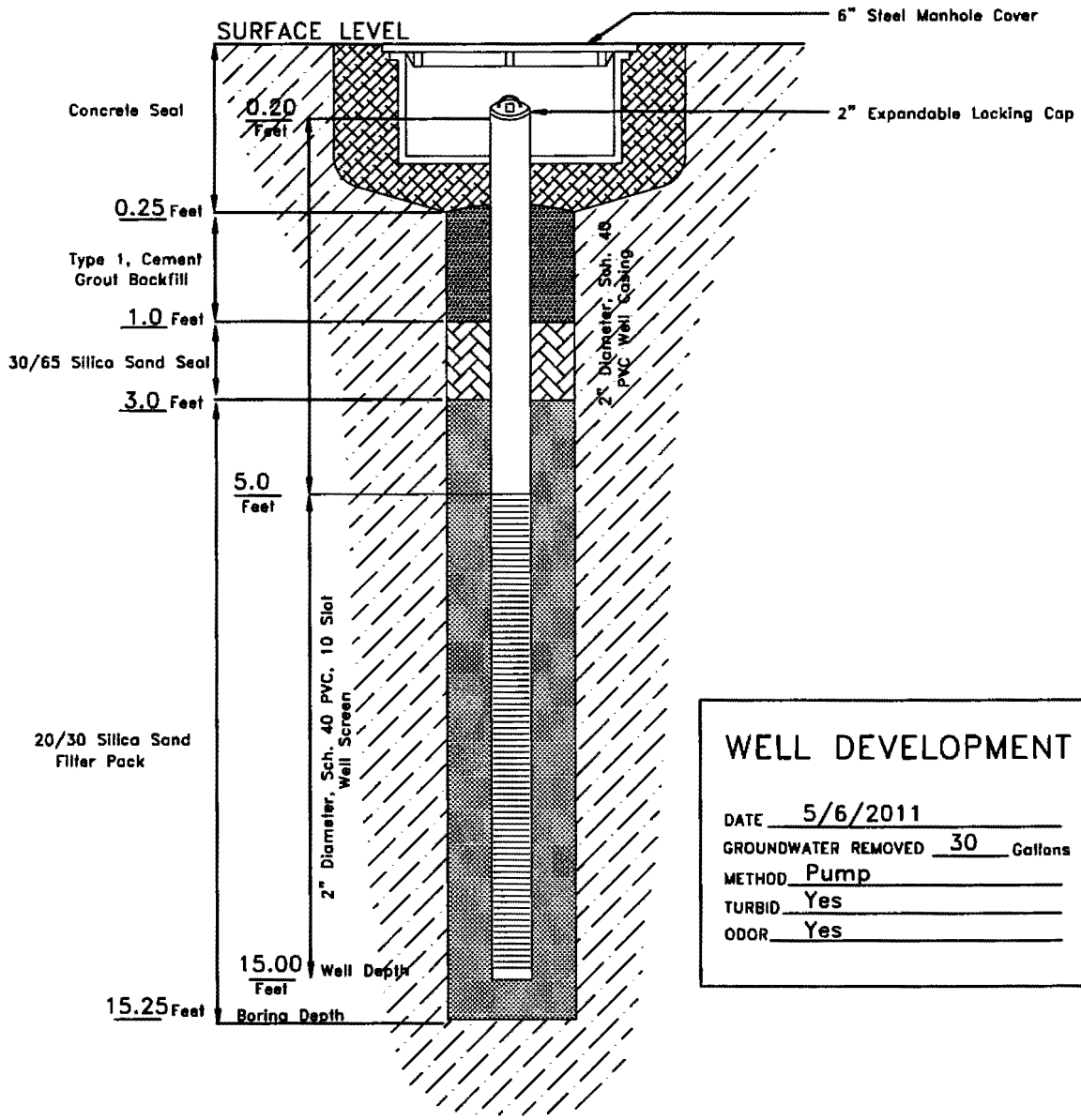
SCALE:NO SCALE
DATE: 6/3/2011
DRAWN BY: MILLS

AEROSTAR ENVIRONMENTAL SERVICES, INC.

Project No. 0411-089-24
Project NAVAL HOSPITAL PENSACOLA SAR
Location Naval Hospital Pensacola
Date 5/4/2011
Project Manager Curtis Mills
Drilling Method Hollow Stem Auger
Drilled By Walker Hill
TOC Elevation 99.68

Well No. MW-5

# MONITOR WELL CONSTRUCTION DIAGRAM




## WELL DEVELOPMENT

DATE 5/6/2011
GROUNDWATER REMOVED 30 Gallons
METHOD Pump
TURBID Yes
ODOR Yes

# MONITOR WELL CONSTRUCTION DIAGRAM

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA SAR
NAVAL HOSPITAL PENSACOLA
PENSACOLA,
ESCAMBIA COUNTY, FLORIDA

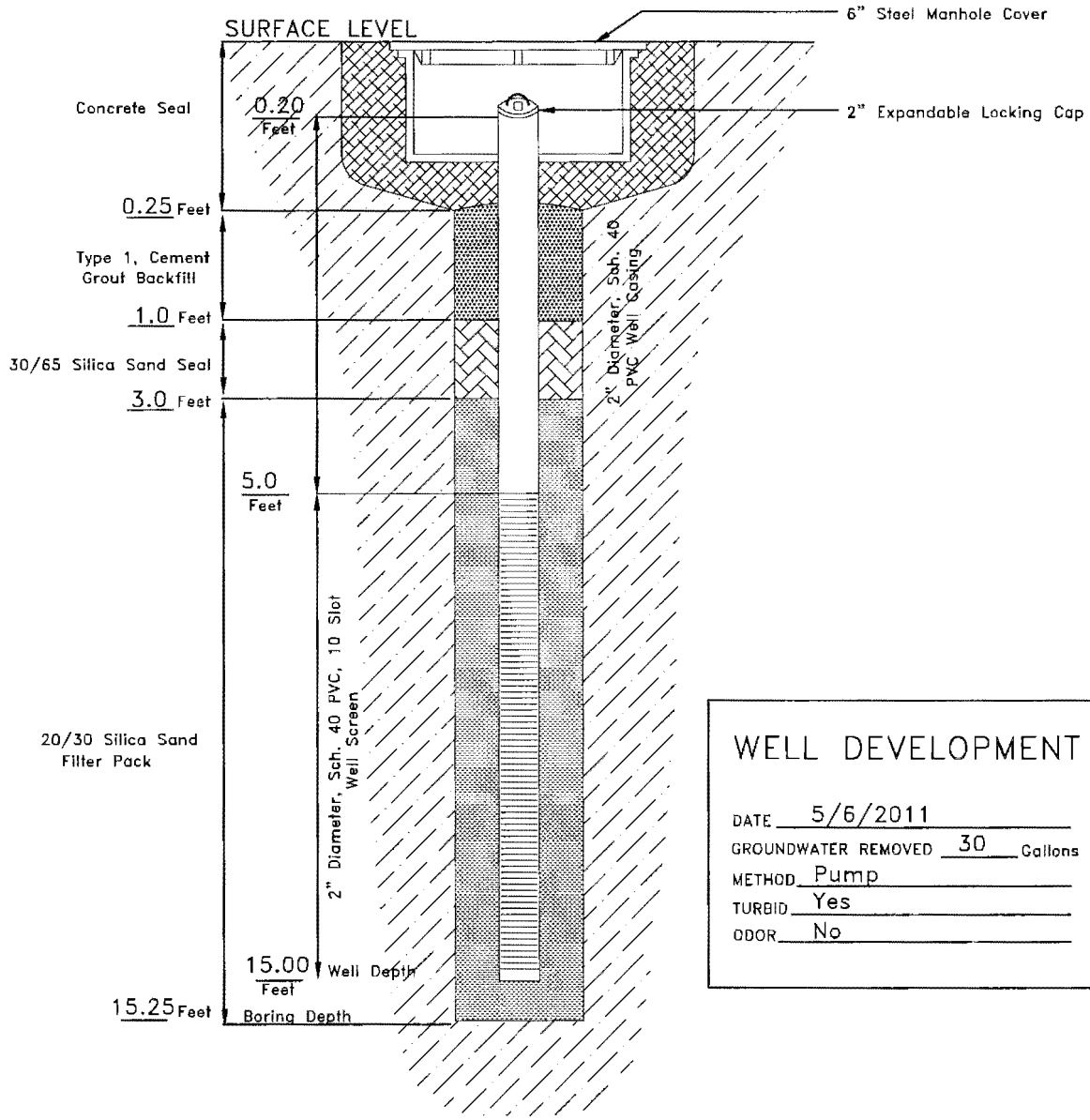
SCALE:NO SCALE
DATE: 6/3/2011
DRAWN BY: MILLS

AEROSTAR
ENVIRONMENTAL SERVICES, INC.

Project No. 0411-089-24
Project NAVAL HOSPITAL PENSACOLA SAR
Location Naval Hospital Pensacola
Date 5/5/2011
Project Manager Curtis Mills
Drilling Method Hollow Stem Auger
Drilled By Walker Hill
TOC Elevation 100.03

Well No. MW-6

# MONITOR WELL CONSTRUCTION DIAGRAM




## WELL DEVELOPMENT

DATE 5/6/2011
GROUNDWATER REMOVED 30 Gallons
METHOD Pump
TURBID Yes
ODOR No

MONITOR WELL CONSTRUCTION DIAGRAM

AEROSTAR
ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA SAR
NAVAL HOSPITAL PENSACOLA
PENSACOLA,
ESCAMBIA COUNTY, FLORIDA

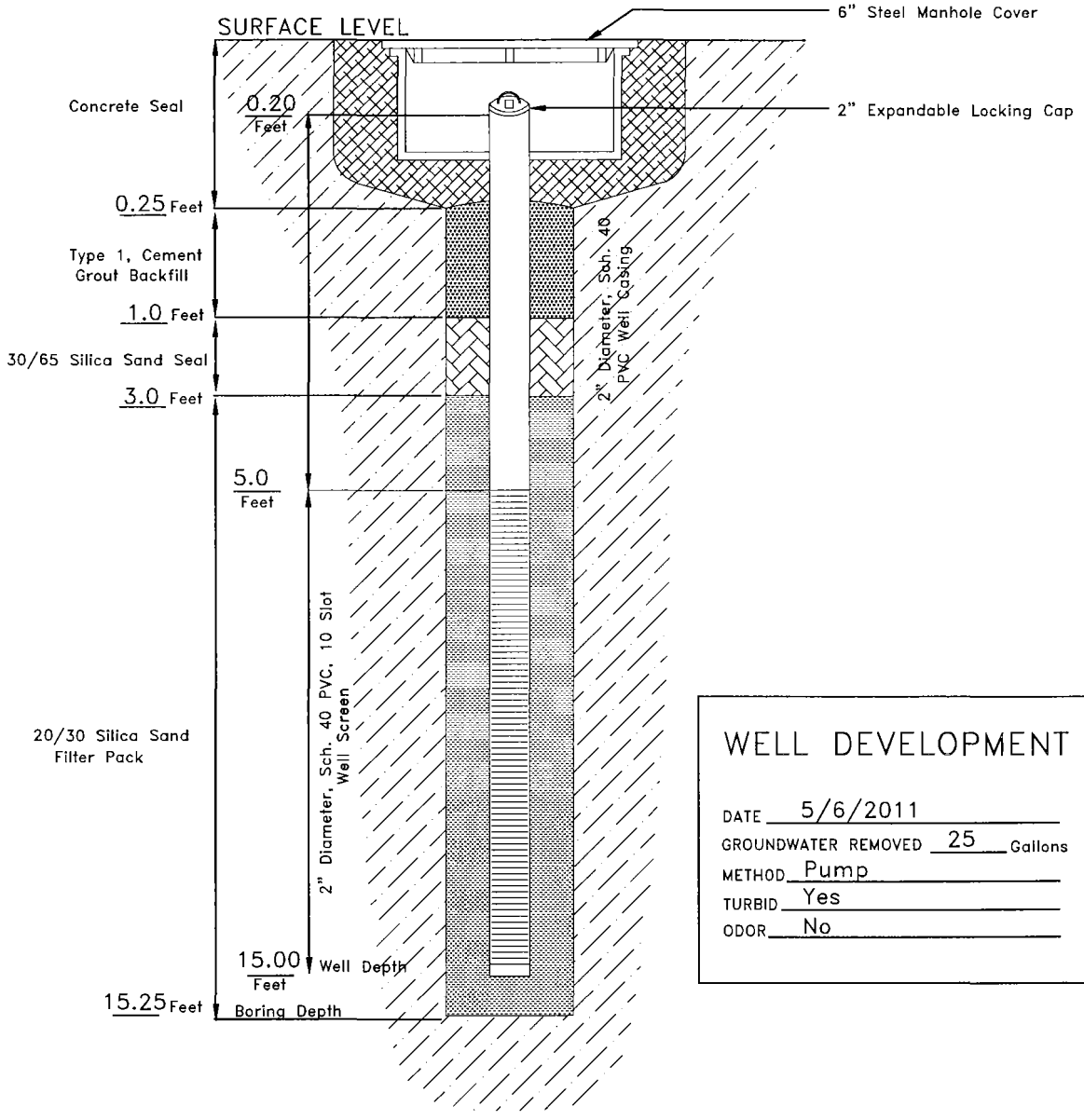
SCALE:NO SCALE
DATE: 6/3/2011
DRAWN BY: MILLS

AEROSTAR ENVIRONMENTAL SERVICES, INC.

Project No. 0411-089-24
Project NAVAL HOSPITAL PENSACOLA SAR
Location Naval Hospital Pensacola
Date 5/5/2011
Project Manager Curtis Mills
Drilling Method Hollow Stem Auger
Drilled By Walker Hill
TOC Elevation 99.00

Well No. MW-7

# MONITOR WELL CONSTRUCTION DIAGRAM




## WELL DEVELOPMENT

DATE 5/6/2011
GROUNDWATER REMOVED 25 Gallons
METHOD Pump
TURBID Yes
ODOR No

# MONITOR WELL CONSTRUCTION DIAGRAM

AEROSTAR ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA SAR
NAVAL HOSPITAL PENSACOLA
PENSACOLA,
ESCAMBIA COUNTY, FLORIDA

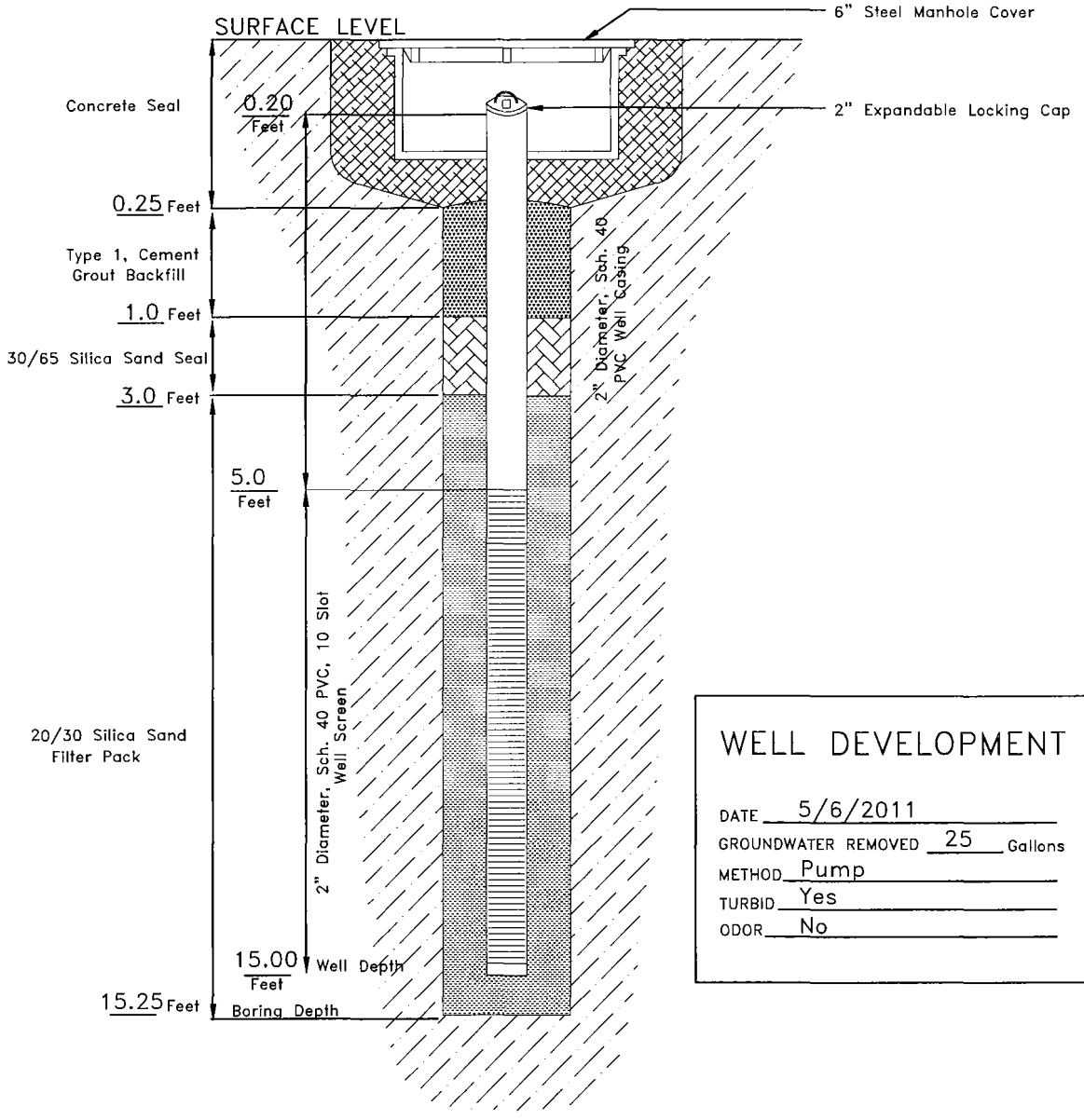
SCALE: NO SCALE
DATE: 6/3/2011
DRAWN BY: MILLS

AEROSTAR
ENVIRONMENTAL SERVICES, INC.

Project No. 0411-089-24
Project NAVAL HOSPITAL PENSACOLA SAR
Location Naval Hospital Pensacola
Date 5/5/2011
Project Manager Curtis Mills
Drilling Method Hollow Stem Auger
Drilled By Walker Hill
TOC Elevation 99.99

Well No. MW-8

# MONITOR WELL CONSTRUCTION DIAGRAM




## WELL DEVELOPMENT

DATE 5/6/2011
GROUNDWATER REMOVED 25 Gallons
METHOD Pump
TURBID Yes
ODOR No

# MONITOR WELL CONSTRUCTION DIAGRAM

AEROSTAR
ENVIRONMENTAL SERVICES, INC.

NAVAL HOSPITAL PENSACOLA SAR
NAVAL HOSPITAL PENSACOLA
PENSACOLA,
ESCAMBIA COUNTY, FLORIDA

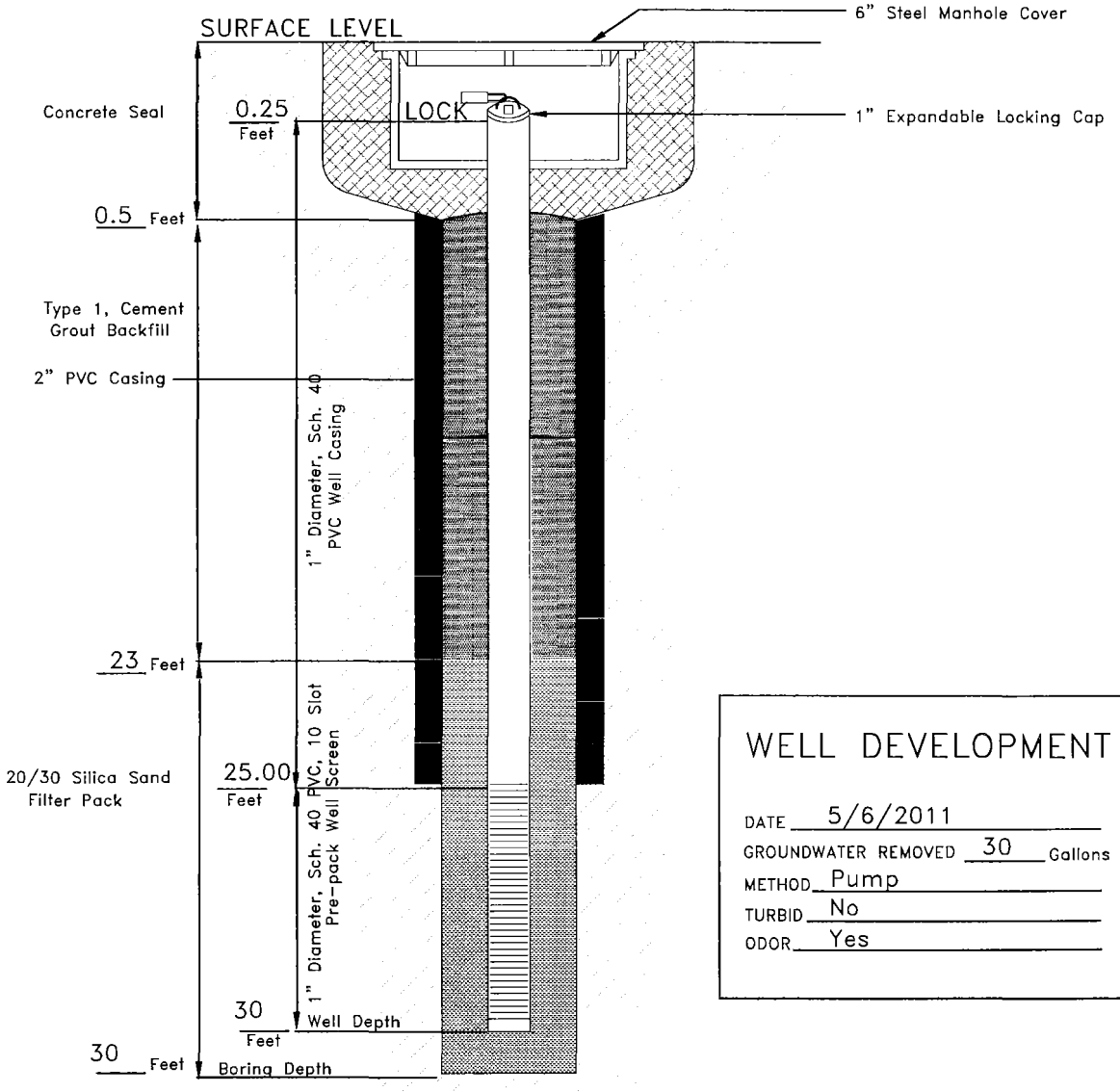
SCALE: NO SCALE
DATE: 6/3/2011
DRAWN BY: MILLS

AEROSTAR
ENVIRONMENTAL SERVICES, INC.

Project No. 0411-089-24
Project NAVAL HOSPITAL PENSACOLA SAR
Location NAVAL HOSPITAL PENSACOLA
Date 5/4/2011
Geologist Curtis Mills
Drilling Method HOLLOW STEM AND DPT
Drilled By Walker Hill Environmental
TOC Elevation 99.70

Well No. DMW-1

# MONITORING WELL CONSTRUCTION DIAGRAM




## WELL DEVELOPMENT

DATE 5/6/2011
GROUNDWATER REMOVED 30 Gallons
METHOD Pump
TURBID No
ODOR Yes

MONITORING WELL CONSTRUCTION DIAGRAM

| | | |
|---|---|---|
| AEROSTAR ENVIRONMENTAL SERVICES, INC. | NAVAL HOSPITAL PENSACOLA SAR<br>NAVAL HOSPITAL PENSACOLA<br>PENSACOLA, FLORIDA | SCALE: NO SCALE<br>DATE: JUNE 2011<br>DRAWN BY: CM |

# APPENDIX C

## GROUNDWATER SAMPLING LOGS
## AND
## FIELD INSTRUMENT CALIBRATION RECORDS

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| SITE NAME: Naval Hospital Pensacola | SITE LOCATION: 6000 Hwy 90, Pensacola, Escambia County, Florida | |
|---|---|---|
| WELL NO: MW-2 | SAMPLE ID: MW-2 | DATE: 5/12/11 |

## PURGING DATA

| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/16 | WELL SCREEN INTERVAL DEPTH: 5'-15' | STATIC DEPTH TO WATER (feet): 7.84 | PURGE PUMP TYPE OR BAILER: Peristaltic |
|---|---|---|---|---|

**WELL VOLUME PURGE: 1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( 19.12 feet – 7.84 feet) X 0.16 gallons/foot = 1.8 gallons

**EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + ( gallons/foot X feet) + gallons = gallons

| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 8.8 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 8.9 | PURGING INITIATED AT: 936 | PURGING ENDED AT: 1001 | TOTAL VOLUME PURGED (gallons): 2.79 |
|---|---|---|---|---|

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or (µS/cm) | DISSOLVED OXYGEN (circle units) (mg/l) or % saturation | TURBIDITY (NTUs) | COLOR (describe) | ODOR (describe) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 952 | 1.83 | 1.8 | 0.11 | 7.95 | 5.81 | 24.5 | 91.9 | 0.81 | 14.1 | Clear | None |
| 955 | 0.33 | 2.13 | 0.11 | 7.95 | 5.85 | 24.5 | 90.7 | 0.79 | 13.2 | Clear | None |
| 958 | 0.33 | 2.46 | 0.11 | 7.95 | 5.83 | 24.5 | 89.6 | 0.77 | 14.8 | Clear | None |
| 1001 | 0.33 | 2.79 | 0.11 | 7.95 | 5.88 | 24.5 | 91.5 | 0.77 | 14.5 | Clear | None |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

**WELL CAPACITY** (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
**TUBING INSIDE DIA. CAPACITY** (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

**PURGING EQUIPMENT CODES:** **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

## SAMPLING DATA

| SAMPLED BY (PRINT) / AFFILIATION: Curtis R. Mills / AEROSTAR | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 1002 | SAMPLING ENDED AT: 1015 |
|---|---|---|---|
| PUMP OR TUBING DEPTH IN WELL (feet): 8.9 | TUBING MATERIAL CODE: PE | FIELD-FILTERED: Y (N) Filtration Equipment Type: | FILTER SIZE: ____ µm |

FIELD DECONTAMINATION: PUMP Y (N) TUBING (Y) N (replaced) DUPLICATE: Y (N)

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLING EQUIPMENT CODE | SAMPLE PUMP FLOW RATE (mL per minute) |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | | |
| MW-2 | 2 | CG | 40ml | HCL | | | VOA/8021 | RFPP | <100 |
| MW-2 | 2 | CG | 40ml | HCL | | | EDB/8011 | RFPP | <100 |
| MW-2 | 1 | AG | 1L | None | | | 8270/SVOC | APP | ~~<100~~ 4/6 |
| MW-2 | 1 | AG | 1L | H2SO4 | | | TRPH/FL-PRO | APP | 4/6 |
| MW-2 | 1 | PE | 500ml | HNO3 | | | Lead/6010 | APP | 4/6 |
| MW-2 | | | | | | | | | |

REMARKS:

**MATERIAL CODES:** **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

**SAMPLING EQUIPMENT CODES:** **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); O = Other (Specify)

**NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
**pH:** ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| SITE NAME: Naval Hospital Pensacola | SITE LOCATION: 6000 Hwy 90, Pensacola, Escambia County, Florida | |
|---|---|---|
| WELL NO: MW-7 | SAMPLE ID: MW-7 | DATE: 5/12/11 |

## PURGING DATA

| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/16 | WELL SCREEN INTERVAL DEPTH: 5'-15' | STATIC DEPTH TO WATER (feet): 7.54 | PURGE PUMP TYPE OR BAILER: Peristaltic |
|---|---|---|---|---|

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( 15 feet – 7.54 feet) X 0.16 gallons/foot = 1.2 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + ( gallons/foot X feet) + gallons = gallons

| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 8.5 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 8.6 | PURGING INITIATED AT: 1029 | PURGING ENDED AT: 1050 | TOTAL VOLUME PURGED (gallons): 2.1 |
|---|---|---|---|---|

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or mS/cm | DISSOLVED OXYGEN (circle units) mg/l or % saturation | TURBIDITY (NTUs) | COLOR (describe) | ODOR (describe) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1041 | 1.2 | 1.2 | 0.1 | 7.63 | 5.83 | 22.8 | 351 | 0.5 | 11.3 | Clear | None |
| 1044 | 0.3 | 1.5 | 0.1 | 7.63 | 5.83 | 22.8 | 354 | 0.49 | 9.6 | Clear | None |
| 1047 | 0.3 | 1.8 | 0.1 | 7.63 | 5.83 | 22.8 | 353 | 0.49 | 9.5 | Clear | None |
| 1050 | 0.3 | 2.1 | 0.1 | 7.63 | 5.83 | 22.8 | 353 | 0.49 | 9.1 | Clear | None |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| SAMPLED BY (PRINT) / AFFILIATION: Curtis R. Mills / AEROSTAR | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 1051 | SAMPLING ENDED AT: 1102 |
|---|---|---|---|
| PUMP OR TUBING DEPTH IN WELL (feet): 8.6 | TUBING MATERIAL CODE: PE | FIELD-FILTERED: Y (N) Filtration Equipment Type: | FILTER SIZE: ____ µm |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING (Y) N (replaced) | DUPLICATE: Y (N) | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLING EQUIPMENT CODE | SAMPLE PUMP FLOW RATE (mL per minute) |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | | |
| MW-7 | 2 | CG | 40ml | HCL | | | VOA/8021 | RFPP | <100 |
| MW-7 | 2 | CG | 40ml | HCL | | | EDB/8011 | RFPP | <100 |
| MW-7 | 1 | AG | 1L | None | | | 8270/SVOC | APP | 379 |
| MW-7 | 1 | AG | 1L | H2SO4 | | | TRPH/FL-PRO | APP | 379 |
| | 1 | PE | 500ml | HNO3 | | | Lead/6010 | APP | 379 |
| | | | | | | | | | |

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
**pH:** ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP-SOP-001/01
FS 2200 Groundwater Sampling

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| SITE NAME: Naval Hospital Pensacola | SITE LOCATION: 6000 Hwy 90, Pensacola, Escambia County, Florida | |
|---|---|---|
| WELL NO: MW-1 | SAMPLE ID: MW-1 | DATE: 5/12/11 |

## PURGING DATA

| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/16 | WELL SCREEN INTERVAL DEPTH: 5'-15' | STATIC DEPTH TO WATER (feet): 8.05 | PURGE PUMP TYPE OR BAILER: Peristaltic |
|---|---|---|---|---|

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( 19.24 feet – 8.05 feet) X 0.16 gallons/foot = 1.8 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + ( gallons/foot X feet) + gallons = gallons

| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 9.0 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 9.3 | PURGING INITIATED AT: 1105 | PURGING ENDED AT: 1122 | TOTAL VOLUME PURGED (gallons): 2.76 |
|---|---|---|---|---|

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or (µS/cm) | DISSOLVED OXYGEN (circle units) (mg/L) or % saturation | TURBIDITY (NTUs) | COLOR (describe) | ODOR (describe) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1116 | 1.8 | 1.8 | 0.16 | 8.38 | 5.64 | 25.5 | 143.8 | 0.46 | 2.57 | Clear | None |
| 1119 | 0.48 | 2.28 | 0.16 | 8.38 | 5.63 | 25.5 | 143.6 | 0.45 | 1.94 | Clear | None |
| 1122 | 0.48 | 2.76 | 0.16 | 8.38 | 5.63 | 25.6 | 144.0 | 0.45 | 2.19 | Clear | None |
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WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| SAMPLED BY (PRINT) / AFFILIATION: Curtis R. Mills / AEROSTAR | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 1123 | SAMPLING ENDED AT: 1133 |
|---|---|---|---|
| PUMP OR TUBING DEPTH IN WELL (feet): 9.3 | TUBING MATERIAL CODE: PE | FIELD-FILTERED: Y (N) Filtration Equipment Type: | FILTER SIZE: ____ µm |

FIELD DECONTAMINATION: PUMP Y (N) TUBING (Y) N (replaced) DUPLICATE: Y (N)

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLING EQUIPMENT CODE | SAMPLE PUMP FLOW RATE (mL per minute) |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | | |
| MW-1 | 2 | CG | 40ml | HCL | | | VOA/8021 | RFPP | |
| MW-1 | 2 | CG | 40ml | HCL | | | EDB/8011 | RFPP | |
| MW-1 | 1 | AG | 1L | None | | | 8270/SVOC | APP | |
| MW-1 | 1 | AG | 1L | H2SO4 | | | TRPH/FL-PRO | APP | |
| MW-1 | 1 | PE | 500ml | HNO3 | | | Lead/6010 | APP | |
| | | | | | | | | | |

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
**pH:** ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

DEP-SOP-001/01
FS 2200 Groundwater Sampling

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| SITE NAME: Naval Hospital Pensacola | SITE LOCATION: 6000 Hwy 90, Pensacola, Escambia County, Florida | |
|---|---|---|
| WELL NO: MW-8 | SAMPLE ID: MW-8 | DATE: 5/12/11 |

## PURGING DATA

| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/16 | WELL SCREEN INTERVAL DEPTH: 5'-15' | STATIC DEPTH TO WATER (feet): 8.76 | PURGE PUMP TYPE OR BAILER: Peristaltic |
|---|---|---|---|---|

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( 15 feet – 8.76 feet) X 0.16 gallons/foot = 1.0 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + ( gallons/foot X feet) + gallons = gallons

| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 9.7 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 9.9 | PURGING INITIATED AT: 1139 | PURGING ENDED AT: 1152 | TOTAL VOLUME PURGED (gallons): 1.84 |
|---|---|---|---|---|

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or mS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | COLOR (describe) | ODOR (describe) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1146 | 1.0 | 1.0 | 0.14 | 8.81 | 5.85 | 22.5 | 117.4 | 0.52 | 17.7 | Clear | None |
| 1149 | 0.42 | 1.42 | 0.14 | 8.81 | 5.86 | 22.4 | 118.2 | 0.54 | 13.4 | Clear | None |
| 1152 | 0.42 | 1.84 | 0.14 | 8.81 | 5.86 | 22.4 | 118.3 | 0.51 | 16.7 | Clear | None |
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WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| SAMPLED BY (PRINT) / AFFILIATION: Curtis R. Mills / AEROSTAR | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 1153 | SAMPLING ENDED AT: 1205 |
|---|---|---|---|
| PUMP OR TUBING DEPTH IN WELL (feet): 9.9 | TUBING MATERIAL CODE: PE | FIELD-FILTERED: Y (N) Filtration Equipment Type: | FILTER SIZE: ____ µm |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING (Y) N (replaced) | DUPLICATE: Y (N) | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLING EQUIPMENT CODE | SAMPLE PUMP FLOW RATE (mL per minute) |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | | |
| MW-8 | 2 | CG | 40ml | HCL | | | VOA/8021 | RFPP | <100 |
| MW-8 | 2 | CG | 40ml | HCL | | | EDB/8011 | RFPP | <100 |
| MW-8 | 1 | AG | 1L | None | | | 8270/SVOC | APP | 530 |
| MW-8 | 1 | AG | 1L | H2SO4 | | | TRPH/FL-PRO | APP | 530 |
| MW-8 | 1 | PE | 500ml | HNO3 | | | Lead/6010 | APP | 530 |
| | | | | | | | | | |

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

**pH:** ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

DEP-SOP-001/01
FS 2200 Groundwater Sampling

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | |
|---|---|
| SITE NAME: Naval Hospital Pensacola | SITE LOCATION: 6000 Hwy 90, Pensacola, Escambia County, Florida |

| | | |
|---|---|---|
| WELL NO: MW-5 | SAMPLE ID: MW-5 | DATE: 5/12/11 |

## PURGING DATA

| | | | | |
|---|---|---|---|---|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/16 | WELL SCREEN INTERVAL DEPTH: 5'-15' | STATIC DEPTH TO WATER (feet): 8.50 | PURGE PUMP TYPE OR BAILER: Peristaltic |

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( 15 feet – 8.50 feet) X 0.16 gallons/foot = 1.04 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + ( gallons/foot X feet) + gallons = gallons

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|---|---|---|---|---|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 9.5 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 9.6 | PURGING INITIATED AT: 1213 | PURGING ENDED AT: 1232 | TOTAL VOLUME PURGED (gallons): 2.72 |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or mS/cm | DISSOLVED OXYGEN (circle units) mg/L or % saturation | TURBIDITY (NTUs) | COLOR (describe) | ODOR (describe) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1220 | 1.04 | 1.04 | 0.14 | 8.63 | 5.56 | 22.8 | 74.7 | 0.47 | 33.0 | slightly cloudy | Petro |
| 1223 | 0.42 | 1.46 | 0.14 | 8.64 | 5.57 | 22.9 | 74.6 | 0.46 | 27.4 | Slightly cloudy | Petro |
| 1226 | 0.42 | 1.88 | 0.14 | 8.64 | 5.57 | 23.1 | 74.5 | 0.45 | 27.8 | Slightly cloudy | Petro |
| 1229 | 0.42 | 2.30 | 0.14 | 8.64 | 5.57 | 23.1 | 74.5 | 0.44 | 26.4 | Slightly cloudy | Petro |
| 1332 | 0.42 | 2.72 | 0.14 | 8.64 | 5.58 | 23.0 | 74.7 | 0.44 | 26.8 | Slightly cloudy | Petro |
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WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: Curtis R. Mills / AEROSTAR | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 1233 | SAMPLING ENDED AT: 1242 |
| PUMP OR TUBING DEPTH IN WELL (feet): 9.6 | TUBING MATERIAL CODE: PE | FIELD-FILTERED: Y (N) Filtration Equipment Type: | FILTER SIZE: ____ µm |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING (Y) N (replaced) | DUPLICATE: Y (N) | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | INTENDED ANALYSIS AND/OR METHOD | SAMPLING EQUIPMENT CODE | SAMPLE PUMP FLOW RATE (mL per minute) |
| MW-5 | 2 | CG | 40ml | HCL | | | VOA/8021 | RFPP | <100 |
| MW-5 | 2 | CG | 40ml | HCL | | | EDB/8011 | RFPP | <100 |
| MW-5 | 1 | AG | 1L | None | | | 8270/SVOC | APP | 530 |
| MW-5 | 1 | AG | 1L | H2SO4 | | | TRPH/FL-PRO | APP | 530 |
| MW-5 | 1 | PE | 500ml | HNO3 | | | Lead/6010 | APP | 530 |
| | | | | | | | | | |

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

**pH:** ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| SITE NAME: Naval Hospital Pensacola | SITE LOCATION: 6000 Hwy 90, Pensacola, Escambia County, Florida | |
|---|---|---|
| WELL NO: MW-6 | SAMPLE ID: MW-6 | DATE: 5/12/11 |

## PURGING DATA

| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/16 | WELL SCREEN INTERVAL DEPTH: 5'-15' | STATIC DEPTH TO WATER (feet): 8.75 | PURGE PUMP TYPE OR BAILER: Peristaltic |
|---|---|---|---|---|

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( 15 feet – 8.75 feet) X 0.16 gallons/foot = 1.0 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + ( gallons/foot X feet) + gallons = gallons

| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 9.7 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 9.8 | PURGING INITIATED AT: 1245 | PURGING ENDED AT: 1258 | TOTAL VOLUME PURGED (gallons): 1.84 |
|---|---|---|---|---|

