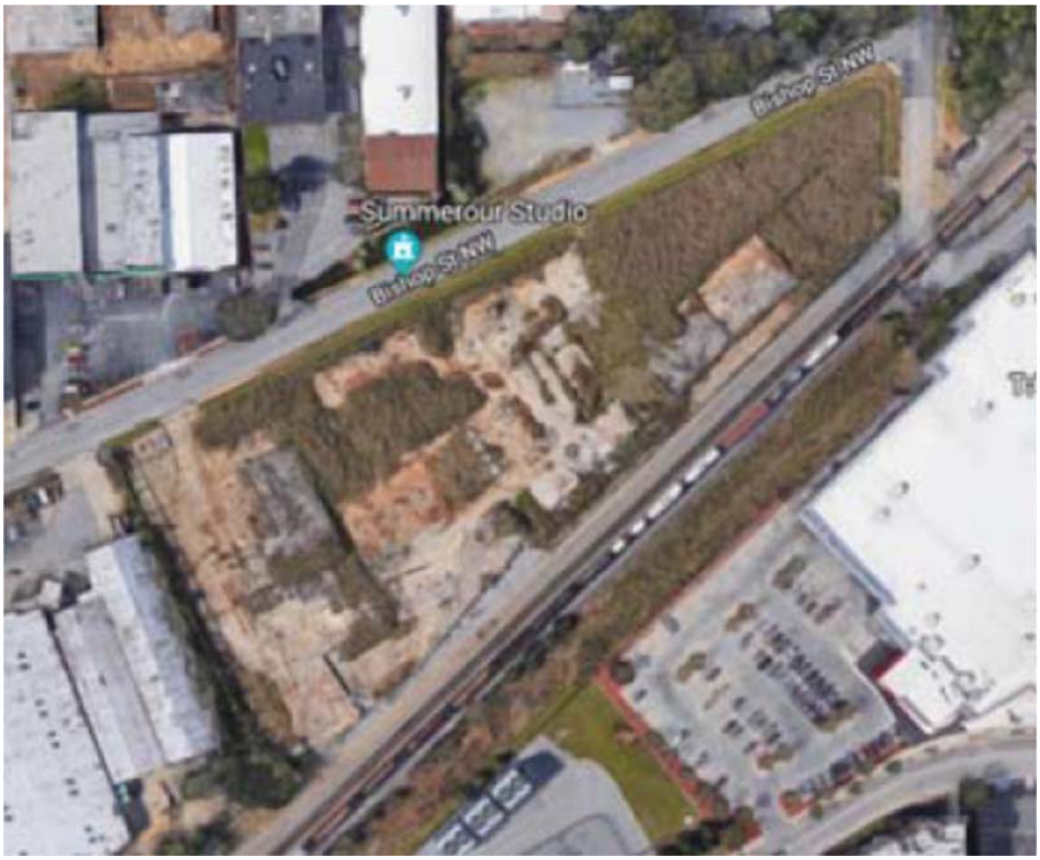
NL INDUSTRIES, INC.

VOLUNTARY REMEDIATION PROGRAM COMPLIANCE STATUS REPORT - GROUNDWATER

FORMER NATIONAL SMELTING & REFINING SITE – ATLANTA, GEORGIA

AUGUST 1, 2018



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FORMER NATIONAL SMELTING & REFINING SITE – ATLANTA, GEORGIA

NL INDUSTRIES, INC.

PROJECT NO.:31401065
DATE: AUGUST 1, 2018

WSP
4TH FLOOR
75 ARLINGTON STREET,
BOSTON. MA 02116

TEL.: 617-210-1667

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Certification of Compliance with Risk Reduction Standards

I certify under penalty of law that this report and all attachments were prepared under my direction in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment, for knowing violations.

In accordance with Section 12-8-107(g)(2) of the Voluntary Remediation Program Act, it is not necessary to certify compliance for groundwater at the Site.

Certified by:

Kevin Lombardozzi
NL Industries, Inc., Director Environmental Management

5/24/2018
Date

Groundwater Scientist Statement

I certify that I am a qualified groundwater scientist who has received a baccalaureate and post-graduate degree in geology, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this Voluntary Remediation Program Compliance Status Report for the former National Smelting & Refining Main Site at 400-430 Bishop Street NW in Atlanta, Georgia, was prepared by me and appropriate qualified subordinates working under my direction.

Giselle Beaulieu

Giselle M. Beaulieu, PG.
Georgia Registration No. 1847

5/25/2018
Date

EXECUTIVE SUMMARY

WSP USA Inc., on behalf of NL Industries, Inc. (NL), prepared this Compliance Status Report (CSR) for groundwater for the former National Smelting & Refining Site (the Site) located along Bishop Street NW in Atlanta, Fulton County, Georgia. The Site operated as a secondary lead smelting facility from 1914 to 1984, when it was abandoned. This CSR has been prepared as part of an application to enter the Site groundwater into the Georgia Voluntary Remediation Program. Investigations at the Site identified concentrations of chemicals of concern in soil above notification concentrations, and elevated concentrations of metals and other chemicals of concern in groundwater at the Main Site. A release to groundwater that exceeded a reportable quantity did not occur at the Site.

A Removal Action to address soil at the Site was conducted from October 2003 to April 2004 under a U.S. Environmental Protection Agency Administrative Order on Consent. On the Main Site, all buildings were demolished and removed, surface soil was removed, and a geosynthetic clay liner (GCL) and up to 1 foot of clean fill were installed in unpaved areas. Three underground tanks, located in the northern and southwestern portions of the site, were removed from the Main Site. Soil was excavated from the North Parking Area, and sediment and soil were excavated from the East and West Drainage Swales. In areas where it was not technically practicable to remove all soil with elevated lead concentrations, the Swale was capped with GCL or marker barrier, fill, and either rip rap or gabion mattresses.

Ownership of the Main Site changed in January 2018. A Prospective Purchaser Corrective Action Plan for the Main Site under the Brownfield Program was conditionally approved in November 2017. Remaining soil impact on the Main Site will be addressed under the Brownfield program. Because the Brownfield program does not address groundwater, NL submitted an application to enter groundwater under the Main Site into the Georgia Voluntary Remediation Program (VRP) in August 2018.

The depth to groundwater on the Main Site is approximately 10 feet below the surface, too deep for direct contact or typical utility trench work. There are no surface water bodies on or downgradient of the Site. The area is serviced by city water, from a reservoir located upgradient of the Site. There are no water supply wells (other than monitoring wells) within 1 mile downgradient of the Site.

The concentrations of chemicals of concern in groundwater have been horizontally and vertically delineated. Light non-aqueous phase liquid (LNAPL) was detected in the monitoring well located near removed underground gasoline tanks in 2009, but was not detected in this well in 2018. The concentrations in groundwater are either decreasing or stable. Concentrations of cadmium, lead, aromatic volatile organic compounds, and naphthalene in groundwater on the Main Site exceed the Type 1 standards (referenced for delineation purposes); however, the lack of receptors indicate minimal risk from these concentrations. Groundwater flows to the southeast, toward the Atlantic Station development. With the exception of a minor concentration of cadmium, groundwater containing chemicals of concern above Type 1 standards does not extend off the Main Site. The hydraulic containment system on the Atlantic Station property would capture any affected groundwater migrating from the Main Site before any downgradient receptor could be affected.

No further action regarding groundwater is warranted. An Environmental Covenant restricting the use or extraction of groundwater beneath the Property for drinking water or other potable uses pursuant to the Georgia Uniform Environmental Covenants Act, O.C.G.A. § 44-16-1 et seq., other than for monitoring, will be implemented for the Main Site.