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or (mS/cm) | DISSOLVED OXYGEN (circle units) (mg/L) or % saturation | TURBIDITY (NTUs) | COLOR (describe) | ODOR (describe) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1252 | 1.0 | 1.0 | 0.14 | 8.80 | 5.68 | 26.5 | 140.2 | 0.51 | 5.96 | Clear | None |
| 1255 | 0.42 | 1.42 | 0.14 | 8.80 | 5.67 | 26.5 | 141.5 | 0.49 | 4.78 | Clear | None |
| 1258 | 0.42 | 1.84 | 0.14 | 8.80 | 5.67 | 26.5 | 141.1 | 0.50 | 4.32 | Clear | None |
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WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| SAMPLED BY (PRINT) / AFFILIATION: Curtis R. Mills / AEROSTAR | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 1259 | SAMPLING ENDED AT: 1310 |
|---|---|---|---|
| PUMP OR TUBING DEPTH IN WELL (feet): 9.8 | TUBING MATERIAL CODE: PE | FIELD-FILTERED: Y (N) Filtration Equipment Type: | FILTER SIZE: ____ µm |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING (Y) N (replaced) | DUPLICATE: Y (N) | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLING EQUIPMENT CODE | SAMPLE PUMP FLOW RATE (mL per minute) |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | | |
| MW-6 | 2 | CG | 40ml | HCL | | | VOA/8021 | RFPP | <100 |
| MW-6 | 2 | CG | 40ml | HCL | | | EDB/8011 | RFPP | <100 |
| MW-6 | 1 | AG | 1L | None | | | 8270/SVOC | APP | 530 |
| MW-6 | 1 | AG | 1L | H2SO4 | | | TRPH/FL-PRO | APP | 530 |
| | 1 | PE | 500ml | HNO3 | | | Lead/6010 | APP | 530 |
| | | | | | | | | | |

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
**pH:** ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP-SOP-001/01
FS 2200 Groundwater Sampling

Form FD 9000-24

# GROUNDWATER SAMPLING LOG

| | |
|---|---|
| SITE NAME: Naval Hospital Pensacola | SITE LOCATION: 6000 Hwy 90, Pensacola, Escambia County, Florida |

| | | |
|---|---|---|
| WELL NO: MW-4 | SAMPLE ID: MW-4 | DATE: 5/12/11 |

## PURGING DATA

| | | | | |
|---|---|---|---|---|
| WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 3/16 | WELL SCREEN INTERVAL DEPTH: 5'-15' | STATIC DEPTH TO WATER (feet): 8.52 | PURGE PUMP TYPE OR BAILER: Peristaltic |

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( 15 feet – 8.52 feet) X 0.16 gallons/foot = 1.04 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + ( gallons/foot X feet) + gallons = gallons

| | | | | |
|---|---|---|---|---|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 9.5 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 9.6 | PURGING INITIATED AT: 1315 | PURGING ENDED AT: 1335 | TOTAL VOLUME PURGED (gallons): 2.6 |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or (S/cm) | DISSOLVED OXYGEN (circle units) (mg/L) or % saturation | TURBIDITY (NTUs) | COLOR (describe) | ODOR (describe) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1323 | 1.04 | 1.04 | 0.13 | 8.63 | 5.45 | 26.1 | 93.0 | 0.38 | 77.6 | Cloudy | Petro |
| 1326 | 0.39 | 1.43 | 0.13 | 8.63 | 5.46 | 26.5 | 93.6 | 0.36 | 74.8 | Cloudy | Petro |
| 1329 | 0.39 | 1.82 | 0.13 | 8.63 | 5.46 | 26.5 | 93.7 | 0.36 | 73.0 | Cloudy | Petro |
| 1332 | 0.39 | 2.21 | 0.13 | 8.63 | 5.46 | 26.5 | 94.1 | 0.35 | 71.8 | Cloudy | Petro |
| 1335 | 0.39 | 2.60 | 0.13 | 8.63 | 5.46 | 26.7 | 94.3 | 0.36 | 73.3 | Cloudy | Petro |
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WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| | | | |
|---|---|---|---|
| SAMPLED BY (PRINT) / AFFILIATION: Curtis R. Mills / AEROSTAR | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 1336 | SAMPLING ENDED AT: 1349 |
| PUMP OR TUBING DEPTH IN WELL (feet): 9.6 | TUBING MATERIAL CODE: PE | FIELD-FILTERED: Y (N) Filtration Equipment Type: | FILTER SIZE: ____ µm |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING (Y) N (replaced) | DUPLICATE: (Y) N | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | INTENDED ANALYSIS AND/OR METHOD | SAMPLING EQUIPMENT CODE | SAMPLE PUMP FLOW RATE (mL per minute) |
| MW-4 | 2 | CG | 40ml | HCL | | | VOA/8021 | RFPP | <100 |
| MW-4 | 2 | CG | 40ml | HCL | | | EDB/8011 | RFPP | <100 |
| MW-4 | 1 | AG | 1L | None | | | 8270/SVOC | APP | 492 |
| MW-4 | 1 | AG | 1L | H2SO4 | | | TRPH/FL-PRO | APP | 492 |
| MW-4 | 1 | PE | 500ml | HNO3 | | | Lead/6010 | APP | 492 |
| | | | | | | | | | |

REMARKS: Dup Collected

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
**pH:** ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

**Form FD 9000-24**

# GROUNDWATER SAMPLING LOG

| SITE NAME: Naval Hospital Pensacola | SITE LOCATION: 6000 Hwy 90, Pensacola, Escambia County, Florida | |
|---|---|---|
| WELL NO: DMW-1 | SAMPLE ID: DMW-1 | DATE: 5/12/11 |

## PURGING DATA

| WELL DIAMETER (inches): 1 | TUBING DIAMETER (inches): 3/16 | WELL SCREEN INTERVAL DEPTH: 25'-30' | STATIC DEPTH TO WATER (feet): 8.70 | PURGE PUMP TYPE OR BAILER: Peristaltic |
|---|---|---|---|---|

**WELL VOLUME PURGE:** 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= ( 30 feet – 8.70 feet) X 0.04 gallons/foot = 0.85 gallons

**EQUIPMENT VOLUME PURGE:** 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + ( gallons/foot X feet) + gallons = gallons

| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 26' | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 26' | PURGING INITIATED AT: 1442 | PURGING ENDED AT: 1508 | TOTAL VOLUME PURGED (gallons): 3.68 |
|---|---|---|---|---|

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units) µmhos/cm or (mS/cm) | DISSOLVED OXYGEN (circle units) (mg/l) or % saturation | TURBIDITY (NTUs) | COLOR (describe) | ODOR (describe) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1456 | 2.0 | 2.0 | 0.14 | 8.77 | 4.66 | 25.6 | 685 | 0.79 | 87 | Cloudy | None |
| 1459 | 0.42 | 2.42 | 0.14 | 8.77 | 4.63 | 25.6 | 685 | 0.78 | 85 | Cloudy | None |
| 1502 | 0.42 | 2.84 | 0.14 | 8.77 | 4.64 | 25.8 | 684 | 0.77 | 88 | Cloudy | None |
| 1505 | 0.42 | 3.26 | 0.14 | 8.77 | 4.65 | 25.9 | 681 | 0.75 | 82 | Cloudy | None |
| 1508 | 0.42 | 3.68 | 0.14 | 8.77 | 4.65 | 25.9 | 681 | 0.75 | 84 | Cloudy | None |
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**WELL CAPACITY** (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
**TUBING INSIDE DIA. CAPACITY** (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

**PURGING EQUIPMENT CODES:** B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

## SAMPLING DATA

| SAMPLED BY (PRINT) / AFFILIATION: Curtis R. Mills / AEROSTAR | SAMPLER(S) SIGNATURE(S): [signature] | SAMPLING INITIATED AT: 1510 | SAMPLING ENDED AT: 1525 |
|---|---|---|---|
| PUMP OR TUBING DEPTH IN WELL (feet): 26' | TUBING MATERIAL CODE: PE | FIELD-FILTERED: Y (N) Filtration Equipment Type: | FILTER SIZE: ____ µm |
| FIELD DECONTAMINATION: PUMP Y (N) | TUBING (Y) N (replaced) | DUPLICATE: Y (N) | |

| SAMPLE CONTAINER SPECIFICATION | | | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD | SAMPLING EQUIPMENT CODE | SAMPLE PUMP FLOW RATE (mL per minute) |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID CODE | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH | | | |
| DMW-1 | 2 | CG | 40ml | HCL | | | VOA/8021 | RFPP | <100 |
| DMW-1 | 2 | CG | 40ml | HCL | | | EDB/8011 | RFPP | <100 |
| DMW-1 | 1 | AG | 1L | None | | | 8270/SVOC | APP | 530 |
| DMW-1 | 1 | AG | 1L | H2SO4 | | | TRPH/FL-PRO | APP | 530 |
| DMW-1 | 1 | PE | 500ml | HNO3 | | | Lead/6010 | APP | 530 |
| | | | | | | | | | |

REMARKS: over purged well to try to lower turbidity

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

**NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
**pH:** ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

## Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

**INSTRUMENT** (MAKE/MODEL#) Oakton pH/Cond. Meter **INSTRUMENT #** NA

**PARAMETER:** *[check only one]*

☐ TEMPERATURE ☒ CONDUCTIVITY ☐ SALINITY ☒ pH ☐ ORP

☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

**STANDARDS:** *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

*Standard A* Oakton pH Standard 4.00

Standard B Oakton pH Standard 7.00

*Standard C* Oakton Conductivity Standard 84

| DATE (yy/mm/dd) | TIME (hr:min) | STD (A, B, C) | STD VALUE | INSTRUMENT RESPONSE | % DEV | CALIBRATED (YES, NO) | TYPE (INIT, CONT) | SAMPLER INITIALS |
|---|---|---|---|---|---|---|---|---|
| 5/12/11 | 1105 | A | 4.01 | 4.00 | 0.25 | Yes | INIT | CM |
| 5/12/11 | 1105 | B | 7.00 | 7.01 | 0.14 | Yes | INIT | CM |
| 5/12/11 | 1105 | C | 84 | 83.7 | 0.36 | Yes | INIT | CM |
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## Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

**INSTRUMENT** (MAKE/MODEL#) 2100P Turbidimeter **INSTRUMENT #** NA

**PARAMETER:** *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP

☒ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

**STANDARDS:** *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

*Standard A* Hach Turbidity Standard 54.5

Standard B Hach Turbidity Standard 5.36

*Standard C* Hach Turbidity Standard 590

| DATE (yy/mm/dd) | TIME (hr:min) | STD (A, B, C) | STD VALUE | INSTRUMENT RESPONSE | % DEV | CALIBRATED (YES, NO) | TYPE (INIT, CONT) | SAMPLER INITIALS |
|---|---|---|---|---|---|---|---|---|
| 5/12/11 | 1105 | A | 54.5 | 53.6 | 1.65 | Yes | INIT | CM |
| 5/12/11 | 1105 | B | 5.36 | 5.36 | 0.00 | Yes | INIT | CM |
| 5/12/11 | 1105 | C | 590 | 589 | 0.17 | Yes | INIT | CM |
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# APPENDIX D

## EMPIRE LAND SURVEYING COMPANY
## TOP OF CASING ELEVATION REPORT

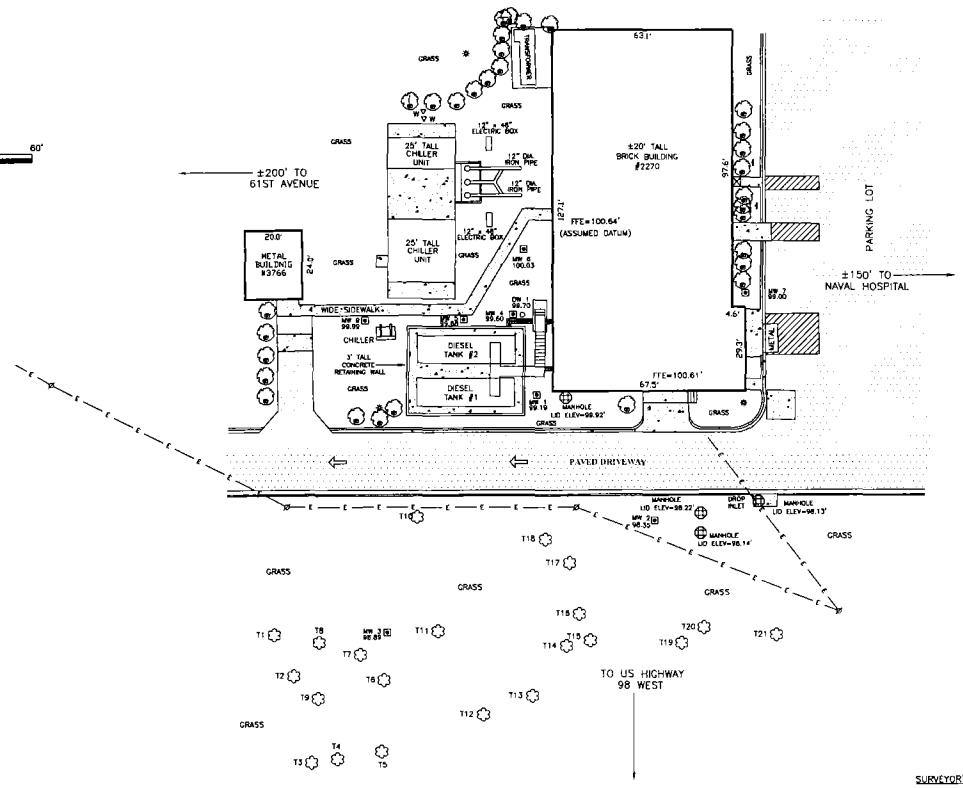
**EMPIRE**
LAND·SURVEYING
INC

# SPECIFIC PURPOSE SURVEY
# MONITORING WELL LOCATIONS

## NOT A BOUNDARY SURVEY
## WEST OF NAVY HOSPITAL
## BUILDING # 2270
## 6000 US HIGHWAY 98 WEST
## PENSACOLA, ESCAMBIA COUNTY, FLORIDA

North ASSUMED

0' 5' 15' 30' 60'
Scale: 1" = 30'




## LEGEND

| | |
|---|---|
| FFE | FINISHED FLOOR ELEVATION |
| A/C | AIR CONDITIONER & CONCRETE PAD |
| R/W | RIGHT OF WAY |
| TP | TRANSFORMER & CONCRETE PAD |
| O.R. | OFFICIAL RECORD BOOK |
| —E— | AERIAL UTILITY WIRES |
| —N— | 6' CHAIN LINK FENCE |
| | COVERED (ROOFED) AREA |
| | CONCRETE |
| | ASPHALT |
| ● | FOUND 1/2" IRON ROD |
| ⊙ | FOUND 1" IRON PIPE(THICK) |
| ⊕ | FOUND 1/2" CAPPED IRON ROD – #4082 |
| ø | POWER POLE |
| ✱ | LIGHT POLE |
| WGE ▽ | UTILITY METER; (W)WATER, (G)GAS, (E)ELECTRIC |
| TBM | TEMPORARY BENCHMARK – SEE SURVEYOR'S REPORT FOR DETAILS |
| T1 | TREE – SEE TREE TABLE FOR TYPE AND SIZE |
| MW 1 | NUMBERED MONITORING WELL (FLUSH WITH 1.5' x 1.5' CONCRETE COLLAR) |
| MW 3 98.85 | ELEVATION OF 98.85 TAKEN ON NORTH SIDE OF 2 INCH P.V.C. AT MONITOR WELL #3 |
| x 98.85 | SPOT ELEVATIONS (IN FEET) ON GROUND NEXT TO MONITOR WELL |
| | SHRUB |
| | 24" DIAMETER MANHOLE COVER |
| DW 2 | DEEP MONITORING WELL |
| | HANDICAP PARKING SIGN POST |

| TREE TABLE | | |
|---|---|---|
| NAME | SIZE | DESCRIPTION |
| T1 | 12" | PINE |
| T2 | 12" | PINE |
| T3 | 12" | PINE |
| T4 | 12" | PINE |
| T5 | 12" | PINE |
| T6 | 12" | PINE |
| T7 | 12" | PINE |
| T8 | 12" | PINE |
| T9 | 18" | WHI. OAK |
| T10 | 12" | PINE |
| T11 | 12" | PINE |
| T12 | 12" | PINE |
| T13 | 12" | PINE |
| T14 | 12" | PINE |
| T15 | 12" | PINE |
| T16 | 12" | PINE |
| T17 | 12" | PINE |
| T18 | 12" | PINE |
| T19 | 12" | PINE |
| T20 | 12" | PINE |
| T21 | 12" | PINE |

SURVEYOR'S REPORT:

1. NOT A BOUNDARY SURVEY.
2. ELEVATIONS FOR MONITORING WELLS AND GROUND SHOTS BESIDE THE MONITORING WELLS ARE REFERENCED TO AEROSTAR ENVIRONMENTAL SERVICES, INC. MONITORING WELL #3 LOCATED 58' WEST AND 86' SOUTH OF BUILDING #2270, CORRY STATION, PENSACOLA, FL. WITH ASSUMED ELEVATION OF 98.85 FEET.
3. ALL ELEVATIONS AND LOCATIONS OF 2" PVC MONITORING WELLS AND 1.5" DEEP MONITORING WELL WERE SHOT ON THE NORTH EDGE OF THE 2" PVC(1.5"PVC) WITH THE CAP OFF.
4. ALL CURBING WAS SHOT FROM THE BACK OF CURB, SIZE AND TYPE AS SHOW ON THE DRAWING.
5. ALL MONITORING WELLS HAVE A 2.0' x 2.0' CONCRETE COLLAR.

*THE UNDERSIGNED CLIENT(S) ACKNOWLEDGE RECEIPT AND ACCEPTANCE OF THIS SURVEY:*

*CURTIS MILLS*

*THE PURPOSE OF THIS SURVEY IS FOR TITLE TRANSACTION AND ITS ACCOMPANYING MORTGAGE. THIS MAP IS CERTIFIED AS MEETING THE FLORIDA MINIMUM TECHNICAL STANDARDS TO THE FOLLOWING AND IS FOR THE BENEFIT OF ONLY THE FOLLOWING LISTED CLIENT(S), AGENT(S) AND COMPANIES:*

CURTIS MILLS
AEROSTAR ENVIRONMENTAL SERVICES, INC.

NOT VALID WITHOUT THE ORIGINAL BLUE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

CLIENT: AEOSTAR ENVIRONMENTAL SERVICES, INC.

SOURCE OF INFORMATION:
FIELD EVIDENCE
DEEDS OF RECORD
PLAT OF RECORD
FROM SURVEYS/DRAWINGS

BEARING BASIS: BACK OF CURB NORTH SIDE OF PAVED DRIVE N90°00'00"E (ASSUMED)

TYPE OF SURVEY: MONITORING WELL LOCATIONS

*GENERAL NOTES:*
*1. Fence locations are drawn are not to scale.*
*2. Fence, utilities, and other improvements are not located unless shown on drawing.*
*3. Footings, foundations, or any other subsurface structures were not located unless otherwise noted.*
*4. All bearings and/or angles and distances are Deed and Actual unless otherwise noted: Deed = (D); Actual Field Measurement = (F); Plat = (P)*
*5. All measurements were made in accordance with United States standards. The accuracy shown meet the standards required in the appropriate land area.*
*6. No Title Search of the Public Records has been performed by this firm and lands shown hereon were not abstracted by this firm for ownership, easements or right-of-ways. The parcel shown hereon may be subject to setbacks, easements, zoning and restrictions that may be found in the Public Records of said County.*


EMPIRE LAND SURVEYING, INC.
PROFESSIONAL LAND SURVEYING • SERVING NORTHWEST FLORIDA
8720 N. PALAFOX STREET, PENSACOLA, FLORIDA 32534
PHONE: 850-477-3745--FAX: 850-477-3705
*LICENSED BUSINESS #6998, STATE OF FLORIDA*


| REVISIONS | FIELD BOOK | DATE |
|---|---|---|
| | | |
| | | |
| | | |
| POSSIBLE ENCROACHMENTS: | | |

**SURVEYORS CERTIFICATE**

*I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS IN FLORIDA ADMINISTRATION CODE CHAPTER 5J-17.050, 5J-17.051 AND 5J-17.052, PURSUANT TO SECTION 472.027 FLORIDA STATUTES.*

MAY 17, 2011 LELAND M. EMPIE, P.S.M.
PROFESSIONAL SURVEYOR AND MAPPER, NO. 5766, STATE OF FLORIDA DATE

SCALE: 1" = 30'
FIELD DATE: 05/11/11
ORDER NO: 087-11
FIELD BOOK: 147/22-23

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# APPENDIX E

## WASTE MANIFESTS

PO# PFSG

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator ID Number: FLCESQG32508
2. Page 1 of 1
3. Emergency Response Phone: Chem Trec 800-424-9300
4. Manifest Tracking Number: 007472246 JJK

**GENERATOR**

5. Generator's Name and Mailing Address: AEROSTAR ENVIRONMENTAL SERV. 803 GOVERNMENT ST., STE. A MOBILE, AL 36602
Generator's Phone: 251-432-2664

Generator's Site Address (if different than mailing address): US NAVAL HOSPITAL-PENSACOLA 6000 US HWY. 98 PENSACOLA, FL 36602 ☐

6. Transporter 1 Company Name: ROBBIE D.WOOD INC. 205-744-8440
U.S. EPA ID Number: ALD067138891

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: PERMA FIX OF SOUTH GEORGIA 1612 JAMES P. RODGERS CIRCLE VALDOSTA, GA 31601
Facility's Phone: 229-244-0474
U.S. EPA ID Number: GAD093380814

| 9a. HM | 9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers No. | Type | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Waste Codes |
|---|---|---|---|---|---|---|
| X | 1. Hazardous waste, liquid, n.o.s.(Water,Methylene Chloride), 9, NA3082, PGIII ( ) | 01 | DM | 55 gal | G | F002 |
| | 2. NON-REGULATED MATERIAL, PGIII ( ) | 010 | DM | 5,000 | P | |
| | 3. NON-REGULATED MATERIAL (PURGE WATER), ( ) | 04 | DM | 220 | G | 0000 |
| | 4. ( ) | | | | | |

14. Special Handling Instructions and Additional Information
9a.2: AV67446 — 1. ERG 171 — PURGE WATER W/ METHYLENE CHLORIDE
9a.3 AV67447 — 2. ERG — SOIL / DRILL CUTTINGS
9a.4 — 3. ERG — PURGE WATER
4. ERG
SO #: 78126694 Doc #: DV146396 Ref #: AER231 Notes(If Any):

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Greg Campbell
Signature: [signature]
Month 05 Day 18 Year 11

**INT'L**

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Charles Colley
Signature: [signature]
Month 05 Day 18 Year 11
Transporter 2 Printed/Typed Name
Signature
Month Day Year

**DESIGNATED FACILITY**

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

| 1. | 2. | 3. | 4. |
|---|---|---|---|
| H040 | H141 | H141 | |

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Lisa Fitzpatrick
Signature: [signature]
Month 5 Day 19 Year 11

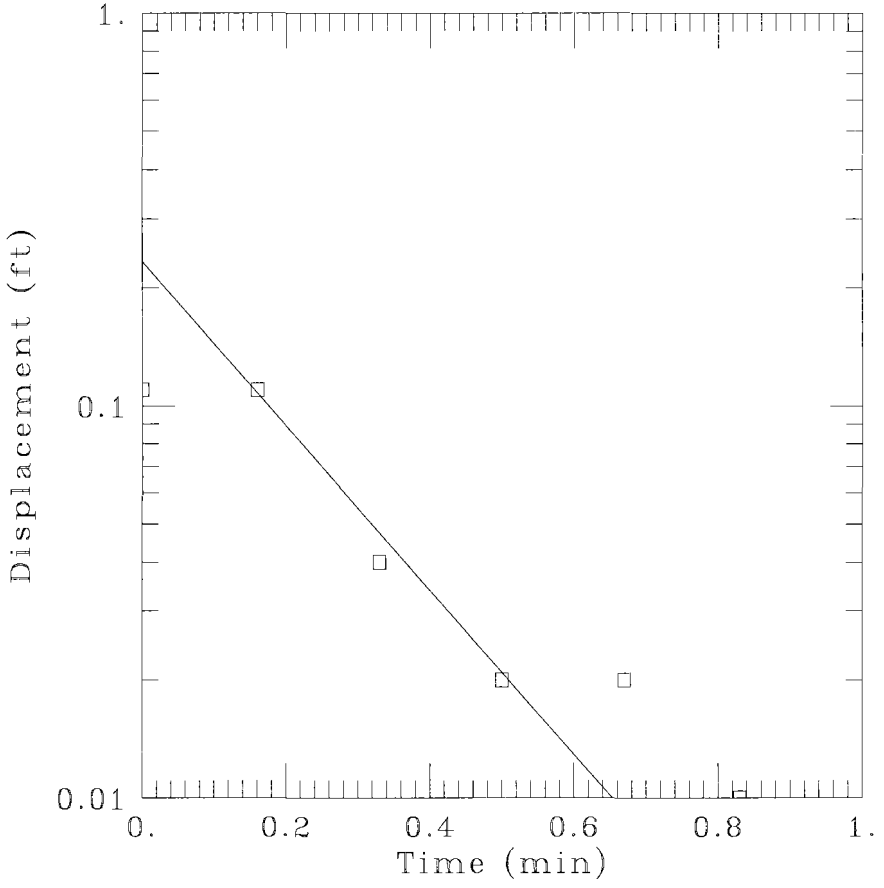
EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

**DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)**

# APPENDIX F

## AQUIFER DATA SHEETS

# MW-1




DATA SET:

C:/AQT/MW-1.DAT

05/31/11

AQUIFER TYPE:

Unconfined

SOLUTION METHOD:

Bouwer-Rice

ESTIMATED PARAMETERS:

K = 0.003764 ft/min

y0 = 0.2328 ft

TEST DATA:

H0 = 0.11 ft

rc = 0.083 ft

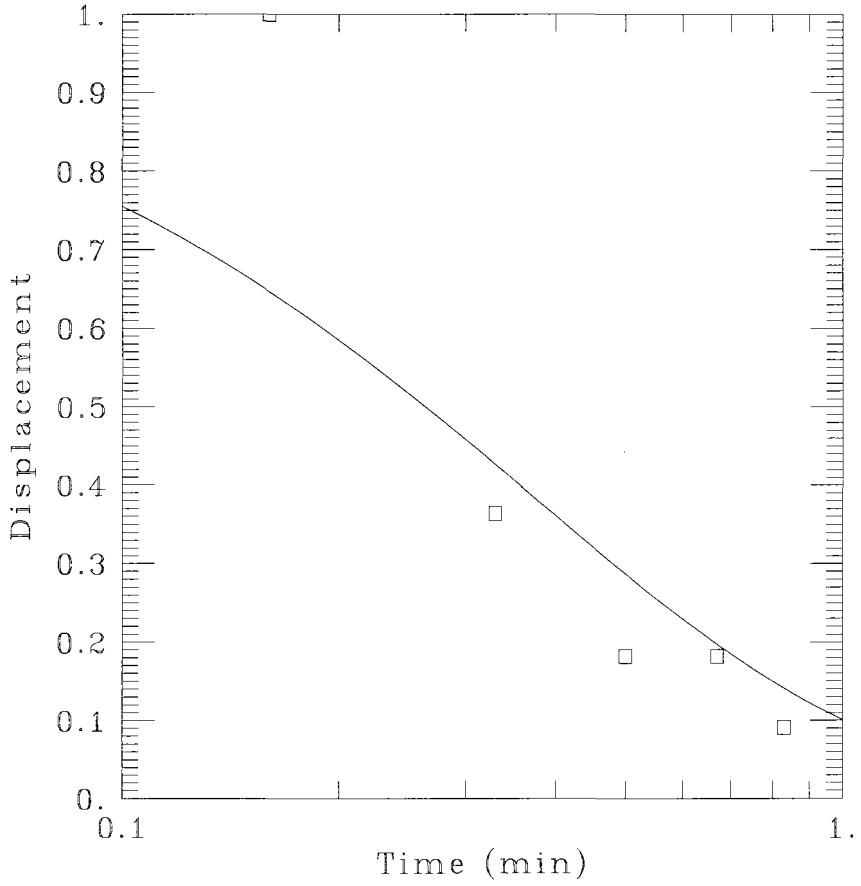
rw = 0.083 ft

L = 15. ft

b = 41.45 ft

H = 10.69 ft

# MW-1



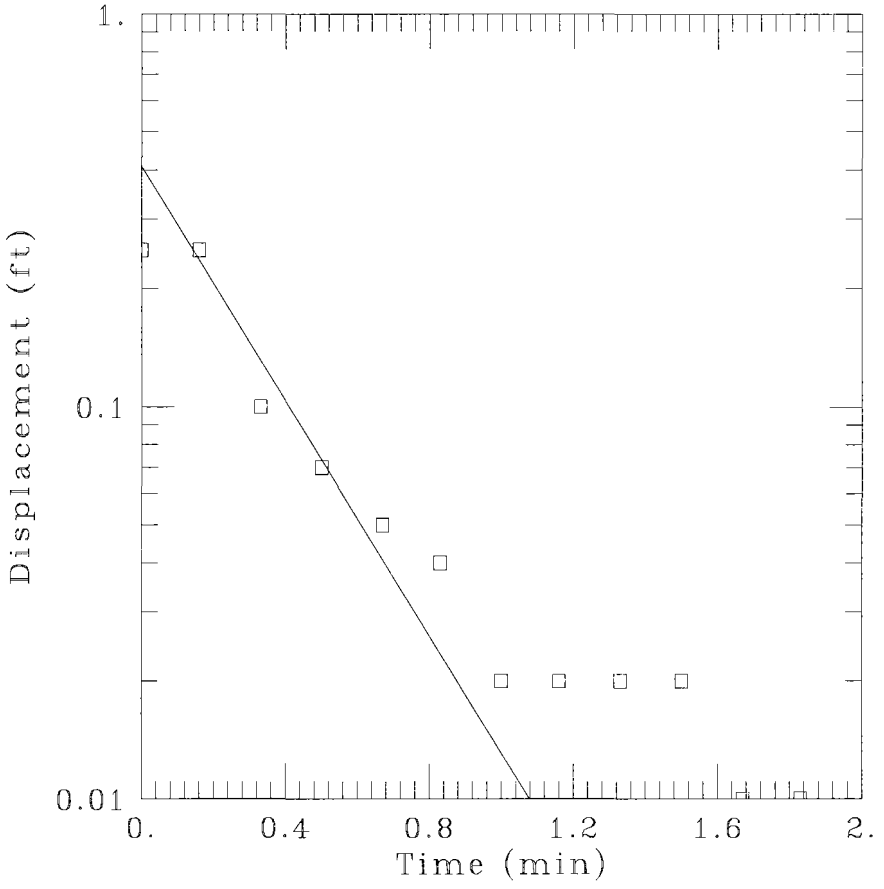

DATA SET:
C:/AQT/MW1.DAT
05/31/11

AQUIFER TYPE:
Confined
SOLUTION METHOD:
Cooper et al.

ESTIMATED PARAMETERS:
T = 0.09031 $ft^2$/min
S = 1.E-08

TEST DATA:
HD = 0.11 ft
rc = 0.083 ft
rw = 0.083 ft

# MW-4



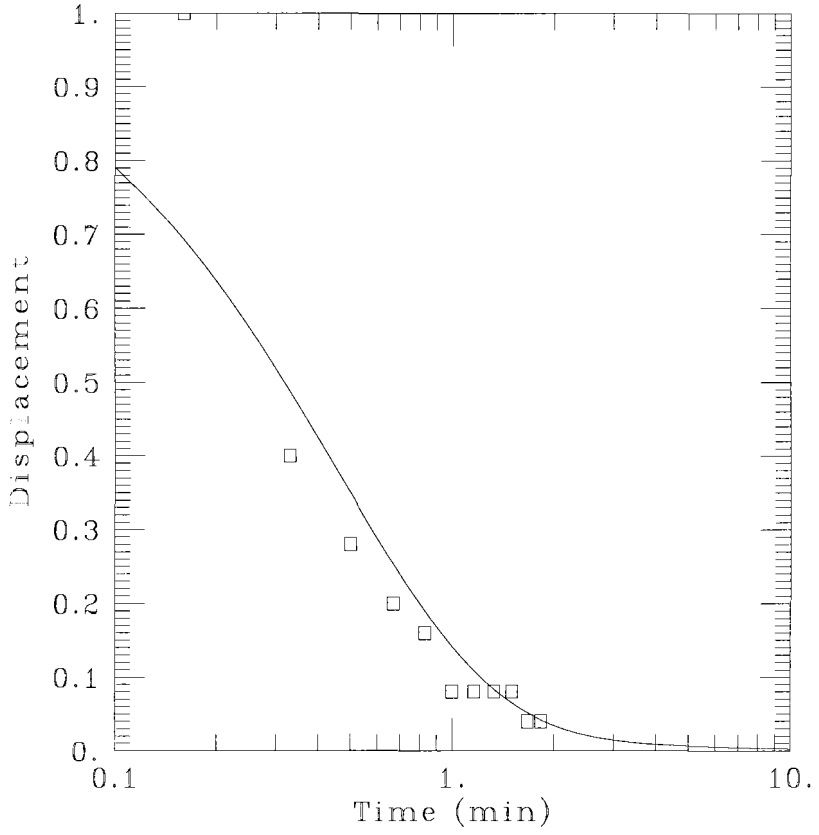

DATA SET:
C:/AQT/MW4.DAT
05/31/11

AQUIFER TYPE:
Unconfined
SOLUTION METHOD:
Bouwer-Rice

ESTIMATED PARAMETERS:
K = 0.003605 ft/min
y0 = 0.4096 ft

TEST DATA:
H0 = 0.25 ft
rc = 0.083 ft
rw = 0.083 ft
L = 10. ft
b = 41.95 ft
H = 6.95 ft

# MW-4




DATA SET:
C:/AQT/MW-4.DAT
05/31/11

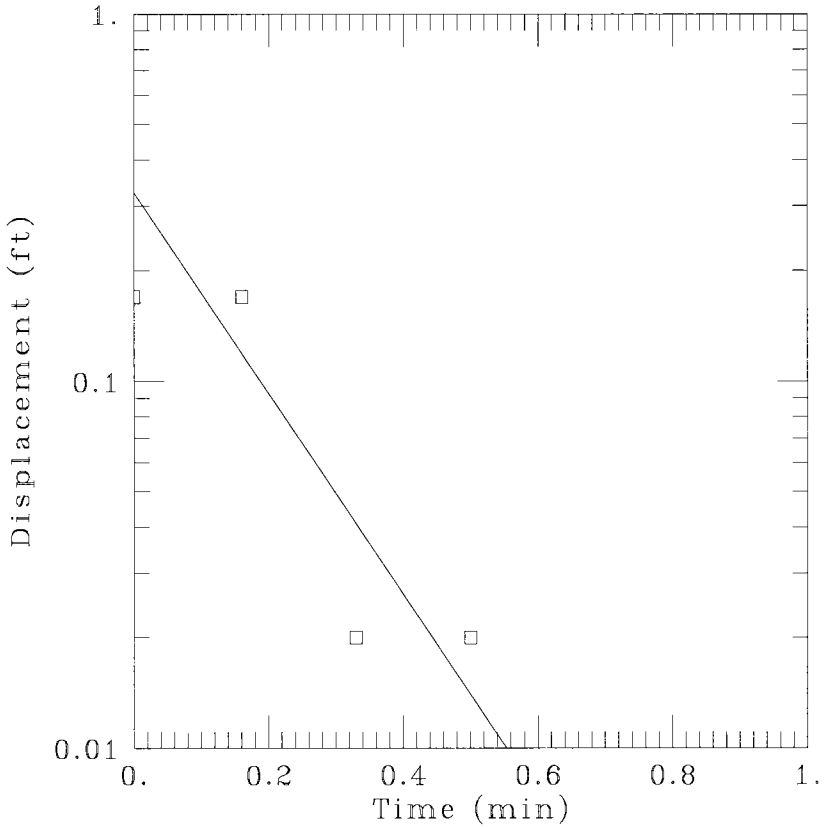
AQUIFER TYPE:
Confined

SOLUTION METHOD:
Cooper et al.

ESTIMATED PARAMETERS:
T = 0.07488 $ft^2/min$
S = 1.E-08

TEST DATA:
H0 = 0.25 ft
rc = 0.083 ft
rw = 0.083 ft

# MW-6




DATA SET:

C:/AQT/MW-6.DAT

05/31/11

AQUIFER TYPE:

Unconfined

SOLUTION METHOD:

Bouwer-Rice

ESTIMATED PARAMETERS:

K = 0.006471 ft/min

y0 = 0.3258 ft

TEST DATA:

H0 = 0.17 ft

rc = 0.083 ft

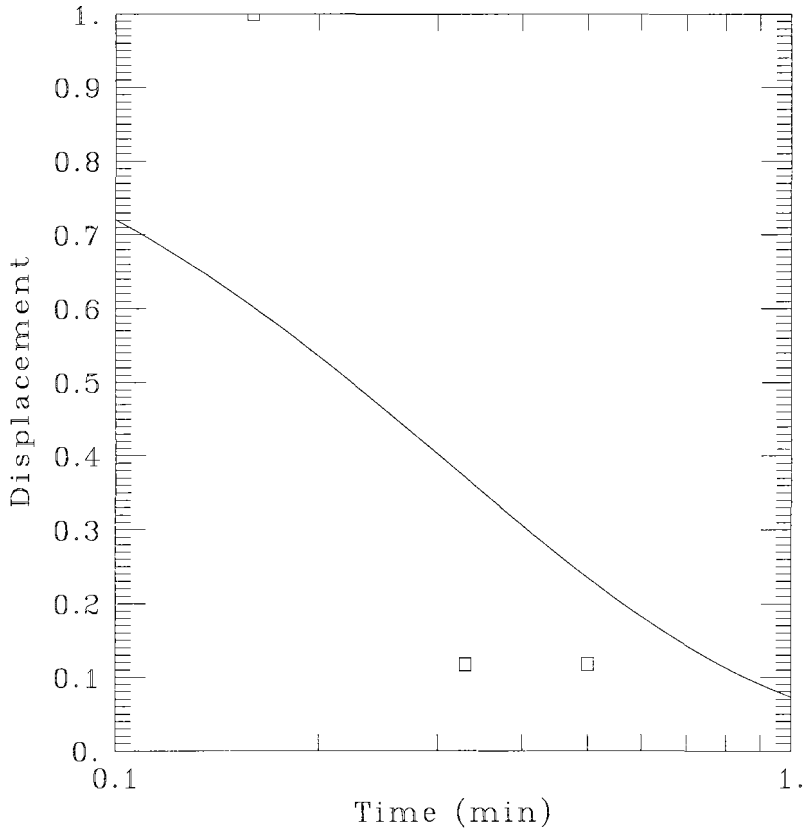
rw = 0.083 ft

L = 10. ft

b = 41.27 ft

H = 6.27 ft

# MW-6




DATA SET:

C:/AQT/MW-6.DAT

05/31/11

AQUIFER TYPE:

Confined

SOLUTION METHOD:

Cooper et al.

ESTIMATED PARAMETERS:

T = 0.1064 $ft^2/min$

S = 1.E-08

TEST DATA:

H0 = 0.17 ft

rc = 0.083 ft

rw = 0.083 ft

# APPENDIX G

## LABORATORY ANALYTICAL REPORTS
## AND
## APPROPRIATE CHAIN OF CUSTODIES

8270 P RESULTS in ppm mg/Kg

DRAFT

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 19.2 | 88.3 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-1 (7-8') | | | | | | | |
| | Lab ID | DC042 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/18/11 | | | | | | | |
| Inst | Run No. | D0418008 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | 0.36 | 0.61 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| 1.27 | Phenanthrene | 0.063 | 0.189 | 0.75 | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 1062.52 | GRO | 15.0 | 45.0 | 626.7 | | | | | |
| 7006.67 | DRO | 15.0 | 45.0 | 4132.9 | | | | | |
| 3834.72 | LRO | 15.0 | 45.0 | 2261.9 | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 90 | | | | | | |
| | | 2-Fluorobiphenyl | 104 | | | | | | |
| | | p-Terphenyl-d14 | 97 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 18.5 | 90.5 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-2 (7-8') | | | | | | | |
| | Lab ID | DC043 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/18/11 | | | | | | | |
| Inst | Run No. | D0418009 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 39.54 | GRO | 15.0 | 45.0 | 23.62 | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 67 | | | | | | |
| | | 2-Fluorobiphenyl | 81 | | | | | | |
| | | p-Terphenyl-d14 | 99 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 19.2 | 96.8 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-3 (7-8') | | | | | | | |
| | Lab ID | DC044 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/18/11 | | | | | | | |
| Inst | Run No. | D0418010 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 72 | | | | | | |
| | | 2-Fluorobiphenyl | 85 | | | | | | |
| | | p-Terphenyl-d14 | 99 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 17.5 | 88.4 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-4 (7-8') | | | | | | | |
| | Lab ID | DC045 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/18/11 | | | | | | | |
| Inst | Run No. | D0418013 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| 1.84 | Naphthalene | 0.071 | 0.213 | 1.19 | Pyrene | 0.090 | 0.270 | 0.50 | 0.77 |
| 7.26 | 2-Methylnaphthalene | 0.080 | 0.240 | 4.69 | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| 3.77 | 1-Methylnaphthalene | 0.080 | 0.240 | 2.44 | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| 2.96 | Fluorene | 0.128 | 0.384 | 1.91 | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| 5.66 | Phenanthrene | 0.063 | 0.189 | 3.66 | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 737.44 | GRO | 15.0 | 45.0 | 476.7 | | | | | |
| 4499.13 | DRO | 15.0 | 45.0 | 2908.3 | | | | | |
| 2479.73 | LRO | 15.0 | 45.0 | 1602.9 | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 85 | | | | | | |
| | | 2-Fluorobiphenyl | 110 | | | | | | |
| | | p-Terphenyl-d14 | 102 | | | | | | |

| Dill Factor | Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 17.2 | 92.4 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-5 (5-6') | | | | | | | |
| | Lab ID | DC046 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418014 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 13.37 | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 69 | | | | | | |
| | | 2-Fluorobiphenyl | 86 | | | | | | |
| | | p-Terphenyl-d14 | 102 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 15.6 | 87.6 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-1P (2-4') | | | | | | | |
| | Lab ID | DC047 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418030 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | 0.16 | 0.22 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 0.15 | 0.21 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | 0.15 | 0.21 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | 0.14 | 0.19 |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 0.12 | 0.16 |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | 0.2 | 0.23 |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| 0.22 | Fluoranthene | 0.107 | 0.321 | 0.16 | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 56.36 | GRO | 15.0 | 45.0 | 41.24 | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| 229.69 | LRO | 15.0 | 45.0 | 168.08 | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 77 | | | | | | |
| | | 2-Fluorobiphenyl | 88 | | | | | | |
| | | p-Terphenyl-d14 | 104 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 17.9 | 93.3 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-1P (0-2') | | | | | | | |
| | Lab ID | DC048 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418031 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 13 | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 72 | | | | | | |
| | | 2-Fluorobiphenyl | 85 | | | | | | |
| | | p-Terphenyl-d14 | 92 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 16.6 | 95.1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-1P (4-6') | | | | | | | |
| | Lab ID | DC049 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418032 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 12.25 | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 61 | | | | | | |
| | | 2-Fluorobiphenyl | 80 | | | | | | |
| | | p-Terphenyl-d14 | 92 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 18.7 | 79.4 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-1P (6-8') | | | | | | | |
| | Lab ID | DC050 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418033 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 14.25 | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 74 | | | | | | |
| | | 2-Fluorobiphenyl | 99 | | | | | | |
| | | p-Terphenyl-d14 | 105 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 18.5 | 94.1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-2P (0-2') | | | | | | | |
| | Lab ID | DC052 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418034 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| 0.2 | Naphthalene | 0.071 | 0.213 | 0.11 | Pyrene | 0.090 | 0.270 | 6.15 | 10.71 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 3.45 | 6 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | 4.11 | 7.16 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 1.71 | 2.98 |
| 0.3 | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | 1.06 | 1.84 |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 2.42 | 4.21 |
| 3.46 | Phenanthrene | 0.063 | 0.189 | 1.99 | Benzo(k)fluoranthene | 0.069 | 0.207 | 2.7 | 4.68 |
| 0.83 | Anthracene | 0.111 | 0.333 | 0.48 | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| 12.42 | Fluoranthene | 0.107 | 0.321 | 7.13 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 1.52 | 2.65 |
| 12.64 | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| 73 | LRO | 15.0 | 45.0 | 41.93 | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 64 | | | | | | |
| | | 2-Fluorobiphenyl | 77 | | | | | | |
| | | p-Terphenyl-d14 | 93 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 15 | 94.4 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-2P (2-4') | | | | | | | |
| | Lab ID | DC053 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418035 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 18.08 | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 73 | | | | | | |
| | | 2-Fluorobiphenyl | 87 | | | | | | |
| | | p-Terphenyl-d14 | 95 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 15.7 | 94.9 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-2P (4-6') | | | | | | | |
| | Lab ID | DC054 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418036 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 11.07 | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 62 | | | | | | |
| | | 2-Fluorobiphenyl | 80 | | | | | | |
| | | p-Terphenyl-d14 | 93 | | | | | | |

| Dill Factor | Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 18.1 | 80.6 |

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|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-2P (6-8') | | | | | | | |
| | Lab ID | DC055 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418037 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 13.12 | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 70 | | | | | | |
| | | 2-Fluorobiphenyl | 89 | | | | | | |
| | | p-Terphenyl-d14 | 96 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 18.6 | 96 |

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|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-3P (0-2') | | | | | | | |
| | Lab ID | DC056 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418038 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| 0.13 | Naphthalene | 0.071 | 0.213 | 0.07 | Pyrene | 0.090 | 0.270 | 4.40 | 7.86 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 3.04 | 5.43 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | 3.85 | 6.87 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 2.50 | 4.46 |
| 0.22 | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | 4.14 | 7.39 |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 5.62 | 10.04 |
| 2.25 | Phenanthrene | 0.063 | 0.189 | 1.26 | Benzo(k)fluoranthene | 0.069 | 0.207 | 3.3 | 5.85 |
| 0.67 | Anthracene | 0.111 | 0.333 | 0.38 | Dibenzo(a,h)anthracene | 0.116 | 0.348 | 0.29 | 0.52 |
| 8.52 | Fluoranthene | 0.107 | 0.321 | 4.77 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 2.41 | 4.3 |
| 11.68 | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| 64.67 | LRO | 15.0 | 45.0 | 36.22 | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 68 | | | | | | |
| | | 2-Fluorobiphenyl | 78 | | | | | | |
| | | p-Terphenyl-d14 | 94 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 16.1 | 95 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-3P (2-4') | | | | | | | |
| | Lab ID | DC057 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418039 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | 0.97 | 1.49 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 0.60 | 0.92 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | 0.86 | 1.32 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 0.33 | 0.51 |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | 0.69 | 1.05 |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 0.58 | 0.89 |
| 0.44 | Phenanthrene | 0.063 | 0.189 | 0.29 | Benzo(k)fluoranthene | 0.069 | 0.207 | 0.7 | 1.03 |
| 0.4 | Anthracene | 0.111 | 0.333 | 0.26 | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| 1.62 | Fluoranthene | 0.107 | 0.321 | 1.06 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 0.34 | 0.52 |
| 11.73 | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 78 | | | | | | |
| | | 2-Fluorobiphenyl | 94 | | | | | | |
| | | p-Terphenyl-d14 | 103 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 18.2 | 95.9 |

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|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-3P (4-6') | | | | | | | |
| | Lab ID | DC058 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418040 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | 1.82 | 3.18 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 1.05 | 1.84 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | 1.39 | 2.43 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 0.49 | 0.85 |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | 1.03 | 1.8 |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 1.28 | 2.23 |
| 0.84 | Phenanthrene | 0.063 | 0.189 | 0.48 | Benzo(k)fluoranthene | 0.069 | 0.207 | 0.9 | 1.53 |
| 0.78 | Anthracene | 0.111 | 0.333 | 0.45 | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| 3.38 | Fluoranthene | 0.107 | 0.321 | 1.94 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 0.47 | 0.82 |
| 13.57 | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 63 | | | | | | |
| | | 2-Fluorobiphenyl | 72 | | | | | | |
| | | p-Terphenyl-d14 | 88 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 19.5 | 80.7 |

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|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-3P (6-8') | | | | | | | |
| | Lab ID | DC059 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418041 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | 1.51 | 2.37 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 0.97 | 1.52 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | 1.37 | 2.16 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 0.73 | 1.15 |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | 1.29 | 2.03 |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 1.28 | 2.01 |
| 0.69 | Phenanthrene | 0.063 | 0.189 | 0.44 | Benzo(k)fluoranthene | 0.069 | 0.207 | 1.3 | 2.09 |
| 0.64 | Anthracene | 0.111 | 0.333 | 0.41 | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| 2.41 | Fluoranthene | 0.107 | 0.321 | 1.53 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 0.76 | 1.2 |
| 11.5 | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 84 | | | | | | |
| | | 2-Fluorobiphenyl | 102 | | | | | | |
| | | p-Terphenyl-d14 | 109 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 17.3 | 93.8 |

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|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-4P (6") | | | | | | | |
| | Lab ID | DC064 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0419011 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| 26.53 | Naphthalene | 0.071 | 0.213 | 16.35 | Pyrene | 0.090 | 0.270 | **222.95** | **361.79** |
| 8.27 | 2-Methylnaphthalene | 0.080 | 0.240 | 5.10 | Benzo(a)anthracene | 0.054 | 0.162 | **189.23** | **307.07** |
| 4.98 | 1-Methylnaphthalene | 0.080 | 0.240 | 3.07 | Chrysene | 0.094 | 0.282 | **183.23** | **297.33** |
| 0.17 | Acenaphthylene | 0.104 | 0.312 | 0.10 | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 49.27 | 79.96 |
| 26.55 | Acenaphthene | 0.221 | 0.663 | 16.36 | Benzo(a)pyrene | 0.092 | 0.276 | **150.49** | **244.2** |
| 12.12 | Fluorene | 0.128 | 0.384 | 7.47 | Benzo(b)fluoranthene | 0.056 | 0.168 | **408.08** | **662.2** |
| 91.66 | Phenanthrene | 0.063 | 0.189 | 56.48 | Benzo(k)fluoranthene | 0.069 | 0.207 | **207.7** | **336.99** |
| 34.84 | Anthracene | 0.111 | 0.333 | 21.47 | Dibenzo(a,h)anthracene | 0.116 | 0.348 | 9.56 | 15.52 |
| **378.16** | Fluoranthene | 0.107 | 0.321 | **233.04** | Benzo(g,h,i)perylene | 0.077 | 0.231 | 44.86 | 72.8 |
| 17.82 | GRO | 15.0 | 45.0 | U | | | | | |
| 374.42 | DRO | 15.0 | 45.0 | 230.73 | | | | | |
| 3346.72 | LRO | 15.0 | 45.0 | 2062.39 | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 65 | | | | | | |
| | | 2-Fluorobiphenyl | 80 | | | | | | |
| | | p-Terphenyl-d14 | 110 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 16.5 | 93.5 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-4P (1-2') | | | | | | | |
| | Lab ID | DC065 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0419012 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 12.4 | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 64 | | | | | | |
| | | 2-Fluorobiphenyl | 80 | | | | | | |
| | | p-Terphenyl-d14 | 85 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 15.4 | 94.7 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-4P (2-3') | | | | | | | |
| | Lab ID | DC066 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0419013 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 17.99 | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 71 | | | | | | |
| | | 2-Fluorobiphenyl | 78 | | | | | | |
| | | p-Terphenyl-d14 | 91 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 15.6 | 96.4 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-4P (3-4') | | | | | | | |
| | Lab ID | DC067 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419016 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 11.41 | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 60 | | | | | | |
| | | 2-Fluorobiphenyl | 80 | | | | | | |
| | | p-Terphenyl-d14 | 89 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 14.6 | 94.7 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-4P (4-5') | | | | | | | |
| | Lab ID | DC068 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419017 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 78 | | | | | | |
| | | 2-Fluorobiphenyl | 89 | | | | | | |
| | | p-Terphenyl-d14 | 96 | | | | | | |

| Dill Factor | Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 16.1 | 94.8 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-4P (5-6') | | | | | | | |
| | Lab ID | DC069 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419018 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 86 | | | | | | |
| | | 2-Fluorobiphenyl | 96 | | | | | | |
| | | p-Terphenyl-d14 | 103 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 15.8 | 87.4 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-4P (6-7') | | | | | | | |
| | Lab ID | DC070 | | | | | | | |
| | Collection Date | 1/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419019 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 66 | | | | | | |
| | | 2-Fluorobiphenyl | 87 | | | | | | |
| | | p-Terphenyl-d14 | 95 | | | | | | |

| Dill Factor | Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 16.6 | 98 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-5P (6") | | | | | | | |
| | Lab ID | DC071 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419020 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | 13.61 | 22.14 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 5.75 | 9.35 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | 8.40 | 13.67 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 5.02 | 8.17 |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | 6.55 | 10.65 |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 10.71 | 17.42 |
| 4.89 | Phenanthrene | 0.063 | 0.189 | 3.01 | Benzo(k)fluoranthene | 0.069 | 0.207 | 5.7 | 9.26 |
| 0.64 | Anthracene | 0.111 | 0.333 | 0.39 | Dibenzo(a,h)anthracene | 0.116 | 0.348 | 0.89 | 1.45 |
| 27.53 | Fluoranthene | 0.107 | 0.321 | 16.92 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 4.92 | 8.01 |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| 218.99 | LRO | 15.0 | 45.0 | 134.61 | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 77 | | | | | | |
| | | 2-Fluorobiphenyl | 85 | | | | | | |
| | | p-Terphenyl-d14 | 105 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 16 | 97.8 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AEP-5P (1-2') | | | | | | | |
| | Lab ID | DC072 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419021 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | 2.82 | 4.41 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 1.09 | 1.7 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | 1.74 | 2.73 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 0.93 | 1.45 |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | 1.24 | 1.94 |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 1.75 | 2.74 |
| 0.88 | Phenanthrene | 0.063 | 0.189 | 0.56 | Benzo(k)fluoranthene | 0.069 | 0.207 | 1.1 | 1.66 |
| 0.15 | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| 5.6 | Fluoranthene | 0.107 | 0.321 | 3.58 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 0.95 | 1.48 |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 77 | | | | | | |
| | | 2-Fluorobiphenyl | 82 | | | | | | |
| | | p-Terphenyl-d14 | 103 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 17.5 | 96.3 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-5P (2-3') | | | | | | | |
| | Lab ID | DC073 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419022 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | 0.19 | 0.32 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 0.15 | 0.25 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | 0.19 | 0.32 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | 0.15 | 0.26 |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 0.11 | 0.18 |
| 0.1 | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | 0.1 | 0.24 |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| 0.36 | Fluoranthene | 0.107 | 0.321 | 0.21 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 0.08 | 0.13 |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 75 | | | | | | |
| | | 2-Fluorobiphenyl | 91 | | | | | | |
| | | p-Terphenyl-d14 | 100 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 15.9 | 93.7 |

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|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-5P (3-4') | | | | | | | |
| | Lab ID | DC074 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419023 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 79 | | | | | | |
| | | 2-Fluorobiphenyl | 87 | | | | | | |
| | | p-Terphenyl-d14 | 99 | | | | | | |

| Dill Factor | . Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 16.1 | 92.8 |

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|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-5P (4-5') | | | | | | | |
| | Lab ID | DC075 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419024 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | 2.67 | 3.99 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 0.94 | 1.41 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | 1.63 | 2.43 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 0.76 | 1.13 |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | 1.10 | 1.64 |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 1.45 | 2.17 |
| 0.84 | Phenanthrene | 0.063 | 0.189 | 0.56 | Benzo(k)fluoranthene | 0.069 | 0.207 | 1.4 | 2.04 |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | 0.15 | 0.22 |
| 5.01 | Fluoranthene | 0.107 | 0.321 | 3.35 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 0.75 | 1.12 |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 65 | | | | | | |
| | | 2-Fluorobiphenyl | 88 | | | | | | |
| | | p-Terphenyl-d14 | 101 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 15.9 | 95.2 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-5P (5-6') | | | | | | | |
| | Lab ID | DC076 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419025 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 74 | | | | | | |
| | | 2-Fluorobiphenyl | 89 | | | | | | |
| | | p-Terphenyl-d14 | 98 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 16.3 | 84.1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-5P (6-7') | | | | | | | |
| | Lab ID | DC077 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419026 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | 0.09 | 0.13 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 0.09 | 0.12 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | 0.1 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| 0.16 | Fluoranthene | 0.107 | 0.321 | 0.12 | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 79 | | | | | | |
| | | 2-Fluorobiphenyl | 91 | | | | | | |
| | | p-Terphenyl-d14 | 102 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 16.5 | 97.4 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-1P (6") | | | | | | | |
| | Lab ID | DC079 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419027 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| 0.32 | Naphthalene | 0.071 | 0.213 | 0.20 | Pyrene | 0.090 | 0.270 | 15.04 | 24.17 |
| 0.28 | 2-Methylnaphthalene | 0.080 | 0.240 | 0.17 | Benzo(a)anthracene | 0.054 | 0.162 | 11.87 | 19.08 |
| 0.32 | 1-Methylnaphthalene | 0.080 | 0.240 | 0.20 | Chrysene | 0.094 | 0.282 | 12.97 | 20.85 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 9.82 | 15.78 |
| 0.78 | Acenaphthene | 0.221 | 0.663 | 0.49 | Benzo(a)pyrene | 0.092 | 0.276 | 14.72 | 23.65 |
| 0.38 | Fluorene | 0.128 | 0.384 | 0.24 | Benzo(b)fluoranthene | 0.056 | 0.168 | 13.68 | 21.98 |
| 11.95 | Phenanthrene | 0.063 | 0.189 | 7.44 | Benzo(k)fluoranthene | 0.069 | 0.207 | 10.8 | 17.28 |
| 3.39 | Anthracene | 0.111 | 0.333 | 2.11 | Dibenzo(a,h)anthracene | 0.116 | 0.348 | 1.62 | 2.6 |
| 28.13 | Fluoranthene | 0.107 | 0.321 | 17.50 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 9.01 | 14.48 |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| 416.7 | LRO | 15.0 | 45.0 | 259.29 | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 68 | | | | | | |
| | | 2-Fluorobiphenyl | 85 | | | | | | |
| | | p-Terphenyl-d14 | 123 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 14.6 | 95.8 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-2P (6") | | | | | | | |
| | Lab ID | DC080 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419028 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| 2.26 | Naphthalene | 0.071 | 0.213 | 1.62 | Pyrene | 0.090 | 0.270 | 60.49 | 84.6 |
| 0.56 | 2-Methylnaphthalene | 0.080 | 0.240 | 0.40 | Benzo(a)anthracene | 0.054 | 0.162 | 42.75 | 59.8 |
| 0.5 | 1-Methylnaphthalene | 0.080 | 0.240 | 0.36 | Chrysene | 0.094 | 0.282 | 47.04 | 65.79 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 21.53 | 30.12 |
| 2.99 | Acenaphthene | 0.221 | 0.663 | 2.14 | Benzo(a)pyrene | 0.092 | 0.276 | 45.45 | 63.57 |
| 1.56 | Fluorene | 0.128 | 0.384 | 1.12 | Benzo(b)fluoranthene | 0.056 | 0.168 | 65.60 | 91.75 |
| 44.78 | Phenanthrene | 0.063 | 0.189 | 32.02 | Benzo(k)fluoranthene | 0.069 | 0.207 | 31.8 | 44.51 |
| 13.58 | Anthracene | 0.111 | 0.333 | 9.71 | Dibenzo(a,h)anthracene | 0.116 | 0.348 | 4.44 | 6.21 |
| 96.86 | Fluoranthene | 0.107 | 0.321 | 69.25 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 17.56 | 24.56 |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| 1079.47 | LRO | 15.0 | 45.0 | 771.78 | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 69 | | | | | | |
| | | 2-Fluorobiphenyl | 82 | | | | | | |
| | | p-Terphenyl-d14 | 126 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 16.2 | 96.8 |

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|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-3P (6") | | | | | | | |
| | Lab ID | DC081 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419032 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | 2.60 | 4.07 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 1.62 | 2.54 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | 1.97 | 3.09 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 1.18 | 1.85 |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | 1.90 | 2.98 |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 1.80 | 2.83 |
| 2.08 | Phenanthrene | 0.063 | 0.189 | 1.33 | Benzo(k)fluoranthene | 0.069 | 0.207 | 1.6 | 2.56 |
| 0.54 | Anthracene | 0.111 | 0.333 | 0.34 | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| 4.98 | Fluoranthene | 0.107 | 0.321 | 3.18 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 1.21 | 1.89 |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 73 | | | | | | |
| | | 2-Fluorobiphenyl | 88 | | | | | | |
| | | p-Terphenyl-d14 | 104 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 16.6 | 87.6 |

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|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-6 (8-9') | | | | | | | |
| | Lab ID | DC083 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419033 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| 718.53 | DRO | 15.0 | 45.0 | 494.12 | | | | | |
| 497.65 | LRO | 15.0 | 45.0 | 342.23 | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 75 | | | | | | |
| | | 2-Fluorobiphenyl | 80 | | | | | | |
| | | p-Terphenyl-d14 | 92 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 14.4 | 95.4 |

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|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-6 (7-8') | | | | | | | |
| | Lab ID | DC084 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419034 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 76 | | | | | | |
| | | 2-Fluorobiphenyl | 88 | | | | | | |
| | | p-Terphenyl-d14 | 103 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 13.8 | 97.8 |

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|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-6P (6") | | | | | | | |
| | Lab ID | DC085 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419038 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| 1.27 | Naphthalene | 0.071 | 0.213 | 0.94 | Pyrene | 0.090 | 0.270 | 46.95 | 63.37 |
| 0.43 | 2-Methylnaphthalene | 0.080 | 0.240 | 0.32 | Benzo(a)anthracene | 0.054 | 0.162 | 40.14 | 54.18 |
| 0.5 | 1-Methylnaphthalene | 0.080 | 0.240 | 0.37 | Chrysene | 0.094 | 0.282 | 46.75 | 63.1 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 22.93 | 30.95 |
| 3.1 | Acenaphthene | 0.221 | 0.663 | 2.30 | Benzo(a)pyrene | 0.092 | 0.276 | 18.27 | 24.66 |
| 1.02 | Fluorene | 0.128 | 0.384 | 0.76 | Benzo(b)fluoranthene | 0.056 | 0.168 | 44.15 | 59.58 |
| 23.84 | Phenanthrene | 0.063 | 0.189 | 17.66 | Benzo(k)fluoranthene | 0.069 | 0.207 | 41.0 | 55.38 |
| 6.59 | Anthracene | 0.111 | 0.333 | 4.88 | Dibenzo(a,h)anthracene | 0.116 | 0.348 | 4.53 | 6.11 |
| 67.6 | Fluoranthene | 0.107 | 0.321 | 50.09 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 17.98 | 24.27 |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| 1086.16 | LRO | 15.0 | 45.0 | 804.78 | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 77 | | | | | | |
| | | 2-Fluorobiphenyl | 87 | | | | | | |
| | | p-Terphenyl-d14 | 139 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 14.9 | 93.9 |

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|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-6P (1-2') | | | | | | | |
| | Lab ID | DC086 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419039 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 77 | | | | | | |
| | | 2-Fluorobiphenyl | 82 | | | | | | |
| | | p-Terphenyl-d14 | 108 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 13.2 | 89.5 |

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|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-7P (6") | | | | | | | |
| | Lab ID | DC093 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419040 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| 6.87 | Naphthalene | 0.071 | 0.213 | 5.82 | Pyrene | 0.090 | 0.270 | **151.48** | **178.96** |
| 2.02 | 2-Methylnaphthalene | 0.080 | 0.240 | 1.71 | Benzo(a)anthracene | 0.054 | 0.162 | **110.10** | **130.07** |
| 1.44 | 1-Methylnaphthalene | 0.080 | 0.240 | 1.22 | Chrysene | 0.094 | 0.282 | **136.01** | **160.68** |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 28.39 | 33.54 |
| 7.58 | Acenaphthene | 0.221 | 0.663 | 6.42 | Benzo(a)pyrene | 0.092 | 0.276 | 35.01 | 41.36 |
| 3.14 | Fluorene | 0.128 | 0.384 | 2.66 | Benzo(b)fluoranthene | 0.056 | 0.168 | **172.91** | **204.28** |
| 57.37 | Phenanthrene | 0.063 | 0.189 | 48.56 | Benzo(k)fluoranthene | 0.069 | 0.207 | 78.1 | 92.24 |
| 19.13 | Anthracene | 0.111 | 0.333 | 16.19 | Dibenzo(a,h)anthracene | 0.116 | 0.348 | 6.34 | 7.49 |
| **195.78** | Fluoranthene | 0.107 | 0.321 | **165.72** | Benzo(g,h,i)perylene | 0.077 | 0.231 | 22.72 | 26.84 |
| | GRO | 15.0 | 45.0 | U | | | | | |
| 63.52 | DRO | 15.0 | 45.0 | 53.77 | | | | | |
| 1820.36 | LRO | 15.0 | 45.0 | 1540.85 | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 69 | | | | | | |
| | | 2-Fluorobiphenyl | 83 | | | | | | |
| | | p-Terphenyl-d14 | 126 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 15.6 | 94.7 |

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|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-7P (1-2') | | | | | | | |
| | Lab ID | DC094 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419041 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | 0.56 | 0.82 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 0.43 | 0.64 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | 0.51 | 0.76 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 0.22 | 0.33 |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | 0.48 | 0.71 |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 0.45 | 0.67 |
| 0.33 | Phenanthrene | 0.063 | 0.189 | 0.22 | Benzo(k)fluoranthene | 0.069 | 0.207 | 0.3 | 0.49 |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| 0.83 | Fluoranthene | 0.107 | 0.321 | 0.56 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 0.21 | 0.31 |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 72 | | | | | | |
| | | 2-Fluorobiphenyl | 86 | | | | | | |
| | | p-Terphenyl-d14 | 113 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 14.4 | 95 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-7P (2-3') | | | | | | | |
| | Lab ID | DC095 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419042 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | 0.10 | 0.13 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 0.13 | 0.18 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | 0.12 | 0.16 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 0.07 | 0.1 |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | 0.1 | 0.14 |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| 0.15 | Fluoranthene | 0.107 | 0.321 | 0.11 | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 70 | | | | | | |
| | | 2-Fluorobiphenyl | 84 | | | | | | |
| | | p-Terphenyl-d14 | 104 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 16 | 96.6 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-7P (3-4') | | | | | | | |
| | Lab ID | DC096 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419043 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 78 | | | | | | |
| | | 2-Fluorobiphenyl | 88 | | | | | | |
| | | p-Terphenyl-d14 | 106 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 14.5 | 94.7 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-7P (4-5') | | | | | | | |
| | Lab ID | DC097 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419044 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | 0.20 | 0.28 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 0.19 | 0.26 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | 0.33 | 0.46 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 0.17 | 0.23 |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | 0.40 | 0.55 |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 0.42 | 0.58 |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | 0.3 | 0.43 |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| 0.22 | Fluoranthene | 0.107 | 0.321 | 0.16 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 0.21 | 0.29 |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 78 | | | | | | |
| | | 2-Fluorobiphenyl | 84 | | | | | | |
| | | p-Terphenyl-d14 | 110 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 15.2 | 93.6 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-7P (5-6') | | | | | | | |
| | Lab ID | DC098 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419045 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 73 | | | | | | |
| | | 2-Fluorobiphenyl | 81 | | | | | | |
| | | p-Terphenyl-d14 | 106 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 16 | 87.6 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-7P (6-7') | | | | | | | |
| | Lab ID | DC099 | | | | | | | |
| | Collection Date | | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419046 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | 0.43 | 0.6 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 0.34 | 0.48 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | 0.46 | 0.64 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 0.18 | 0.25 |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | 0.44 | 0.62 |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 0.54 | 0.75 |
| 0.17 | Phenanthrene | 0.063 | 0.189 | 0.12 | Benzo(k)fluoranthene | 0.069 | 0.207 | 0.4 | 0.61 |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| 0.59 | Fluoranthene | 0.107 | 0.321 | 0.42 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 0.21 | 0.3 |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 73 | | | | | | |
| | | 2-Fluorobiphenyl | 87 | | | | | | |
| | | p-Terphenyl-d14 | 110 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 12.9 | 97.5 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AEP-8P (6") | | | | | | | |
| | Lab ID | DC101 | | | | | | | |
| | Collection Date | | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419047 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | 0.35 | 0.44 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 0.28 | 0.35 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | 0.37 | 0.47 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 0.14 | 0.17 |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | 0.36 | 0.45 |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 0.39 | 0.49 |
| 0.14 | Phenanthrene | 0.063 | 0.189 | 0.11 | Benzo(k)fluoranthene | 0.069 | 0.207 | 0.3 | 0.37 |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| 0.44 | Fluoranthene | 0.107 | 0.321 | 0.35 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 0.18 | 0.23 |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 65 | | | | | | |
| | | 2-Fluorobiphenyl | 80 | | | | | | |
| | | p-Terphenyl-d14 | 105 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 13.6 | 96.1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-8P (1-2') | | | | | | | |
| | Lab ID | DC102 | | | | | | | |
| | Collection Date | | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419048 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 68 | | | | | | |
| | | 2-Fluorobiphenyl | 87 | | | | | | |
| | | p-Terphenyl-d14 | 107 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 17 | 96.4 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-7 (7-8') | | | | | | | |
| | Lab ID | DC109 | | | | | | | |
| | Collection Date | 4/20/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419049 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 73 | | | | | | |
| | | 2-Fluorobiphenyl | 87 | | | | | | |
| | | p-Terphenyl-d14 | 106 | | | | | | |

| Dill Factor | . Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 11 | 97.6 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-9P (6") | | | | | | | |
| | Lab ID | DC110 | | | | | | | |
| | Collection Date | 4/20/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419050 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | 0.43 | 0.46 |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 0.31 | 0.33 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | 0.47 | 0.5 |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | 0.60 | 0.64 |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 0.47 | 0.5 |
| 0.13 | Phenanthrene | 0.063 | 0.189 | 0.12 | Benzo(k)fluoranthene | 0.069 | 0.207 | 0.7 | 0.73 |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| 0.48 | Fluoranthene | 0.107 | 0.321 | 0.45 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 0.26 | 0.28 |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 73 | | | | | | |
| | | 2-Fluorobiphenyl | 90 | | | | | | |
| | | p-Terphenyl-d14 | 110 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 12.1 | 94.7 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-9P (1-2') | | | | | | | |
| | Lab ID | DC111 | | | | | | | |
| | Collection Date | 4/20/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419051 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 75 | | | | | | |
| | | 2-Fluorobiphenyl | 84 | | | | | | |
| | | p-Terphenyl-d14 | 104 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 11.8 | 95.7 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | **AES-11P (6")** | | | | | | | |
| | Lab ID | DC112 | | | | | | | |
| | Collection Date | 4/20/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419055 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 67 | | | | | | |
| | | 2-Fluorobiphenyl | 81 | | | | | | |
| | | p-Terphenyl-d14 | 104 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 11.1 | 93.7 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | **AES-11P (1-2')** | | | | | | | |
| | Lab ID | DC113 | | | | | | | |
| | Collection Date | 4/20/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419056 | | | | | | | Inst |
| result | Sample matrix | S | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **mg/Kg** | | MDL | ppm | **mg/Kg** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 80 | | | | | | |
| | | 2-Fluorobiphenyl | 83 | | | | | | |
| | | p-Terphenyl-d14 | 105 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 11.5 | 97.5 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-10P (6") | | | | | | | |
| | Lab ID | DC114 | | | | | | | |
| | Collection Date | 4/20/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419057 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| 0.66 | Naphthalene | 0.071 | 0.213 | 0.59 | Pyrene | 0.090 | 0.270 | 20.29 | 22.75 |
| 0.17 | 2-Methylnaphthalene | 0.080 | 0.240 | 0.15 | Benzo(a)anthracene | 0.054 | 0.162 | 14.57 | 16.34 |
| 0.19 | 1-Methylnaphthalene | 0.080 | 0.240 | 0.17 | Chrysene | 0.094 | 0.282 | 18.74 | 21.01 |
| 0.23 | Acenaphthylene | 0.104 | 0.312 | 0.21 | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | 13.04 | 14.62 |
| 0.75 | Acenaphthene | 0.221 | 0.663 | 0.67 | Benzo(a)pyrene | 0.092 | 0.276 | 20.91 | 23.44 |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | 20.47 | 22.95 |
| 6.15 | Phenanthrene | 0.063 | 0.189 | 5.48 | Benzo(k)fluoranthene | 0.069 | 0.207 | 14.7 | 16.43 |
| 1.57 | Anthracene | 0.111 | 0.333 | 1.40 | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| 23.71 | Fluoranthene | 0.107 | 0.321 | 21.15 | Benzo(g,h,i)perylene | 0.077 | 0.231 | 12.18 | 13.66 |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| 279.07 | LRO | 15.0 | 45.0 | 248.89 | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 73 | | | | | | |
| | | 2-Fluorobiphenyl | 86 | | | | | | |
| | | p-Terphenyl-d14 | 121 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 12.4 | 93.9 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES10P (1-2') | | | | | | | |
| | Lab ID | DC115 | | | | | | | |
| | Collection Date | 4/20/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419058 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | 0.45 | 0.52 |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 76 | | | | | | |
| | | 2-Fluorobiphenyl | 85 | | | | | | |
| | | p-Terphenyl-d14 | 105 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 16.1 | 90.3 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-10P (2-4') | | | | | | | |
| | Lab ID | DC116 | | | | | | | |
| | Collection Date | 4/20/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419059 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 73 | | | | | | |
| | | 2-Fluorobiphenyl | 85 | | | | | | |
| | | p-Terphenyl-d14 | 101 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 12.4 | 90.1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-10P (4-6') | | | | | | | |
| | Lab ID | DC117 | | | | | | | |
| | Collection Date | 4/20/11 | | | | | | | |
| | Analysis Date | 4/20/11 | | | | | | | |
| Inst | Run No. | D0419060 | | | | | | | Inst |
| result | Sample matrix | S | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | mg/Kg | | MDL | ppm | mg/Kg | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| | GRO | 15.0 | 45.0 | U | | | | | |
| | DRO | 15.0 | 45.0 | U | | | | | |
| | LRO | 15.0 | 45.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 79 | | | | | | |
| | | 2-Fluorobiphenyl | 87 | | | | | | |
| | | p-Terphenyl-d14 | 102 | | | | | | |

| | Sample ID | Sample ID | Sample ID | Sample ID | Sample ID | Sample ID |
|---|---|---|---|---|---|---|
| | AES-11P (6") | AES-11P (1-2') | AES-12P (6") | AES-12P (1-2') | AES-13P (6") | AES-13P (1-2) |
| **Analysis Date** | 4/20/11 | 4/20/11 | 4/20/11 | 4/20/11 | 4/20/11 | 4/20/11 |
| **Matrix** | Soil | Soil | Soil | Soil | Soil | Soil |
| **Dilution** | 1 | 1 | 1 | 1 | 1 | 1 |
| Naphthalene | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U | 0.21 U |
| 2-Methylnaphthalene | 0.24 U | 0.24 U | 0.24 U | 0.24 U | 0.24 U | 0.24 U |
| 1-Methylnaphthalene | 0.24 U | 0.24 U | 0.24 U | 0.24 U | 0.24 U | 0.24 U |
| Acenaphthylene | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U | 0.31 U |
| Acenaphthene | 0.66 U | 0.66 U | 0.66 U | 0.66 U | 0.66 U | 0.66 U |
| Fluorene | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U | 0.38 U |
| Phenanthrene | 0.19 U | 0.19 U | 0.23 | 0.18 J | 0.14 J | 0.19 U |
| Anthracene | 0.33 U | 0.33 U | 0.33 U | 0.33 U | 0.33 U | 0.33 U |
| Fluoranthene | 0.32 U | 0.32 U | 0.79 | 0.82 | 0.39 | 0.32 U |
| Pyrene | 0.27 U | 0.27 U | 0.75 | 0.71 | 0.35 | 0.27 U |
| Benzo(a)anthracene | 0.16 U | 0.16 U | 0.48 | 0.53 | 0.25 | 0.16 U |
| Chrysene | 0.28 U | 0.28 U | 0.63 | 0.73 | 0.30 | 0.28 U |
| Indeno(1,2,3-cd)pyrene | 0.35 U | 0.35 U | 0.32 | 0.36 | 0.35 U | 0.35 U |
| Benzo(a)pyrene | 0.28 U | 0.28 U | 0.62 | 0.72 | 0.21 | 0.28 U |
| Benzo(b)fluoranthene | 0.17 U | 0.17 U | 0.49 | 0.66 | 0.15 | 0.17 U |
| Benzo(k)fluoranthene | 0.21 U | 0.21 U | 0.68 | 0.62 | 0.24 | 0.21 U |
| Dibenzo(a,h)anthracene | 0.35 U | 0.35 U | 0.35 U | 0.35 U | 0.35 U | 0.35 U |
| Benzo(g,h,i)perylene | 0.23 U | 0.23 U | 0.34 | 0.39 | 0.23 U | 0.23 U |
| GRO | 45 U | 45 U | 45 U | 45 U | 45 U | 45 U |
| DRO | 45 U | 45 U | 45 U | 45 U | 45 U | 45 U |
| LRO | 45 U | 45 U | 45 U | 45 U | 45 U | 45 U |
| **Surrogates:** | | | | | | |
| Nitrobenzene-d5 | 67 % | 80 % | 79 % | 75 % | 78 % | 74 % |
| 2-Fluorobiphenyl | 81 % | 83 % | 85 % | 76 % | 85 % | 83 % |
| p-Terphenyl-d14 | 104 % | 105 % | 102 % | 102 % | 107 % | 98 % |