1 INTRODUCTION

WSP USA Inc. (formerly WSP Environmental Strategies Consulting LLC and Environmental Strategies Corporation), on behalf of NL Industries, Inc. (NL), prepared this Compliance Status Report (CSR) for groundwater for the former National Smelting & Refining Site (the Site) in Atlanta, Fulton County, Georgia. The Site consists of the Main Site at 400-430 Bishop Street NW; a 0.7-acre parcel on the southeastern portion of the Main Site owned by Norfolk Southern Railway Corporation (NSRC); the North Parking Area located across Bishop Street from the Main Site; and drainage swales located along the NSRC tracks that abut the Main Site to the south.

Initial environmental investigations were performed at the Site in 1986 and 1999. In June 2000, NSRC submitted a Release Notification Form to the State of Georgia, Department of Natural Resources Environmental Protection Division (EPD) for antimony, arsenic, barium, cadmium, lead, manganese, selenium, thallium, zinc, and benzo(a)pyrene in soil for their portion of the property. In August 2000, Atlanta Forge & Foundry Co. (AFF) submitted a notification for arsenic, cadmium, chromium, copper, cobalt, lead, mercury, nickel, silver, thallium, and Aroclor 1254 in soil. Investigations at the Site conducted from 2002 to 2009 identified concentrations of metals and aromatic volatile organic compounds (VOCs) in soil above Georgia risk reduction standards (RRS), and elevated concentrations of metals, polycyclic aromatic hydrocarbons (PAHs), and aromatic VOCs in groundwater (Main Site only for groundwater). A release to groundwater that exceeded a reportable quantity is not known to have occurred at the Site. The Site did not score above the Groundwater Pathway Threshold of 10 when applying the Reportable Quantities Screening Method at the time of the HSI listing.

In November 2003, EPD issued Administrative Order EPD-HSR-396, requiring that a CSR be submitted for the Site by July 15, 2004, and a CAP by July 1, 2004. WSP submitted the initial CSR for soil and groundwater at the Site in April 2004, a Revised CSR in December 2005, a Supplemental CSR in September 2006, and a Revised CSR in October 2009. Since then, ownership of the Main Site has changed, and the Main Site was entered into the Brownfields program. The new owners are negotiating with NSRC to acquire the NSRC portion of the property. The EPD conditionally approved the Prospective Purchaser Corrective Action Plan (PPCAP) for the Main Site submitted in November 2017. Remaining soil impact will be addressed under the Brownfield program.

Because the Brownfield program does not address groundwater, NL submitted an application to enter groundwater under the Main Site into the Georgia Voluntary Remediation Program (VRP) in July 2018. The qualifying properties for the VRP are 400 Bishop Street NW (Tax parcel 17-0148-LL0081) and 430 Bishop Street NW (Tax parcel 17-0148-LL0073), currently owned by 400 Bishop, LLC (400 Bishop), and the southeastern and southern portion of the property (no address, Tax parcel 17-0148-LL0099), currently owned by NSRC. These parcels comprise the “Main Site”, for a total of 3.86 acres. It should be noted that the NSRC property extends to the east across Mecaslin Street (the “East Swale”) and extends to the west between the railroad tracks and 450 Bishop Street (the “West Swale”). The East Swale and West Swale are not being entered into the VRP because groundwater concentrations are not above Type 1 standards. As well, the North Parking Area is not being entered into the VRP because, following soil excavation in 2004, concentrations of metals in soil meet Type 3 standards, and metals have not been detected in groundwater from this property. A Uniform Environmental Covenant (UEC) will be implemented for this property.

This CSR is consistent with elements outlined in Section 391-3-19-.06 of the Georgia Rules for Hazardous Site Response, and documents the current status of groundwater at the Main Site with regard to Georgia RRSs. Section 2 provides a description of the Site, the Site history, a summary of previous investigations, and a summary of the 2003 to 2004 Removal Action to address soil at the Site under a U.S. Environmental Protection Agency (EPA) Administrative Order on Consent. Section 3 describes the investigations and analytical results regarding groundwater quality at the Site, and Section 4 presents the site geology, hydrogeology, and surface water. Section 5 presents the risk assessment for human health and ecological receptors. Section 6 presents a comparison of the groundwater analytical results to the RRS values to confirm delineation, and Section 7 presents conclusions and recommendations.

2 SITE DESCRIPTION

The former National Smelting and Refining Site is located in northwest Atlanta, west of Interstate I-75 (Figures 1 and 1B). The map coordinates for the Site are latitude 33º 47' 34" North and longitude 84º 24' 7" West. The Site consists of the Main Site, located at 400-430 Bishop Street; the North Parking Area, located across Bishop Street from the Main Site; and the Drainage Swale, located along the railroad in the right-of-way (ROW) southwest, south, and southeast of the Main Site. Figure 2 shows the site layout.

In accordance with Section 391-3-19-.06(3)(b)(5) of the Georgia Rules, Appendix A provides a description of the properties that are part of the Site, including the legal descriptions and property owner's name, address, and telephone number. Per Section 391-3-19-.06 (3)(b)(6), a list of the potentially responsible parties for the Site is included in Appendix A.

2.1 PROPERTIES COMPRISING THE SITE

2.1.1 *MAIN SITE*

The Main Site (400-430 Bishop Street NW) is comprised of a 3.14-acre parcel owned by 400 Bishop and a contiguous 0.72-acre parcel currently owned by NSRC. The Main Site slopes to the southeast, from an elevation of 916 feet above mean sea level (AMSL) at the northwest corner to 902 feet AMSL at the southeast corner at Mecaslin Street. Most of the Main Site is covered by concrete. Former building foundations are present on the western and southeastern portions of the property. Remaining structures include former loading docks, former smelting pots that were closed in place under EPA oversight, and concrete retaining walls.

As shown on Figure 2, a geosynthetic clay liner (GCL) covered by 3 feet of clean fill was installed in unpaved areas on the central and eastern portions of the property in 2004. The property is enclosed by chain link fencing. The cap and fencing are inspected approximately annually.

2.1.2 *NORTH PARKING AREA*

The North Parking Area is approximately 0.46 acre and is enclosed by chain-link fencing. A cellular telephone tower was constructed on the northeastern portion of the property in 2005. The remainder of the property is covered by crushed stone. Monitoring well MW-11 is located on the southwestern corner of the property.

2.1.3 *DRAINAGE SWALE*

The drainage swale southwest and south of the Main Site is capped with gabion mattresses. The swale east of Mecaslin Street is capped with GCL or marker barrier, fill, and either rip rap or gabion mattresses.

Storm water from the Main Site flows into the swale north of the adjacent railroad tracks. The flowpath in the Swale divides into east and west flows at a location approximately 600 feet west of Mecaslin Street. Runoff east of the dividing point enters a culvert that conveys flow under Mecaslin Street, near the southeastern corner of the Site. The Mecaslin Street culvert discharges into a Savannah culvert and then into a 30-inch pipe which terminates approximately 1,100 feet east of Mecaslin Street. The drainage pipe runs parallel to the railroad tracks. Between the outfall of the 30-inch drain pipe and Deering Street, water is conveyed in a remediated open channel for 400 hundred feet until it reaches Deering Street, where it enters the interstate I-75 storm water management system.

Storm water west of the runoff divide is conveyed to a catch basin located near the southwestern corner of the Site. Storm water west of the catch basin flows east into the catch basin. Flow from the basin discharges into a culvert that extends south under the railroad tracks onto the Atlantic Station property.

2.2 SURROUNDING AREA

Commercial and light industrial properties are located on Bishop Street north and west of the Site, and on Mecaslin Street southeast of the Site. To the south was a former foundry (Atlantic Steel), which is now a commercial and residential development known as Atlantic Station. Residential areas are located north and east of the Site.

2.3 SITE HISTORY

A secondary lead smelting facility operated at the Main Site under several owners from 1914 until 1984. These included United Lead from 1914 to 1926, Georgia Lead from 1926 to 1937, National Lead/NL from 1937 to 1981, and National Smelting & Refining Company from 1981 to 1984. In 1981, NL sold the property to National Smelting & Refining Co., which continued operating until 1984, when it filed for bankruptcy. Manifests and other information reviewed indicate that the facility accepted lead dross, sludge, scrap oxide, grindings, scrap solder, remelted cable, mixed lead, battery plates, scrap lead, scrap chemical lead, babbitt, foundry-type metal and corroding grade lead that was refined for reuse. The facility ceased operations in 1984.

Sanborn maps and historical photographs of the Main Site show four main buildings and five small outbuildings. Two factory buildings were formerly located on the northern and western portions of the property, and a smelter house was located on the central portion. A warehouse/machine shop building formerly occupied the eastern portion of the Main Site. The smaller structures included an office building, a garage, a truck scale building, and loading docks for a railroad spur.

Former aboveground storage tanks on the Main Site consisted of a propane storage tank located on the southwest corner of the property, a tank located along the north property boundary, and a large-capacity vertical steel tank (possibly for fire fighting water) located on the southeastern corner. These tanks were removed in October 2003. Three underground tanks were removed in December 2003: Tank 1 was 11,000-gallon capacity and was located in a concrete vault along the north property boundary. Tank 2 (1,000-gallon) and Tank 3 (350-gallon) formerly contained gasoline and were located south of the "Old Building" on the southwest portion of the property. No tanks were ever located on the swale or North Parking Area.

AFF purchased the 3.1-acre parcel in 1989 from the Trustee in Bankruptcy for National Smelting. 400 Bishop bought this property from AFF in January 2018, and is planning to enter the property into the Brownfield program to address remaining soil impacts.

The North Parking Area was purchased by Superior Bumper Products, Inc. from National Smelting in 1985. The current owner is FGR Bishop LLC.

The Site is located in an area that has been industrial for the last century. Atlantic Steel Company (redeveloped as Atlantic Station residential and commercial buildings) was formerly located south of the railroad, and Southern Iron and Equipment Company (later a part of Atlantic Steel) was located southwest of the Site (Figure 1B). Spalding Foundry Company, Campbell Coal Company, and Narjoe Timber Company were located to the east and southeast; and Gulf Oil Company (bulk petroleum storage) and a motor freight station were located to the west. North of the Site were Jones Machinery Company and General Elevator Company. The former coal company property, abutting the East Swale to the north, is now Fairfield Apartments, and this property has been entered into the Brownfield program.

The Norfolk Southern railroad lines have been in this location for over 150 years and are the main line not only for NSRC but Amtrak from Washington, D.C., to New Orleans.

2.4 PREVIOUS INVESTIGATIONS – SOIL

Beginning in 1986, EPD and EPA conducted investigations of the abandoned facility, which included characterization of samples for lead by the toxicity characteristic leaching procedure, and characterizing the contents of 25 drums abandoned in the former warehouse building. The contents were found to be used oil and antifreeze. Removal Actions were conducted on the Main Site before 2003, which included demolition of some of the buildings and closure in place of the former smelter vessels. Maps showing the soil sample locations for each of the properties comprising the Site are provided in Appendix B.

2.4.1 *MAIN SITE*

Investigations of soil were conducted on the Main Site from 1999 to 2009. These included:

- EPA 1999 – surface soil samples SF-101 through SF-107, 27 soil samples from SB-301 through SB-304 (maximum depth of 15 feet below the ground surface [bgs]), as well as sediment samples SD-201 through SD-204 from locations along the railroad ROW south of the Site were analyzed for metals, and select samples were analyzed for VOCs, SVOCs, and polychlorinated biphenyls (PCBs).
- WSP 2002 and 2003 – 33 soil samples from borings AXS-1 through AXS-14, MW-1, and MW-2 (maximum depth of 22 feet bgs) were analyzed for antimony, arsenic, cadmium, lead, and thallium.
- WSP 2004 and 2005 – Soil samples from the surface and at the water table from borings AXS-15 and MW-3 were analyzed for antimony, arsenic, cadmium, chromium, cobalt, copper, lead, manganese, mercury, nickel, silver, thallium, and zinc, VOCs, and PAHs. Sixteen soil samples from various depths from borings AXS-16, AXS-17, and AXS-18 (advanced to the water table at approximately 10 feet bgs) and the borings for MW-4, MW-5, MW-6, MW-7, and MW-8 were analyzed for metals (the above list except chromium, manganese, mercury, and nickel). Borings GP-1 and GP-2 were advanced south of former underground Tank 1, and GP-3 through GP-7 were advanced in the former Tanks 2 and 3 area. The soil samples at the water table from the GP- borings were analyzed for aromatic VOCs, PAHs, and petroleum hydrocarbons.
- Kemron Environmental Services 2006 – soil samples collected at 0 feet, 5 feet, and 10 feet bgs from the nodes of a 30-foot grid superimposed on the entire Main Site were screened for lead using an X-ray fluorescence (XRF) meter.
- WSP 2009 – 82 soil samples collected from 66 borings (G-1 through G-66) spaced at 40-foot intervals along nine transects were analyzed for antimony, arsenic, cadmium, lead, and zinc. Borings G-67, G-68, and G-69 were installed on the eastern perimeter of the adjacent 450 Bishop Street property, and 9 samples were analyzed for antimony, arsenic, cadmium, lead, and zinc. Borings GP-9 through GP-13 were installed in the removed underground gasoline tanks area and 6 soil samples were analyzed for aromatic VOCs and PAHs to delineate the vertical extent of gasoline-affected soil.

The investigations indicated that the primary chemical of concern at the Site is lead, which was detected at a maximum concentration of 230,000 milligrams per kilogram (mg/kg). The elevated lead concentrations extend to 15 feet bgs (below the water table). Concentrations of antimony, arsenic, cadmium, and lead above the RRSs are present in soil samples to the depth of the water table on the western, southwestern, and southern portions of the Main Site. In the northern portion of the Main Site, lead was detected above 400 mg/kg from 0 to 3 feet bgs and below 400 mg/kg deeper than 3 feet bgs. Concentrations of metals other than lead were generally detected at background levels below 3 feet bgs on the northern portion of the Main Site.

Concentrations of benzene and toluene above the RRSs are present in the soil in the immediate area of the former underground gasoline tanks. Soil with concentrations above the RRSs is present from 5 feet bgs to the water table in an approximate 30-foot radius of the former tanks.

2.4.2 *NORTH PARKING AREA*

As part of the Removal Action Evaluation investigation conducted in 2002, surface soil samples from 40 locations (AXP-1 through AXP-40) were screened onsite using an XRF meter. Five surface soil samples (AXP-4, AXP-12, AXP-16, AXP-21, and AXP-24) were submitted to an offsite laboratory for analysis for metals. Five soil borings (AXP-5, AXP-8, AXP-18, AXP-22, and AXP-25) were advanced to 5 feet bgs for vertical delineation and the soil samples at 2 to 3 feet bgs and 4 to 5 feet bgs were submitted for laboratory analysis for metals.

Soil borings AXP-41 through AXP-49 were installed to a maximum depth of 3.5 feet bgs, in the middle and along the perimeter of the North Parking Area in January 2003. The soil samples at 0 to 1 foot bgs and 2 to 3 feet bgs were analyzed for metals.