\8270 P/ RESULTS in ppb

ug/L

# DRAFT

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 1 | 100 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-1 | | | | | | | |
| | Lab ID | DC036 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418023 | | | | | | | Inst |
| result | Sample matrix | W | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | ug/L | | MDL | ppm | ug/L | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| 1.44 | 2-Methylnaphthalene | 0.080 | 0.240 | 14.40 | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| 0.76 | 1-Methylnaphthalene | 0.080 | 0.240 | 7.60 | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| 0.45 | Fluorene | 0.128 | 0.384 | 4.50 | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| 0.61 | Phenanthrene | 0.063 | 0.189 | 6.10 | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 209.7 | GRO | 25.0 | 75.0 | 2097.00 | | | | | |
| 880.17 | DRO | 25.0 | 75.0 | 8801.70 | | | | | |
| 420.56 | LRO | 25.0 | 75.0 | 4205.60 | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 18 | | | | | | |
| | | 2-Fluorobiphenyl | 74 | | | | | | |
| | | p-Terphenyl-d14 | 83 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 1 | 100 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-2 | | | | | | | |
| | Lab ID | DC037 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418024 | | | | | | | Inst |
| result | Sample matrix | W | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | ug/L | | MDL | ppm | ug/L | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 18.63 | GRO | 25.0 | 75.0 | 186.30 | | | | | |
| | DRO | 25.0 | 75.0 | U | | | | | |
| | LRO | 25.0 | 75.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 32 | | | | | | |
| | | 2-Fluorobiphenyl | 88 | | | | | | |
| | | p-Terphenyl-d14 | 100 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 1 | 100 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-3 | | | | | | | |
| | Lab ID | DC038 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418025 | | | | | | | Inst |
| result | Sample matrix | W | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | ug/L | | MDL | ppm | ug/L | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 19.59 | GRO | 25.0 | 75.0 | 195.90 | | | | | |
| | DRO | 25.0 | 75.0 | U | | | | | |
| | LRO | 25.0 | 75.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 5 | | | | | | |
| | | 2-Fluorobiphenyl | 86 | | | | | | |
| | | p-Terphenyl-d14 | 100 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 1 | 100 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-4 | | | | | | | |
| | Lab ID | DC039 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418026 | | | | | | | Inst |
| result | Sample matrix | W | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | ug/L | | MDL | ppm | ug/L | ug/ml |
| 1.24 | Naphthalene | 0.071 | 0.213 | 12.40 | Pyrene | 0.090 | 0.270 | U | |
| 1.11 | 2-Methylnaphthalene | 0.080 | 0.240 | 11.10 | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| 1.06 | 1-Methylnaphthalene | 0.080 | 0.240 | 10.60 | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 16.9 | GRO | 25.0 | 75.0 | 169.00 | | | | | |
| | DRO | 25.0 | 75.0 | U | | | | | |
| | LRO | 25.0 | 75.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 23 | | | | | | |
| | | 2-Fluorobiphenyl | 89 | | | | | | |
| | | p-Terphenyl-d14 | 100 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 1 | 100 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | **AES-5** | | | | | | | |
| | Lab ID | DC040 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418027 | | | | | | | Inst |
| result | Sample matrix | W | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **ug/L** | | MDL | ppm | **ug/L** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 19.15 | GRO | 25.0 | 75.0 | 191.50 | | | | | |
| | DRO | 25.0 | 75.0 | U | | | | | |
| | LRO | 25.0 | 75.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 14 | | | | | | |
| | | 2-Fluorobiphenyl | 86 | | | | | | |
| | | p-Terphenyl-d14 | 104 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 1 | 100 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | **MW-1** | | | | | | | |
| | Lab ID | DC050 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418028 | | | | | | | Inst |
| result | Sample matrix | W | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **ug/L** | | MDL | ppm | **ug/L** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 19.51 | GRO | 25.0 | 75.0 | 195.10 | | | | | |
| | DRO | 25.0 | 75.0 | U | | | | | |
| | LRO | 25.0 | 75.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 32 | | | | | | |
| | | 2-Fluorobiphenyl | 88 | | | | | | |
| | | p-Terphenyl-d14 | 99 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 10 | 1 | 100 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | **AES-1P** | | | | | | | |
| | Lab ID | DC051 | | | | | | | |
| | Collection Date | 4/18/11 | | | | | | | |
| | Analysis Date | 1/19/11 | | | | | | | |
| Inst | Run No. | D0418029 | | | | | | | Inst |
| result | Sample matrix | W | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **ug/L** | | MDL | ppm | **ug/L** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 20.4 | GRO | 25.0 | 75.0 | 204.00 | | | | | |
| | DRO | 25.0 | 75.0 | U | | | | | |
| | LRO | 25.0 | 75.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 22 | | | | | | |
| | | 2-Fluorobiphenyl | 92 | | | | | | |
| | | p-Terphenyl-d14 | 106 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 5 | 1 | 100 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | **AES-2P** | | | | | | | |
| | Lab ID | DC060 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418042 | | | | | | | Inst |
| result | Sample matrix | W | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **ug/L** | | MDL | ppm | **ug/L** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 20.67 | GRO | 25.0 | 75.0 | 103.35 | | | | | |
| | DRO | 25.0 | 75.0 | U | | | | | |
| | LRO | 25.0 | 75.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 0 | | | | | | |
| | | 2-Fluorobiphenyl | 63 | | | | | | |
| | | p-Terphenyl-d14 | 67 | | | | | | |

| Dill Factor | F. . ol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 5 | 1 | 100 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-3P | | | | | | | |
| | Lab ID | DC061 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418043 | | | | | | | Inst |
| result | Sample matrix | W | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | ug/L | | MDL | ppm | ug/L | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 19.9 | GRO | 25.0 | 75.0 | 99.50 | | | | | |
| | DRO | 25.0 | 75.0 | U | | | | | |
| | LRO | 25.0 | 75.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 6 | | | | | | |
| | | 2-Fluorobiphenyl | 72 | | | | | | |
| | | p-Terphenyl-d14 | 74 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 5 | 1 | 100 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-1PI | | | | | | | |
| | Lab ID | DC062 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418044 | | | | | | | Inst |
| result | Sample matrix | W | RL | Result | | | RL | Result | result |
| ug/ml | Compound | MDL | ppm | ug/L | | MDL | ppm | ug/L | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 21.92 | GRO | 25.0 | 75.0 | 109.60 | | | | | |
| | DRO | 25.0 | 75.0 | U | | | | | |
| | LRO | 25.0 | 75.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 0 | | | | | | |
| | | 2-Fluorobiphenyl | 65 | | | | | | |
| | | p-Terphenyl-d14 | 71 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 5 | 1 | 100 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | **AES-4P** | | | | | | | |
| | Lab ID | DC063 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0418045 | | | | | | | Inst |
| result | Sample matrix | W | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **ug/L** | | MDL | ppm | **ug/L** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 20.66 | GRO | 25.0 | 75.0 | 103.30 | | | | | |
| | DRO | 25.0 | 75.0 | U | | | | | |
| | LRO | 25.0 | 75.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 12 | | | | | | |
| | | 2-Fluorobiphenyl | 64 | | | | | | |
| | | p-Terphenyl-d14 | 64 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 5 | 1 | 100 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | **AES-5P** | | | | | | | |
| | Lab ID | DC078 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0419004 | | | | | | | Inst |
| result | Sample matrix | W | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **ug/L** | | MDL | ppm | **ug/L** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| | 2-Methylnaphthalene | 0.080 | 0.240 | U | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| | 1-Methylnaphthalene | 0.080 | 0.240 | U | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 17.56 | GRO | 25.0 | 75.0 | 87.80 | | | | | |
| | DRO | 25.0 | 75.0 | U | | | | | |
| | LRO | 25.0 | 75.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 16 | | | | | | |
| | | 2-Fluorobiphenyl | 77 | | | | | | |
| | | p-Terphenyl-d14 | 80 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 5 | 1 | 100 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-1I | | | | | | | |
| | Lab ID | DC081a | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0419005 | | | | | | | Inst |
| result | Sample matrix | W | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **ug/L** | | MDL | ppm | **ug/L** | ug/ml |
| | Naphthalene | 0.071 | 0.213 | U | Pyrene | 0.090 | 0.270 | U | |
| 0.13 | 2-Methylnaphthalene | 0.080 | 0.240 | 0.65 | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| 0.11 | 1-Methylnaphthalene | 0.080 | 0.240 | 0.55 | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| | Acenaphthene | 0.221 | 0.663 | U | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| | Fluorene | 0.128 | 0.384 | U | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| | Phenanthrene | 0.063 | 0.189 | U | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 20.09 | GRO | 25.0 | 75.0 | 100.45 | | | | | |
| | DRO | 25.0 | 75.0 | U | | | | | |
| | LRO | 25.0 | 75.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 7 | | | | | | |
| | | 2-Fluorobiphenyl | 72 | | | | | | |
| | | p-Terphenyl-d14 | 72 | | | | | | |

| Dill Factor | Final Vol | Init Mass | Dry Wt |
|---|---|---|---|
| 1 | 5 | 1 | 100 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | AES-6 | | | | | | | |
| | Lab ID | DC082 | | | | | | | |
| | Collection Date | 4/19/11 | | | | | | | |
| | Analysis Date | 4/19/11 | | | | | | | |
| Inst | Run No. | D0419006 | | | | | | | Inst |
| result | Sample matrix | W | RL | **Result** | | | RL | **Result** | result |
| ug/ml | Compound | MDL | ppm | **ug/L** | | MDL | ppm | **ug/L** | ug/ml |
| 0.58 | Naphthalene | 0.071 | 0.213 | 2.90 | Pyrene | 0.090 | 0.270 | U | |
| 11.65 | 2-Methylnaphthalene | 0.080 | 0.240 | 58.25 | Benzo(a)anthracene | 0.054 | 0.162 | U | |
| 7.12 | 1-Methylnaphthalene | 0.080 | 0.240 | 35.60 | Chrysene | 0.094 | 0.282 | U | |
| | Acenaphthylene | 0.104 | 0.312 | U | Indeno(1,2,3-cd)pyrene | 0.117 | 0.351 | U | |
| 0.23 | Acenaphthene | 0.221 | 0.663 | 1.15 | Benzo(a)pyrene | 0.092 | 0.276 | U | |
| 0.85 | Fluorene | 0.128 | 0.384 | 4.25 | Benzo(b)fluoranthene | 0.056 | 0.168 | U | |
| 0.57 | Phenanthrene | 0.063 | 0.189 | 2.85 | Benzo(k)fluoranthene | 0.069 | 0.207 | U | |
| | Anthracene | 0.111 | 0.333 | U | Dibenzo(a,h)anthracene | 0.116 | 0.348 | U | |
| | Fluoranthene | 0.107 | 0.321 | U | Benzo(g,h,i)perylene | 0.077 | 0.231 | U | |
| 140.23 | GRO | 25.0 | 75.0 | 701.15 | | | | | |
| 161.8 | DRO | 25.0 | 75.0 | 809.00 | | | | | |
| | LRO | 25.0 | 75.0 | U | | | | | |
| | Surrogate recoveries | Nitrobenzene-d5 | 8 | | | | | | |
| | | 2-Fluorobiphenyl | 79 | | | | | | |
| | | p-Terphenyl-d14 | 89 | | | | | | |

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-55661-1
Client Project/Site: Naval Hospital - Pensacola, FL

For:
Aerostar Environmental Services, Inc.
803 Government Street
Suite A
Mobile, Alabama 36602

Attn: Curtis Mills

Carolyn N. Hooper

*Authorized for release by:*
*05/16/2011 05:52:56 PM*

Carolyn Hooper
Project Manager I
carolyn.hooper@testamericainc.com

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

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## Job ID: 400-55661-1

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**Laboratory: TestAmerica Pensacola**

**Narrative**

**Job Narrative**
**400-55661-1**

**Receipt**
All samples were received in good condition within temperature requirements.

**GC/MS Semi VOA**
Method(s) 8270C: Due to the strong odor of the extract the following sample was diluted a minimal amount to preserve the instrument integrity: MW-4 (8') (400-55661-3). Elevated reporting limits (RL) are provided.

**GC VOA**
Method(s) 8021B: Due to 200 and 230 mg/kg of GRO in samples DMW-1 (8') (400-55661-2), MW-4 (8') (400-55661-3), the lab was unable to meet the FDEP action level for benzene. Analysis at a lower dilution was not possible due to possible harm to the instrument or its components.

**GC Semi VOA**
Method(s) FL-PRO: Surrogate recovery for the following sample(s) was outside control limits: DMW-1 (8') (400-55661-2), MW-4 (8') (400-55661-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) FL-PRO: Surrogate recovery for the following sample(s) was outside control limits: (400-55661-3 MS), (400-55661-3 MSD), DMW-1 (8') (400-55661-2), MW-4 (8') (400-55661-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

# Sample Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55661-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 400-55661-1 | MW-5 (8') | Solid | 05/04/11 10:40 | 05/05/11 15:10 |
| 400-55661-2 | DMW-1 (8') | Solid | 05/04/11 10:45 | 05/05/11 15:10 |
| 400-55661-3 | MW-4 (8') | Solid | 05/04/11 10:50 | 05/05/11 15:10 |

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# Detection Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55661-1

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## Client Sample ID: MW-5 (8') — Lab Sample ID: 400-55661-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons (C8-C40) | 2.2 | I | 6.4 | 1.1 | mg/Kg | 1 | ☼ | FL-PRO | Total/NA |

## Client Sample ID: DMW-1 (8') — Lab Sample ID: 400-55661-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Naphthalene | 0.070 | I | 0.35 | 0.035 | mg/Kg | 1 | ☼ | 8270C | Total/NA |
| Pyrene | 0.12 | I | 0.35 | 0.035 | mg/Kg | 1 | ☼ | 8270C | Total/NA |
| 1-Methylnaphthalene | 0.65 | | 0.35 | 0.035 | mg/Kg | 1 | ☼ | 8270C | Total/NA |
| 2-Methylnaphthalene | 1.1 | | 0.35 | 0.035 | mg/Kg | 1 | ☼ | 8270C | Total/NA |
| Toluene | 0.067 | I V | 0.26 | 0.022 | mg/Kg | 50 | ☼ | 8021B | Total/NA |
| Ethylbenzene | 0.12 | | 0.052 | 0.026 | mg/Kg | 50 | ☼ | 8021B | Total/NA |
| Xylenes, Total | 0.77 | V | 0.26 | 0.052 | mg/Kg | 50 | ☼ | 8021B | Total/NA |
| Methyl tert-butyl ether | 0.042 | I | 0.26 | 0.039 | mg/Kg | 50 | ☼ | 8021B | Total/NA |
| Total Petroleum Hydrocarbons (C8-C40) | 2100 | | 68 | 12 | mg/Kg | 10 | ☼ | FL-PRO | Total/NA |

## Client Sample ID: MW-4 (8') — Lab Sample ID: 400-55661-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Toluene | 0.051 | I V | 0.24 | 0.020 | mg/Kg | 50 | ☼ | 8021B | Total/NA |
| Ethylbenzene | 0.032 | I | 0.048 | 0.024 | mg/Kg | 50 | ☼ | 8021B | Total/NA |
| Xylenes, Total | 0.14 | I V | 0.24 | 0.048 | mg/Kg | 50 | ☼ | 8021B | Total/NA |
| Total Petroleum Hydrocarbons (C8-C40) | 11000 | | 650 | 110 | mg/Kg | 100 | ☼ | FL-PRO | Total/NA |

# Analytical Data

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55661-1

## Client Sample ID: MW-5 (8')

**Date Collected: 05/04/11 10:40**
**Date Received: 05/05/11 15:10**

## Lab Sample ID: 400-55661-1

**Matrix: Solid**
**Percent Solids: 92.6**

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### Method: 8270C - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |
| Acenaphthylene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |
| Anthracene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |
| Benzo[a]anthracene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |
| Benzo[a]pyrene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |
| Benzo[b]fluoranthene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |
| Benzo[g,h,i]perylene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |
| Benzo[k]fluoranthene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |
| Chrysene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |
| Dibenz(a,h)anthracene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |
| Fluoranthene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |
| Fluorene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |
| Naphthalene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |
| Phenanthrene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |
| Pyrene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |
| 1-Methylnaphthalene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |
| 2-Methylnaphthalene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 14:52 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl* | *58* | | *29 - 112* | *05/07/11 11:21* | *05/12/11 14:52* | *1* |
| *Nitrobenzene-d5* | *51* | | *21 - 113* | *05/07/11 11:21* | *05/12/11 14:52* | *1* |
| *Terphenyl-d14* | *73* | | *38 - 119* | *05/07/11 11:21* | *05/12/11 14:52* | *1* |

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.00058 | U | 0.00098 | 0.00058 | mg/Kg | ☼ | 05/06/11 11:00 | 05/07/11 00:42 | 1 |
| Toluene | 0.00041 | U | 0.0049 | 0.00041 | mg/Kg | ☼ | 05/06/11 11:00 | 05/07/11 00:42 | 1 |
| Ethylbenzene | 0.00049 | U | 0.00098 | 0.00049 | mg/Kg | ☼ | 05/06/11 11:00 | 05/07/11 00:42 | 1 |
| Xylenes, Total | 0.00098 | U | 0.0049 | 0.00098 | mg/Kg | ☼ | 05/06/11 11:00 | 05/07/11 00:42 | 1 |
| Methyl tert-butyl ether | 0.00073 | U | 0.0049 | 0.00073 | mg/Kg | ☼ | 05/06/11 11:00 | 05/07/11 00:42 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *a,a,a-Trifluorotoluene (pid)* | *98* | | *69 - 120* | *05/06/11 11:00* | *05/07/11 00:42* | *1* |

### Method: FL-PRO - Florida - Petroleum Range Organics (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Petroleum Hydrocarbons (C8-C40)** | **2.2** | I | 6.4 | 1.1 | mg/Kg | ☼ | 05/09/11 08:25 | 05/11/11 01:07 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-C39* | *88* | | *37 - 138* | *05/09/11 08:25* | *05/11/11 01:07* | *1* |
| *o-Terphenyl* | *88* | | *50 - 121* | *05/09/11 08:25* | *05/11/11 01:07* | *1* |

# Analytical Data

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55661-1

## Client Sample ID: DMW-1 (8')

**Date Collected: 05/04/11 10:45**
**Date Received: 05/05/11 15:10**

## Lab Sample ID: 400-55661-2

**Matrix: Solid**
**Percent Solids: 94.9**

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### Method: 8270C - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |
| Acenaphthylene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |
| Anthracene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |
| Benzo[a]anthracene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |
| Benzo[a]pyrene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |
| Benzo[b]fluoranthene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |
| Benzo[g,h,i]perylene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |
| Benzo[k]fluoranthene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |
| Chrysene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |
| Dibenz(a,h)anthracene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |
| Fluoranthene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |
| Fluorene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |
| **Naphthalene** | **0.070** | **I** | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |
| Phenanthrene | 0.035 | U | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |
| **Pyrene** | **0.12** | **I** | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |
| **1-Methylnaphthalene** | **0.65** | | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |
| **2-Methylnaphthalene** | **1.1** | | 0.35 | 0.035 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 15:24 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl* | *66* | | *29 - 112* | *05/07/11 11:21* | *05/12/11 15:24* | *1* |
| *Nitrobenzene-d5* | *62* | | *21 - 113* | *05/07/11 11:21* | *05/12/11 15:24* | *1* |
| *Terphenyl-d14* | *75* | | *38 - 119* | *05/07/11 11:21* | *05/12/11 15:24* | *1* |

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.031 | U | 0.052 | 0.031 | mg/Kg | ☼ | 05/11/11 10:00 | 05/11/11 23:10 | 50 |
| **Toluene** | **0.067** | **I V** | 0.26 | 0.022 | mg/Kg | ☼ | 05/11/11 10:00 | 05/11/11 23:10 | 50 |
| **Ethylbenzene** | **0.12** | | 0.052 | 0.026 | mg/Kg | ☼ | 05/11/11 10:00 | 05/11/11 23:10 | 50 |
| **Xylenes, Total** | **0.77** | **V** | 0.26 | 0.052 | mg/Kg | ☼ | 05/11/11 10:00 | 05/11/11 23:10 | 50 |
| **Methyl tert-butyl ether** | **0.042** | **I** | 0.26 | 0.039 | mg/Kg | ☼ | 05/11/11 10:00 | 05/11/11 23:10 | 50 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *a,a,a-Trifluorotoluene (pid)* | *100* | | *69 - 120* | *05/11/11 10:00* | *05/11/11 23:10* | *50* |

### Method: FL-PRO - Florida - Petroleum Range Organics (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Petroleum Hydrocarbons (C8-C40)** | **2100** | | 68 | 12 | mg/Kg | ☼ | 05/09/11 08:25 | 05/11/11 11:41 | 10 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-C39* | *99* | | *37 - 138* | *05/09/11 08:25* | *05/11/11 11:41* | *10* |
| *o-Terphenyl* | *227* | *J1* | *50 - 121* | *05/09/11 08:25* | *05/11/11 11:41* | *10* |

# Analytical Data

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55661-1

## Client Sample ID: MW-4 (8')

**Date Collected: 05/04/11 10:50**
**Date Received: 05/05/11 15:10**

## Lab Sample ID: 400-55661-3

**Matrix: Solid**
**Percent Solids: 92.0**

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### Method: 8270C - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |
| Acenaphthylene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |
| Anthracene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |
| Benzo[a]anthracene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |
| Benzo[a]pyrene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |
| Benzo[b]fluoranthene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |
| Benzo[g,h,i]perylene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |
| Benzo[k]fluoranthene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |
| Chrysene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |
| Dibenz(a,h)anthracene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |
| Fluoranthene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |
| Fluorene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |
| Indeno[1,2,3-cd]pyrene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |
| Naphthalene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |
| Phenanthrene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |
| Pyrene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |
| 1-Methylnaphthalene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |
| 2-Methylnaphthalene | 1.8 | U | 18 | 1.8 | mg/Kg | ☼ | 05/07/11 11:21 | 05/12/11 21:26 | 50 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl* | *77* | | *29 - 112* | *05/07/11 11:21* | *05/12/11 21:26* | *50* |
| *Nitrobenzene-d5* | *0* | *J1* | *21 - 113* | *05/07/11 11:21* | *05/12/11 21:26* | *50* |
| *Terphenyl-d14* | *83* | | *38 - 119* | *05/07/11 11:21* | *05/12/11 21:26* | *50* |

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.028 | U | 0.048 | 0.028 | mg/Kg | ☼ | 05/11/11 10:00 | 05/11/11 23:37 | 50 |
| **Toluene** | **0.051** | **I V** | 0.24 | 0.020 | mg/Kg | ☼ | 05/11/11 10:00 | 05/11/11 23:37 | 50 |
| **Ethylbenzene** | **0.032** | **I** | 0.048 | 0.024 | mg/Kg | ☼ | 05/11/11 10:00 | 05/11/11 23:37 | 50 |
| **Xylenes, Total** | **0.14** | **I V** | 0.24 | 0.048 | mg/Kg | ☼ | 05/11/11 10:00 | 05/11/11 23:37 | 50 |
| Methyl tert-butyl ether | 0.036 | U | 0.24 | 0.036 | mg/Kg | ☼ | 05/11/11 10:00 | 05/11/11 23:37 | 50 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *a,a,a-Trifluorotoluene (pid)* | *101* | | *69 - 120* | *05/11/11 10:00* | *05/11/11 23:37* | *50* |

### Method: FL-PRO - Florida - Petroleum Range Organics (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Petroleum Hydrocarbons (C8-C40)** | **11000** | | 650 | 110 | mg/Kg | ☼ | 05/09/11 08:25 | 05/11/11 11:51 | 100 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-C39* | *129* | | *37 - 138* | *05/09/11 08:25* | *05/11/11 11:51* | *100* |
| *o-Terphenyl* | *1078* | *J1* | *50 - 121* | *05/09/11 08:25* | *05/11/11 11:51* | *100* |

# Qualifier Definition/Glossary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55661-1

## Qualifiers

### GC/MS Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |
| J1 | Estimated value; value may not be accurate. Surrogate recovery outside of criteria. |
| U | Indicates that the compound was analyzed for but not detected. |

### GC VOA

| Qualifier | Qualifier Description |
|---|---|
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |
| U | Indicates that the compound was analyzed for but not detected. |
| V | Indicates the analyte was detected in both the sample and the associated method blank. |

### GC Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |
| J1 | Estimated value; value may not be accurate. Surrogate recovery outside of criteria. |
| J3 | Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria. |
| U | Indicates that the compound was analyzed for but not detected. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ☼ | Listed under the "D" column to designate that the result is reported on a dry weight basis. |
| EPA | United States Environmental Protection Agency |
| ND | Not Detected above the reporting level. |
| MDL | Method Detection Limit |
| RL | Reporting Limit |
| RE, RE1 (etc.) | Indicates a Re-extraction or Reanalysis of the sample. |
| %R | Percent Recovery |
| RPD | Relative Percent Difference, a measure of the relative difference between two points. |

# Method Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55661-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8270C | Semivolatile Organic Compounds (GC/MS) | SW846 | TAL PEN |
| 8021B | Volatile Organic Compounds (GC) | SW846 | TAL PEN |
| FL-PRO | Florida - Petroleum Range Organics (GC) | FL-DEP | TAL PEN |
| Moisture | Percent Moisture | EPA | TAL PEN |

**Protocol References:**

EPA = US Environmental Protection Agency

FL-DEP = State Of Florida Department Of Environmental Protection, Florida Administrative Code.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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# Lab Chronicle

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55661-1

## Client Sample ID: MW-5 (8')

**Lab Sample ID: 400-55661-1**
**Date Collected: 05/04/11 10:40**
**Matrix: Solid**
**Date Received: 05/05/11 15:10**
**Percent Solids: 92.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3550B | | | 130621 | 05/07/11 11:21 | SW | TAL PEN |
| Total/NA | Analysis | 8270C | | 1 | 130929 | 05/12/11 14:52 | JS | TAL PEN |
| Total/NA | Prep | 5035 | | | 130678 | 05/06/11 11:00 | GK | TAL PEN |
| Total/NA | Analysis | 8021B | | 1 | 130608 | 05/07/11 00:42 | GK | TAL PEN |
| Total/NA | Prep | 3550B | | | 130634 | 05/09/11 08:25 | RT | TAL PEN |
| Total/NA | Analysis | FL-PRO | | 1 | 130817 | 05/11/11 01:07 | DW | TAL PEN |
| Total/NA | Analysis | Moisture | | 1 | 130581 | 05/06/11 12:55 | VC | TAL PEN |

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## Client Sample ID: DMW-1 (8')

**Lab Sample ID: 400-55661-2**
**Date Collected: 05/04/11 10:45**
**Matrix: Solid**
**Date Received: 05/05/11 15:10**
**Percent Solids: 94.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3550B | | | 130621 | 05/07/11 11:21 | SW | TAL PEN |
| Total/NA | Analysis | 8270C | | 1 | 130929 | 05/12/11 15:24 | JS | TAL PEN |
| Total/NA | Prep | 5035 | | | 130745 | 05/11/11 10:00 | GK | TAL PEN |
| Total/NA | Analysis | 8021B | | 50 | 130752 | 05/11/11 23:10 | GK | TAL PEN |
| Total/NA | Prep | 3550B | | | 130634 | 05/09/11 08:25 | RT | TAL PEN |
| Total/NA | Analysis | FL-PRO | | 10 | 130854 | 05/11/11 11:41 | KA | TAL PEN |
| Total/NA | Analysis | Moisture | | 1 | 130581 | 05/06/11 12:55 | VC | TAL PEN |

## Client Sample ID: MW-4 (8')

**Lab Sample ID: 400-55661-3**
**Date Collected: 05/04/11 10:50**
**Matrix: Solid**
**Date Received: 05/05/11 15:10**
**Percent Solids: 92.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3550B | | | 130621 | 05/07/11 11:21 | SW | TAL PEN |
| Total/NA | Analysis | 8270C | | 50 | 130929 | 05/12/11 21:26 | JS | TAL PEN |
| Total/NA | Prep | 5035 | | | 130745 | 05/11/11 10:00 | GK | TAL PEN |
| Total/NA | Analysis | 8021B | | 50 | 130752 | 05/11/11 23:37 | GK | TAL PEN |
| Total/NA | Prep | 3550B | | | 130634 | 05/09/11 08:25 | RT | TAL PEN |
| Total/NA | Analysis | FL-PRO | | 100 | 130854 | 05/11/11 11:51 | KA | TAL PEN |
| Total/NA | Analysis | Moisture | | 1 | 130581 | 05/06/11 12:55 | VC | TAL PEN |

**Laboratory References:**
TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

# Surrogate Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55661-1

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

**Matrix: Solid** — **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | |
|---|---|---|---|---|
| | | FBP | NBZ | TPH |
| Lab Sample ID | Client Sample ID | (29-112) | (21-113) | (38-119) |
| 400-55661-1 | MW-5 (8') | 58 | 51 | 73 |
| 400-55661-2 | DMW-1 (8') | 66 | 62 | 75 |
| 400-55661-3 | MW-4 (8') | 77 | 0 J1 | 83 |
| LCS 400-130621/9-A | LCS 400-130621/9-A | 81 | 85 | 86 |
| MB 400-130621/10-A | MB 400-130621/10-A | 84 | 90 | 86 |

**Surrogate Legend**

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPH = Terphenyl-d14

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## Method: 8021B - Volatile Organic Compounds (GC)

**Matrix: Solid** — **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) |
|---|---|---|
| | | TFT1 |
| Lab Sample ID | Client Sample ID | (69-120) |
| 400-55618-A-1-D MS | 400-55618-A-1-D MS | 101 |
| 400-55618-A-1-E MSD | 400-55618-A-1-E MSD | 102 |
| 400-55661-1 | MW-5 (8') | 98 |
| 400-55661-2 | DMW-1 (8') | 100 |
| 400-55661-3 | MW-4 (8') | 101 |
| 400-55684-A-1-C MS | 400-55684-A-1-C MS | 88 |
| 400-55684-A-1-D MSD | 400-55684-A-1-D MSD | 88 |
| LCS 400-130678/2-A | LCS 400-130678/2-A | 98 |
| LCS 400-130745/2-A | LCS 400-130745/2-A | 101 |
| MB 400-130678/1-A | MB 400-130678/1-A | 98 |
| MB 400-130745/1-A | MB 400-130745/1-A | 98 |

**Surrogate Legend**

TFT = a,a,a-Trifluorotoluene (pid)

## Method: FL-PRO - Florida - Petroleum Range Organics (GC)

**Matrix: Solid** — **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| | | C39 | OTPH |
| Lab Sample ID | Client Sample ID | (37-138) | (50-121) |
| 400-55661-1 | MW-5 (8') | 88 | 88 |
| 400-55661-2 | DMW-1 (8') | 99 | 227 J1 |
| 400-55661-3 | MW-4 (8') | 129 | 1078 J1 |
| 400-55661-3 MS | MW-4 (8') | 141 J1 | 1096 J1 |
| 400-55661-3 MSD | MW-4 (8') | 136 | 1365 J1 |
| LCS 400-130634/13-A | LCS 400-130634/13-A | 74 | 100 |
| MB 400-130634/14-A | MB 400-130634/14-A | 62 | 92 |

**Surrogate Legend**

C39 = n-C39
OTPH = o-Terphenyl

## Method: 8270C - Semivolatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 400-130621/10-A**
**Matrix: Solid**
**Analysis Batch: 130645**

**Client Sample ID: MB 400-130621/10-A**
**Prep Type: Total/NA**
**Prep Batch: 130621**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |
| Acenaphthylene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |
| Anthracene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |
| Benzo[a]anthracene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |
| Benzo[a]pyrene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |
| Benzo[b]fluoranthene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |
| Benzo[g,h,i]perylene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |
| Benzo[k]fluoranthene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |
| Chrysene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |
| Dibenz(a,h)anthracene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |
| Fluoranthene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |
| Fluorene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |
| Naphthalene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |
| Phenanthrene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |
| Pyrene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |
| 1-Methylnaphthalene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |
| 2-Methylnaphthalene | 0.033 | U | 0.33 | 0.033 | mg/Kg | | 05/07/11 11:10 | 05/09/11 14:49 | 1 |

| *Surrogate* | *MB % Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl* | *84* | | *29 - 112* | *05/07/11 11:10* | *05/09/11 14:49* | *1* |
| *Nitrobenzene-d5* | *90* | | *21 - 113* | *05/07/11 11:10* | *05/09/11 14:49* | *1* |
| *Terphenyl-d14* | *86* | | *38 - 119* | *05/07/11 11:10* | *05/09/11 14:49* | *1* |

**Lab Sample ID: LCS 400-130621/9-A**
**Matrix: Solid**
**Analysis Batch: 130645**

**Client Sample ID: LCS 400-130621/9-A**
**Prep Type: Total/NA**
**Prep Batch: 130621**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acenaphthene | 1.67 | 1.28 | | mg/Kg | | 77 | 55 - 109 |
| Acenaphthylene | 1.67 | 1.45 | | mg/Kg | | 87 | 60 - 112 |
| Anthracene | 1.67 | 1.88 | | mg/Kg | | 113 | 58 - 113 |
| Benzo[a]anthracene | 1.67 | 1.55 | | mg/Kg | | 93 | 61 - 110 |
| Benzo[a]pyrene | 1.67 | 1.30 | | mg/Kg | | 78 | 50 - 104 |
| Benzo[b]fluoranthene | 1.67 | 1.41 | | mg/Kg | | 85 | 59 - 107 |
| Benzo[g,h,i]perylene | 1.67 | 1.52 | | mg/Kg | | 91 | 54 - 119 |
| Benzo[k]fluoranthene | 1.67 | 1.55 | | mg/Kg | | 93 | 64 - 113 |
| Chrysene | 1.67 | 1.55 | | mg/Kg | | 93 | 59 - 114 |
| Dibenz(a,h)anthracene | 1.67 | 1.31 | | mg/Kg | | 78 | 55 - 115 |
| Fluoranthene | 1.67 | 1.57 | | mg/Kg | | 94 | 62 - 115 |
| Fluorene | 1.67 | 1.35 | | mg/Kg | | 81 | 59 - 115 |
| Indeno[1,2,3-cd]pyrene | 1.67 | 1.33 | | mg/Kg | | 80 | 56 - 115 |
| Naphthalene | 1.67 | 1.39 | | mg/Kg | | 83 | 53 - 100 |
| Phenanthrene | 1.67 | 1.81 | | mg/Kg | | 108 | 60 - 110 |
| Pyrene | 1.67 | 1.73 | | mg/Kg | | 104 | 57 - 117 |
| 1-Methylnaphthalene | 1.67 | 1.39 | | mg/Kg | | 83 | 57 - 108 |
| 2-Methylnaphthalene | 1.67 | 1.33 | | mg/Kg | | 80 | 52 - 103 |

## Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 400-130621/9-A**
**Matrix: Solid**
**Analysis Batch: 130645**

**Client Sample ID: LCS 400-130621/9-A**
**Prep Type: Total/NA**
**Prep Batch: 130621**

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *2-Fluorobiphenyl* | *81* | | *29 - 112* |
| *Nitrobenzene-d5* | *85* | | *21 - 113* |
| *Terphenyl-d14* | *86* | | *38 - 119* |

## Method: 8021B - Volatile Organic Compounds (GC)

**Lab Sample ID: MB 400-130678/1-A**
**Matrix: Solid**
**Analysis Batch: 130608**

**Client Sample ID: MB 400-130678/1-A**
**Prep Type: Total/NA**
**Prep Batch: 130678**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.00059 | U | 0.0010 | 0.00059 | mg/Kg | | 05/06/11 09:00 | 05/06/11 11:57 | 1 |
| Toluene | 0.00181 | I | 0.0050 | 0.00042 | mg/Kg | | 05/06/11 09:00 | 05/06/11 11:57 | 1 |
| Ethylbenzene | 0.00050 | U | 0.0010 | 0.00050 | mg/Kg | | 05/06/11 09:00 | 05/06/11 11:57 | 1 |
| Xylenes, Total | 0.00252 | I | 0.0050 | 0.0010 | mg/Kg | | 05/06/11 09:00 | 05/06/11 11:57 | 1 |
| Methyl tert-butyl ether | 0.00075 | U | 0.0050 | 0.00075 | mg/Kg | | 05/06/11 09:00 | 05/06/11 11:57 | 1 |

| *Surrogate* | *MB % Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *a,a,a-Trifluorotoluene (pid)* | *98* | | *69 - 120* | *05/06/11 09:00* | *05/06/11 11:57* | *1* |

**Lab Sample ID: LCS 400-130678/2-A**
**Matrix: Solid**
**Analysis Batch: 130608**

**Client Sample ID: LCS 400-130678/2-A**
**Prep Type: Total/NA**
**Prep Batch: 130678**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 0.0500 | 0.0532 | | mg/Kg | | 106 | 80 - 115 |
| Toluene | 0.0500 | 0.0555 | | mg/Kg | | 111 | 76 - 116 |
| Ethylbenzene | 0.0500 | 0.0561 | | mg/Kg | | 112 | 80 - 117 |
| Xylenes, Total | 0.150 | 0.168 | | mg/Kg | | 112 | 81 - 117 |
| Methyl tert-butyl ether | 0.100 | 0.112 | | mg/Kg | | 112 | 72 - 118 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *a,a,a-Trifluorotoluene (pid)* | *98* | | *69 - 120* |

**Lab Sample ID: 400-55618-A-1-D MS**
**Matrix: Solid**
**Analysis Batch: 130608**

**Client Sample ID: 400-55618-A-1-D MS**
**Prep Type: Total/NA**
**Prep Batch: 130678**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.00067 | | 0.0540 | 0.0497 | | mg/Kg | ☼ | 92 | 53 - 121 |
| Toluene | 0.00072 | | 0.0540 | 0.0487 | | mg/Kg | ☼ | 89 | 37 - 128 |
| Ethylbenzene | 0.00056 | | 0.0540 | 0.0502 | | mg/Kg | ☼ | 93 | 38 - 130 |
| Xylenes, Total | 0.0011 | | 0.162 | 0.148 | | mg/Kg | ☼ | 92 | 36 - 130 |
| Methyl tert-butyl ether | 0.028 | | 0.108 | 0.148 | | mg/Kg | ☼ | 111 | 54 - 126 |

| *Surrogate* | *MS % Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *a,a,a-Trifluorotoluene (pid)* | *101* | | *69 - 120* |

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

**Lab Sample ID: 400-55618-A-1-E MSD** — **Client Sample ID: 400-55618-A-1-E MSD**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 130608** — **Prep Batch: 130678**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.00067 | | 0.0533 | 0.0500 | | mg/Kg | ☼ | 94 | 53 - 121 | 1 | 28 |
| Toluene | 0.00072 | | 0.0533 | 0.0495 | | mg/Kg | ☼ | 91 | 37 - 128 | 2 | 23 |
| Ethylbenzene | 0.00056 | | 0.0533 | 0.0546 | | mg/Kg | ☼ | 102 | 38 - 130 | 9 | 24 |
| Xylenes, Total | 0.0011 | | 0.160 | 0.163 | | mg/Kg | ☼ | 102 | 36 - 130 | 9 | 22 |
| Methyl tert-butyl ether | 0.028 | | 0.107 | 0.151 | | mg/Kg | ☼ | 115 | 54 - 126 | 2 | 33 |

| *Surrogate* | *MSD % Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *a,a,a-Trifluorotoluene (pid)* | *102* | | *69 - 120* |

**Lab Sample ID: MB 400-130745/1-A** — **Client Sample ID: MB 400-130745/1-A**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 130752** — **Prep Batch: 130745**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.030 | U | 0.050 | 0.030 | mg/Kg | | 05/09/11 12:00 | 05/09/11 18:38 | 50 |
| Toluene | 0.0364 | I | 0.25 | 0.021 | mg/Kg | | 05/09/11 12:00 | 05/09/11 18:38 | 50 |
| Ethylbenzene | 0.025 | U | 0.050 | 0.025 | mg/Kg | | 05/09/11 12:00 | 05/09/11 18:38 | 50 |
| Xylenes, Total | 0.0717 | I | 0.25 | 0.050 | mg/Kg | | 05/09/11 12:00 | 05/09/11 18:38 | 50 |
| Methyl tert-butyl ether | 0.038 | U | 0.25 | 0.038 | mg/Kg | | 05/09/11 12:00 | 05/09/11 18:38 | 50 |

| *Surrogate* | *MB % Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *a,a,a-Trifluorotoluene (pid)* | *98* | | *69 - 120* | *05/09/11 12:00* | *05/09/11 18:38* | *50* |