To confirm an elevated antimony concentration detected in confirmation sample CS-4-RT, borings AXP-50 through AXP-55 were advanced on the property in June 2005. The borings were advanced to 7 feet bgs, and the soil samples at 3 to 5 feet and 5 to 7 feet bgs were submitted for analysis for antimony, cadmium, cobalt, copper, lead, selenium, silver, thallium, and zinc. Elevated metal concentrations were not detected in the samples.

As described in Section 2.4.4 – Removal Action, soil containing elevated concentrations lead and antimony were removed from the North Parking Area in 2004. Lead concentrations below 400 mg/kg are present on the southern portion of the North Parking Area below 3 feet bgs. No metals were detected in the sample from the monitoring well installed in the North Parking Area. No further action is warranted regarding the North Parking Area.

2.4.3 *DRAINAGE SWALE*

The Drainage Swale is divided into two portions (West Swale and East Swale) at a drainage divide south of the Main Site.

WEST SWALE

In February 2002, 13 locations along the length of the West Swale were screened using an XRF detector, beginning at the drainage divide south of the Main Site (AXRD). Surface soil samples from AXRW-5, AXRW-6, AXRW-7, AXRD, and AXRE-4, and subsurface samples from AXRW-5 and AXRD at 2 to 3 feet and 4 to 5 feet bgs were analyzed for EPA target metals.

Transect samples HA-0 through HA-6 were collected to a maximum depth of 2 feet in the West Swale in January 2003. Each transect consisted of a set of samples along a line perpendicular to the Swale. HA-0 was located at the west end of the depression/catch basin at the southwest corner of the Main Site. Transects HA-1 through HA-4 were located at 15- to 25 foot intervals east of HA-0, and transects HA-5 and HA-6 were located 30 feet and 55 feet west, respectively, of HA-0. At each transect location, soil samples were screened across the swale using the XRF, proceeding at 10- to 15-foot intervals. The sample designation indicates the distance along the transect. For example, HA-0-15 is located 15 feet from HA-0. Surface soil samples from HA-1-10, HA-1-30, HA-2-10, HA-2-25, HA-4-10, HA-5-15, and HA-6-15, and subsurface samples from HA-0-15, HA-1-10, HA-1-30, HA-3-15, HA-5-15, and HA-6-15 were submitted for metals analysis.

Sample Swale-270W was collected 270 feet west of the southwest corner of the Main Site to determine the extent of placement of GCL in the West Swale. The sample was analyzed for PAHs, PCBs, and metals. A deeper sample was collected at Swale-270W in February 2004 and analyzed for metals.

Antimony, arsenic, and lead above the Type 3 RRS were present in all soil samples except Swale-270W. The soil was excavated from the Swale to the extent practicable without compromising the railroad tracks. The area surrounding the catch basin at the southwest corner of the Main Site was excavated to 5 feet bgs. Surface soil with metal concentrations greater than the RRS have been excavated and are now capped with GCL and gabion mattresses.

EAST SWALE

In February 2002, 18 locations along the length of the East Swale were screened using the XRF detector. Surface soil samples from AXRE-6, AXRE-13, AXRE-22, and AXRC, and subsurface samples from AXRE-13, AXRE-22, and AXRC at 2 to 3 feet and 4 to 5 feet bgs were submitted for laboratory analysis for metals.

Samples were collected along transects LAT-1, LAT-2, and LAT-3 in the East Swale in January 2003. LAT-1 was located approximately 160 feet west of the Deering Street culvert, LAT-2 was approximately 120 feet west of LAT-1, and LAT-3 was approximately 60 feet west of LAT-2. At each transect location, samples were collected across the swale at 20-foot intervals and designated “-1”, “-2”, and “-3” (except there were only two transect locations for LAT-3). The samples from 0.5 to 1 foot and 1 to 1.5 feet bgs were submitted for laboratory analysis for metals.

Fifteen samples were collected from the East Swale between December 2003 and February 2004. Samples Swale-2 through Swale-7 were collected at 100-foot intervals, beginning approximately 140 feet east of Mecaslin Street. Sample Swale-12A was collected approximately 300 feet west of the Deering Street culvert. At each location, a sample (designated “-A”) was collected from 0 to 1 feet bgs at the midpoint of the swale. A portion of each sample was screened with the XRF. If the “-A” sample exceeded the 400-part-per-million (ppm-) screening level, screening proceeded toward the swale berm until the lead concentration was below 400 ppm, and a “-B” sample was collected. Samples Swale-100E and Swale-200E were collected 100 feet east and 200 feet east, respectively, of the Mecaslin Street culvert outfall. Sample “Deering Street” was collected at the culvert under Deering Street to evaluate the extent of all chemicals of concern identified in the 1999 investigation.

As described in Section 3.4.4, in February and March 2004, a 300-foot segment of the East Swale adjacent to Deering Street was excavated to remove soil containing lead with concentrations greater than 400 mg/kg. The maximum depth of the

excavation was 6 feet bgs. Samples DS-1, DS-2, and DST-1 through DST-20 were collected at successive depths from each 625-square-foot excavation cell to confirm that soil containing lead concentrations greater than 400 mg/kg was removed. The samples were submitted for laboratory analysis for metals.

In June 2009, borings G-71 and G-72 were advanced to the water table next to MW-10 and 200 feet east of MW-10. The samples at 0 to 2 feet and 5 to 7 feet bgs were analyzed for metals.

In the East Swale, antimony, arsenic, cadmium, and lead concentrations in shallow soil exceeded RRS values. The samples collected at the westernmost and easternmost extents of the Swale contained concentrations of metals below background, and no PAHs or PCBs were detected. No metals were detected in the sample from the monitoring well installed in the East Swale.

Soil with elevated antimony, arsenic, cadmium, and lead concentrations was excavated from the Swale to the extent practicable without compromising the railroad tracks. Other than at G-71, metal concentrations greater than the RRS have been either excavated, capped, or covered with clean fill and rip rap.

2.4.4 *REMOVAL ACTION – 2003 TO 2004*

The EPA issued Docket No. CER-04-2001-3760 for a Removal Action in August 2001, requiring NL and NSRC to abate contaminants at the Site. Following several phases of investigation to delineate contaminants in soil, the Removal Action began in October 2003 and was completed in April 2004. The Removal Action consisted of the following in each area of the Site:

MAIN SITE

- all buildings and other improvements protruding more than 2 feet above surrounding grade were demolished
- the three underground tanks were removed
- unpaved areas were excavated to 1 foot bgs to accommodate placement of GCL
- 3 feet of clean fill and vegetative cover were placed over the GCL
- the concrete slab was pressure washed and all joints and cracks in the concrete slab were sealed
- storm water catch basins and outfalls were permanently sealed
- a security fence was installed around the property

NORTH PARKING AREA

- Affected soil was excavated to a maximum depth of 3 feet bgs and disposed of offsite at an appropriately-permitted disposal facility.
- Confirmation samples were collected from the base of the excavation on a 25-foot by 25-foot grid to demonstrate that lead concentrations were below 400 mg/kg. The excavation was backfilled with soil meeting Type 3 RRS and a gravel driving surface.
- A security fence was installed around the property

DRAINAGE SWALE

- In the East Swale south of 450 Bishop Street, sediment and surface soil were removed to technically feasible limits and disposed of offsite at an appropriately-permitted disposal facility. The area surrounding a catch basin was excavated to 5 feet bgs. The area was then graded and capped with GCL and gabion mattresses.
- The Swale south of the Main Site was capped with GCL and gabion mattresses to Mecaslin Street.
- A collapsed culvert under Mecaslin Street was replaced with a 24-inch-diameter reinforced concrete culvert.
- The East Swale between Mecaslin Street and 700 feet to the east was excavated to a maximum of 2 feet bgs, lined with GCL, and topped with several feet of clean fill and rip rap. A 30-inch-diameter drainage pipe was placed above the GCL to convey storm water across the initial 700 feet of the Swale to the east of Mecaslin Street.

- The East Swale between 700 feet and 1,100 feet east of Mecaslin Street was lined with a marker barrier and topped with several feet of clean fill and rip rap. A 30-inch-diameter drainage pipe was placed above the GCL to convey storm water across the Swale between 700 feet and 1,100 feet east of Mecaslin Street.
- The 300-foot segment of the East Swale adjacent to Deering Street (1,100 feet to 1,400 feet east of Mecaslin Street) was excavated to a maximum of 6 feet bgs to remove soil with lead concentrations greater than 400 mg/kg. Confirmation samples were collected from the base of the Deering Street Swale excavation at approximately 25-foot intervals to demonstrate that lead concentrations were below 400 mg/kg. The excavation was backfilled with soil meeting Type 1 RRS and surfaced with rip rap.

3 GROUNDWATER INVESTIGATION

3.1 MONITORING WELL LOCATIONS

Monitoring wells were installed in the following locations (Figure 2):

- MW-1 and MW-2: shallow overburden, southern boundary of Main Site
- MW-3 and MW-4: shallow overburden, northern boundary of Main Site
- MW-5: shallow overburden, northwest corner of Main Site
- MW-6: shallow overburden, 20 feet south of the former gasoline tanks on the Main Site
- MW-7: top of bedrock, 75 feet south of MW-6 to delineate the vertical extent of VOCs
- MW-7D: 30 feet into bedrock
- MW-7E: 60 feet into bedrock
- MW-8: shallow overburden, southeast corner of Main Site
- MW-9: shallow overburden, 75 feet southwest of the former gasoline tanks
- MW-10: shallow overburden, east of MW-8, across Mecaslin Street on East Swale
- MW-11: shallow overburden, southwest corner of North Parking Area
- MW-12: shallow overburden, south of building on 450 Bishop Street
- MW-13: shallow overburden, downgradient of the MW-1/MW-7 well cluster, south of the tracks on the NSRC Remainder Tract 1 property
- MW-13D: top of bedrock
- MW-13DD: 15 feet into bedrock
- MW-14: shallow overburden, downgradient of MW-2, on the Remainder Tract 1 property
- MW-15: shallow overburden, downgradient of MW-8, on the Remainder Tract 1 property

Table 1 presents the well depths and screened intervals.

3.2 MONITORING WELL INSTALLATION

The boreholes for MW-1 through MW-12 were installed using 4.25-inch inner diameter (id) hollow stem augers (HSA), and the boreholes for MW-13 through MW-15 were advanced using 2.25-inch-id HSA. For MW-1 and MW-2, split-barrel samplers were used to collect continuous samples from the ground surface to the termination depth of each boring. For monitoring wells MW-3 through MW-15, soil samples were collected continuously from the borings using 5-foot-long, 2-inch-diameter Geoprobe samplers.

For MW-7D, a 4-inch-id casing was set from the surface to 65 feet bgs, grouted in place, and left to set overnight before drilling ahead with a 4-inch-diameter air hammer.

The boreholes for MW-13D and MW-13DD were advanced by a sonic rig and sampled using 4-inch-diameter, 5-foot-long samplers through 6-inch casing.

Monitoring wells MW-1 through MW-12 were constructed of 2-inch-id Schedule 40 polyvinyl chloride (PVC) casing and 10 feet of 0.010-inch slotted screen (except for MW-7, which has 5 feet of screen). Monitoring wells MW-13, MW-13D, MW-13DD, MW-14, and MW-15 were constructed of 1-inch-id Schedule 40 PVC casing and 10 feet of 0.010-inch prepacked slotted screen (except for MW-13D, which has 5 feet of screen).

After each well was in place, a morie sand filter pack was installed in the annular space between the auger/casing and the well screen from the bottom of the boring to 2 feet above the top of the well screen. An approximately 2-foot-thick bentonite clay pellet layer was then placed on top of the sand pack and hydrated. The remaining portion of the annular space was

grouted to the surface using a bentonite-cement mixture to provide a seal against surface water infiltration. Each monitoring well was completed with a locking expansion-grip cap and covered with above-grade locking casings (MW-10, MW-13, MW-13D, MW-13DD, MW-14, and MW-15) or at-grade protective steel covers (all other monitoring wells) set in concrete. The boring logs and monitoring well construction diagrams are provided in Appendix C.

Each monitoring well was developed to remove sediments and to ensure effective communication between the well screen and surrounding saturated zone. Except for MW-7E, a submersible pump was used to remove at least three well volumes from each 2-inch monitoring well; and a peristaltic pump was used to remove at least three well volumes from each 1-inch monitoring well. Due to low recharge, MW-7E was developed using a bailer. Specific conductance, pH, temperature, and turbidity were monitored for each volume until the parameters stabilized and the turbidity was less than 50 nepheline turbidity units (ntu).

The locations and elevations of monitoring wells MW-1 through MW-12 were measured by Valentino & Associates, Inc., a Georgia-licensed surveyor. The locations and elevations of monitoring wells MW-13, MW-13D, MW-13DD, MW-14, and MW-15 were measured by BSI Engineering, Inc. The elevations of the ground surface and the top of the PVC well casings were surveyed to the nearest 0.01 foot using standard survey methods and a U.S. Geological Survey benchmark. The horizontal location of the wells were determined to the nearest 0.1 foot and referenced to the state plane coordinate system.

All drilling and sampling activities were conducted using clean equipment. Drilling equipment was decontaminated using a portable steam cleaner. Soil cuttings, decontamination water, and development water were placed in 55-gallon drums. The investigation-derived wastes were characterized and disposed of offsite at approved landfills in accordance with applicable regulations.

3.3 GROUNDWATER SAMPLING AND ANALYSIS

Groundwater samples were collected from the monitoring wells on the following dates:

- January 11, 2003 – MW-1 and MW-2
- February 24, 2004 – MW-1, MW-2, and MW-3
- June 19, 2005 – MW-1 through MW-8
- May 22 to 26, 2006 – MW-1 through MW-8
- June 22 to 23, 2006 – MW-7D, MW-11, and MW-12
- July 21, 2006 – MW-7E
- May 27 to 28, 2009 – MW-1 through MW-9, MW-7D, MW-7E
- July 7 to 8, 2009 – MW-13, MW-14, and MW-15
- August 12, 2009 – MW-13D and MW-13DD
- May 11 to 14, 2018 – MW-1, MW-2, MW-5 through MW-9, MW-7D, MW-7E, MW-12, MW-13, MW-13D, MW-14, and MW-15

Before sampling, the depth to water was measured from the top of the PVC well casing in each monitoring wells using an electronic water level measuring device. An oil/water interface meter was used in 2006, 2009, and 2018. Well-water volumes were calculated using the thickness of the water column and the volume per foot of well diameter. For the January 2003 sampling, a submersible pump with Teflon-lined tubing was used to remove three well volumes from each well. Water temperature, pH, and specific conductance were measured for the first aliquot and for each removed well volume. Low-flow sampling, with the pump set at less than 0.5 liters per minute, and using Teflon-lined tubing, has been conducted since February 2004. Water temperature, pH, specific conductance, turbidity, dissolved oxygen, and oxidation reduction potential were measured of the initial purge water and at 3- to 15-minute intervals using either a Horiba U-22 or U-52 meter with a flow-through cell. Groundwater was purged until the measurements stabilized to within 10 percent on successive readings, and the turbidity was less than 20 ntu. The measurements were recorded in the field book and on monitoring well logs, included as Appendix D. Groundwater samples were collected upon stabilization of the measurements.