**Lab Sample ID: LCS 400-130745/2-A** — **Client Sample ID: LCS 400-130745/2-A**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 130752** — **Prep Batch: 130745**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 1.00 | 0.990 | | mg/Kg | | 99 | 80 - 115 |
| Toluene | 1.00 | 1.00 | | mg/Kg | | 100 | 76 - 116 |
| Ethylbenzene | 1.00 | 1.04 | | mg/Kg | | 104 | 80 - 117 |
| Xylenes, Total | 3.00 | 3.08 | | mg/Kg | | 103 | 81 - 117 |
| Methyl tert-butyl ether | 2.00 | 2.07 | | mg/Kg | | 104 | 72 - 118 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *a,a,a-Trifluorotoluene (pid)* | *101* | | *69 - 120* |

**Lab Sample ID: 400-55684-A-1-C MS** — **Client Sample ID: 400-55684-A-1-C MS**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 130752** — **Prep Batch: 130745**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.53 | | 23.2 | 24.5 | | mg/Kg | ☼ | 103 | 53 - 121 |
| Toluene | 1.1 | | 23.2 | 26.9 | | mg/Kg | ☼ | 111 | 37 - 128 |
| Ethylbenzene | 2.6 | | 23.2 | 29.6 | | mg/Kg | ☼ | 116 | 38 - 130 |
| Xylenes, Total | 8.0 | | 69.6 | 93.2 | | mg/Kg | ☼ | 122 | 36 - 130 |
| Methyl tert-butyl ether | 0.35 | | 46.4 | 48.8 | | mg/Kg | ☼ | 105 | 54 - 126 |

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

**Lab Sample ID: 400-55684-A-1-C MS**
**Matrix: Solid**
**Analysis Batch: 130752**

**Client Sample ID: 400-55684-A-1-C MS**
**Prep Type: Total/NA**
**Prep Batch: 130745**

| *Surrogate* | *MS % Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *a,a,a-Trifluorotoluene (pid)* | *88* | | *69 - 120* |

**Lab Sample ID: 400-55684-A-1-D MSD**
**Matrix: Solid**
**Analysis Batch: 130752**

**Client Sample ID: 400-55684-A-1-D MSD**
**Prep Type: Total/NA**
**Prep Batch: 130745**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.53 | | 23.2 | 24.7 | | mg/Kg | ☼ | 104 | 53 - 121 | 1 | 28 |
| Toluene | 1.1 | | 23.2 | 26.9 | | mg/Kg | ☼ | 111 | 37 - 128 | 0 | 23 |
| Ethylbenzene | 2.6 | | 23.2 | 29.9 | | mg/Kg | ☼ | 118 | 38 - 130 | 1 | 24 |
| Xylenes, Total | 8.0 | | 69.6 | 94.7 | | mg/Kg | ☼ | 125 | 36 - 130 | 2 | 22 |
| Methyl tert-butyl ether | 0.35 | | 46.4 | 50.3 | | mg/Kg | ☼ | 108 | 54 - 126 | 3 | 33 |

| *Surrogate* | *MSD % Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *a,a,a-Trifluorotoluene (pid)* | *88* | | *69 - 120* |

## Method: FL-PRO - Florida - Petroleum Range Organics (GC)

**Lab Sample ID: MB 400-130634/14-A**
**Matrix: Solid**
**Analysis Batch: 130817**

**Client Sample ID: MB 400-130634/14-A**
**Prep Type: Total/NA**
**Prep Batch: 130634**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons (C8-C40) | 1.3 | U | 7.5 | 1.3 | mg/Kg | | 05/09/11 08:25 | 05/11/11 00:09 | 1 |

| *Surrogate* | *MB % Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-C39* | *62* | | *37 - 138* | *05/09/11 08:25* | *05/11/11 00:09* | *1* |
| *o-Terphenyl* | *92* | | *50 - 121* | *05/09/11 08:25* | *05/11/11 00:09* | *1* |

**Lab Sample ID: LCS 400-130634/13-A**
**Matrix: Solid**
**Analysis Batch: 130817**

**Client Sample ID: LCS 400-130634/13-A**
**Prep Type: Total/NA**
**Prep Batch: 130634**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons (C8-C40) | 113 | 101 | | mg/Kg | | 89 | 50 - 124 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *n-C39* | *74* | | *37 - 138* |
| *o-Terphenyl* | *100* | | *50 - 121* |

**Lab Sample ID: 400-55661-3 MS**
**Matrix: Solid**
**Analysis Batch: 130854**

**Client Sample ID: MW-4 (8')**
**Prep Type: Total/NA**
**Prep Batch: 130634**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons (C8-C40) | 11000 | | 122 | 11700 | J3 | mg/Kg | ☼ | 190 | 11 - 154 |

## Method: FL-PRO - Florida - Petroleum Range Organics (GC) (Continued)

**Lab Sample ID: 400-55661-3 MS**
**Matrix: Solid**
**Analysis Batch: 130854**

**Client Sample ID: MW-4 (8')**
**Prep Type: Total/NA**
**Prep Batch: 130634**

| *Surrogate* | *MS % Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *n-C39* | *141* | *J1* | *37 - 138* |
| *o-Terphenyl* | *1096* | *J1* | *50 - 121* |

**Lab Sample ID: 400-55661-3 MSD**
**Matrix: Solid**
**Analysis Batch: 130854**

**Client Sample ID: MW-4 (8')**
**Prep Type: Total/NA**
**Prep Batch: 130634**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons (C8-C40) | 11000 | | 122 | 13900 | J3 | mg/Kg | ☼ | 2020 | 11 - 154 | 17 | 50 |

| *Surrogate* | *MSD % Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *n-C39* | *136* | | *37 - 138* |
| *o-Terphenyl* | *1365* | *J1* | *50 - 121* |

# QC Association Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55661-1

## GC/MS Semi VOA

### Prep Batch: 130621

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 400-130621/9-A | LCS 400-130621/9-A | Total/NA | Solid | 3550B | |
| MB 400-130621/10-A | MB 400-130621/10-A | Total/NA | Solid | 3550B | |
| 400-55661-1 | MW-5 (8') | Total/NA | Solid | 3550B | |
| 400-55661-2 | DMW-1 (8') | Total/NA | Solid | 3550B | |
| 400-55661-3 | MW-4 (8') | Total/NA | Solid | 3550B | |

### Analysis Batch: 130645

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 400-130621/10-A | MB 400-130621/10-A | Total/NA | Solid | 8270C | 130621 |
| LCS 400-130621/9-A | LCS 400-130621/9-A | Total/NA | Solid | 8270C | 130621 |

### Analysis Batch: 130929

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-55661-1 | MW-5 (8') | Total/NA | Solid | 8270C | 130621 |
| 400-55661-2 | DMW-1 (8') | Total/NA | Solid | 8270C | 130621 |
| 400-55661-3 | MW-4 (8') | Total/NA | Solid | 8270C | 130621 |

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## GC VOA

### Analysis Batch: 130608

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 400-130678/1-A | MB 400-130678/1-A | Total/NA | Solid | 8021B | 130678 |
| LCS 400-130678/2-A | LCS 400-130678/2-A | Total/NA | Solid | 8021B | 130678 |
| 400-55618-A-1-D MS | 400-55618-A-1-D MS | Total/NA | Solid | 8021B | 130678 |
| 400-55618-A-1-E MSD | 400-55618-A-1-E MSD | Total/NA | Solid | 8021B | 130678 |
| 400-55661-1 | MW-5 (8') | Total/NA | Solid | 8021B | 130678 |

### Prep Batch: 130678

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 400-130678/1-A | MB 400-130678/1-A | Total/NA | Solid | 5035 | |
| LCS 400-130678/2-A | LCS 400-130678/2-A | Total/NA | Solid | 5035 | |
| 400-55618-A-1-D MS | 400-55618-A-1-D MS | Total/NA | Solid | 5035 | |
| 400-55618-A-1-E MSD | 400-55618-A-1-E MSD | Total/NA | Solid | 5035 | |
| 400-55661-1 | MW-5 (8') | Total/NA | Solid | 5035 | |

### Prep Batch: 130745

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 400-130745/1-A | MB 400-130745/1-A | Total/NA | Solid | 5035 | |
| LCS 400-130745/2-A | LCS 400-130745/2-A | Total/NA | Solid | 5035 | |
| 400-55684-A-1-C MS | 400-55684-A-1-C MS | Total/NA | Solid | 5035 | |
| 400-55684-A-1-D MSD | 400-55684-A-1-D MSD | Total/NA | Solid | 5035 | |
| 400-55661-2 | DMW-1 (8') | Total/NA | Solid | 5035 | |
| 400-55661-3 | MW-4 (8') | Total/NA | Solid | 5035 | |

### Analysis Batch: 130752

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 400-130745/1-A | MB 400-130745/1-A | Total/NA | Solid | 8021B | 130745 |
| LCS 400-130745/2-A | LCS 400-130745/2-A | Total/NA | Solid | 8021B | 130745 |
| 400-55684-A-1-C MS | 400-55684-A-1-C MS | Total/NA | Solid | 8021B | 130745 |
| 400-55684-A-1-D MSD | 400-55684-A-1-D MSD | Total/NA | Solid | 8021B | 130745 |
| 400-55661-2 | DMW-1 (8') | Total/NA | Solid | 8021B | 130745 |
| 400-55661-3 | MW-4 (8') | Total/NA | Solid | 8021B | 130745 |

# QC Association Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55661-1

## GC Semi VOA

### Prep Batch: 130634

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-55661-1 | MW-5 (8') | Total/NA | Solid | 3550B | |
| 400-55661-2 | DMW-1 (8') | Total/NA | Solid | 3550B | |
| 400-55661-3 | MW-4 (8') | Total/NA | Solid | 3550B | |
| 400-55661-3 MS | MW-4 (8') | Total/NA | Solid | 3550B | |
| 400-55661-3 MSD | MW-4 (8') | Total/NA | Solid | 3550B | |
| LCS 400-130634/13-A | LCS 400-130634/13-A | Total/NA | Solid | 3550B | |
| MB 400-130634/14-A | MB 400-130634/14-A | Total/NA | Solid | 3550B | |

### Analysis Batch: 130817

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 400-130634/14-A | MB 400-130634/14-A | Total/NA | Solid | FL-PRO | 130634 |
| LCS 400-130634/13-A | LCS 400-130634/13-A | Total/NA | Solid | FL-PRO | 130634 |
| 400-55661-1 | MW-5 (8') | Total/NA | Solid | FL-PRO | 130634 |

### Analysis Batch: 130854

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-55661-3 MS | MW-4 (8') | Total/NA | Solid | FL-PRO | 130634 |
| 400-55661-3 MSD | MW-4 (8') | Total/NA | Solid | FL-PRO | 130634 |
| 400-55661-2 | DMW-1 (8') | Total/NA | Solid | FL-PRO | 130634 |
| 400-55661-3 | MW-4 (8') | Total/NA | Solid | FL-PRO | 130634 |

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## General Chemistry

### Analysis Batch: 130581

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-55661-1 | MW-5 (8') | Total/NA | Solid | Moisture | |
| 400-55661-2 | DMW-1 (8') | Total/NA | Solid | Moisture | |
| 400-55661-3 | MW-4 (8') | Total/NA | Solid | Moisture | |

400-55661

# Chain of Custody Record

Lab Report No.:

Company: Herdstar

Address: 803 Govt. St., Ste. A
Mobile, AL 36602

**Gulf Coast LabNet, Inc.**
**An Environmental Lab Services Co.**
Phone: (251) 625-1331
Fax: (251) 625-1299

Modified from DEP Form #: 62-770.900(2)

Page 1 of 1

FDEP Facility No.:

Project Name: ~~NAS Pensacola~~ (CM)

Location: Naval Hospital Pensacola

Project No.:

Attn: Curtis Mills

Phone:

Fax:

Sampled by [Print Name]/Affiliation: Curtis Mills / AES

Sampler Signature:

←Preservative

←Analysis

**REQUESTED DUE DATE**

| Item No. | Field ID No. | Sampled Date | Sampled Time | Grab or Comp. | Matrix Codes | No. Cont. | DRO (8015M) | PAH 8270 | FL-PRO | | | | | Remarks | Lab. No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MW-5 (8') | 5/4/11 | 1040 | Grab | SO | 4 | X | X | X | | | | | | |
| 2 | DMW-1 (8') | 5/4/11 | 1045 | Grab | SO | 4 | X | X | X | | | | | | |
| 3 | MW-4 (8') | 5/4/11 | 1050 | Grab | SO | 4 | X | X | X | | | | | | |

Shipment Method

Out: / / Via:

Returned: / / Via:

Additional Comments

12 ←Total Number of Containers

| Item # | Relinquished by / Affiliation | Date | Time | Accepted by / Affiliation | Date | Time |
|---|---|---|---|---|---|---|
| | Empty Containers | 5-4-11 | 0800 | [signature] / AES | 5/4/11 | 0800 |
| | [signature] / AES | 5/4/11 | 1925 | [signature] / GCL | 5-4-11 | 1925 |
| | [signature] / GCL | 5-5-11 | 1200 | [signature] / GCL | 5-5-11 | 1200 |
| | | 5-5-11 | 1510 | [signature] | 5-5-11 | 1510 |

| Cooler No.(s) / Temperature(s) (°C) | Sampling Kit No. | Equipment ID No. |
|---|---|---|
| 0.4°C | | |

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H = Hydrochloric acid + ice I = Ice only N = Nitric acid + ice S = Sulfuric acid + ice O = Other (specify)

# Login Sample Receipt Checklist

Client: Aerostar Environmental Services, Inc.

Job Number: 400-55661-1

**Login Number: 55661**
**List Number: 1**
**Creator: Hor, Koma**

**List Source: TestAmerica Pensacola**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | N/A | |
| The cooler's custody seal, if present, is intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | 0.4°C |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the sample IDs on the containers and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | True | |

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# Certification Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55661-1

| Laboratory | Authority | Program | EPA Region | Certification ID |
|---|---|---|---|---|
| TestAmerica Pensacola | | USDA | | P330-10-00407 |
| TestAmerica Pensacola | Alabama | State Program | 4 | 40150 |
| TestAmerica Pensacola | Arizona | State Program | 9 | AZ0710 |
| TestAmerica Pensacola | Arkansas | State Program | 6 | 88-0689 |
| TestAmerica Pensacola | Florida | NELAC | 4 | E81010 |
| TestAmerica Pensacola | Georgia | Georgia EPD | 4 | N/A |
| TestAmerica Pensacola | Illinois | NELAC | 5 | 200041 |
| TestAmerica Pensacola | Iowa | State Program | 7 | 367 |
| TestAmerica Pensacola | Kansas | NELAC | 7 | E-10253 |
| TestAmerica Pensacola | Kentucky | Kentucky UST | 4 | 53 |
| TestAmerica Pensacola | Louisiana | NELAC | 6 | 30748 |
| TestAmerica Pensacola | Maryland | State Program | 3 | 233 |
| TestAmerica Pensacola | Massachusetts | State Program | 1 | M-FL094 |
| TestAmerica Pensacola | Michigan | State Program | 5 | 9912 |
| TestAmerica Pensacola | New Hampshire | NELAC | 1 | 2505 |
| TestAmerica Pensacola | New Jersey | NELAC | 2 | FL006 |
| TestAmerica Pensacola | North Carolina | North Carolina DENR | 4 | 314 |
| TestAmerica Pensacola | Oklahoma | State Program | 6 | 9810 |
| TestAmerica Pensacola | Pennsylvania | NELAC | 3 | 68-00467 |
| TestAmerica Pensacola | Rhode Island | State Program | 1 | LAO00307 |
| TestAmerica Pensacola | South Carolina | State Program | 4 | 96026 |
| TestAmerica Pensacola | Tennessee | State Program | 4 | TN02907 |
| TestAmerica Pensacola | Texas | NELAC | 6 | T104704286-09-1 |
| TestAmerica Pensacola | Virginia | State Program | 3 | 00008 |
| TestAmerica Pensacola | Washington | State Program | 10 | C915 |
| TestAmerica Pensacola | West Virginia | West Virginia DEP | 3 | 136 |

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Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-55865-1
Client Project/Site: Naval Hospital - Pensacola, FL

For:
Aerostar Environmental Services, Inc.
803 Government Street
Suite A
Mobile, Alabama 36602

Attn: Mr. Curtis Mills

*Authorized for release by:*
*05/24/2011 02:13:39 PM*

Carolyn Hooper
Project Manager I
carolyn.hooper@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

*Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC requirements for accredited parameters, exceptions are noted in this report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

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## Job ID: 400-55865-1

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**Laboratory: TestAmerica Pensacola**

**Narrative**

**Job Narrative**
**400-55865-1**

**Receipt**
All samples were received in good condition within temperature requirements.

**GC/MS Semi VOA**
Method(s) 8270C LL: The following sample was diluted for analytes that were above the calibration range of the instrument. : MW-1 (400-55865-3), DUP (400-55865-9), MW-4 (400-55865-7).

**HPLC**
Method(s) 8011: The continuing calibration verification (CCV) for EDB recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

**GC Semi VOA**
Method(s) FL-PRO: Surrogate recovery for the following sample(s) was outside control limits: MW-1 (400-55865-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

**Organic Prep**
Method(s) 3520C: Insufficient sample volume was provided to meet method-mandated requirements for matrix spike/matrix spike duplicate (MS/MSD) analyses for batches 131177 Method 8270C_LL and 131184 Method FL_PRO.

# Sample Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55865-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 400-55865-1 | MW-2 | Water | 05/12/11 10:02 | 05/13/11 14:30 |
| 400-55865-2 | MW-7 | Water | 05/12/11 10:51 | 05/13/11 14:30 |
| 400-55865-3 | MW-1 | Water | 05/12/11 11:23 | 05/13/11 14:30 |
| 400-55865-4 | MW-8 | Water | 05/12/11 11:53 | 05/13/11 14:30 |
| 400-55865-5 | MW-5 | Water | 05/12/11 12:33 | 05/13/11 14:30 |
| 400-55865-6 | MW-6 | Water | 05/12/11 12:59 | 05/13/11 14:30 |
| 400-55865-7 | MW-4 | Water | 05/12/11 13:36 | 05/13/11 14:30 |
| 400-55865-8 | DMW-1 | Water | 05/12/11 15:10 | 05/13/11 14:30 |
| 400-55865-9 | DUP | Water | 05/12/11 00:00 | 05/13/11 14:30 |
| 400-55865-10 | EB | Water | 05/12/11 15:20 | 05/13/11 14:30 |

# Detection Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55865-1

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## Client Sample ID: MW-2 — Lab Sample ID: 400-55865-1

No Detections.

## Client Sample ID: MW-7 — Lab Sample ID: 400-55865-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons (C8-C40) | 19 | I | 95 | 15 | ug/L | 1 | | FL-PRO | Total/NA |

## Client Sample ID: MW-1 — Lab Sample ID: 400-55865-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 1.0 | I | 5.0 | 0.50 | ug/L | 1 | | 8260B | Total/NA |
| Acenaphthene | 0.22 | | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |
| Fluorene | 1.2 | | 0.19 | 0.020 | ug/L | 1 | | 8270C LL | Total/NA |
| 1-Methylnaphthalene | 16 | | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |
| 2-Methylnaphthalene | 20 | | 1.9 | 0.19 | ug/L | 10 | | 8270C LL | Total/NA |
| Naphthalene | 11 | | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |
| Phenanthrene | 0.27 | | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |
| Total Petroleum Hydrocarbons (C8-C40) | 1600 | | 110 | 18 | ug/L | 1 | | FL-PRO | Total/NA |

## Client Sample ID: MW-8 — Lab Sample ID: 400-55865-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bromoform | 1.1 | I | 5.0 | 0.58 | ug/L | 1 | | 8260B | Total/NA |
| Lead | 0.0022 | I | 0.0050 | 0.0020 | mg/L | 1 | | 6010B | Total/NA |

## Client Sample ID: MW-5 — Lab Sample ID: 400-55865-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 2.3 | I | 5.0 | 0.50 | ug/L | 1 | | 8260B | Total/NA |
| Xylenes, Total | 11 | | 10 | 1.6 | ug/L | 1 | | 8260B | Total/NA |
| Acenaphthene | 0.095 | I | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |
| 1-Methylnaphthalene | 3.9 | | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |
| 2-Methylnaphthalene | 4.3 | | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |
| Naphthalene | 4.9 | | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |
| Total Petroleum Hydrocarbons (C8-C40) | 1900 | | 100 | 17 | ug/L | 1 | | FL-PRO | Total/NA |

## Client Sample ID: MW-6 — Lab Sample ID: 400-55865-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons (C8-C40) | 390 | | 130 | 21 | ug/L | 1 | | FL-PRO | Total/NA |

## Client Sample ID: MW-4 — Lab Sample ID: 400-55865-7

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 6.2 | | 5.0 | 0.50 | ug/L | 1 | | 8260B | Total/NA |
| Xylenes, Total | 12 | | 10 | 1.6 | ug/L | 1 | | 8260B | Total/NA |
| Acenaphthene | 0.25 | | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |
| Fluorene | 1.6 | | 0.19 | 0.020 | ug/L | 1 | | 8270C LL | Total/NA |
| 1-Methylnaphthalene | 17 | | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |
| 2-Methylnaphthalene | 27 | | 1.9 | 0.19 | ug/L | 10 | | 8270C LL | Total/NA |
| Naphthalene | 9.0 | | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |
| Phenanthrene | 1.1 | | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |

# Detection Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55865-1

## Client Sample ID: MW-4 (Continued) — Lab Sample ID: 400-55865-7

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons (C8-C40) | 3200 | | 120 | 19 | ug/L | 1 | | FL-PRO | Total/NA |
| Lead | 0.0031 | I | 0.0050 | 0.0020 | mg/L | 1 | | 6010B | Total/NA |

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## Client Sample ID: DMW-1 — Lab Sample ID: 400-55865-8

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1-Methylnaphthalene | 0.074 | I | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |
| 2-Methylnaphthalene | 0.11 | I | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |
| Naphthalene | 0.063 | I | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: DUP — Lab Sample ID: 400-55865-9

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 5.1 | | 5.0 | 0.50 | ug/L | 1 | | 8260B | Total/NA |
| Xylenes, Total | 11 | | 10 | 1.6 | ug/L | 1 | | 8260B | Total/NA |
| Acenaphthene | 0.19 | | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |
| Fluorene | 1.5 | | 0.19 | 0.020 | ug/L | 1 | | 8270C LL | Total/NA |
| 1-Methylnaphthalene | 16 | | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |
| 2-Methylnaphthalene | 19 | | 1.9 | 0.19 | ug/L | 10 | | 8270C LL | Total/NA |
| Naphthalene | 8.4 | | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |
| Phenanthrene | 1.1 | | 0.19 | 0.019 | ug/L | 1 | | 8270C LL | Total/NA |
| Total Petroleum Hydrocarbons (C8-C40) | 2700 | | 140 | 22 | ug/L | 1 | | FL-PRO | Total/NA |
| Lead | 0.0025 | I | 0.0050 | 0.0020 | mg/L | 1 | | 6010B | Total/NA |

## Client Sample ID: EB — Lab Sample ID: 400-55865-10

No Detections.

# Client Sample Results

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55865-1

## Client Sample ID: MW-2

**Date Collected: 05/12/11 10:02**
**Date Received: 05/13/11 14:30**

## Lab Sample ID: 400-55865-1

**Matrix: Water**

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### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.34 | U | 1.0 | 0.34 | ug/L | | | 05/18/11 14:13 | 1 |
| Bromobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 14:13 | 1 |
| Dichlorobromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| 1,3-Dichloropropene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| Bromoform | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 14:13 | 1 |
| Bromomethane | 0.91 | U | 5.0 | 0.91 | ug/L | | | 05/18/11 14:13 | 1 |
| Carbon tetrachloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| Chlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| Chloroethane | 0.63 | U | 5.0 | 0.63 | ug/L | | | 05/18/11 14:13 | 1 |
| Chloroform | 0.60 | U | 5.0 | 0.60 | ug/L | | | 05/18/11 14:13 | 1 |
| Chloromethane | 0.83 | U | 5.0 | 0.83 | ug/L | | | 05/18/11 14:13 | 1 |
| Chlorodibromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| Dibromomethane | 0.59 | U | 5.0 | 0.59 | ug/L | | | 05/18/11 14:13 | 1 |
| 1,2-Dichlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| 1,3-Dichlorobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 14:13 | 1 |
| 1,4-Dichlorobenzene | 0.64 | U | 5.0 | 0.64 | ug/L | | | 05/18/11 14:13 | 1 |
| Dichlorodifluoromethane | 0.85 | U | 5.0 | 0.85 | ug/L | | | 05/18/11 14:13 | 1 |
| 1,1-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| 1,2-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| 1,1-Dichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| 1,2-Dichloroethene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| 1,2-Dichloroethene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| 1,2-Dichloropropane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| 1,3-Dichloropropene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| Ethylbenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| Methylene Chloride | 1.0 | U | 5.0 | 1.0 | ug/L | | | 05/18/11 14:13 | 1 |
| Methyl tert-butyl ether | 0.74 | U | 5.0 | 0.74 | ug/L | | | 05/18/11 14:13 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 14:13 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| Tetrachloroethene | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 14:13 | 1 |
| Toluene | 0.70 | U | 5.0 | 0.70 | ug/L | | | 05/18/11 14:13 | 1 |
| 1,1,1-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| 1,1,2-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| Trichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| Trichlorofluoromethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 14:13 | 1 |
| 1,2,3-Trichloropropane | 0.86 | U | 5.0 | 0.86 | ug/L | | | 05/18/11 14:13 | 1 |
| Vinyl chloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:13 | 1 |
| Xylenes, Total | 1.6 | U | 10 | 1.6 | ug/L | | | 05/18/11 14:13 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *100* | | *76 - 114* | | *05/18/11 14:13* | *1* |
| *Dibromofluoromethane* | *105* | | *80 - 119* | | *05/18/11 14:13* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *75 - 125* | | *05/18/11 14:13* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |
| Acenaphthylene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |
| Anthracene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |
| Benzo[a]anthracene | 0.037 | U | 0.19 | 0.037 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |

## Client Sample ID: MW-2

**Lab Sample ID: 400-55865-1**

**Date Collected: 05/12/11 10:02**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzo[a]pyrene | 0.037 | U | 0.19 | 0.037 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |
| Benzo[b]fluoranthene | 0.037 | U | 0.19 | 0.037 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |
| Benzo[g,h,i]perylene | 0.037 | U | 0.19 | 0.037 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |
| Benzo[k]fluoranthene | 0.037 | U | 0.19 | 0.037 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |
| Chrysene | 0.037 | U | 0.19 | 0.037 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |
| Dibenz(a,h)anthracene | 0.037 | U | 0.19 | 0.037 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |
| Fluoranthene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |
| Fluorene | 0.020 | U | 0.19 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.037 | U | 0.19 | 0.037 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |
| 1-Methylnaphthalene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |
| 2-Methylnaphthalene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |
| Naphthalene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |
| Phenanthrene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |
| Pyrene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:00 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl* | *64* | | *31 - 121* | *05/17/11 08:44* | *05/19/11 14:00* | *1* |
| *Nitrobenzene-d5* | *62* | | *39 - 126* | *05/17/11 08:44* | *05/19/11 14:00* | *1* |
| *Terphenyl-d14* | *87* | | *63 - 137* | *05/17/11 08:44* | *05/19/11 14:00* | *1* |

### Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ethylene Dibromide | 0.0050 | U | 0.020 | 0.0050 | ug/L | | 05/19/11 15:13 | 05/19/11 20:02 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *100* | | *51 - 149* | *05/19/11 15:13* | *05/19/11 20:02* | *1* |

### Method: FL-PRO - Florida - Petroleum Range Organics (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons (C8-C40) | 18 | U | 110 | 18 | ug/L | | 05/17/11 08:56 | 05/18/11 15:02 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-C39* | *87* | | *20 - 176* | *05/17/11 08:56* | *05/18/11 15:02* | *1* |
| *o-Terphenyl* | *102* | | *49 - 143* | *05/17/11 08:56* | *05/18/11 15:02* | *1* |

### Method: 6010B - Lead

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lead | 0.0020 | U | 0.0050 | 0.0020 | mg/L | | 05/17/11 09:45 | 05/19/11 13:51 | 1 |

## Client Sample ID: MW-7

**Lab Sample ID: 400-55865-2**

**Date Collected: 05/12/11 10:51**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.34 | U | 1.0 | 0.34 | ug/L | | | 05/18/11 14:41 | 1 |
| Bromobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 14:41 | 1 |
| Dichlorobromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| 1,3-Dichloropropene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| Bromoform | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 14:41 | 1 |
| Bromomethane | 0.91 | U | 5.0 | 0.91 | ug/L | | | 05/18/11 14:41 | 1 |

## Client Sample ID: MW-7

**Lab Sample ID: 400-55865-2**

**Date Collected: 05/12/11 10:51**

**Matrix: Water**

**Date Received: 05/13/11 14:30**

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### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon tetrachloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| Chlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| Chloroethane | 0.63 | U | 5.0 | 0.63 | ug/L | | | 05/18/11 14:41 | 1 |
| Chloroform | 0.60 | U | 5.0 | 0.60 | ug/L | | | 05/18/11 14:41 | 1 |
| Chloromethane | 0.83 | U | 5.0 | 0.83 | ug/L | | | 05/18/11 14:41 | 1 |
| Chlorodibromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| Dibromomethane | 0.59 | U | 5.0 | 0.59 | ug/L | | | 05/18/11 14:41 | 1 |
| 1,2-Dichlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| 1,3-Dichlorobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 14:41 | 1 |
| 1,4-Dichlorobenzene | 0.64 | U | 5.0 | 0.64 | ug/L | | | 05/18/11 14:41 | 1 |
| Dichlorodifluoromethane | 0.85 | U | 5.0 | 0.85 | ug/L | | | 05/18/11 14:41 | 1 |
| 1,1-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| 1,2-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| 1,1-Dichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| 1,2-Dichloroethene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| 1,2-Dichloroethene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| 1,2-Dichloropropane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| 1,3-Dichloropropene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| Ethylbenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| Methylene Chloride | 1.0 | U | 5.0 | 1.0 | ug/L | | | 05/18/11 14:41 | 1 |
| Methyl tert-butyl ether | 0.74 | U | 5.0 | 0.74 | ug/L | | | 05/18/11 14:41 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 14:41 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| Tetrachloroethene | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 14:41 | 1 |
| Toluene | 0.70 | U | 5.0 | 0.70 | ug/L | | | 05/18/11 14:41 | 1 |
| 1,1,1-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| 1,1,2-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| Trichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| Trichlorofluoromethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 14:41 | 1 |
| 1,2,3-Trichloropropane | 0.86 | U | 5.0 | 0.86 | ug/L | | | 05/18/11 14:41 | 1 |
| Vinyl chloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 14:41 | 1 |
| Xylenes, Total | 1.6 | U | 10 | 1.6 | ug/L | | | 05/18/11 14:41 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *99* | | *76 - 114* | | *05/18/11 14:41* | *1* |
| *Dibromofluoromethane* | *104* | | *80 - 119* | | *05/18/11 14:41* | *1* |
| *Toluene-d8 (Surr)* | *100* | | *75 - 125* | | *05/18/11 14:41* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |
| Acenaphthylene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |
| Anthracene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |
| Benzo[a]anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |
| Benzo[a]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |
| Benzo[b]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |
| Benzo[g,h,i]perylene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |
| Benzo[k]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |
| Chrysene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |
| Dibenz(a,h)anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |

## Client Sample ID: MW-7

**Lab Sample ID: 400-55865-2**

**Date Collected: 05/12/11 10:51**
**Date Received: 05/13/11 14:30**

**Matrix: Water**

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Fluoranthene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |
| Fluorene | 0.020 | U | 0.19 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |
| 1-Methylnaphthalene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |
| 2-Methylnaphthalene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |
| Naphthalene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |
| Phenanthrene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |
| Pyrene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 14:31 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl* | *58* | | *31 - 121* | *05/17/11 08:44* | *05/19/11 14:31* | *1* |
| *Nitrobenzene-d5* | *58* | | *39 - 126* | *05/17/11 08:44* | *05/19/11 14:31* | *1* |
| *Terphenyl-d14* | *88* | | *63 - 137* | *05/17/11 08:44* | *05/19/11 14:31* | *1* |

### Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ethylene Dibromide | 0.0051 | U | 0.020 | 0.0051 | ug/L | | 05/19/11 15:13 | 05/19/11 20:27 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *101* | | *51 - 149* | *05/19/11 15:13* | *05/19/11 20:27* | *1* |

### Method: FL-PRO - Florida - Petroleum Range Organics (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons (C8-C40) | 19 | I | 95 | 15 | ug/L | | 05/17/11 08:56 | 05/18/11 15:12 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-C39* | *91* | | *20 - 176* | *05/17/11 08:56* | *05/18/11 15:12* | *1* |
| *o-Terphenyl* | *94* | | *49 - 143* | *05/17/11 08:56* | *05/18/11 15:12* | *1* |

### Method: 6010B - Lead

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lead | 0.0020 | U | 0.0050 | 0.0020 | mg/L | | 05/17/11 09:45 | 05/19/11 15:25 | 1 |

## Client Sample ID: MW-1

**Lab Sample ID: 400-55865-3**

**Date Collected: 05/12/11 11:23**
**Date Received: 05/13/11 14:30**

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.34 | U | 1.0 | 0.34 | ug/L | | | 05/18/11 15:09 | 1 |
| Bromobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 15:09 | 1 |
| Dichlorobromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| 1,3-Dichloropropene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| Bromoform | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 15:09 | 1 |
| Bromomethane | 0.91 | U | 5.0 | 0.91 | ug/L | | | 05/18/11 15:09 | 1 |
| Carbon tetrachloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| Chlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| Chloroethane | 0.63 | U | 5.0 | 0.63 | ug/L | | | 05/18/11 15:09 | 1 |
| Chloroform | 0.60 | U | 5.0 | 0.60 | ug/L | | | 05/18/11 15:09 | 1 |
| Chloromethane | 0.83 | U | 5.0 | 0.83 | ug/L | | | 05/18/11 15:09 | 1 |
| Chlorodibromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |

## Client Sample ID: MW-1

**Date Collected: 05/12/11 11:23**
**Date Received: 05/13/11 14:30**

## Lab Sample ID: 400-55865-3

**Matrix: Water**

6

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dibromomethane | 0.59 | U | 5.0 | 0.59 | ug/L | | | 05/18/11 15:09 | 1 |
| 1,2-Dichlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| 1,3-Dichlorobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 15:09 | 1 |
| 1,4-Dichlorobenzene | 0.64 | U | 5.0 | 0.64 | ug/L | | | 05/18/11 15:09 | 1 |
| Dichlorodifluoromethane | 0.85 | U | 5.0 | 0.85 | ug/L | | | 05/18/11 15:09 | 1 |
| 1,1-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| 1,2-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| 1,1-Dichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| 1,2-Dichloroethene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| 1,2-Dichloroethene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| 1,2-Dichloropropane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| 1,3-Dichloropropene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| **Ethylbenzene** | **1.0** | **I** | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| Methylene Chloride | 1.0 | U | 5.0 | 1.0 | ug/L | | | 05/18/11 15:09 | 1 |
| Methyl tert-butyl ether | 0.74 | U | 5.0 | 0.74 | ug/L | | | 05/18/11 15:09 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 15:09 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| Tetrachloroethene | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 15:09 | 1 |
| Toluene | 0.70 | U | 5.0 | 0.70 | ug/L | | | 05/18/11 15:09 | 1 |
| 1,1,1-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| 1,1,2-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| Trichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| Trichlorofluoromethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 15:09 | 1 |
| 1,2,3-Trichloropropane | 0.86 | U | 5.0 | 0.86 | ug/L | | | 05/18/11 15:09 | 1 |
| Vinyl chloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:09 | 1 |
| Xylenes, Total | 1.6 | U | 10 | 1.6 | ug/L | | | 05/18/11 15:09 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *97* | | *76 - 114* | | *05/18/11 15:09* | *1* |
| *Dibromofluoromethane* | *104* | | *80 - 119* | | *05/18/11 15:09* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *75 - 125* | | *05/18/11 15:09* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Acenaphthene** | **0.22** | | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 15:02 | 1 |
| Acenaphthylene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 15:02 | 1 |
| Anthracene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 15:02 | 1 |
| Benzo[a]anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 15:02 | 1 |
| Benzo[a]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 15:02 | 1 |
| Benzo[b]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 15:02 | 1 |
| Benzo[g,h,i]perylene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 15:02 | 1 |
| Benzo[k]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 15:02 | 1 |
| Chrysene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 15:02 | 1 |
| Dibenz(a,h)anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 15:02 | 1 |
| Fluoranthene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 15:02 | 1 |
| **Fluorene** | **1.2** | | 0.19 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 15:02 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 15:02 | 1 |
| **1-Methylnaphthalene** | **16** | | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 15:02 | 1 |
| **2-Methylnaphthalene** | **20** | | 1.9 | 0.19 | ug/L | | 05/17/11 08:44 | 05/19/11 19:08 | 10 |
| **Naphthalene** | **11** | | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 15:02 | 1 |

## Client Sample ID: MW-1

**Lab Sample ID: 400-55865-3**

**Date Collected: 05/12/11 11:23**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Phenanthrene** | **0.27** | | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 15:02 | 1 |
| Pyrene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 15:02 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl* | *79* | | *31 - 121* | *05/17/11 08:44* | *05/19/11 15:02* | *1* |
| *Nitrobenzene-d5* | *69* | | *39 - 126* | *05/17/11 08:44* | *05/19/11 15:02* | *1* |
| *Terphenyl-d14* | *82* | | *63 - 137* | *05/17/11 08:44* | *05/19/11 15:02* | *1* |

### Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ethylene Dibromide | 0.0051 | U | 0.020 | 0.0051 | ug/L | | 05/19/11 15:13 | 05/19/11 20:51 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *99* | | *51 - 149* | *05/19/11 15:13* | *05/19/11 20:51* | *1* |

### Method: FL-PRO - Florida - Petroleum Range Organics (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Petroleum Hydrocarbons (C8-C40)** | **1600** | | 110 | 18 | ug/L | | 05/17/11 08:56 | 05/18/11 15:21 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-C39* | *154* | | *20 - 176* | *05/17/11 08:56* | *05/18/11 15:21* | *1* |
| *o-Terphenyl* | *149* | *J1* | *49 - 143* | *05/17/11 08:56* | *05/18/11 15:21* | *1* |

### Method: 6010B - Lead

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lead | 0.0020 | U | 0.0050 | 0.0020 | mg/L | | 05/17/11 09:45 | 05/19/11 14:16 | 1 |

## Client Sample ID: MW-8

**Lab Sample ID: 400-55865-4**

**Date Collected: 05/12/11 11:53**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.34 | U | 1.0 | 0.34 | ug/L | | | 05/18/11 15:38 | 1 |
| Bromobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 15:38 | 1 |
| Dichlorobromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| 1,3-Dichloropropene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| **Bromoform** | **1.1** | **I** | 5.0 | 0.58 | ug/L | | | 05/18/11 15:38 | 1 |
| Bromomethane | 0.91 | U | 5.0 | 0.91 | ug/L | | | 05/18/11 15:38 | 1 |
| Carbon tetrachloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| Chlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| Chloroethane | 0.63 | U | 5.0 | 0.63 | ug/L | | | 05/18/11 15:38 | 1 |
| Chloroform | 0.60 | U | 5.0 | 0.60 | ug/L | | | 05/18/11 15:38 | 1 |
| Chloromethane | 0.83 | U | 5.0 | 0.83 | ug/L | | | 05/18/11 15:38 | 1 |
| Chlorodibromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| Dibromomethane | 0.59 | U | 5.0 | 0.59 | ug/L | | | 05/18/11 15:38 | 1 |
| 1,2-Dichlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| 1,3-Dichlorobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 15:38 | 1 |
| 1,4-Dichlorobenzene | 0.64 | U | 5.0 | 0.64 | ug/L | | | 05/18/11 15:38 | 1 |
| Dichlorodifluoromethane | 0.85 | U | 5.0 | 0.85 | ug/L | | | 05/18/11 15:38 | 1 |
| 1,1-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |

## Client Sample ID: MW-8

**Date Collected: 05/12/11 11:53**
**Date Received: 05/13/11 14:30**

## Lab Sample ID: 400-55865-4

**Matrix: Water**

6

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| 1,1-Dichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| 1,2-Dichloroethene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| 1,2-Dichloroethene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| 1,2-Dichloropropane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| 1,3-Dichloropropene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| Ethylbenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| Methylene Chloride | 1.0 | U | 5.0 | 1.0 | ug/L | | | 05/18/11 15:38 | 1 |
| Methyl tert-butyl ether | 0.74 | U | 5.0 | 0.74 | ug/L | | | 05/18/11 15:38 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 15:38 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| Tetrachloroethene | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 15:38 | 1 |
| Toluene | 0.70 | U | 5.0 | 0.70 | ug/L | | | 05/18/11 15:38 | 1 |
| 1,1,1-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| 1,1,2-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| Trichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| Trichlorofluoromethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 15:38 | 1 |
| 1,2,3-Trichloropropane | 0.86 | U | 5.0 | 0.86 | ug/L | | | 05/18/11 15:38 | 1 |
| Vinyl chloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 15:38 | 1 |
| Xylenes, Total | 1.6 | U | 10 | 1.6 | ug/L | | | 05/18/11 15:38 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *100* | | *76 - 114* | | *05/18/11 15:38* | *1* |
| *Dibromofluoromethane* | *103* | | *80 - 119* | | *05/18/11 15:38* | *1* |
| *Toluene-d8 (Surr)* | *100* | | *75 - 125* | | *05/18/11 15:38* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |
| Acenaphthylene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |
| Anthracene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |
| Benzo[a]anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |
| Benzo[a]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |
| Benzo[b]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |
| Benzo[g,h,i]perylene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |
| Benzo[k]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |
| Chrysene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |
| Dibenz(a,h)anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |
| Fluoranthene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |
| Fluorene | 0.020 | U | 0.19 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |
| 1-Methylnaphthalene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |
| 2-Methylnaphthalene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |
| Naphthalene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |
| Phenanthrene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |
| Pyrene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 15:33 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl* | *65* | | *31 - 121* | *05/17/11 08:44* | *05/19/11 15:33* | *1* |
| *Nitrobenzene-d5* | *64* | | *39 - 126* | *05/17/11 08:44* | *05/19/11 15:33* | *1* |
| *Terphenyl-d14* | *84* | | *63 - 137* | *05/17/11 08:44* | *05/19/11 15:33* | *1* |

## Client Sample ID: MW-8

**Lab Sample ID: 400-55865-4**

**Date Collected: 05/12/11 11:53**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

### Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ethylene Dibromide | 0.0050 | U | 0.020 | 0.0050 | ug/L | | 05/19/11 15:13 | 05/19/11 21:16 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *102* | | *51 - 149* | *05/19/11 15:13* | *05/19/11 21:16* | *1* |

### Method: FL-PRO - Florida - Petroleum Range Organics (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons (C8-C40) | 21 | U | 130 | 21 | ug/L | | 05/17/11 08:56 | 05/18/11 15:31 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-C39* | *85* | | *20 - 176* | *05/17/11 08:56* | *05/18/11 15:31* | *1* |
| *o-Terphenyl* | *94* | | *49 - 143* | *05/17/11 08:56* | *05/18/11 15:31* | *1* |

### Method: 6010B - Lead

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lead** | **0.0022** | **I** | 0.0050 | 0.0020 | mg/L | | 05/17/11 09:45 | 05/19/11 14:19 | 1 |

## Client Sample ID: MW-5

**Lab Sample ID: 400-55865-5**

**Date Collected: 05/12/11 12:33**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.34 | U | 1.0 | 0.34 | ug/L | | | 05/18/11 16:06 | 1 |
| Bromobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 16:06 | 1 |
| Dichlorobromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| 1,3-Dichloropropene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| Bromoform | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 16:06 | 1 |
| Bromomethane | 0.91 | U | 5.0 | 0.91 | ug/L | | | 05/18/11 16:06 | 1 |
| Carbon tetrachloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| Chlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| Chloroethane | 0.63 | U | 5.0 | 0.63 | ug/L | | | 05/18/11 16:06 | 1 |
| Chloroform | 0.60 | U | 5.0 | 0.60 | ug/L | | | 05/18/11 16:06 | 1 |
| Chloromethane | 0.83 | U | 5.0 | 0.83 | ug/L | | | 05/18/11 16:06 | 1 |
| Chlorodibromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| Dibromomethane | 0.59 | U | 5.0 | 0.59 | ug/L | | | 05/18/11 16:06 | 1 |
| 1,2-Dichlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| 1,3-Dichlorobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 16:06 | 1 |
| 1,4-Dichlorobenzene | 0.64 | U | 5.0 | 0.64 | ug/L | | | 05/18/11 16:06 | 1 |
| Dichlorodifluoromethane | 0.85 | U | 5.0 | 0.85 | ug/L | | | 05/18/11 16:06 | 1 |
| 1,1-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| 1,2-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| 1,1-Dichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| 1,2-Dichloroethene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| 1,2-Dichloroethene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| 1,2-Dichloropropane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| 1,3-Dichloropropene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| **Ethylbenzene** | **2.3** | **I** | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| Methylene Chloride | 1.0 | U | 5.0 | 1.0 | ug/L | | | 05/18/11 16:06 | 1 |
| Methyl tert-butyl ether | 0.74 | U | 5.0 | 0.74 | ug/L | | | 05/18/11 16:06 | 1 |

# Client Sample Results

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55865-1

## Client Sample ID: MW-5

**Date Collected: 05/12/11 12:33**
**Date Received: 05/13/11 14:30**

## Lab Sample ID: 400-55865-5

**Matrix: Water**

6

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 16:06 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| Tetrachloroethene | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 16:06 | 1 |
| Toluene | 0.70 | U | 5.0 | 0.70 | ug/L | | | 05/18/11 16:06 | 1 |
| 1,1,1-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| 1,1,2-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| Trichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| Trichlorofluoromethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 16:06 | 1 |
| 1,2,3-Trichloropropane | 0.86 | U | 5.0 | 0.86 | ug/L | | | 05/18/11 16:06 | 1 |
| Vinyl chloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:06 | 1 |
| **Xylenes, Total** | **11** | | 10 | 1.6 | ug/L | | | 05/18/11 16:06 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *99* | | *76 - 114* | | *05/18/11 16:06* | *1* |
| *Dibromofluoromethane* | *103* | | *80 - 119* | | *05/18/11 16:06* | *1* |
| *Toluene-d8 (Surr)* | *100* | | *75 - 125* | | *05/18/11 16:06* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Acenaphthene** | **0.095** | **I** | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |
| Acenaphthylene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |
| Anthracene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |
| Benzo[a]anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |
| Benzo[a]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |
| Benzo[b]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |
| Benzo[g,h,i]perylene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |
| Benzo[k]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |
| Chrysene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |
| Dibenz(a,h)anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |
| Fluoranthene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |
| Fluorene | 0.020 | U | 0.19 | 0.020 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |
| **1-Methylnaphthalene** | **3.9** | | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |
| **2-Methylnaphthalene** | **4.3** | | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |
| **Naphthalene** | **4.9** | | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |
| Phenanthrene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |
| Pyrene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/20/11 10:12 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl* | *53* | | *31 - 121* | *05/17/11 08:44* | *05/20/11 10:12* | *1* |
| *Nitrobenzene-d5* | *64* | | *39 - 126* | *05/17/11 08:44* | *05/20/11 10:12* | *1* |
| *Terphenyl-d14* | *89* | | *63 - 137* | *05/17/11 08:44* | *05/20/11 10:12* | *1* |

### Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ethylene Dibromide | 0.0051 | U | 0.020 | 0.0051 | ug/L | | 05/19/11 15:13 | 05/19/11 21:41 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *114* | | *51 - 149* | *05/19/11 15:13* | *05/19/11 21:41* | *1* |

## Client Sample ID: MW-5

**Lab Sample ID: 400-55865-5**

**Date Collected: 05/12/11 12:33**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

6

### Method: FL-PRO - Florida - Petroleum Range Organics (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons (C8-C40) | 1900 | | 100 | 17 | ug/L | | 05/17/11 14:26 | 05/18/11 15:40 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-C39* | *85* | | *20 - 176* | *05/17/11 14:26* | *05/18/11 15:40* | *1* |
| *o-Terphenyl* | *90* | | *49 - 143* | *05/17/11 14:26* | *05/18/11 15:40* | *1* |

### Method: 6010B - Lead

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lead | 0.0020 | U | 0.0050 | 0.0020 | mg/L | | 05/17/11 09:45 | 05/19/11 14:22 | 1 |

## Client Sample ID: MW-6

**Lab Sample ID: 400-55865-6**

**Date Collected: 05/12/11 12:59**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.34 | U | 1.0 | 0.34 | ug/L | | | 05/18/11 16:34 | 1 |
| Bromobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 16:34 | 1 |
| Dichlorobromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| 1,3-Dichloropropene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| Bromoform | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 16:34 | 1 |
| Bromomethane | 0.91 | U | 5.0 | 0.91 | ug/L | | | 05/18/11 16:34 | 1 |
| Carbon tetrachloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| Chlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| Chloroethane | 0.63 | U | 5.0 | 0.63 | ug/L | | | 05/18/11 16:34 | 1 |
| Chloroform | 0.60 | U | 5.0 | 0.60 | ug/L | | | 05/18/11 16:34 | 1 |
| Chloromethane | 0.83 | U | 5.0 | 0.83 | ug/L | | | 05/18/11 16:34 | 1 |
| Chlorodibromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| Dibromomethane | 0.59 | U | 5.0 | 0.59 | ug/L | | | 05/18/11 16:34 | 1 |
| 1,2-Dichlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| 1,3-Dichlorobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 16:34 | 1 |
| 1,4-Dichlorobenzene | 0.64 | U | 5.0 | 0.64 | ug/L | | | 05/18/11 16:34 | 1 |
| Dichlorodifluoromethane | 0.85 | U | 5.0 | 0.85 | ug/L | | | 05/18/11 16:34 | 1 |
| 1,1-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| 1,2-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| 1,1-Dichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| 1,2-Dichloroethene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| 1,2-Dichloroethene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| 1,2-Dichloropropane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| 1,3-Dichloropropene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| Ethylbenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| Methylene Chloride | 1.0 | U | 5.0 | 1.0 | ug/L | | | 05/18/11 16:34 | 1 |
| Methyl tert-butyl ether | 0.74 | U | 5.0 | 0.74 | ug/L | | | 05/18/11 16:34 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 16:34 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| Tetrachloroethene | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 16:34 | 1 |
| Toluene | 0.70 | U | 5.0 | 0.70 | ug/L | | | 05/18/11 16:34 | 1 |
| 1,1,1-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| 1,1,2-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| Trichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |

## Client Sample ID: MW-6

**Lab Sample ID: 400-55865-6**

**Date Collected: 05/12/11 12:59**

**Matrix: Water**

**Date Received: 05/13/11 14:30**

6

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 16:34 | 1 |
| 1,2,3-Trichloropropane | 0.86 | U | 5.0 | 0.86 | ug/L | | | 05/18/11 16:34 | 1 |
| Vinyl chloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 16:34 | 1 |
| Xylenes, Total | 1.6 | U | 10 | 1.6 | ug/L | | | 05/18/11 16:34 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *100* | | *76 - 114* | | *05/18/11 16:34* | *1* |
| *Dibromofluoromethane* | *105* | | *80 - 119* | | *05/18/11 16:34* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *75 - 125* | | *05/18/11 16:34* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |
| Acenaphthylene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |
| Anthracene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |
| Benzo[a]anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |
| Benzo[a]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |
| Benzo[b]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |
| Benzo[g,h,i]perylene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |
| Benzo[k]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |
| Chrysene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |
| Dibenz(a,h)anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |
| Fluoranthene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |
| Fluorene | 0.020 | U | 0.19 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |
| 1-Methylnaphthalene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |
| 2-Methylnaphthalene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |
| Naphthalene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |
| Phenanthrene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |
| Pyrene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 16:34 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl* | *74* | | *31 - 121* | *05/17/11 08:44* | *05/19/11 16:34* | *1* |
| *Nitrobenzene-d5* | *71* | | *39 - 126* | *05/17/11 08:44* | *05/19/11 16:34* | *1* |
| *Terphenyl-d14* | *81* | | *63 - 137* | *05/17/11 08:44* | *05/19/11 16:34* | *1* |

### Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ethylene Dibromide | 0.0051 | U | 0.020 | 0.0051 | ug/L | | 05/19/11 15:13 | 05/19/11 22:05 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *96* | | *51 - 149* | *05/19/11 15:13* | *05/19/11 22:05* | *1* |

### Method: FL-PRO - Florida - Petroleum Range Organics (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Petroleum Hydrocarbons (C8-C40)** | **390** | | 130 | 21 | ug/L | | 05/17/11 14:26 | 05/18/11 15:50 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-C39* | *104* | | *20 - 176* | *05/17/11 14:26* | *05/18/11 15:50* | *1* |
| *o-Terphenyl* | *95* | | *49 - 143* | *05/17/11 14:26* | *05/18/11 15:50* | *1* |

## Client Sample ID: MW-6

**Lab Sample ID: 400-55865-6**

**Date Collected: 05/12/11 12:59**

**Matrix: Water**

**Date Received: 05/13/11 14:30**

### Method: 6010B - Lead

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lead | 0.0020 | U | 0.0050 | 0.0020 | mg/L | | 05/17/11 09:45 | 05/19/11 14:26 | 1 |

6

## Client Sample ID: MW-4

**Lab Sample ID: 400-55865-7**

**Date Collected: 05/12/11 13:36**

**Matrix: Water**

**Date Received: 05/13/11 14:30**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.34 | U | 1.0 | 0.34 | ug/L | | | 05/18/11 17:02 | 1 |
| Bromobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 17:02 | 1 |
| Dichlorobromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| 1,3-Dichloropropene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| Bromoform | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 17:02 | 1 |
| Bromomethane | 0.91 | U | 5.0 | 0.91 | ug/L | | | 05/18/11 17:02 | 1 |
| Carbon tetrachloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| Chlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| Chloroethane | 0.63 | U | 5.0 | 0.63 | ug/L | | | 05/18/11 17:02 | 1 |
| Chloroform | 0.60 | U | 5.0 | 0.60 | ug/L | | | 05/18/11 17:02 | 1 |
| Chloromethane | 0.83 | U | 5.0 | 0.83 | ug/L | | | 05/18/11 17:02 | 1 |
| Chlorodibromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| Dibromomethane | 0.59 | U | 5.0 | 0.59 | ug/L | | | 05/18/11 17:02 | 1 |
| 1,2-Dichlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| 1,3-Dichlorobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 17:02 | 1 |
| 1,4-Dichlorobenzene | 0.64 | U | 5.0 | 0.64 | ug/L | | | 05/18/11 17:02 | 1 |
| Dichlorodifluoromethane | 0.85 | U | 5.0 | 0.85 | ug/L | | | 05/18/11 17:02 | 1 |
| 1,1-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| 1,2-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| 1,1-Dichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| 1,2-Dichloroethene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| 1,2-Dichloroethene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| 1,2-Dichloropropane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| 1,3-Dichloropropene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| **Ethylbenzene** | **6.2** | | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| Methylene Chloride | 1.0 | U | 5.0 | 1.0 | ug/L | | | 05/18/11 17:02 | 1 |
| Methyl tert-butyl ether | 0.74 | U | 5.0 | 0.74 | ug/L | | | 05/18/11 17:02 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 17:02 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| Tetrachloroethene | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 17:02 | 1 |
| Toluene | 0.70 | U | 5.0 | 0.70 | ug/L | | | 05/18/11 17:02 | 1 |
| 1,1,1-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| 1,1,2-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| Trichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| Trichlorofluoromethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 17:02 | 1 |
| 1,2,3-Trichloropropane | 0.86 | U | 5.0 | 0.86 | ug/L | | | 05/18/11 17:02 | 1 |
| Vinyl chloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:02 | 1 |
| **Xylenes, Total** | **12** | | 10 | 1.6 | ug/L | | | 05/18/11 17:02 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *99* | | *76 - 114* | | *05/18/11 17:02* | *1* |
| *Dibromofluoromethane* | *104* | | *80 - 119* | | *05/18/11 17:02* | *1* |

## Client Sample ID: MW-4

**Lab Sample ID: 400-55865-7**

**Date Collected: 05/12/11 13:36**

**Matrix: Water**

**Date Received: 05/13/11 14:30**

6

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Surrogate | % Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *Toluene-d8 (Surr)* | *100* | | *75 - 125* | | *05/18/11 17:02* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Acenaphthene** | **0.25** | | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 17:05 | 1 |
| Acenaphthylene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 17:05 | 1 |
| Anthracene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 17:05 | 1 |
| Benzo[a]anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 17:05 | 1 |
| Benzo[a]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 17:05 | 1 |
| Benzo[b]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 17:05 | 1 |
| Benzo[g,h,i]perylene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 17:05 | 1 |
| Benzo[k]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 17:05 | 1 |
| Chrysene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 17:05 | 1 |
| Dibenz(a,h)anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 17:05 | 1 |
| Fluoranthene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 17:05 | 1 |
| **Fluorene** | **1.6** | | 0.19 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 17:05 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 17:05 | 1 |
| **1-Methylnaphthalene** | **17** | | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 17:05 | 1 |
| **2-Methylnaphthalene** | **27** | | 1.9 | 0.19 | ug/L | | 05/17/11 08:44 | 05/20/11 10:43 | 10 |
| **Naphthalene** | **9.0** | | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 17:05 | 1 |
| **Phenanthrene** | **1.1** | | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 17:05 | 1 |
| Pyrene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 17:05 | 1 |

| Surrogate | % Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl* | *48* | | *31 - 121* | *05/17/11 08:44* | *05/19/11 17:05* | *1* |
| *Nitrobenzene-d5* | *70* | | *39 - 126* | *05/17/11 08:44* | *05/19/11 17:05* | *1* |
| *Terphenyl-d14* | *82* | | *63 - 137* | *05/17/11 08:44* | *05/19/11 17:05* | *1* |

### Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ethylene Dibromide | 0.0050 | U | 0.020 | 0.0050 | ug/L | | 05/19/11 15:13 | 05/19/11 22:30 | 1 |

| Surrogate | % Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *100* | | *51 - 149* | *05/19/11 15:13* | *05/19/11 22:30* | *1* |

### Method: FL-PRO - Florida - Petroleum Range Organics (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Petroleum Hydrocarbons (C8-C40)** | **3200** | | 120 | 19 | ug/L | | 05/17/11 14:26 | 05/18/11 16:00 | 1 |

| Surrogate | % Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *n-C39* | *95* | | *20 - 176* | *05/17/11 14:26* | *05/18/11 16:00* | *1* |
| *o-Terphenyl* | *108* | | *49 - 143* | *05/17/11 14:26* | *05/18/11 16:00* | *1* |

### Method: 6010B - Lead

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lead** | **0.0031** | **I** | 0.0050 | 0.0020 | mg/L | | 05/17/11 09:45 | 05/19/11 14:29 | 1 |

# Client Sample Results

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55865-1

**Client Sample ID: DMW-1**
**Date Collected: 05/12/11 15:10**
**Date Received: 05/13/11 14:30**

**Lab Sample ID: 400-55865-8**
**Matrix: Water**

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### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.34 | U | 1.0 | 0.34 | ug/L | | | 05/18/11 17:31 | 1 |
| Bromobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 17:31 | 1 |
| Dichlorobromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| 1,3-Dichloropropene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| Bromoform | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 17:31 | 1 |
| Bromomethane | 0.91 | U | 5.0 | 0.91 | ug/L | | | 05/18/11 17:31 | 1 |
| Carbon tetrachloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| Chlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| Chloroethane | 0.63 | U | 5.0 | 0.63 | ug/L | | | 05/18/11 17:31 | 1 |
| Chloroform | 0.60 | U | 5.0 | 0.60 | ug/L | | | 05/18/11 17:31 | 1 |
| Chloromethane | 0.83 | U | 5.0 | 0.83 | ug/L | | | 05/18/11 17:31 | 1 |
| Chlorodibromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| Dibromomethane | 0.59 | U | 5.0 | 0.59 | ug/L | | | 05/18/11 17:31 | 1 |
| 1,2-Dichlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| 1,3-Dichlorobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 17:31 | 1 |
| 1,4-Dichlorobenzene | 0.64 | U | 5.0 | 0.64 | ug/L | | | 05/18/11 17:31 | 1 |
| Dichlorodifluoromethane | 0.85 | U | 5.0 | 0.85 | ug/L | | | 05/18/11 17:31 | 1 |
| 1,1-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| 1,2-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| 1,1-Dichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| 1,2-Dichloroethene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| 1,2-Dichloroethene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| 1,2-Dichloropropane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| 1,3-Dichloropropene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| Ethylbenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| Methylene Chloride | 1.0 | U | 5.0 | 1.0 | ug/L | | | 05/18/11 17:31 | 1 |
| Methyl tert-butyl ether | 0.74 | U | 5.0 | 0.74 | ug/L | | | 05/18/11 17:31 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 17:31 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| Tetrachloroethene | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 17:31 | 1 |
| Toluene | 0.70 | U | 5.0 | 0.70 | ug/L | | | 05/18/11 17:31 | 1 |
| 1,1,1-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| 1,1,2-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| Trichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| Trichlorofluoromethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 17:31 | 1 |
| 1,2,3-Trichloropropane | 0.86 | U | 5.0 | 0.86 | ug/L | | | 05/18/11 17:31 | 1 |
| Vinyl chloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:31 | 1 |
| Xylenes, Total | 1.6 | U | 10 | 1.6 | ug/L | | | 05/18/11 17:31 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *100* | | *76 - 114* | | *05/18/11 17:31* | *1* |
| *Dibromofluoromethane* | *104* | | *80 - 119* | | *05/18/11 17:31* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *75 - 125* | | *05/18/11 17:31* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |
| Acenaphthylene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |
| Anthracene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |
| Benzo[a]anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |

## Client Sample ID: DMW-1

**Lab Sample ID: 400-55865-8**

**Date Collected: 05/12/11 15:10**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzo[a]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |
| Benzo[b]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |
| Benzo[g,h,i]perylene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |
| Benzo[k]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |
| Chrysene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |
| Dibenz(a,h)anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |
| Fluoranthene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |
| Fluorene | 0.020 | U | 0.19 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |
| **1-Methylnaphthalene** | **0.074** | **I** | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |
| **2-Methylnaphthalene** | **0.11** | **I** | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |
| **Naphthalene** | **0.063** | **I** | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |
| Phenanthrene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |
| Pyrene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 17:36 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl* | *62* | | *31 - 121* | *05/17/11 08:44* | *05/19/11 17:36* | *1* |
| *Nitrobenzene-d5* | *61* | | *39 - 126* | *05/17/11 08:44* | *05/19/11 17:36* | *1* |
| *Terphenyl-d14* | *76* | | *63 - 137* | *05/17/11 08:44* | *05/19/11 17:36* | *1* |

### Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ethylene Dibromide | 0.0051 | U | 0.020 | 0.0051 | ug/L | | 05/19/11 15:13 | 05/19/11 23:19 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *95* | | *51 - 149* | *05/19/11 15:13* | *05/19/11 23:19* | *1* |

### Method: FL-PRO - Florida - Petroleum Range Organics (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons (C8-C40) | 25 | U | 160 | 25 | ug/L | | 05/17/11 14:26 | 05/18/11 16:09 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-C39* | *91* | | *20 - 176* | *05/17/11 14:26* | *05/18/11 16:09* | *1* |
| *o-Terphenyl* | *94* | | *49 - 143* | *05/17/11 14:26* | *05/18/11 16:09* | *1* |

### Method: 6010B - Lead

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lead | 0.0020 | U | 0.0050 | 0.0020 | mg/L | | 05/17/11 09:45 | 05/19/11 14:32 | 1 |

## Client Sample ID: DUP

**Lab Sample ID: 400-55865-9**

**Date Collected: 05/12/11 00:00**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.34 | U | 1.0 | 0.34 | ug/L | | | 05/18/11 17:59 | 1 |
| Bromobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 17:59 | 1 |
| Dichlorobromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| 1,3-Dichloropropene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| Bromoform | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 17:59 | 1 |
| Bromomethane | 0.91 | U | 5.0 | 0.91 | ug/L | | | 05/18/11 17:59 | 1 |

## Client Sample ID: DUP

**Date Collected: 05/12/11 00:00**
**Date Received: 05/13/11 14:30**

**Lab Sample ID: 400-55865-9**
**Matrix: Water**

6

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbon tetrachloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| Chlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| Chloroethane | 0.63 | U | 5.0 | 0.63 | ug/L | | | 05/18/11 17:59 | 1 |
| Chloroform | 0.60 | U | 5.0 | 0.60 | ug/L | | | 05/18/11 17:59 | 1 |
| Chloromethane | 0.83 | U | 5.0 | 0.83 | ug/L | | | 05/18/11 17:59 | 1 |
| Chlorodibromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| Dibromomethane | 0.59 | U | 5.0 | 0.59 | ug/L | | | 05/18/11 17:59 | 1 |
| 1,2-Dichlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| 1,3-Dichlorobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 17:59 | 1 |
| 1,4-Dichlorobenzene | 0.64 | U | 5.0 | 0.64 | ug/L | | | 05/18/11 17:59 | 1 |
| Dichlorodifluoromethane | 0.85 | U | 5.0 | 0.85 | ug/L | | | 05/18/11 17:59 | 1 |
| 1,1-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| 1,2-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| 1,1-Dichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| 1,2-Dichloroethene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| 1,2-Dichloroethene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| 1,2-Dichloropropane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| 1,3-Dichloropropene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| **Ethylbenzene** | **5.1** | | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| Methylene Chloride | 1.0 | U | 5.0 | 1.0 | ug/L | | | 05/18/11 17:59 | 1 |
| Methyl tert-butyl ether | 0.74 | U | 5.0 | 0.74 | ug/L | | | 05/18/11 17:59 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 17:59 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| Tetrachloroethene | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 17:59 | 1 |
| Toluene | 0.70 | U | 5.0 | 0.70 | ug/L | | | 05/18/11 17:59 | 1 |
| 1,1,1-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| 1,1,2-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| Trichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| Trichlorofluoromethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 17:59 | 1 |
| 1,2,3-Trichloropropane | 0.86 | U | 5.0 | 0.86 | ug/L | | | 05/18/11 17:59 | 1 |
| Vinyl chloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 17:59 | 1 |
| **Xylenes, Total** | **11** | | 10 | 1.6 | ug/L | | | 05/18/11 17:59 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *99* | | *76 - 114* | | *05/18/11 17:59* | *1* |
| *Dibromofluoromethane* | *104* | | *80 - 119* | | *05/18/11 17:59* | *1* |
| *Toluene-d8 (Surr)* | *100* | | *75 - 125* | | *05/18/11 17:59* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Acenaphthene** | **0.19** | | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 18:07 | 1 |
| Acenaphthylene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 18:07 | 1 |
| Anthracene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 18:07 | 1 |
| Benzo[a]anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 18:07 | 1 |
| Benzo[a]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 18:07 | 1 |
| Benzo[b]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 18:07 | 1 |
| Benzo[g,h,i]perylene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 18:07 | 1 |
| Benzo[k]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 18:07 | 1 |
| Chrysene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 18:07 | 1 |
| Dibenz(a,h)anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 18:07 | 1 |

## Client Sample ID: DUP

**Lab Sample ID: 400-55865-9**

**Date Collected: 05/12/11 00:00**
**Date Received: 05/13/11 14:30**

**Matrix: Water**

6

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Fluoranthene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 18:07 | 1 |
| **Fluorene** | **1.5** | | 0.19 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 18:07 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 18:07 | 1 |
| **1-Methylnaphthalene** | **16** | | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 18:07 | 1 |
| **2-Methylnaphthalene** | **19** | | 1.9 | 0.19 | ug/L | | 05/17/11 08:44 | 05/20/11 11:12 | 10 |
| **Naphthalene** | **8.4** | | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 18:07 | 1 |
| **Phenanthrene** | **1.1** | | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 18:07 | 1 |
| Pyrene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 18:07 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl* | *33* | | *31 - 121* | *05/17/11 08:44* | *05/19/11 18:07* | *1* |
| *Nitrobenzene-d5* | *56* | | *39 - 126* | *05/17/11 08:44* | *05/19/11 18:07* | *1* |
| *Terphenyl-d14* | *78* | | *63 - 137* | *05/17/11 08:44* | *05/19/11 18:07* | *1* |

### Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ethylene Dibromide | 0.0051 | U | 0.020 | 0.0051 | ug/L | | 05/19/11 15:13 | 05/19/11 23:43 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *105* | | *51 - 149* | *05/19/11 15:13* | *05/19/11 23:43* | *1* |

### Method: FL-PRO - Florida - Petroleum Range Organics (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Petroleum Hydrocarbons (C8-C40)** | **2700** | | 140 | 22 | ug/L | | 05/17/11 14:26 | 05/18/11 16:29 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-C39* | *105* | | *20 - 176* | *05/17/11 14:26* | *05/18/11 16:29* | *1* |
| *o-Terphenyl* | *106* | | *49 - 143* | *05/17/11 14:26* | *05/18/11 16:29* | *1* |

### Method: 6010B - Lead

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lead** | **0.0025** | I | 0.0050 | 0.0020 | mg/L | | 05/17/11 09:45 | 05/19/11 14:35 | 1 |

## Client Sample ID: EB

**Lab Sample ID: 400-55865-10**

**Date Collected: 05/12/11 15:20**
**Date Received: 05/13/11 14:30**

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.34 | U | 1.0 | 0.34 | ug/L | | | 05/18/11 18:27 | 1 |
| Bromobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 18:27 | 1 |
| Dichlorobromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| 1,3-Dichloropropene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| Bromoform | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 18:27 | 1 |
| Bromomethane | 0.91 | U | 5.0 | 0.91 | ug/L | | | 05/18/11 18:27 | 1 |
| Carbon tetrachloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| Chlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| Chloroethane | 0.63 | U | 5.0 | 0.63 | ug/L | | | 05/18/11 18:27 | 1 |
| Chloroform | 0.60 | U | 5.0 | 0.60 | ug/L | | | 05/18/11 18:27 | 1 |
| Chloromethane | 0.83 | U | 5.0 | 0.83 | ug/L | | | 05/18/11 18:27 | 1 |
| Chlorodibromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |

## Client Sample ID: EB

**Lab Sample ID: 400-55865-10**

**Date Collected: 05/12/11 15:20**

**Matrix: Water**

**Date Received: 05/13/11 14:30**

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### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dibromomethane | 0.59 | U | 5.0 | 0.59 | ug/L | | | 05/18/11 18:27 | 1 |
| 1,2-Dichlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| 1,3-Dichlorobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 18:27 | 1 |
| 1,4-Dichlorobenzene | 0.64 | U | 5.0 | 0.64 | ug/L | | | 05/18/11 18:27 | 1 |
| Dichlorodifluoromethane | 0.85 | U | 5.0 | 0.85 | ug/L | | | 05/18/11 18:27 | 1 |
| 1,1-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| 1,2-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| 1,1-Dichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| 1,2-Dichloroethene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| 1,2-Dichloroethene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| 1,2-Dichloropropane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| 1,3-Dichloropropene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| Ethylbenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| Methylene Chloride | 1.0 | U | 5.0 | 1.0 | ug/L | | | 05/18/11 18:27 | 1 |
| Methyl tert-butyl ether | 0.74 | U | 5.0 | 0.74 | ug/L | | | 05/18/11 18:27 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 18:27 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| Tetrachloroethene | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 18:27 | 1 |
| Toluene | 0.70 | U | 5.0 | 0.70 | ug/L | | | 05/18/11 18:27 | 1 |
| 1,1,1-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| 1,1,2-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| Trichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| Trichlorofluoromethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 18:27 | 1 |
| 1,2,3-Trichloropropane | 0.86 | U | 5.0 | 0.86 | ug/L | | | 05/18/11 18:27 | 1 |
| Vinyl chloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 18:27 | 1 |
| Xylenes, Total | 1.6 | U | 10 | 1.6 | ug/L | | | 05/18/11 18:27 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *100* | | *76 - 114* | | *05/18/11 18:27* | *1* |
| *Dibromofluoromethane* | *102* | | *80 - 119* | | *05/18/11 18:27* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *75 - 125* | | *05/18/11 18:27* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |
| Acenaphthylene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |
| Anthracene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |
| Benzo[a]anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |
| Benzo[a]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |
| Benzo[b]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |
| Benzo[g,h,i]perylene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |
| Benzo[k]fluoranthene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |
| Chrysene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |
| Dibenz(a,h)anthracene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |
| Fluoranthene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |
| Fluorene | 0.020 | U | 0.19 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.038 | U | 0.19 | 0.038 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |
| 1-Methylnaphthalene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |
| 2-Methylnaphthalene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |
| Naphthalene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |

## Client Sample ID: EB

**Lab Sample ID: 400-55865-10**

**Date Collected: 05/12/11 15:20**

**Matrix: Water**

**Date Received: 05/13/11 14:30**

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### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Phenanthrene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |
| Pyrene | 0.019 | U | 0.19 | 0.019 | ug/L | | 05/17/11 08:44 | 05/19/11 18:37 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl* | *73* | | *31 - 121* | *05/17/11 08:44* | *05/19/11 18:37* | *1* |
| *Nitrobenzene-d5* | *73* | | *39 - 126* | *05/17/11 08:44* | *05/19/11 18:37* | *1* |
| *Terphenyl-d14* | *85* | | *63 - 137* | *05/17/11 08:44* | *05/19/11 18:37* | *1* |

### Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ethylene Dibromide | 0.0050 | U | 0.020 | 0.0050 | ug/L | | 05/19/11 15:13 | 05/20/11 00:08 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *104* | | *51 - 149* | *05/19/11 15:13* | *05/20/11 00:08* | *1* |

### Method: FL-PRO - Florida - Petroleum Range Organics (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons (C8-C40) | 15 | U | 96 | 15 | ug/L | | 05/17/11 14:26 | 05/18/11 16:38 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-C39* | *96* | | *20 - 176* | *05/17/11 14:26* | *05/18/11 16:38* | *1* |
| *o-Terphenyl* | *104* | | *49 - 143* | *05/17/11 14:26* | *05/18/11 16:38* | *1* |

### Method: 6010B - Lead

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lead | 0.0020 | U | 0.0050 | 0.0020 | mg/L | | 05/17/11 09:45 | 05/19/11 14:39 | 1 |

# Definitions/Glossary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55865-1

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |
| U | Indicates that the compound was analyzed for but not detected. |

### GC/MS Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |
| U | Indicates that the compound was analyzed for but not detected. |

### GC Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |
| J1 | Estimated value; value may not be accurate. Surrogate recovery outside of criteria. |
| U | Indicates that the compound was analyzed for but not detected. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |
| U | Indicates that the compound was analyzed for but not detected. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ☼ | Listed under the "D" column to designate that the result is reported on a dry weight basis. |
| EPA | United States Environmental Protection Agency |
| ND | Not Detected above the reporting level. |
| MDL | Method Detection Limit |
| RL | Reporting Limit |
| RE, RE1 (etc.) | Indicates a Re-extraction or Reanalysis of the sample. |
| %R | Percent Recovery |
| RPD | Relative Percent Difference, a measure of the relative difference between two points. |

# Method Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55865-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL PEN |
| 8270C LL | Semivolatile Organic Compounds by GCMS - Low Levels | SW846 | TAL PEN |
| 8011 | EDB, DBCP, and 1,2,3-TCP (GC) | SW846 | TAL PEN |
| FL-PRO | Florida - Petroleum Range Organics (GC) | FL-DEP | TAL PEN |
| 6010B | Lead | SW846 | TAL PEN |

**Protocol References:**

FL-DEP = State Of Florida Department Of Environmental Protection, Florida Administrative Code.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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# Lab Chronicle

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55865-1

## Client Sample ID: MW-2

**Lab Sample ID: 400-55865-1**
**Date Collected: 05/12/11 10:02**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 131330 | 05/18/11 14:13 | RM | TAL PEN |
| Total/NA | Prep | 3520C | | | 131177 | 05/17/11 08:44 | SL | TAL PEN |
| Total/NA | Analysis | 8270C LL | | 1 | 131380 | 05/19/11 14:00 | CP | TAL PEN |
| Total/NA | Prep | 3520C | | | 131184 | 05/17/11 08:56 | SL | TAL PEN |
| Total/NA | Analysis | FL-PRO | | 1 | 131349 | 05/18/11 15:02 | KA | TAL PEN |
| Total/NA | Prep | 8011 | | | 131445 | 05/19/11 15:13 | VC | TAL PEN |
| Total/NA | Analysis | 8011 | | 1 | 131482 | 05/19/11 20:02 | VC | TAL PEN |
| Total/NA | Prep | 3010A | | | 131204 | 05/17/11 09:45 | KN | TAL PEN |
| Total/NA | Analysis | 6010B | | 1 | 131469 | 05/19/11 13:51 | JH | TAL PEN |

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## Client Sample ID: MW-7

**Lab Sample ID: 400-55865-2**
**Date Collected: 05/12/11 10:51**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 131330 | 05/18/11 14:41 | RM | TAL PEN |
| Total/NA | Prep | 3520C | | | 131177 | 05/17/11 08:44 | SL | TAL PEN |
| Total/NA | Analysis | 8270C LL | | 1 | 131380 | 05/19/11 14:31 | CP | TAL PEN |
| Total/NA | Prep | 3520C | | | 131184 | 05/17/11 08:56 | SL | TAL PEN |
| Total/NA | Analysis | FL-PRO | | 1 | 131349 | 05/18/11 15:12 | KA | TAL PEN |
| Total/NA | Prep | 8011 | | | 131445 | 05/19/11 15:13 | VC | TAL PEN |
| Total/NA | Analysis | 8011 | | 1 | 131482 | 05/19/11 20:27 | VC | TAL PEN |
| Total/NA | Prep | 3010A | | | 131204 | 05/17/11 09:45 | KN | TAL PEN |
| Total/NA | Analysis | 6010B | | 1 | 131469 | 05/19/11 15:25 | JH | TAL PEN |

## Client Sample ID: MW-1

**Lab Sample ID: 400-55865-3**
**Date Collected: 05/12/11 11:23**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 131330 | 05/18/11 15:09 | RM | TAL PEN |
| Total/NA | Prep | 3520C | | | 131177 | 05/17/11 08:44 | SL | TAL PEN |
| Total/NA | Analysis | 8270C LL | | 1 | 131380 | 05/19/11 15:02 | CP | TAL PEN |
| Total/NA | Analysis | 8270C LL | | 10 | 131380 | 05/19/11 19:08 | CP | TAL PEN |
| Total/NA | Prep | 3520C | | | 131184 | 05/17/11 08:56 | SL | TAL PEN |
| Total/NA | Analysis | FL-PRO | | 1 | 131349 | 05/18/11 15:21 | KA | TAL PEN |
| Total/NA | Prep | 8011 | | | 131445 | 05/19/11 15:13 | VC | TAL PEN |
| Total/NA | Analysis | 8011 | | 1 | 131482 | 05/19/11 20:51 | VC | TAL PEN |
| Total/NA | Prep | 3010A | | | 131204 | 05/17/11 09:45 | KN | TAL PEN |
| Total/NA | Analysis | 6010B | | 1 | 131469 | 05/19/11 14:16 | JH | TAL PEN |