The samples were collected in appropriately-sized and -preserved bottles provided by the laboratory, and labeled with the sample identification number, the sampler's initials, time of sampling, and type of analyses to be conducted, and this information was also entered on chain of custody forms. The bottles were placed in an iced cooler and shipped with signed

chain of-custody forms. The January 2003 samples were submitted to Severn Trent Laboratories, Inc., in Knoxville, Tennessee. Groundwater samples collected in 2004 onward were analyzed by Analytical Environmental Services, Inc. (AES) in Atlanta, Georgia.

The January 2003 groundwater samples were analyzed for PAHs using EPA Method 8270C and for VOCs using EPA Method 8260B. The groundwater samples collected in 2004 were analyzed for metals (antimony, arsenic, cadmium, chromium, cobalt, copper, lead, manganese, mercury, nickel, silver, thallium, and zinc) using EPA Method 6000, VOCs, and PAHs.

The groundwater samples collected in June 2005 were analyzed for metals (antimony, arsenic, cadmium, cobalt, copper, lead, silver, selenium, thallium, and zinc). The groundwater samples from monitoring wells MW-1, MW-5, MW-6, and MW-7 were analyzed for aromatic VOCs using EPA Method 8021B and for PAHs. These samples were selected because MW-1, MW-6, and MW-7 are located downgradient of the removed underground gasoline tanks, and MW-5 is an upgradient monitoring point.

The groundwater samples collected in 2006 were analyzed for cadmium, copper, lead, and zinc. These metals were selected because they had consistently been detected in the groundwater samples. At the request of EPD, the samples from MW-1 and MW-5 through MW-10 were analyzed for VOCs using EPA Method 8260B and for PAHs.

The groundwater samples collected in 2009 were analyzed for cadmium, copper, lead, and zinc. Samples from MW-1, MW-2, MW-6, MW-7, MW-8, MW-13, MW-14, and MW-15 were analyzed for benzene, ethylbenzene, toluene, and xylenes (BTEX), naphthalene, and methyl tertiary butyl ether (MTBE) using EPA Method 8021B.

The samples collected in 2018 were analyzed for cadmium, copper, lead, and zinc. The samples from MW-1, MW-6, MW-7, MW-7D, and MW-13 were analyzed for BTEX, naphthalene, and MTBE using EPA Method 8021B.

Quality assurance/quality control (QA/QC) samples consisting of duplicates and trip blanks were also submitted. In February 2004, a duplicate sample (labeled MW-D) was collected from MW-1. In June 2005 and May 2006, the duplicate samples were collected from MW-6 (labeled MW-D and MW-100, respectively). A duplicate sample (labeled MW-201) was collected from MW-12 in June 2006. Duplicate samples were collected from MW-8 (labeled MW-100) in May 2009, MW-13 (labeled MW-130) in July 2009, and MW-13DD (labeled MW-103DD) in August 2009. The duplicate samples for the May 2018 sampling were from MW-6 (labeled MW-600) and MW-8 (labeled MW-800). The duplicate samples were analyzed for the same parameters as the original samples.

Trip blanks were included with each shipment of samples to determine possible introduction of contaminants to the samples during handling or laboratory analysis. The trip blank consisted of 40-milliliter vials of analyte-free water, which were not opened and were handled in the same manner as the groundwater samples. The trip blanks were analyzed for VOCs.

3.4 GROUNDWATER ANALYTICAL RESULTS

The groundwater analytical results are summarized in Table 2 and the laboratory reports are provided in Appendix E.

In July 2009, light non-aqueous phase liquid (LNAPL) was detected in monitoring well MW-6, located downgradient of the removed underground gasoline tanks, but was not detected in this well in May 2018. The 2018 results show that aromatic VOC concentrations in groundwater in the former underground gasoline tanks area have decreased by almost half since 2009. The concentrations in groundwater are either decreasing or stable. Concentrations exceeding the Type 1/Type 3 RRS (used to confirm delineation) are highlighted.

As of May 2018, the following chemicals of concern were detected in the groundwater samples above the RRS (used to confirm delineation):

- Lead at MW-1, MW-7, and MW-8
- Cadmium at MW-2, MW-7D, and MW-14
- Ethylbenzene, toluene, and naphthalene at MW-6

3.5 SLUG TESTING AND ANALYSIS

WSP conducted slug tests on MW-1, MW-2, MW-5, and MW-7 in June 2005 to determine the hydraulic conductivity of the aquifer. An In-Situ miniTroll transponder/datalogger was placed in the wells and allowed to equalize for at least one hour. The depth to water was measured before placement (falling head test) and after removal (rising head test) of a slug (a weighted 5-foot length of 1-inch PVC) in the well. The time and water level measurements were recorded until the water level returned to at least 90 percent of the original water level.

The variation of water level with time was then plotted and the hydraulic conductivity determined using the Bouwer-Rice equation, which applies to partially or fully penetrating wells in unconfined aquifers.

The Bouwer-Rice equation is:

$$K = \frac{r^2 \ln(R_e / R)\ \ln(H_t / H_o)}{2 L_e t}$$

where: K is hydraulic conductivity

r_c is the radius of the well casing (2 inches or 0.08 ft)

R is the radius of the gravel envelope (4 inches or 0.16 ft)

R_e is the effective radial distance over which head is dissipated (calculated)

L_e is the length of the screen (10 ft)

H_0 is the initial drawdown

H_t is the drawdown at some time after the start of recovery

t is the time since $H = H_0$

The displacement (difference between water level in the well and the surrounding water table) versus time (ie., the recovery) is plotted against time on a semi-logarithmic graph, and a straight line is fitted through the data points to estimate the value of $(1/t)\ln(H_0/H_t)$. The aquifer hydraulic conductivity is calculated from the slope of the line (e.g., the decrease in the logarithm of displacement per minute). The specific values used for each well were determined from boring logs and well construction details. The assumptions, measurements, and calculation results are provided in Appendix F.

The slug testing indicates that the hydraulic conductivity of the overburden ranges from 3.2×10^{-4} to 1.2×10^{-3}, with an average value of 7.6×10^{-4} cm/sec. The values are typical for silty sand and fine-grained sand.

4 SITE GEOLOGY, HYDROGEOLOGY, AND SURFACE WATER

The Site is located in the Southern Piedmont geologic province. The geology consists of high-grade metamorphic rocks (schists and gneisses) with some post-metamorphic igneous rocks (granite and diabase). These rocks have faults, joints, folds, and other micro- and macro-scale features. Weathered rock with preserved micro- and macro-scale features (saprolite) overlies the bedrock. The saprolite is comprised of clay, clayey to sandy silt, and silty sand to sand, with a thickness of 30 to 40 feet. Bedrock was encountered at 884.24 feet AMSL on the Main Site (MW-7D) and 868.08 feet AMSL south of the railroad tracks (MW-13D), indicating that the bedrock surface dips to the south.

Borings at the Site indicate that fill overlies the saprolite. The fill consists of fine- to coarse-grained sand and gravel, clayey to sandy silt, and fragments of coal, slag, concrete, brick, plastic, and lead. The fill varies in thickness, with the greatest thickness (15 feet) present on the southwest corner of the Main Site. Cross sections illustrating the geology of the Site are provided as Appendix G.

Groundwater occurs under unconfined conditions within the saprolite and the underlying metamorphic rock. Groundwater was initially encountered in the saprolite at 9 to 12 feet bgs, but following two years of drought, the depth to groundwater was measured at 13 to 17 feet bgs in the 2009 sampling (Table 1). Shallow groundwater flows southeast at a gradient of 0.03 feet per foot (Figure 3). The gradient is steeper underlying the railroad. Potentiometric surface elevations of groundwater in MW-1, MW-7, and MW-7D indicate a downward gradient, and MW-13, MW-13D, and MW-13DD indicate a slight upward component to groundwater flow.

Slug testing indicates that the average hydraulic conductivity of the overburden is 7.6×10^{-4} cm/sec or approximately 800 feet per year (ft/year). Using the average hydraulic conductivity (K=800 ft/year) and hydraulic gradient (i=0.03), and assuming an effective porosity (θ) of 0.2, the groundwater velocity (V) through the silty sand/saprolite is estimated at: $V = Ki/\theta = 120$ ft/year. The overall flow rate will vary due to the presence of less conductive layers.

There are no surface water bodies on the Site. The closest surface water bodies are a storm water detention pond approximately 600 feet southwest (crossgradient), and a reservoir located approximately 2,100 feet west (upgradient).

5 RISK ASSESSMENT

A risk assessment was conducted to assess whether chemicals of concern detected in groundwater at the Main Site pose a risk.

5.1 CHEMICALS OF CONCERN

Investigations at the Main Site identified concentrations of metals, PAHs, and Aroclor 1254 in soil above notification concentrations. Subsequent investigations identified elevated concentrations of metals, aromatic VOCs, and naphthalene in groundwater at the Main Site. A release to groundwater that exceeded a reportable quantity did not occur at the Site.

A total of 522 soil samples collected from all properties comprising the Site were analyzed for metals at Georgia-accredited laboratories, with a subset of 31 samples analyzed for VOCs, PAHs, and/or PCBs. The soil sample depths ranged from 0 to 20 feet bgs. Table 3 summarizes the chemicals of concern detected in soil and the Type 1/Type 3 RRS. Affected soil will be addressed under the Brownfield program; therefore, soil is not discussed further.

Groundwater samples from 19 monitoring wells were analyzed for metals, with a subset of groundwater samples from 10 monitoring wells analyzed for VOCs and PAHs. Table 4 presents the chemicals of concern detected in groundwater and the Type 1/Type 3 RRS used to confirm delineation.

5.2 CONTAMINANT FATE AND TRANSPORT

Operations in the former mill buildings and buried materials are the source of metals in soil and groundwater. The former underground gasoline tanks are the source of VOCs and PAHs in soil and groundwater, as well as lead, which was formerly an additive in gasoline. Contaminant concentrations will mitigate/attenuate over time through the effects of abiotic and biotic transformations (VOCs and some PAHs), as well as dilution and dispersion.

The groundwater flow direction is to the southeast; therefore, contaminants in groundwater are expected to move southeast. Other than a slight detection of cadmium, the plumes currently do not extend beyond the Main Site southern property boundary, but if concentrations do move offsite, the offsite groundwater is collected by the Atlantic Station hydraulic containment system before it could discharge to surface water.

5.3 IDENTIFICATION OF RECEPTOR POPULATIONS AND EXPOSURE PATHWAYS

5.3.1 *RECEPTORS*

The Site is located in a light industrial area adjacent to a railroad and is bordered on the west and north by light industrial or commercial facilities, and east and south by residential or residential/commercial properties. The Main Site has been vacant since 1984 and all buildings have been removed. Unpaved portions of the property were capped with GCL and fill in 2004, and the cap is inspected and maintained. A cellular tower is located on the North Parking Area, which is enclosed by chain-link fencing. The only receptors under current conditions would be workers performing maintenance on the Site cap, workers performing inspection or maintenance of the railroad tracks, possible utility workers along Bishop Street, and trespassers. Future onsite activities potentially include construction activity or utility repairs and commercial building use.

There are no surface water bodies on the Main Site or downgradient of the Site; therefore, there are no ecological receptors.

5.3.2 *EXPOSURE PATHWAYS*

The following sections identify the exposure pathways evaluated in this risk assessment. Exposure is defined as contact of a receptor with a chemical. Pathways that are determined to be complete present a potential for exposure to chemicals of concern. If exposures are of sufficient magnitude, adverse health effects could result. Pathways determined to be incomplete represent situations where there is no route for chemical intake or dermal contact so exposure is unlikely to occur.

DIRECT CONTACT AND INGESTION – HUMAN AND ECOLOGICAL

Most of the Main Site is covered with concrete paving or concrete foundations, and is enclosed by chain-link fencing (Figure 2). Unpaved portions of the property were capped with GCL and fill in 2004, and the cap is inspected and maintained. The cap is a barrier to direct contact and prevents infiltration of precipitation which would result in additional leaching of contaminants from soil to groundwater. Direct contact with affected groundwater is incomplete because the groundwater is at least 10 feet bgs, too deep for incidental contact by a receptor.

Groundwater is below the depth of typical utility work and concentrations of chemicals of concern were below detectable limits or RRS used to confirm delineation in the groundwater from the monitoring wells installed along Bishop Street; therefore, there is minimal risk to utility workers.

There are no surface water bodies on the Site or downgradient; therefore, there is no potential for affected groundwater to be intercepted by a water body and ingested. Any contaminated water migrating from the Main Site would be captured by the Atlantic Station hydraulic containment system before it would discharge to surface water.

The Main Site and surrounding area are served by a municipal water supply system operated by the city of Atlanta. The source of the water is upgradient of the Main Site. A review of available databases indicates there are no water supply wells within 1 mile downgradient of the Main Site. The results of the water well survey are provided in Appendix H. Therefore, human exposure to contaminants in groundwater at the Main Site by ingestion or direct contact is an incomplete exposure pathway. It is planned that a UEC will be placed on the Main Site property to prohibit extraction of onsite groundwater for potable or irrigation use.

VAPOR INTRUSION – HUMAN HEALTH

Inhalation of vapors could occur from VOC-affected groundwater; however, there are currently no buildings onsite. It is expected the developer will address the VOC-affected soil, the source of the VOC-affected groundwater, through risk assessment or installation of a cap, before construction of any building in the former gasoline tanks area.

Any VOC-contaminated water migrating from the Main Site would not affect the residential buildings on the Atlantic Station property because vapor mitigation measures have been implemented for these buildings.

5.4 RISK REDUCTION STANDARDS FOR GROUNDWATER

Type 1 (residential) and Type 3 (nonresidential) RRSs are appropriate for the Site. The Type 1 and Type 3 RRS are the same values, and are used to demonstrate that concentrations in Site groundwater have been delineated.

6 COMPARISON OF ANALYTICAL RESULTS TO RRS

Figures 4 through 10 show the concentrations of benzene, ethylbenzene, toluene, xylene, naphthalene, cadmium, and lead, respectively, in groundwater as of May 2018. Table 4 presents the maximum concentrations of chemicals of concern detected in groundwater and the RRS values used to confirm delineation. LNAPL was not detected in any monitoring well in 2018.

The concentrations of ethylbenzene, toluene, xylenes, and naphthalene in the sample from MW-6 are greater than the RRSs. The sample from MW-9 contained slight concentrations of ethylbenzene, xylene, and naphthalene, and only xylene was detected in the sample from MW-1, all at concentrations below the RRS. The samples from MW-7 (screened at the top of bedrock adjacent to MW-1) and MW-13 (downgradient of MW-1) contained no detectable BTEX or naphthalene. The overall aromatic VOC concentrations are almost half what they were in 2009.

Lead was detected at concentrations above the RRS in the samples from MW-1, MW-7D, and MW-8. Cadmium was detected above the Type 1 RRS in the samples from MW-7D, MW-2, and MW-14. The detected concentrations of copper and zinc are below the RRS. Chemicals of concern were below detectable concentrations in the groundwater samples from the monitoring wells located along the Main Site northern property boundary, MW-10 across Mecaslin Street, MW-12 on the 450 Bishop Street property adjacent to the west, and the monitoring wells located south of the railroad tracks (with the exception of MW-14, with a concentration slightly above the detection limit).