# Lab Chronicle

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55865-1

## Client Sample ID: MW-8

**Lab Sample ID: 400-55865-4**

**Date Collected: 05/12/11 11:53**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 131330 | 05/18/11 15:38 | RM | TAL PEN |
| Total/NA | Prep | 3520C | | | 131177 | 05/17/11 08:44 | SL | TAL PEN |
| Total/NA | Analysis | 8270C LL | | 1 | 131380 | 05/19/11 15:33 | CP | TAL PEN |
| Total/NA | Prep | 3520C | | | 131184 | 05/17/11 08:56 | SL | TAL PEN |
| Total/NA | Analysis | FL-PRO | | 1 | 131349 | 05/18/11 15:31 | KA | TAL PEN |
| Total/NA | Prep | 8011 | | | 131445 | 05/19/11 15:13 | VC | TAL PEN |
| Total/NA | Analysis | 8011 | | 1 | 131482 | 05/19/11 21:16 | VC | TAL PEN |
| Total/NA | Prep | 3010A | | | 131204 | 05/17/11 09:45 | KN | TAL PEN |
| Total/NA | Analysis | 6010B | | 1 | 131469 | 05/19/11 14:19 | JH | TAL PEN |

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## Client Sample ID: MW-5

**Lab Sample ID: 400-55865-5**

**Date Collected: 05/12/11 12:33**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 131330 | 05/18/11 16:06 | RM | TAL PEN |
| Total/NA | Prep | 3520C | | | 131177 | 05/17/11 08:44 | SL | TAL PEN |
| Total/NA | Analysis | 8270C LL | | 1 | 131434 | 05/20/11 10:12 | CP | TAL PEN |
| Total/NA | Prep | 3520C | | | 131184 | 05/17/11 14:26 | SL | TAL PEN |
| Total/NA | Analysis | FL-PRO | | 1 | 131349 | 05/18/11 15:40 | KA | TAL PEN |
| Total/NA | Prep | 8011 | | | 131445 | 05/19/11 15:13 | VC | TAL PEN |
| Total/NA | Analysis | 8011 | | 1 | 131482 | 05/19/11 21:41 | VC | TAL PEN |
| Total/NA | Prep | 3010A | | | 131204 | 05/17/11 09:45 | KN | TAL PEN |
| Total/NA | Analysis | 6010B | | 1 | 131469 | 05/19/11 14:22 | JH | TAL PEN |

## Client Sample ID: MW-6

**Lab Sample ID: 400-55865-6**

**Date Collected: 05/12/11 12:59**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 131330 | 05/18/11 16:34 | RM | TAL PEN |
| Total/NA | Prep | 3520C | | | 131177 | 05/17/11 08:44 | SL | TAL PEN |
| Total/NA | Analysis | 8270C LL | | 1 | 131380 | 05/19/11 16:34 | CP | TAL PEN |
| Total/NA | Prep | 3520C | | | 131184 | 05/17/11 14:26 | SL | TAL PEN |
| Total/NA | Analysis | FL-PRO | | 1 | 131349 | 05/18/11 15:50 | KA | TAL PEN |
| Total/NA | Prep | 8011 | | | 131445 | 05/19/11 15:13 | VC | TAL PEN |
| Total/NA | Analysis | 8011 | | 1 | 131482 | 05/19/11 22:05 | VC | TAL PEN |
| Total/NA | Prep | 3010A | | | 131204 | 05/17/11 09:45 | KN | TAL PEN |
| Total/NA | Analysis | 6010B | | 1 | 131469 | 05/19/11 14:26 | JH | TAL PEN |

# Lab Chronicle

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55865-1

## Client Sample ID: MW-4

**Lab Sample ID: 400-55865-7**

**Date Collected: 05/12/11 13:36**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 131330 | 05/18/11 17:02 | RM | TAL PEN |
| Total/NA | Prep | 3520C | | | 131177 | 05/17/11 08:44 | SL | TAL PEN |
| Total/NA | Analysis | 8270C LL | | 1 | 131380 | 05/19/11 17:05 | CP | TAL PEN |
| Total/NA | Analysis | 8270C LL | | 10 | 131434 | 05/20/11 10:43 | CP | TAL PEN |
| Total/NA | Prep | 3520C | | | 131184 | 05/17/11 14:26 | SL | TAL PEN |
| Total/NA | Analysis | FL-PRO | | 1 | 131349 | 05/18/11 16:00 | KA | TAL PEN |
| Total/NA | Prep | 8011 | | | 131445 | 05/19/11 15:13 | VC | TAL PEN |
| Total/NA | Analysis | 8011 | | 1 | 131482 | 05/19/11 22:30 | VC | TAL PEN |
| Total/NA | Prep | 3010A | | | 131204 | 05/17/11 09:45 | KN | TAL PEN |
| Total/NA | Analysis | 6010B | | 1 | 131469 | 05/19/11 14:29 | JH | TAL PEN |

9

## Client Sample ID: DMW-1

**Lab Sample ID: 400-55865-8**

**Date Collected: 05/12/11 15:10**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 131330 | 05/18/11 17:31 | RM | TAL PEN |
| Total/NA | Prep | 3520C | | | 131177 | 05/17/11 08:44 | SL | TAL PEN |
| Total/NA | Analysis | 8270C LL | | 1 | 131380 | 05/19/11 17:36 | CP | TAL PEN |
| Total/NA | Prep | 3520C | | | 131184 | 05/17/11 14:26 | SL | TAL PEN |
| Total/NA | Analysis | FL-PRO | | 1 | 131349 | 05/18/11 16:09 | KA | TAL PEN |
| Total/NA | Prep | 8011 | | | 131445 | 05/19/11 15:13 | VC | TAL PEN |
| Total/NA | Analysis | 8011 | | 1 | 131482 | 05/19/11 23:19 | VC | TAL PEN |
| Total/NA | Prep | 3010A | | | 131204 | 05/17/11 09:45 | KN | TAL PEN |
| Total/NA | Analysis | 6010B | | 1 | 131469 | 05/19/11 14:32 | JH | TAL PEN |

## Client Sample ID: DUP

**Lab Sample ID: 400-55865-9**

**Date Collected: 05/12/11 00:00**
**Matrix: Water**
**Date Received: 05/13/11 14:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 131330 | 05/18/11 17:59 | RM | TAL PEN |
| Total/NA | Prep | 3520C | | | 131177 | 05/17/11 08:44 | SL | TAL PEN |
| Total/NA | Analysis | 8270C LL | | 1 | 131380 | 05/19/11 18:07 | CP | TAL PEN |
| Total/NA | Analysis | 8270C LL | | 10 | 131434 | 05/20/11 11:12 | CP | TAL PEN |
| Total/NA | Prep | 3520C | | | 131184 | 05/17/11 14:26 | SL | TAL PEN |
| Total/NA | Analysis | FL-PRO | | 1 | 131349 | 05/18/11 16:29 | KA | TAL PEN |
| Total/NA | Prep | 8011 | | | 131445 | 05/19/11 15:13 | VC | TAL PEN |
| Total/NA | Analysis | 8011 | | 1 | 131482 | 05/19/11 23:43 | VC | TAL PEN |
| Total/NA | Prep | 3010A | | | 131204 | 05/17/11 09:45 | KN | TAL PEN |
| Total/NA | Analysis | 6010B | | 1 | 131469 | 05/19/11 14:35 | JH | TAL PEN |

# Lab Chronicle

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55865-1

## Client Sample ID: EB

**Date Collected: 05/12/11 15:20**
**Date Received: 05/13/11 14:30**

## Lab Sample ID: 400-55865-10

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 131330 | 05/18/11 18:27 | RM | TAL PEN |
| Total/NA | Prep | 3520C | | | 131177 | 05/17/11 08:44 | SL | TAL PEN |
| Total/NA | Analysis | 8270C LL | | 1 | 131380 | 05/19/11 18:37 | CP | TAL PEN |
| Total/NA | Prep | 3520C | | | 131184 | 05/17/11 14:26 | SL | TAL PEN |
| Total/NA | Analysis | FL-PRO | | 1 | 131349 | 05/18/11 16:38 | KA | TAL PEN |
| Total/NA | Prep | 8011 | | | 131445 | 05/19/11 15:13 | VC | TAL PEN |
| Total/NA | Analysis | 8011 | | 1 | 131482 | 05/20/11 00:08 | VC | TAL PEN |
| Total/NA | Prep | 3010A | | | 131204 | 05/17/11 09:45 | KN | TAL PEN |
| Total/NA | Analysis | 6010B | | 1 | 131469 | 05/19/11 14:39 | JH | TAL PEN |

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**Laboratory References:**
TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

# Surrogate Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55865-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | |
|---|---|---|---|---|
| | | BFB | DBFM | TOL |
| Lab Sample ID | Client Sample ID | (76-114) | (80-119) | (75-125) |
| 400-55865-1 | MW-2 | 100 | 105 | 99 |
| 400-55865-1 MS | MW-2 | 98 | 105 | 100 |
| 400-55865-1 MSD | MW-2 | 99 | 104 | 100 |
| 400-55865-2 | MW-7 | 99 | 104 | 100 |
| 400-55865-3 | MW-1 | 97 | 104 | 99 |
| 400-55865-4 | MW-8 | 100 | 103 | 100 |
| 400-55865-5 | MW-5 | 99 | 103 | 100 |
| 400-55865-6 | MW-6 | 100 | 105 | 101 |
| 400-55865-7 | MW-4 | 99 | 104 | 100 |
| 400-55865-8 | DMW-1 | 100 | 104 | 99 |
| 400-55865-9 | DUP | 99 | 104 | 100 |
| 400-55865-10 | EB | 100 | 102 | 99 |
| LCS 400-131330/4 | LCS 400-131330/4 | 99 | 106 | 100 |
| MB 400-131330/3 | MB 400-131330/3 | 100 | 105 | 100 |

**Surrogate Legend**

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | |
|---|---|---|---|---|
| | | FBP | NBZ | TPH |
| Lab Sample ID | Client Sample ID | (31-121) | (39-126) | (63-137) |
| 400-55865-1 | MW-2 | 64 | 62 | 87 |
| 400-55865-2 | MW-7 | 58 | 58 | 88 |
| 400-55865-3 | MW-1 | 79 | 69 | 82 |
| 400-55865-4 | MW-8 | 65 | 64 | 84 |
| 400-55865-5 | MW-5 | 53 | 64 | 89 |
| 400-55865-6 | MW-6 | 74 | 71 | 81 |
| 400-55865-7 | MW-4 | 48 | 70 | 82 |
| 400-55865-8 | DMW-1 | 62 | 61 | 76 |
| 400-55865-9 | DUP | 33 | 56 | 78 |
| 400-55865-10 | EB | 73 | 73 | 85 |
| LCS 400-131177/14-A | LCS 400-131177/14-A | 77 | 76 | 86 |
| MB 400-131177/15-A | MB 400-131177/15-A | 77 | 79 | 89 |

**Surrogate Legend**

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPH = Terphenyl-d14

## Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) |
|---|---|---|
| | | BFB1 |
| Lab Sample ID | Client Sample ID | (51-149) |
| 400-55865-1 | MW-2 | 100 |
| 400-55865-2 | MW-7 | 101 |

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# Surrogate Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55865-1

## Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) (Continued)

**Matrix: Water** **Prep Type: Total/NA**

| Lab Sample ID | Client Sample ID | BFB1 (51-149) |
|---|---|---|
| 400-55865-3 | MW-1 | 99 |
| 400-55865-8 | DMW-1 | 95 |
| LCS 400-131445/2-A | LCS 400-131445/2-A | 102 |
| LCSD 400-131445/3-A | LCSD 400-131445/3-A | 104 |

Percent Surrogate Recovery (Acceptance Limits)

**Surrogate Legend**

BFB = 4-Bromofluorobenzene

## Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

**Matrix: Water** **Prep Type: Total/NA**

| Lab Sample ID | Client Sample ID | BFB2 (51-149) |
|---|---|---|
| 400-55865-4 | MW-8 | 102 |
| 400-55865-5 | MW-5 | 114 |
| 400-55865-6 | MW-6 | 96 |
| 400-55865-7 | MW-4 | 100 |
| 400-55865-9 | DUP | 105 |
| 400-55865-10 | EB | 104 |
| MB 400-131445/1-A | MB 400-131445/1-A | 101 |

Percent Surrogate Recovery (Acceptance Limits)

**Surrogate Legend**

BFB = 4-Bromofluorobenzene

## Method: FL-PRO - Florida - Petroleum Range Organics (GC)

**Matrix: Water** **Prep Type: Total/NA**

| Lab Sample ID | Client Sample ID | C39 (20-176) | OTPH (49-143) |
|---|---|---|---|
| 400-55865-1 | MW-2 | 87 | 102 |
| 400-55865-2 | MW-7 | 91 | 94 |
| 400-55865-3 | MW-1 | 154 | 149 J1 |
| 400-55865-4 | MW-8 | 85 | 94 |
| 400-55865-5 | MW-5 | 85 | 90 |
| 400-55865-6 | MW-6 | 104 | 95 |
| 400-55865-7 | MW-4 | 95 | 108 |
| 400-55865-8 | DMW-1 | 91 | 94 |
| 400-55865-9 | DUP | 105 | 106 |
| 400-55865-10 | EB | 96 | 104 |
| LCS 400-131184/5-A | LCS 400-131184/5-A | 62 | 94 |
| MB 400-131184/6-A | MB 400-131184/6-A | 94 | 100 |

Percent Surrogate Recovery (Acceptance Limits)

**Surrogate Legend**

C39 = n-C39

OTPH = o-Terphenyl

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 400-131330/3**
**Matrix: Water**
**Analysis Batch: 131330**

**Client Sample ID: MB 400-131330/3**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.34 | U | 1.0 | 0.34 | ug/L | | | 05/18/11 13:16 | 1 |
| Bromobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 13:16 | 1 |
| Dichlorobromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| 1,3-Dichloropropene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| Bromoform | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 13:16 | 1 |
| Bromomethane | 0.91 | U | 5.0 | 0.91 | ug/L | | | 05/18/11 13:16 | 1 |
| Carbon tetrachloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| Chlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| Chloroethane | 0.63 | U | 5.0 | 0.63 | ug/L | | | 05/18/11 13:16 | 1 |
| Chloroform | 0.60 | U | 5.0 | 0.60 | ug/L | | | 05/18/11 13:16 | 1 |
| Chloromethane | 0.83 | U | 5.0 | 0.83 | ug/L | | | 05/18/11 13:16 | 1 |
| Chlorodibromomethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| Dibromomethane | 0.59 | U | 5.0 | 0.59 | ug/L | | | 05/18/11 13:16 | 1 |
| 1,2-Dichlorobenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| 1,3-Dichlorobenzene | 0.54 | U | 5.0 | 0.54 | ug/L | | | 05/18/11 13:16 | 1 |
| 1,4-Dichlorobenzene | 0.64 | U | 5.0 | 0.64 | ug/L | | | 05/18/11 13:16 | 1 |
| Dichlorodifluoromethane | 0.85 | U | 5.0 | 0.85 | ug/L | | | 05/18/11 13:16 | 1 |
| 1,1-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| 1,2-Dichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| 1,1-Dichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| 1,2-Dichloroethene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| 1,2-Dichloroethene, trans- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| 1,2-Dichloropropane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| 1,3-Dichloropropene, cis- | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| Ethylbenzene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| Methylene Chloride | 1.0 | U | 5.0 | 1.0 | ug/L | | | 05/18/11 13:16 | 1 |
| Methyl tert-butyl ether | 0.74 | U | 5.0 | 0.74 | ug/L | | | 05/18/11 13:16 | 1 |
| 1,1,1,2-Tetrachloroethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 13:16 | 1 |
| 1,1,2,2-Tetrachloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| Tetrachloroethene | 0.58 | U | 5.0 | 0.58 | ug/L | | | 05/18/11 13:16 | 1 |
| Toluene | 0.70 | U | 5.0 | 0.70 | ug/L | | | 05/18/11 13:16 | 1 |
| 1,1,1-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| 1,1,2-Trichloroethane | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| Trichloroethene | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| Trichlorofluoromethane | 0.52 | U | 5.0 | 0.52 | ug/L | | | 05/18/11 13:16 | 1 |
| 1,2,3-Trichloropropane | 0.86 | U | 5.0 | 0.86 | ug/L | | | 05/18/11 13:16 | 1 |
| Vinyl chloride | 0.50 | U | 5.0 | 0.50 | ug/L | | | 05/18/11 13:16 | 1 |
| Xylenes, Total | 1.6 | U | 10 | 1.6 | ug/L | | | 05/18/11 13:16 | 1 |

| *Surrogate* | *MB % Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *100* | | *76 - 114* | | *05/18/11 13:16* | *1* |
| *Dibromofluoromethane* | *105* | | *80 - 119* | | *05/18/11 13:16* | *1* |
| *Toluene-d8 (Surr)* | *100* | | *75 - 125* | | *05/18/11 13:16* | *1* |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 400-131330/4**
**Matrix: Water**
**Analysis Batch: 131330**

**Client Sample ID: LCS 400-131330/4**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 50.0 | 50.3 | | ug/L | | 101 | 74 - 119 |
| Bromobenzene | 50.0 | 50.8 | | ug/L | | 102 | 75 - 123 |
| Dichlorobromomethane | 50.0 | 52.1 | | ug/L | | 104 | 74 - 127 |
| 1,3-Dichloropropene, trans- | 50.0 | 51.7 | | ug/L | | 103 | 61 - 120 |
| Bromoform | 50.0 | 54.9 | | ug/L | | 110 | 61 - 131 |
| Bromomethane | 50.0 | 50.0 | | ug/L | | 100 | 40 - 148 |
| Carbon tetrachloride | 50.0 | 52.3 | | ug/L | | 105 | 51 - 142 |
| Chlorobenzene | 50.0 | 49.3 | | ug/L | | 99 | 79 - 119 |
| Chloroethane | 50.0 | 50.8 | | ug/L | | 102 | 58 - 137 |
| Chloroform | 50.0 | 53.4 | | ug/L | | 107 | 76 - 122 |
| Chloromethane | 50.0 | 52.1 | | ug/L | | 104 | 34 - 157 |
| Chlorodibromomethane | 50.0 | 52.7 | | ug/L | | 105 | 70 - 132 |
| Dibromomethane | 50.0 | 53.2 | | ug/L | | 106 | 73 - 118 |
| 1,2-Dichlorobenzene | 50.0 | 49.7 | | ug/L | | 99 | 78 - 120 |
| 1,3-Dichlorobenzene | 50.0 | 48.7 | | ug/L | | 97 | 77 - 121 |
| 1,4-Dichlorobenzene | 50.0 | 48.0 | | ug/L | | 96 | 76 - 118 |
| Dichlorodifluoromethane | 50.0 | 50.6 | | ug/L | | 101 | 9 - 145 |
| 1,1-Dichloroethane | 50.0 | 53.7 | | ug/L | | 107 | 75 - 126 |
| 1,2-Dichloroethane | 50.0 | 53.4 | | ug/L | | 107 | 67 - 136 |
| 1,1-Dichloroethene | 50.0 | 52.8 | | ug/L | | 106 | 65 - 126 |
| 1,2-Dichloroethene, cis- | 50.0 | 53.2 | | ug/L | | 106 | 72 - 122 |
| 1,2-Dichloroethene, trans- | 50.0 | 52.7 | | ug/L | | 105 | 70 - 120 |
| 1,2-Dichloropropane | 50.0 | 51.8 | | ug/L | | 104 | 76 - 126 |
| 1,3-Dichloropropene, cis- | 50.0 | 50.8 | | ug/L | | 102 | 61 - 123 |
| Ethylbenzene | 50.0 | 49.2 | | ug/L | | 98 | 80 - 123 |
| Methylene Chloride | 50.0 | 51.3 | | ug/L | | 103 | 71 - 132 |
| Methyl tert-butyl ether | 50.0 | 54.0 | | ug/L | | 108 | 61 - 123 |
| 1,1,1,2-Tetrachloroethane | 50.0 | 52.3 | | ug/L | | 105 | 72 - 128 |
| 1,1,2,2-Tetrachloroethane | 50.0 | 53.6 | | ug/L | | 107 | 61 - 128 |
| Tetrachloroethene | 50.0 | 50.0 | | ug/L | | 100 | 72 - 129 |
| Toluene | 50.0 | 48.5 | | ug/L | | 97 | 78 - 119 |
| 1,1,1-Trichloroethane | 50.0 | 54.3 | | ug/L | | 109 | 63 - 127 |
| 1,1,2-Trichloroethane | 50.0 | 52.9 | | ug/L | | 106 | 70 - 123 |
| Trichloroethene | 50.0 | 51.0 | | ug/L | | 102 | 76 - 121 |
| Trichlorofluoromethane | 50.0 | 53.4 | | ug/L | | 107 | 65 - 132 |
| 1,2,3-Trichloropropane | 50.0 | 54.5 | | ug/L | | 109 | 66 - 123 |
| Vinyl chloride | 50.0 | 53.0 | | ug/L | | 106 | 49 - 139 |
| Xylenes, Total | 150 | 148 | | ug/L | | 99 | 78 - 124 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *99* | | *76 - 114* |
| *Dibromofluoromethane* | *106* | | *80 - 119* |
| *Toluene-d8 (Surr)* | *100* | | *75 - 125* |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 400-55865-1 MS**
**Matrix: Water**
**Analysis Batch: 131330**

**Client Sample ID: MW-2**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.34 | U | 50.0 | 47.4 | | ug/L | | 95 | 64 - 125 |
| Bromobenzene | 0.54 | U | 50.0 | 46.5 | | ug/L | | 93 | 52 - 131 |
| Dichlorobromomethane | 0.50 | U | 50.0 | 49.8 | | ug/L | | 100 | 61 - 144 |
| 1,3-Dichloropropene, trans- | 0.50 | U | 50.0 | 48.4 | | ug/L | | 97 | 62 - 120 |
| Bromoform | 0.58 | U | 50.0 | 49.2 | | ug/L | | 98 | 46 - 130 |
| Bromomethane | 0.91 | U | 50.0 | 42.3 | | ug/L | | 85 | 36 - 152 |
| Carbon tetrachloride | 0.50 | U | 50.0 | 49.7 | | ug/L | | 99 | 49 - 161 |
| Chlorobenzene | 0.50 | U | 50.0 | 45.8 | | ug/L | | 92 | 56 - 122 |
| Chloroethane | 0.63 | U | 50.0 | 48.2 | | ug/L | | 96 | 51 - 145 |
| Chloroform | 0.60 | U | 50.0 | 50.3 | | ug/L | | 101 | 70 - 133 |
| Chloromethane | 0.83 | U | 50.0 | 48.4 | | ug/L | | 97 | 37 - 138 |
| Chlorodibromomethane | 0.50 | U | 50.0 | 49.3 | | ug/L | | 99 | 60 - 124 |
| Dibromomethane | 0.59 | U | 50.0 | 49.8 | | ug/L | | 100 | 74 - 120 |
| 1,2-Dichlorobenzene | 0.50 | U | 50.0 | 44.4 | | ug/L | | 89 | 48 - 128 |
| 1,3-Dichlorobenzene | 0.54 | U | 50.0 | 43.5 | | ug/L | | 87 | 38 - 129 |
| 1,4-Dichlorobenzene | 0.64 | U | 50.0 | 43.0 | | ug/L | | 86 | 36 - 126 |
| Dichlorodifluoromethane | 0.85 | U | 50.0 | 48.0 | | ug/L | | 96 | 20 - 154 |
| 1,1-Dichloroethane | 0.50 | U | 50.0 | 50.9 | | ug/L | | 102 | 70 - 131 |
| 1,2-Dichloroethane | 0.50 | U | 50.0 | 50.9 | | ug/L | | 102 | 63 - 125 |
| 1,1-Dichloroethene | 0.50 | U | 50.0 | 50.0 | | ug/L | | 100 | 63 - 124 |
| 1,2-Dichloroethene, cis- | 0.50 | U | 50.0 | 49.8 | | ug/L | | 100 | 65 - 121 |
| 1,2-Dichloroethene, trans- | 0.50 | U | 50.0 | 49.7 | | ug/L | | 99 | 64 - 135 |
| 1,2-Dichloropropane | 0.50 | U | 50.0 | 49.2 | | ug/L | | 98 | 69 - 119 |
| 1,3-Dichloropropene, cis- | 0.50 | U | 50.0 | 47.9 | | ug/L | | 96 | 62 - 135 |
| Ethylbenzene | 0.50 | U | 50.0 | 45.3 | | ug/L | | 91 | 44 - 131 |
| Methylene Chloride | 1.0 | U | 50.0 | 47.9 | | ug/L | | 96 | 71 - 126 |
| Methyl tert-butyl ether | 0.74 | U | 50.0 | 50.6 | | ug/L | | 101 | 61 - 156 |
| 1,1,1,2-Tetrachloroethane | 0.52 | U | 50.0 | 48.8 | | ug/L | | 98 | 57 - 127 |
| 1,1,2,2-Tetrachloroethane | 0.50 | U | 50.0 | 48.8 | | ug/L | | 98 | 68 - 123 |
| Tetrachloroethene | 0.58 | U | 50.0 | 47.2 | | ug/L | | 94 | 45 - 128 |
| Toluene | 0.70 | U | 50.0 | 44.8 | | ug/L | | 90 | 58 - 122 |
| 1,1,1-Trichloroethane | 0.50 | U | 50.0 | 50.2 | | ug/L | | 100 | 54 - 163 |
| 1,1,2-Trichloroethane | 0.50 | U | 50.0 | 49.5 | | ug/L | | 99 | 74 - 123 |
| Trichloroethene | 0.50 | U | 50.0 | 47.9 | | ug/L | | 96 | 62 - 135 |
| Trichlorofluoromethane | 0.52 | U | 50.0 | 50.5 | | ug/L | | 101 | 56 - 150 |
| 1,2,3-Trichloropropane | 0.86 | U | 50.0 | 49.7 | | ug/L | | 99 | 68 - 122 |
| Vinyl chloride | 0.50 | U | 50.0 | 49.6 | | ug/L | | 99 | 49 - 134 |
| Xylenes, Total | 1.6 | U | 150 | 136 | | ug/L | | 91 | 42 - 132 |

| *Surrogate* | *MS % Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *98* | | *76 - 114* |
| *Dibromofluoromethane* | *105* | | *80 - 119* |
| *Toluene-d8 (Surr)* | *100* | | *75 - 125* |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 400-55865-1 MSD**
**Matrix: Water**
**Analysis Batch: 131330**

**Client Sample ID: MW-2**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.34 | U | 50.0 | 49.2 | | ug/L | | 98 | 64 - 125 | 4 | 42 |
| Bromobenzene | 0.54 | U | 50.0 | 50.8 | | ug/L | | 102 | 52 - 131 | 9 | 41 |
| Dichlorobromomethane | 0.50 | U | 50.0 | 51.4 | | ug/L | | 103 | 61 - 144 | 3 | 45 |
| 1,3-Dichloropropene, trans- | 0.50 | U | 50.0 | 50.1 | | ug/L | | 100 | 62 - 120 | 3 | 36 |
| Bromoform | 0.58 | U | 50.0 | 52.8 | | ug/L | | 106 | 46 - 130 | 7 | 45 |
| Bromomethane | 0.91 | U | 50.0 | 47.6 | | ug/L | | 95 | 36 - 152 | 12 | 68 |
| Carbon tetrachloride | 0.50 | U | 50.0 | 51.5 | | ug/L | | 103 | 49 - 161 | 4 | 46 |
| Chlorobenzene | 0.50 | U | 50.0 | 49.0 | | ug/L | | 98 | 56 - 122 | 7 | 47 |
| Chloroethane | 0.63 | U | 50.0 | 48.9 | | ug/L | | 98 | 51 - 145 | 1 | 48 |
| Chloroform | 0.60 | U | 50.0 | 51.3 | | ug/L | | 103 | 70 - 133 | 2 | 44 |
| Chloromethane | 0.83 | U | 50.0 | 48.6 | | ug/L | | 97 | 37 - 138 | 0 | 38 |
| Chlorodibromomethane | 0.50 | U | 50.0 | 52.0 | | ug/L | | 104 | 60 - 124 | 5 | 45 |
| Dibromomethane | 0.59 | U | 50.0 | 52.1 | | ug/L | | 104 | 74 - 120 | 5 | 33 |
| 1,2-Dichlorobenzene | 0.50 | U | 50.0 | 49.4 | | ug/L | | 99 | 48 - 128 | 11 | 50 |
| 1,3-Dichlorobenzene | 0.54 | U | 50.0 | 49.1 | | ug/L | | 98 | 38 - 129 | 12 | 54 |
| 1,4-Dichlorobenzene | 0.64 | U | 50.0 | 48.8 | | ug/L | | 98 | 36 - 126 | 13 | 54 |
| Dichlorodifluoromethane | 0.85 | U | 50.0 | 48.2 | | ug/L | | 96 | 20 - 154 | 0 | 46 |
| 1,1-Dichloroethane | 0.50 | U | 50.0 | 51.8 | | ug/L | | 104 | 70 - 131 | 2 | 44 |
| 1,2-Dichloroethane | 0.50 | U | 50.0 | 52.3 | | ug/L | | 105 | 63 - 125 | 3 | 42 |
| 1,1-Dichloroethene | 0.50 | U | 50.0 | 50.5 | | ug/L | | 101 | 63 - 124 | 1 | 45 |
| 1,2-Dichloroethene, cis- | 0.50 | U | 50.0 | 50.9 | | ug/L | | 102 | 65 - 121 | 2 | 45 |
| 1,2-Dichloroethene, trans- | 0.50 | U | 50.0 | 51.0 | | ug/L | | 102 | 64 - 135 | 3 | 45 |
| 1,2-Dichloropropane | 0.50 | U | 50.0 | 50.2 | | ug/L | | 100 | 69 - 119 | 2 | 43 |
| 1,3-Dichloropropene, cis- | 0.50 | U | 50.0 | 49.6 | | ug/L | | 99 | 62 - 135 | 3 | 36 |
| Ethylbenzene | 0.50 | U | 50.0 | 49.5 | | ug/L | | 99 | 44 - 131 | 9 | 51 |
| Methylene Chloride | 1.0 | U | 50.0 | 48.3 | | ug/L | | 97 | 71 - 126 | 1 | 44 |
| Methyl tert-butyl ether | 0.74 | U | 50.0 | 51.5 | | ug/L | | 103 | 61 - 156 | 2 | 44 |
| 1,1,1,2-Tetrachloroethane | 0.52 | U | 50.0 | 51.2 | | ug/L | | 102 | 57 - 127 | 5 | 36 |
| 1,1,2,2-Tetrachloroethane | 0.50 | U | 50.0 | 51.1 | | ug/L | | 102 | 68 - 123 | 5 | 33 |
| Tetrachloroethene | 0.58 | U | 50.0 | 50.4 | | ug/L | | 101 | 45 - 128 | 7 | 51 |
| Toluene | 0.70 | U | 50.0 | 47.3 | | ug/L | | 95 | 58 - 122 | 5 | 47 |
| 1,1,1-Trichloroethane | 0.50 | U | 50.0 | 51.5 | | ug/L | | 103 | 54 - 163 | 3 | 34 |
| 1,1,2-Trichloroethane | 0.50 | U | 50.0 | 50.4 | | ug/L | | 101 | 74 - 123 | 2 | 44 |
| Trichloroethene | 0.50 | U | 50.0 | 50.6 | | ug/L | | 101 | 62 - 135 | 5 | 45 |
| Trichlorofluoromethane | 0.52 | U | 50.0 | 51.2 | | ug/L | | 102 | 56 - 150 | 1 | 34 |
| 1,2,3-Trichloropropane | 0.86 | U | 50.0 | 51.8 | | ug/L | | 104 | 68 - 122 | 4 | 44 |
| Vinyl chloride | 0.50 | U | 50.0 | 49.7 | | ug/L | | 99 | 49 - 134 | 0 | 46 |
| Xylenes, Total | 1.6 | U | 150 | 148 | | ug/L | | 99 | 42 - 132 | 9 | 52 |

| *Surrogate* | *MSD % Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *99* | | *76 - 114* |
| *Dibromofluoromethane* | *104* | | *80 - 119* |
| *Toluene-d8 (Surr)* | *100* | | *75 - 125* |

# QC Sample Results

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55865-1

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

**Lab Sample ID: MB 400-131177/15-A**
**Matrix: Water**
**Analysis Batch: 131380**

**Client Sample ID: MB 400-131177/15-A**
**Prep Type: Total/NA**
**Prep Batch: 131177**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.020 | U | 0.20 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |
| Acenaphthylene | 0.020 | U | 0.20 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |
| Anthracene | 0.020 | U | 0.20 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |
| Benzo[a]anthracene | 0.040 | U | 0.20 | 0.040 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |
| Benzo[a]pyrene | 0.040 | U | 0.20 | 0.040 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |
| Benzo[b]fluoranthene | 0.040 | U | 0.20 | 0.040 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |
| Benzo[g,h,i]perylene | 0.040 | U | 0.20 | 0.040 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |
| Benzo[k]fluoranthene | 0.040 | U | 0.20 | 0.040 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |
| Chrysene | 0.040 | U | 0.20 | 0.040 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |
| Dibenz(a,h)anthracene | 0.040 | U | 0.20 | 0.040 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |
| Fluoranthene | 0.020 | U | 0.20 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |
| Fluorene | 0.021 | U | 0.20 | 0.021 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.040 | U | 0.20 | 0.040 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |
| 1-Methylnaphthalene | 0.020 | U | 0.20 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |
| 2-Methylnaphthalene | 0.020 | U | 0.20 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |
| Naphthalene | 0.020 | U | 0.20 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |
| Phenanthrene | 0.020 | U | 0.20 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |
| Pyrene | 0.020 | U | 0.20 | 0.020 | ug/L | | 05/17/11 08:44 | 05/19/11 12:59 | 1 |

| *Surrogate* | *MB % Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl* | *77* | | *31 - 121* | *05/17/11 08:44* | *05/19/11 12:59* | *1* |
| *Nitrobenzene-d5* | *79* | | *39 - 126* | *05/17/11 08:44* | *05/19/11 12:59* | *1* |
| *Terphenyl-d14* | *89* | | *63 - 137* | *05/17/11 08:44* | *05/19/11 12:59* | *1* |

**Lab Sample ID: LCS 400-131177/14-A**
**Matrix: Water**
**Analysis Batch: 131380**

**Client Sample ID: LCS 400-131177/14-A**
**Prep Type: Total/NA**
**Prep Batch: 131177**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acenaphthene | 4.00 | 3.46 | | ug/L | | 87 | 36 - 117 |
| Acenaphthylene | 4.00 | 3.70 | | ug/L | | 92 | 37 - 122 |
| Anthracene | 4.00 | 3.69 | | ug/L | | 92 | 33 - 127 |
| Benzo[a]anthracene | 4.00 | 4.33 | | ug/L | | 108 | 46 - 147 |
| Benzo[a]pyrene | 4.00 | 3.46 | | ug/L | | 86 | 40 - 130 |
| Benzo[b]fluoranthene | 4.00 | 4.06 | | ug/L | | 101 | 38 - 144 |
| Benzo[g,h,i]perylene | 4.00 | 4.14 | | ug/L | | 104 | 44 - 146 |
| Benzo[k]fluoranthene | 4.00 | 4.17 | | ug/L | | 104 | 41 - 141 |
| Chrysene | 4.00 | 4.00 | | ug/L | | 100 | 43 - 137 |
| Dibenz(a,h)anthracene | 4.00 | 4.27 | | ug/L | | 107 | 42 - 142 |
| Fluoranthene | 4.00 | 4.00 | | ug/L | | 100 | 42 - 143 |
| Fluorene | 4.00 | 3.69 | | ug/L | | 92 | 34 - 141 |
| Indeno[1,2,3-cd]pyrene | 4.00 | 3.96 | | ug/L | | 99 | 43 - 133 |
| 1-Methylnaphthalene | 4.00 | 3.63 | | ug/L | | 91 | 39 - 118 |
| 2-Methylnaphthalene | 4.00 | 3.39 | | ug/L | | 85 | 40 - 123 |
| Naphthalene | 4.00 | 3.34 | | ug/L | | 83 | 39 - 113 |
| Phenanthrene | 4.00 | 3.70 | | ug/L | | 92 | 38 - 126 |
| Pyrene | 4.00 | 4.00 | | ug/L | | 100 | 44 - 138 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: LCS 400-131177/14-A** — **Client Sample ID: LCS 400-131177/14-A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 131380** — **Prep Batch: 131177**

| Surrogate | LCS % Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 2-Fluorobiphenyl | 77 | | 31 - 121 |
| Nitrobenzene-d5 | 76 | | 39 - 126 |
| Terphenyl-d14 | 86 | | 63 - 137 |

## Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

**Lab Sample ID: MB 400-131445/1-A** — **Client Sample ID: MB 400-131445/1-A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 131482** — **Prep Batch: 131445**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ethylene Dibromide | 0.0050 | U | 0.020 | 0.0050 | ug/L | | 05/19/11 15:13 | 05/19/11 18:48 | 1 |

| Surrogate | MB % Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 101 | | 51 - 149 | 05/19/11 15:13 | 05/19/11 18:48 | 1 |

**Lab Sample ID: LCS 400-131445/2-A** — **Client Sample ID: LCS 400-131445/2-A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 131482** — **Prep Batch: 131445**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Ethylene Dibromide | 0.200 | 0.223 | | ug/L | | 111 | 60 - 140 |

| Surrogate | LCS % Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene | 102 | | 51 - 149 |

**Lab Sample ID: LCSD 400-131445/3-A** — **Client Sample ID: LCSD 400-131445/3-A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 131482** — **Prep Batch: 131445**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Ethylene Dibromide | 0.200 | 0.228 | | ug/L | | 114 | 60 - 140 | 2 | 30 |

| Surrogate | LCSD % Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 4-Bromofluorobenzene | 104 | | 51 - 149 |

## Method: FL-PRO - Florida - Petroleum Range Organics (GC)

**Lab Sample ID: MB 400-131184/6-A** — **Client Sample ID: MB 400-131184/6-A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 131349** — **Prep Batch: 131184**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons (C8-C40) | 17 | U | 100 | 17 | ug/L | | 05/17/11 08:56 | 05/18/11 14:43 | 1 |

| Surrogate | MB % Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| n-C39 | 94 | | 20 - 176 | 05/17/11 08:56 | 05/18/11 14:43 | 1 |

## Method: FL-PRO - Florida - Petroleum Range Organics (GC) (Continued)

**Lab Sample ID: MB 400-131184/6-A** — **Client Sample ID: MB 400-131184/6-A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 131349** — **Prep Batch: 131184**

| Surrogate | MB % Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| o-Terphenyl | 100 | | 49 - 143 | 05/17/11 08:56 | 05/18/11 14:43 | 1 |

**Lab Sample ID: LCS 400-131184/5-A** — **Client Sample ID: LCS 400-131184/5-A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 131349** — **Prep Batch: 131184**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons (C8-C40) | 3400 | 2910 | | ug/L | | 86 | 41 - 133 |

| Surrogate | LCS % Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| n-C39 | 62 | | 20 - 176 |
| o-Terphenyl | 94 | | 49 - 143 |

## Method: 6010B - Lead

**Lab Sample ID: MB 400-131204/24-A** — **Client Sample ID: MB 400-131204/24-A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 131469** — **Prep Batch: 131204**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lead | 0.0020 | U | 0.0050 | 0.0020 | mg/L | | 05/17/11 09:45 | 05/19/11 13:44 | 1 |

**Lab Sample ID: LCS 400-131204/25-A** — **Client Sample ID: LCS 400-131204/25-A**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 131469** — **Prep Batch: 131204**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Lead | 1.00 | 1.03 | | mg/L | | 103 | 80 - 120 |

**Lab Sample ID: 400-55865-1 MS** — **Client Sample ID: MW-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 131469** — **Prep Batch: 131204**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Lead | 0.0020 | U | 1.00 | 1.04 | | mg/L | | 104 | 75 - 125 |

**Lab Sample ID: 400-55865-1 MSD** — **Client Sample ID: MW-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 131469** — **Prep Batch: 131204**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lead | 0.0020 | U | 1.00 | 1.03 | | mg/L | | 103 | 75 - 125 | 1 | 20 |

# QC Association Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55865-1

## GC/MS VOA

### Analysis Batch: 131330

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 400-131330/3 | MB 400-131330/3 | Total/NA | Water | 8260B | |
| LCS 400-131330/4 | LCS 400-131330/4 | Total/NA | Water | 8260B | |
| 400-55865-1 | MW-2 | Total/NA | Water | 8260B | |
| 400-55865-2 | MW-7 | Total/NA | Water | 8260B | |
| 400-55865-3 | MW-1 | Total/NA | Water | 8260B | |
| 400-55865-4 | MW-8 | Total/NA | Water | 8260B | |
| 400-55865-5 | MW-5 | Total/NA | Water | 8260B | |
| 400-55865-6 | MW-6 | Total/NA | Water | 8260B | |
| 400-55865-7 | MW-4 | Total/NA | Water | 8260B | |
| 400-55865-8 | DMW-1 | Total/NA | Water | 8260B | |
| 400-55865-9 | DUP | Total/NA | Water | 8260B | |
| 400-55865-10 | EB | Total/NA | Water | 8260B | |
| 400-55865-1 MS | MW-2 | Total/NA | Water | 8260B | |
| 400-55865-1 MSD | MW-2 | Total/NA | Water | 8260B | |

## GC/MS Semi VOA

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### Prep Batch: 131177

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-55865-1 | MW-2 | Total/NA | Water | 3520C | |
| 400-55865-2 | MW-7 | Total/NA | Water | 3520C | |
| 400-55865-3 | MW-1 | Total/NA | Water | 3520C | |
| 400-55865-3 | MW-1 | Total/NA | Water | 3520C | |
| 400-55865-4 | MW-8 | Total/NA | Water | 3520C | |
| 400-55865-5 | MW-5 | Total/NA | Water | 3520C | |
| 400-55865-6 | MW-6 | Total/NA | Water | 3520C | |
| 400-55865-7 | MW-4 | Total/NA | Water | 3520C | |
| 400-55865-7 | MW-4 | Total/NA | Water | 3520C | |
| 400-55865-8 | DMW-1 | Total/NA | Water | 3520C | |
| 400-55865-9 | DUP | Total/NA | Water | 3520C | |
| 400-55865-9 | DUP | Total/NA | Water | 3520C | |
| 400-55865-10 | EB | Total/NA | Water | 3520C | |
| LCS 400-131177/14-A | LCS 400-131177/14-A | Total/NA | Water | 3520C | |
| MB 400-131177/15-A | MB 400-131177/15-A | Total/NA | Water | 3520C | |

### Analysis Batch: 131380

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 400-131177/15-A | MB 400-131177/15-A | Total/NA | Water | 8270C LL | 131177 |
| LCS 400-131177/14-A | LCS 400-131177/14-A | Total/NA | Water | 8270C LL | 131177 |
| 400-55865-1 | MW-2 | Total/NA | Water | 8270C LL | 131177 |
| 400-55865-2 | MW-7 | Total/NA | Water | 8270C LL | 131177 |
| 400-55865-3 | MW-1 | Total/NA | Water | 8270C LL | 131177 |
| 400-55865-4 | MW-8 | Total/NA | Water | 8270C LL | 131177 |
| 400-55865-6 | MW-6 | Total/NA | Water | 8270C LL | 131177 |
| 400-55865-7 | MW-4 | Total/NA | Water | 8270C LL | 131177 |
| 400-55865-8 | DMW-1 | Total/NA | Water | 8270C LL | 131177 |
| 400-55865-9 | DUP | Total/NA | Water | 8270C LL | 131177 |
| 400-55865-10 | EB | Total/NA | Water | 8270C LL | 131177 |
| 400-55865-3 | MW-1 | Total/NA | Water | 8270C LL | 131177 |

## GC/MS Semi VOA (Continued)

### Analysis Batch: 131434

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-55865-5 | MW-5 | Total/NA | Water | 8270C LL | 131177 |
| 400-55865-7 | MW-4 | Total/NA | Water | 8270C LL | 131177 |
| 400-55865-9 | DUP | Total/NA | Water | 8270C LL | 131177 |

## GC Semi VOA

### Prep Batch: 131184

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-55865-1 | MW-2 | Total/NA | Water | 3520C | |
| 400-55865-2 | MW-7 | Total/NA | Water | 3520C | |
| 400-55865-3 | MW-1 | Total/NA | Water | 3520C | |
| 400-55865-4 | MW-8 | Total/NA | Water | 3520C | |
| LCS 400-131184/5-A | LCS 400-131184/5-A | Total/NA | Water | 3520C | |
| MB 400-131184/6-A | MB 400-131184/6-A | Total/NA | Water | 3520C | |
| 400-55865-5 | MW-5 | Total/NA | Water | 3520C | |
| 400-55865-6 | MW-6 | Total/NA | Water | 3520C | |
| 400-55865-7 | MW-4 | Total/NA | Water | 3520C | |
| 400-55865-8 | DMW-1 | Total/NA | Water | 3520C | |
| 400-55865-9 | DUP | Total/NA | Water | 3520C | |
| 400-55865-10 | EB | Total/NA | Water | 3520C | |

### Analysis Batch: 131349

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 400-131184/6-A | MB 400-131184/6-A | Total/NA | Water | FL-PRO | 131184 |
| LCS 400-131184/5-A | LCS 400-131184/5-A | Total/NA | Water | FL-PRO | 131184 |
| 400-55865-1 | MW-2 | Total/NA | Water | FL-PRO | 131184 |
| 400-55865-2 | MW-7 | Total/NA | Water | FL-PRO | 131184 |
| 400-55865-3 | MW-1 | Total/NA | Water | FL-PRO | 131184 |
| 400-55865-4 | MW-8 | Total/NA | Water | FL-PRO | 131184 |
| 400-55865-5 | MW-5 | Total/NA | Water | FL-PRO | 131184 |
| 400-55865-6 | MW-6 | Total/NA | Water | FL-PRO | 131184 |
| 400-55865-7 | MW-4 | Total/NA | Water | FL-PRO | 131184 |
| 400-55865-8 | DMW-1 | Total/NA | Water | FL-PRO | 131184 |
| 400-55865-9 | DUP | Total/NA | Water | FL-PRO | 131184 |
| 400-55865-10 | EB | Total/NA | Water | FL-PRO | 131184 |

### Prep Batch: 131445

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 400-131445/1-A | MB 400-131445/1-A | Total/NA | Water | 8011 | |
| LCS 400-131445/2-A | LCS 400-131445/2-A | Total/NA | Water | 8011 | |
| LCSD 400-131445/3-A | LCSD 400-131445/3-A | Total/NA | Water | 8011 | |
| 400-55865-1 | MW-2 | Total/NA | Water | 8011 | |
| 400-55865-2 | MW-7 | Total/NA | Water | 8011 | |
| 400-55865-3 | MW-1 | Total/NA | Water | 8011 | |
| 400-55865-4 | MW-8 | Total/NA | Water | 8011 | |
| 400-55865-5 | MW-5 | Total/NA | Water | 8011 | |
| 400-55865-6 | MW-6 | Total/NA | Water | 8011 | |
| 400-55865-7 | MW-4 | Total/NA | Water | 8011 | |
| 400-55865-8 | DMW-1 | Total/NA | Water | 8011 | |
| 400-55865-9 | DUP | Total/NA | Water | 8011 | |
| 400-55865-10 | EB | Total/NA | Water | 8011 | |

## GC Semi VOA (Continued)

### Analysis Batch: 131482

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 400-131445/1-A | MB 400-131445/1-A | Total/NA | Water | 8011 | 131445 |
| LCS 400-131445/2-A | LCS 400-131445/2-A | Total/NA | Water | 8011 | 131445 |
| LCSD 400-131445/3-A | LCSD 400-131445/3-A | Total/NA | Water | 8011 | 131445 |
| 400-55865-1 | MW-2 | Total/NA | Water | 8011 | 131445 |
| 400-55865-2 | MW-7 | Total/NA | Water | 8011 | 131445 |
| 400-55865-3 | MW-1 | Total/NA | Water | 8011 | 131445 |
| 400-55865-4 | MW-8 | Total/NA | Water | 8011 | 131445 |
| 400-55865-5 | MW-5 | Total/NA | Water | 8011 | 131445 |
| 400-55865-6 | MW-6 | Total/NA | Water | 8011 | 131445 |
| 400-55865-7 | MW-4 | Total/NA | Water | 8011 | 131445 |
| 400-55865-8 | DMW-1 | Total/NA | Water | 8011 | 131445 |
| 400-55865-9 | DUP | Total/NA | Water | 8011 | 131445 |
| 400-55865-10 | EB | Total/NA | Water | 8011 | 131445 |

## Metals

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### Prep Batch: 131204

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 400-55865-1 | MW-2 | Total/NA | Water | 3010A | |
| 400-55865-1 MS | MW-2 | Total/NA | Water | 3010A | |
| 400-55865-1 MSD | MW-2 | Total/NA | Water | 3010A | |
| 400-55865-3 | MW-1 | Total/NA | Water | 3010A | |
| 400-55865-4 | MW-8 | Total/NA | Water | 3010A | |
| 400-55865-5 | MW-5 | Total/NA | Water | 3010A | |
| 400-55865-6 | MW-6 | Total/NA | Water | 3010A | |
| 400-55865-7 | MW-4 | Total/NA | Water | 3010A | |
| 400-55865-8 | DMW-1 | Total/NA | Water | 3010A | |
| 400-55865-9 | DUP | Total/NA | Water | 3010A | |
| 400-55865-10 | EB | Total/NA | Water | 3010A | |
| 400-55865-2 | MW-7 | Total/NA | Water | 3010A | |
| MB 400-131204/24-A | MB 400-131204/24-A | Total/NA | Water | 3010A | |
| LCS 400-131204/25-A | LCS 400-131204/25-A | Total/NA | Water | 3010A | |

### Analysis Batch: 131469

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 400-131204/24-A | MB 400-131204/24-A | Total/NA | Water | 6010B | 131204 |
| LCS 400-131204/25-A | LCS 400-131204/25-A | Total/NA | Water | 6010B | 131204 |
| 400-55865-1 | MW-2 | Total/NA | Water | 6010B | 131204 |
| 400-55865-1 MS | MW-2 | Total/NA | Water | 6010B | 131204 |
| 400-55865-1 MSD | MW-2 | Total/NA | Water | 6010B | 131204 |
| 400-55865-3 | MW-1 | Total/NA | Water | 6010B | 131204 |
| 400-55865-4 | MW-8 | Total/NA | Water | 6010B | 131204 |
| 400-55865-5 | MW-5 | Total/NA | Water | 6010B | 131204 |
| 400-55865-6 | MW-6 | Total/NA | Water | 6010B | 131204 |
| 400-55865-7 | MW-4 | Total/NA | Water | 6010B | 131204 |
| 400-55865-8 | DMW-1 | Total/NA | Water | 6010B | 131204 |
| 400-55865-9 | DUP | Total/NA | Water | 6010B | 131204 |
| 400-55865-10 | EB | Total/NA | Water | 6010B | 131204 |
| 400-55865-2 | MW-7 | Total/NA | Water | 6010B | 131204 |

400-55865

# Chain of Custody Record

Lab Report No.:

Company: AEROSTAR

Address: 803 Govt. St., Ste. A
Mobile, AL 36602

**Gulf Coast LabNet, Inc.**
**An Environmental Lab Services Co.**
Phone: (251) 625-1331
Fax: (251) 625-1299

Modified from DEP Form #: 62-770.900(2) | Page 1 of 2
FDEP Facility No.:
Project Name: NAVAL HOSPITAL
Location: PENSACOLA, FL
Project No.:

Attn: CURTIS MILLS
Phone:
Fax:
Sampled by [Print Name]/Affiliation
Sampler Signature

| Item No. | Field ID No. | Sampled Date | Sampled Time | Grab or Comp. | Matrix Codes | No. Cont. | VOA 8021 | VOH 8011 | EDB 8270 | PAH FL-PRO | PB 6010 | | | | Remarks | Lab. No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | H | H | H | H | 2 | | | | ←Preservative | |
| | | | | | | | | | | | | | | | ←Analysis | |
| 1 | MW-2 | 5/12/11 | 1002 | Grab | GW | 7 | X | X | X | X | X | | | | | |
| 2 | MW-7 | 5/12/11 | 1051 | Grab | GW | 7 | X | X | X | X | X | | | | | |
| 3 | MW-1 | 5/12/11 | 1123 | Grab | GW | 7 | X | X | X | X | X | | | | | |
| 4 | MW-8 | 5/12/11 | 1153 | Grab | GW | 7 | X | X | X | X | X | | | | | |
| 5 | MW-5 | 5/12/11 | 1233 | Grab | GW | 7 | X | X | X | X | X | | | | | |
| 6 | MW-6 | 5/12/11 | 1259 | Grab | GW | 7 | X | X | X | X | X | | | | | |
| 7 | MW-4 | 5/12/11 | 1336 | Grab | GW | 7 | X | X | X | X | X | | | | | |
| 8 | DMW-1 | 5/12/11 | 1510 | Grab | GW | 7 | X | X | X | X | X | | | | | |
| 9 | DUP | 5/12/11 | — | Grab | GW | 7 | X | X | X | X | X | | | | | |

REQUESTED DUE DATE

Shipment Method | ←Total Number of Containers

Out: / / Via:
Returned: / / Via:
Additional Comments

| Item# | Relinquished by / Affiliation | Date | Time | Accepted by / Affiliation | Date | Time |
|---|---|---|---|---|---|---|
| | EMPTY CONTAINERS | | | | | |
| | | 5/12/11 | 1700 | | 5/12/11 | 1700 |
| | | 5/13/11 | 1430 | | 05/13/11 | 14:30 |

| Cooler No.(s) / Temperature(s) (°C) | Sampling Kit No. | Equipment ID No. |
|---|---|---|
| 0.0°C 0.0°C 0.3°C 0.7°C | 10345 | |

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)
PRESERVATIVE CODES: H = Hydrochloric acid + ice I = Ice only N = Nitric acid + ice S = Sulfuric acid + ice O = Other (specify)

400-55865

# Chain of Custody Record

Lab Report No.:

Company: AEROSTAR

Address: 803 GOVT. ST., STE. A
MOBILE, AL 36602

**Gulf Coast LabNet, Inc.**
**An Environmental Lab Services Co.**
Phone: (251) 625-1331
Fax: (251) 625-1299

Modified from DEP Form #: 62-770.900(2) | Page 2 of 2

FDEP Facility No.:

Project Name: NAVAL HOSPITAL

Location: PENSACOLA, FL

Project No.:

Attn: CURTIS MILLS

Phone:

Fax:

Sampled by [Print Name]/Affiliation

Sampler Signature

| Item No. | Field ID No. | Sampled Date | Sampled Time | Grab or Comp. | Matrix Codes | No. Cont. | VOA (VOH) 8260 | PAH 8270 | FL-PRO | EDB 8011 | Pb 6010 | | | | Remarks | Lab. No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | H | H | S | H | 2 | | | | ←Preservative | |
| | | | | | | | | | | | | | | | ←Analysis | |
| | | | | | | | | | | | | | | | REQUESTED DUE DATE | |
| 10 | EB | 5/12/11 | 1520 | Grab | GW | 7 | X | X | X | X | X | | | | | |

Shipment Method

Out: / / Via:

Returned: / / Via:

Additional Comments

←Total Number of Containers

| Item # | Relinquished by / Affiliation | Date | Time | Accepted by / Affiliation | Date | Time |
|---|---|---|---|---|---|---|
| | EMPTY CONTAINERS | | | | 5/11/11 | 1500 |
| | | 5/12/11 | 1700 | | 5/12/11 | 1700 |
| | | 5-13-11 | 1430 | | 05/13/11 | 14:30 |

| Cooler No.(s) / Temperature(s) (°C) | Sampling Kit No. | Equipment ID No. |
|---|---|---|
| 0.0C 0.0C 0.5C 0.2°C | 10345 | |

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H = Hydrochloric acid + ice I = Ice only N = Nitric acid + ice S = Sulfuric acid + ice O = Other (specify)

# Login Sample Receipt Checklist

Client: Aerostar Environmental Services, Inc.

Job Number: 400-55865-1

**Login Number: 55865**
**List Number: 1**
**Creator: Chea, Vanda**

**List Source: TestAmerica Pensacola**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity either was not measured or, if measured, is at or below background | N/A | |
| The cooler's custody seal, if present, is intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | 0.0°C, 0.0°C, 0.3°C, 0.7°C |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the sample IDs on the containers and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | True | |

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# Certification Summary

Client: Aerostar Environmental Services, Inc.
Project/Site: Naval Hospital - Pensacola, FL

TestAmerica Job ID: 400-55865-1

| Laboratory | Authority | Program | EPA Region | Certification ID |
|---|---|---|---|---|
| TestAmerica Pensacola | | USDA | | P330-10-00407 |
| TestAmerica Pensacola | Alabama | State Program | 4 | 40150 |
| TestAmerica Pensacola | Arizona | State Program | 9 | AZ0710 |
| TestAmerica Pensacola | Arkansas | State Program | 6 | 88-0689 |
| TestAmerica Pensacola | Florida | NELAC | 4 | E81010 |
| TestAmerica Pensacola | Georgia | Georgia EPD | 4 | N/A |
| TestAmerica Pensacola | Illinois | NELAC | 5 | 200041 |
| TestAmerica Pensacola | Iowa | State Program | 7 | 367 |
| TestAmerica Pensacola | Kansas | NELAC | 7 | E-10253 |
| TestAmerica Pensacola | Kentucky | Kentucky UST | 4 | 53 |
| TestAmerica Pensacola | Louisiana | NELAC | 6 | 30748 |
| TestAmerica Pensacola | Maryland | State Program | 3 | 233 |
| TestAmerica Pensacola | Massachusetts | State Program | 1 | M-FL094 |
| TestAmerica Pensacola | Michigan | State Program | 5 | 9912 |
| TestAmerica Pensacola | New Hampshire | NELAC | 1 | 2505 |
| TestAmerica Pensacola | New Jersey | NELAC | 2 | FL006 |
| TestAmerica Pensacola | North Carolina | North Carolina DENR | 4 | 314 |
| TestAmerica Pensacola | Oklahoma | State Program | 6 | 9810 |
| TestAmerica Pensacola | Pennsylvania | NELAC | 3 | 68-00467 |
| TestAmerica Pensacola | Rhode Island | State Program | 1 | LAO00307 |
| TestAmerica Pensacola | South Carolina | State Program | 4 | 96026 |
| TestAmerica Pensacola | Tennessee | State Program | 4 | TN02907 |
| TestAmerica Pensacola | Texas | NELAC | 6 | T104704286-09-1 |
| TestAmerica Pensacola | Virginia | State Program | 3 | 00008 |
| TestAmerica Pensacola | Washington | State Program | 10 | C915 |
| TestAmerica Pensacola | West Virginia | West Virginia DEP | 3 | 136 |

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

# APPENDIX H

## FDEP BENZO(A)PYRENE CONVERSION TABLES

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location:
Facility ID No.:

Soil Sample No. AES-1P (6")
Sample Date
Location:
Depth (ft):

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 14.720 | 1.0 | 14.720 |
| Benzo(a)anthracene | 11.870 | 0.1 | 1.187 |
| Benzo(b)fluoranthene | 13.680 | 0.1 | 1.368 |
| Benzo(k)fluoranthene | 10.800 | 0.01 | 0.108 |
| Chrysene | 12.970 | 0.001 | 0.013 |
| Dibenz(a,h)anthracene | 1.620 | 1.0 | 1.620 |
| Indeno(1,2,3-cd)pyrene | 9.820 | 0.1 | 0.982 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 19.998**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location: _____
Facility ID No.: _____

Soil Sample No. AES-1P (2-4)
Sample Date _____
Location: _____
Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration reported has no qualifier) or estimated (the concentration reported has a "J", "T" or "I" qualifier). Enter the contaminant concentrations (in mg/kg) for all seven carcinogenic PAHs in the yellow boxes using the following criteria (and see table below):

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 0.140 | 1.0 | 0.140 |
| Benzo(a)anthracene | 0.150 | 0.1 | 0.015 |
| Benzo(b)fluoranthene | 0.120 | 0.1 | 0.012 |
| Benzo(k)fluoranthene | 0.200 | 0.01 | 0.002 |
| Chrysene | 0.150 | 0.001 | 0.000 |
| Dibenz(a,h)anthracene | 0.058 | 1.0 | 0.058 |
| Indeno(1,2,3-cd)pyrene | 0.059 | 0.1 | 0.006 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 0.233**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location:
Facility ID No.:

Soil Sample No. AES-2P (0-2)
Sample Date
Location:
Depth (ft):

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 45.450 | 1.0 | 45.450 |
| Benzo(a)anthracene | 42.750 | 0.1 | 4.275 |
| Benzo(b)fluoranthene | 65.600 | 0.1 | 6.560 |
| Benzo(k)fluoranthene | 31.800 | 0.01 | 0.318 |
| Chrysene | 47.040 | 0.001 | 0.047 |
| Dibenz(a,h)anthracene | 4.440 | 1.0 | 4.440 |
| Indeno(1,2,3-cd)pyrene | 21.530 | 0.1 | 2.153 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 63.243**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location: _____
Facility ID No.: _____

Soil Sample No. AES-2P (0-2)
Sample Date _____
Location: _____
Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 1.060 | 1.0 | 1.060 |
| Benzo(a)anthracene | 3.450 | 0.1 | 0.345 |
| Benzo(b)fluoranthene | 2.420 | 0.1 | 0.242 |
| Benzo(k)fluoranthene | 2.700 | 0.01 | 0.027 |
| Chrysene | 4.110 | 0.001 | 0.004 |
| Dibenz(a,h)anthracene | 0.058 | 1.0 | 0.058 |
| Indeno(1,2,3-cd)pyrene | 1.710 | 0.1 | 0.171 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 1.907**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location: _____
Facility ID No.: _____

Soil Sample No. AES-3P (6")
Sample Date _____
Location: _____
Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 1.900 | 1.0 | 1.900 |
| Benzo(a)anthracene | 1.620 | 0.1 | 0.162 |
| Benzo(b)fluoranthene | 1.800 | 0.1 | 0.180 |
| Benzo(k)fluoranthene | 1.600 | 0.01 | 0.016 |
| Chrysene | 1.970 | 0.001 | 0.002 |
| Dibenz(a,h)anthracene | 0.058 | 1.0 | 0.058 |
| Indeno(1,2,3-cd)pyrene | 1.210 | 0.1 | 0.121 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 2.439**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location:
Facility ID No.:

Soil Sample No. AES-3P (0-2)
Sample Date
Location:
Depth (ft):

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 4.140 | 1.0 | 4.140 |
| Benzo(a)anthracene | 3.040 | 0.1 | 0.304 |
| Benzo(b)fluoranthene | 5.620 | 0.1 | 0.562 |
| Benzo(k)fluoranthene | 3.300 | 0.01 | 0.033 |
| Chrysene | 3.850 | 0.001 | 0.004 |
| Dibenz(a,h)anthracene | 0.290 | 1.0 | 0.290 |
| Indeno(1,2,3-cd)pyrene | 2.500 | 0.1 | 0.250 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 5.583**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location: _____
Facility ID No.: _____

Soil Sample No. AES-3P (2-4)
Sample Date _____
Location: _____
Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 0.690 | 1.0 | 0.690 |
| Benzo(a)anthracene | 0.600 | 0.1 | 0.060 |
| Benzo(b)fluoranthene | 0.580 | 0.1 | 0.058 |
| Benzo(k)fluoranthene | 0.700 | 0.01 | 0.007 |
| Chrysene | 0.860 | 0.001 | 0.001 |
| Dibenz(a,h)anthracene | 0.058 | 1.0 | 0.058 |
| Indeno(1,2,3-cd)pyrene | 0.330 | 0.1 | 0.033 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 0.907**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location: _____
Facility ID No.: _____

Soil Sample No. AES-3P (4-6)
Sample Date _____
Location: _____
Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 1.030 | 1.0 | 1.030 |
| Benzo(a)anthracene | 1.050 | 0.1 | 0.105 |
| Benzo(b)fluoranthene | 1.280 | 0.1 | 0.128 |
| Benzo(k)fluoranthene | 0.900 | 0.01 | 0.009 |
| Chrysene | 1.390 | 0.001 | 0.001 |
| Dibenz(a,h)anthracene | 0.058 | 1.0 | 0.058 |
| Indeno(1,2,3-cd)pyrene | 0.490 | 0.1 | 0.049 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 1.380**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location: _____
Facility ID No.: _____

Soil Sample No. AES-3P (6-8)
Sample Date _____
Location: _____
Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 1.290 | 1.0 | 1.290 |
| Benzo(a)anthracene | 0.970 | 0.1 | 0.097 |
| Benzo(b)fluoranthene | 1.280 | 0.1 | 0.128 |
| Benzo(k)fluoranthene | 1.300 | 0.01 | 0.013 |
| Chrysene | 1.370 | 0.001 | 0.001 |
| Dibenz(a,h)anthracene | 0.058 | 1.0 | 0.058 |
| Indeno(1,2,3-cd)pyrene | 0.730 | 0.1 | 0.073 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 1.660**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location:
Facility ID No.:

Soil Sample No. AES-4P (6")
Sample Date
Location:
Depth (ft):

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 150.490 | 1.0 | 150.490 |
| Benzo(a)anthracene | 189.230 | 0.1 | 18.923 |
| Benzo(b)fluoranthene | 408.080 | 0.1 | 40.808 |
| Benzo(k)fluoranthene | 207.700 | 0.01 | 2.077 |
| Chrysene | 183.230 | 0.001 | 0.183 |
| Dibenz(a,h)anthracene | 9.560 | 1.0 | 9.560 |
| Indeno(1,2,3-cd)pyrene | 49.270 | 0.1 | 4.927 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 226.968**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location:
Facility ID No.:

Soil Sample No. AES-5P (6")
Sample Date
Location:
Depth (ft):

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 6.550 | 1.0 | 6.550 |
| Benzo(a)anthracene | 5.750 | 0.1 | 0.575 |
| Benzo(b)fluoranthene | 10.710 | 0.1 | 1.071 |
| Benzo(k)fluoranthene | 5.700 | 0.01 | 0.057 |
| Chrysene | 8.400 | 0.001 | 0.008 |
| Dibenz(a,h)anthracene | 0.890 | 1.0 | 0.890 |
| Indeno(1,2,3-cd)pyrene | 5.020 | 0.1 | 0.502 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 9.653**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location:
Facility ID No.:

Soil Sample No. AES-5P (1-2)
Sample Date
Location:
Depth (ft):

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 1.240 | 1.0 | 1.240 |
| Benzo(a)anthracene | 1.090 | 0.1 | 0.109 |
| Benzo(b)fluoranthene | 1.750 | 0.1 | 0.175 |
| Benzo(k)fluoranthene | 1.100 | 0.01 | 0.011 |
| Chrysene | 1.740 | 0.001 | 0.002 |
| Dibenz(a,h)anthracene | 0.058 | 1.0 | 0.058 |
| Indeno(1,2,3-cd)pyrene | 0.930 | 0.1 | 0.093 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 1.688**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location:
Facility ID No.:

Soil Sample No. AES-5P (2-3)
Sample Date
Location:
Depth (ft):

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 0.150 | 1.0 | 0.150 |
| Benzo(a)anthracene | 0.150 | 0.1 | 0.015 |
| Benzo(b)fluoranthene | 0.110 | 0.1 | 0.011 |
| Benzo(k)fluoranthene | 0.100 | 0.01 | 0.001 |
| Chrysene | 0.190 | 0.001 | 0.000 |
| Dibenz(a,h)anthracene | 0.058 | 1.0 | 0.058 |
| Indeno(1,2,3-cd)pyrene | 0.059 | 0.1 | 0.006 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 0.241**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location:
Facility ID No.:

Soil Sample No. AES-5P (4-5)
Sample Date
Location:
Depth (ft):

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 1.100 | 1.0 | 1.100 |
| Benzo(a)anthracene | 0.940 | 0.1 | 0.094 |
| Benzo(b)fluoranthene | 1.450 | 0.1 | 0.145 |
| Benzo(k)fluoranthene | 1.400 | 0.01 | 0.014 |
| Chrysene | 1.630 | 0.001 | 0.002 |
| Dibenz(a,h)anthracene | 0.150 | 1.0 | 0.150 |
| Indeno(1,2,3-cd)pyrene | 0.760 | 0.1 | 0.076 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 1.581**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location:
Facility ID No.:

Soil Sample No. AES-5P (4-5)
Sample Date
Location:
Depth (ft):

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 0.0460 | 1.0 | 0.046 |
| Benzo(a)anthracene | 0.0900 | 0.1 | 0.009 |
| Benzo(b)fluoranthene | 0.0280 | 0.1 | 0.003 |
| Benzo(k)fluoranthene | 0.0345 | 0.01 | 0.000 |
| Chrysene | 0.0470 | 0.001 | 0.000 |
| Dibenz(a,h)anthracene | 0.0580 | 1.0 | 0.058 |
| Indeno(1,2,3-cd)pyrene | 0.0585 | 0.1 | 0.006 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 0.122**

The concentration shown does not exceed the Residential Direct Exposure SCTL of 0.1 mg/kg.

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location:
Facility ID No.:

Soil Sample No. AES-6P (6")
Sample Date
Location:
Depth (ft):

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 18.2700 | 1.0 | 18.270 |
| Benzo(a)anthracene | 40.1400 | 0.1 | 4.014 |
| Benzo(b)fluoranthene | 44.1500 | 0.1 | 4.415 |
| Benzo(k)fluoranthene | 41.0000 | 0.01 | 0.410 |
| Chrysene | 46.7500 | 0.001 | 0.047 |
| Dibenz(a,h)anthracene | 4.5300 | 1.0 | 4.530 |
| Indeno(1,2,3-cd)pyrene | 22.9300 | 0.1 | 2.293 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 33.979**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location:
Facility ID No.:

Soil Sample No. AES-7P (6")
Sample Date
Location:
Depth (ft):

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 35.0100 | 1.0 | 35.010 |
| Benzo(a)anthracene | 110.1000 | 0.1 | 11.010 |
| Benzo(b)fluoranthene | 172.9100 | 0.1 | 17.291 |
| Benzo(k)fluoranthene | 78.1000 | 0.01 | 0.781 |
| Chrysene | 136.0100 | 0.001 | 0.136 |
| Dibenz(a,h)anthracene | 6.3400 | 1.0 | 6.340 |
| Indeno(1,2,3-cd)pyrene | 28.3900 | 0.1 | 2.839 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 73.407**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location: _____
Facility ID No.: _____

Soil Sample No. AES-7P (1-2)
Sample Date _____
Location: _____
Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 0.4800 | 1.0 | 0.480 |
| Benzo(a)anthracene | 0.4300 | 0.1 | 0.043 |
| Benzo(b)fluoranthene | 0.4500 | 0.1 | 0.045 |
| Benzo(k)fluoranthene | 0.3000 | 0.01 | 0.003 |
| Chrysene | 0.5100 | 0.001 | 0.001 |
| Dibenz(a,h)anthracene | 0.0580 | 1.0 | 0.058 |
| Indeno(1,2,3-cd)pyrene | 0.2200 | 0.1 | 0.022 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 0.652**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location: _____
Facility ID No.: _____

Soil Sample No. AES-7P (2-3)
Sample Date _____
Location: _____
Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 0.0460 | 1.0 | 0.046 |
| Benzo(a)anthracene | 0.1300 | 0.1 | 0.013 |
| Benzo(b)fluoranthene | 0.0700 | 0.1 | 0.007 |
| Benzo(k)fluoranthene | 0.1000 | 0.01 | 0.001 |
| Chrysene | 0.1200 | 0.001 | 0.000 |
| Dibenz(a,h)anthracene | 0.0580 | 1.0 | 0.058 |
| Indeno(1,2,3-cd)pyrene | 0.0585 | 0.1 | 0.006 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 0.131**

The concentration shown does not exceed the Residential Direct Exposure SCTL of 0.1 mg/kg.

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location: _____
Facility ID No.: _____

Soil Sample No. AES-7P (4-5)
Sample Date _____
Location: _____
Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 0.4000 | 1.0 | 0.400 |
| Benzo(a)anthracene | 0.1900 | 0.1 | 0.019 |
| Benzo(b)fluoranthene | 0.4200 | 0.1 | 0.042 |
| Benzo(k)fluoranthene | 0.3000 | 0.01 | 0.003 |
| Chrysene | 0.3300 | 0.001 | 0.000 |
| Dibenz(a,h)anthracene | 0.0580 | 1.0 | 0.058 |
| Indeno(1,2,3-cd)pyrene | 0.2100 | 0.1 | 0.021 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 0.543**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location: _____
Facility ID No.: _____

Soil Sample No. AES-7P (4-5)
Sample Date _____
Location: _____
Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 0.4400 | 1.0 | 0.440 |
| Benzo(a)anthracene | 0.3400 | 0.1 | 0.034 |
| Benzo(b)fluoranthene | 0.5400 | 0.1 | 0.054 |
| Benzo(k)fluoranthene | 0.4000 | 0.01 | 0.004 |
| Chrysene | 0.4600 | 0.001 | 0.000 |
| Dibenz(a,h)anthracene | 0.0580 | 1.0 | 0.058 |
| Indeno(1,2,3-cd)pyrene | 0.2100 | 0.1 | 0.021 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 0.611**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location: _____
Facility ID No.: _____

Soil Sample No. AES-8P (6")
Sample Date _____
Location: _____
Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 0.3600 | 1.0 | 0.360 |
| Benzo(a)anthracene | 0.2800 | 0.1 | 0.028 |
| Benzo(b)fluoranthene | 0.3900 | 0.1 | 0.039 |
| Benzo(k)fluoranthene | 0.4000 | 0.01 | 0.004 |
| Chrysene | 0.4600 | 0.001 | 0.000 |
| Dibenz(a,h)anthracene | 0.0580 | 1.0 | 0.058 |
| Indeno(1,2,3-cd)pyrene | 0.2100 | 0.1 | 0.021 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 0.510**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location:
Facility ID No.:

Soil Sample No. AES-9P (6")
Sample Date
Location:
Depth (ft):

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 0.6000 | 1.0 | 0.600 |
| Benzo(a)anthracene | 0.3100 | 0.1 | 0.031 |
| Benzo(b)fluoranthene | 0.4700 | 0.1 | 0.047 |
| Benzo(k)fluoranthene | 0.7000 | 0.01 | 0.007 |
| Chrysene | 0.4700 | 0.001 | 0.000 |
| Dibenz(a,h)anthracene | 0.0580 | 1.0 | 0.058 |
| Indeno(1,2,3-cd)pyrene | 0.2600 | 0.1 | 0.026 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 0.769**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location:
Facility ID No.:

Soil Sample No. AES-10P (6")
Sample Date
Location:
Depth (ft):

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 20.9100 | 1.0 | 20.910 |
| Benzo(a)anthracene | 14.5700 | 0.1 | 1.457 |
| Benzo(b)fluoranthene | 20.4700 | 0.1 | 2.047 |
| Benzo(k)fluoranthene | 14.7000 | 0.01 | 0.147 |
| Chrysene | 18.7400 | 0.001 | 0.019 |
| Dibenz(a,h)anthracene | 0.0580 | 1.0 | 0.058 |
| Indeno(1,2,3-cd)pyrene | 13.0400 | 0.1 | 1.304 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 25.942**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location: _____
Facility ID No.: _____

Soil Sample No. AES-10P (1-2)
Sample Date _____
Location: _____
Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 0.0460 | 1.0 | 0.046 |
| Benzo(a)anthracene | 0.4500 | 0.1 | 0.045 |
| Benzo(b)fluoranthene | 0.0280 | 0.1 | 0.003 |
| Benzo(k)fluoranthene | 0.0345 | 0.01 | 0.000 |
| Chrysene | 0.0470 | 0.001 | 0.000 |
| Dibenz(a,h)anthracene | 0.0580 | 1.0 | 0.058 |
| Indeno(1,2,3-cd)pyrene | 0.0385 | 0.1 | 0.004 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 0.156**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location: _____
Facility ID No.: _____

Soil Sample No. AES-12P (6")
Sample Date _____
Location: _____
Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 0.6200 | 1.0 | 0.620 |
| Benzo(a)anthracene | 0.4800 | 0.1 | 0.048 |
| Benzo(b)fluoranthene | 0.4900 | 0.1 | 0.049 |
| Benzo(k)fluoranthene | 0.6800 | 0.01 | 0.007 |
| Chrysene | 0.6300 | 0.001 | 0.001 |
| Dibenz(a,h)anthracene | 0.1750 | 1.0 | 0.175 |
| Indeno(1,2,3-cd)pyrene | 0.3200 | 0.1 | 0.032 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 0.931**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location: _____
Facility ID No.: _____

Soil Sample No. AES-12P (1-2)
Sample Date _____
Location: _____
Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 0.7200 | 1.0 | 0.720 |
| Benzo(a)anthracene | 0.5300 | 0.1 | 0.053 |
| Benzo(b)fluoranthene | 0.6600 | 0.1 | 0.066 |
| Benzo(k)fluoranthene | 0.6200 | 0.01 | 0.006 |
| Chrysene | 0.7300 | 0.001 | 0.001 |
| Dibenz(a,h)anthracene | 0.1750 | 1.0 | 0.175 |
| Indeno(1,2,3-cd)pyrene | 0.3600 | 0.1 | 0.036 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 1.057**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown EXCEEDS the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |

# Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Site Name: NAVAL Hospital Pensacola
Location: _____
Facility ID No.: _____

Soil Sample No. AES-13P (6")
Sample Date _____
Location: _____
Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 0.2100 | 1.0 | 0.210 |
| Benzo(a)anthracene | 0.2500 | 0.1 | 0.025 |
| Benzo(b)fluoranthene | 0.1500 | 0.1 | 0.015 |
| Benzo(k)fluoranthene | 0.2400 | 0.01 | 0.002 |
| Chrysene | 0.3000 | 0.001 | 0.000 |
| Dibenz(a,h)anthracene | 0.1750 | 1.0 | 0.175 |
| Indeno(1,2,3-cd)pyrene | 0.1750 | 0.1 | 0.018 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

**Total Benzo(a)pyrene Equivalents = 0.445**

**The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.**

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

| Summary Criteria for Table Entries | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | Not estimated | M | 1/2 reported value |