The concentrations of chemicals of concern in groundwater have been horizontally and vertically delineated. Mann-Kendall analysis of the data indicate that the concentrations of metals and aromatic VOCs generally are decreasing or stable (Appendix I).

7 CONCLUSIONS

A release to groundwater exceeding a reportable quantity did not occur at the Site. Groundwater on the Main Site has been affected by the former operation of a secondary lead smelting facility. Operations ceased in 1984, and all structures, other than building foundations and former smelting pots, have been removed. The Site is capped with concrete or GCL and fill.

Groundwater on the Main Site is at approximately 10 feet bgs, too deep for direct contact or typical utility trench work. There are no surface water bodies on or downgradient of the Site. The area is serviced by city water, from a reservoir located upgradient of the Site. There are no water supply wells (other than monitoring wells) within 1 mile downgradient of the Site.

LNAPL was not detected in any monitoring well in 2018. With the exception of cadmium slightly above the detection limit in the groundwater sample from MW-14, groundwater containing chemicals of concern above Type 1 standards does not extend off the Site. Groundwater flows to the southeast, toward the Atlantic Station development. There is a hydraulic containment system on the Atlantic Station property that would capture and treat any affected groundwater migrating from the Site before any downgradient receptor could be affected.

The concentrations of chemicals of concern in groundwater have been horizontally and vertically delineated. The concentrations of metals and aromatic VOCs are generally stable or decreasing.

Concentrations of cadmium, lead, aromatic VOCs, and naphthalene in groundwater on the Main Site exceed the Type 1 standards used to confirm delineation; however, the lack of receptors indicates minimal risk from these concentrations. No further action is warranted. An Environmental Covenant restricting the use or extraction of groundwater beneath the Property for drinking water or other potable uses pursuant to the Georgia Uniform Environmental Covenants Act, O.C.G.A. § 44-16-1 et seq., other than for monitoring, will be implemented for the Main Site.

8 REFERENCES

- Environmental Strategies Corporation. April 2002. Removal Action Work Plan, Part I – Removal Evaluation Results, Former National Smelting and Refining Site, Atlanta, Georgia.
- Environmental Strategies Consulting LLC. April 2004. Compliance Status Report, Former National Smelting and Refining Site, Atlanta, Georgia.
- Environmental Strategies. June 2004. Removal Action Report, Former National Smelting and Refining Site, Atlanta, Georgia.
- Environmental Strategies. December 2005. Revised Compliance Status Report, Former National Smelting and Refining Site, Atlanta, Georgia.
- Environmental Strategies. September 2006. Supplemental Compliance Status Report, Former National Smelting and Refining Site, Atlanta, Georgia.
- Georgia Department of Natural Resources, Environmental Protection Division. Chapter 391-3-19.
- Kemron Environmental Services. 2007. X-Ray Fluorescence Study, Former National Smelting and Refining Site, Atlanta, Georgia.
- U.S. Environmental Protection Agency (EPA). May 1999. Trip Report, National Smelting and Refining Site, Atlanta, Georgia.
- EPA. October 1999. Final Report on the Investigation of the National Smelting and Refining Company, Inc. Site, Atlanta, Georgia.
- WSP Environment & Energy. 2009. Revised Compliance Status Report, Former National Smelting and Refining Site, Atlanta, Georgia.

FIGURES

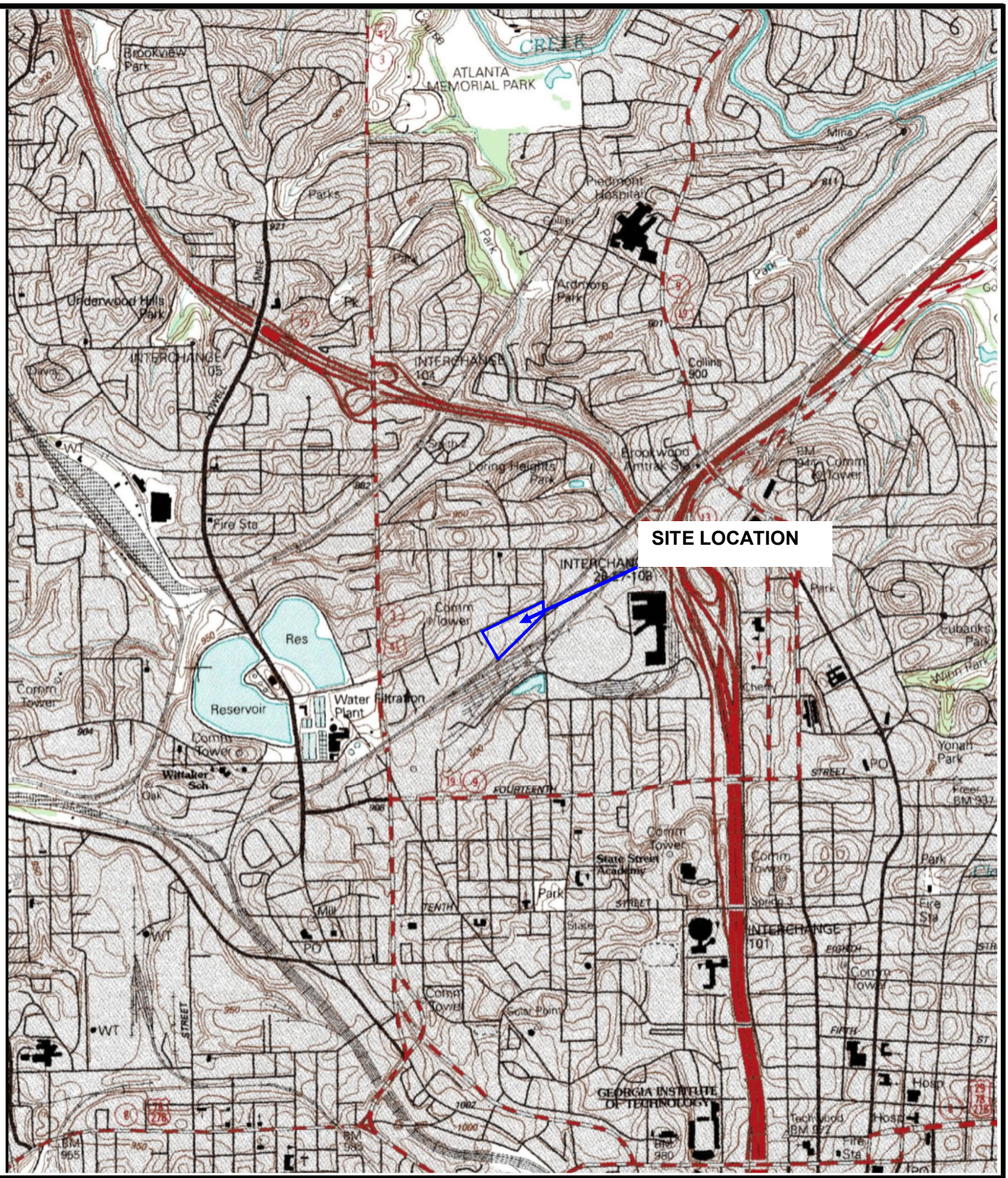
DWG Name:

Checked: DCP 5/18/18

Approved: MRF 5/18/18

Drawn By: DCP 5/18/18

A



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7.5 MINUTE SERIES TOPOGRAPHIC QUADRANGLE
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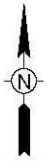
QUADRANGLE LOCATION



0 1000 2000 4000

SCALE, FEET

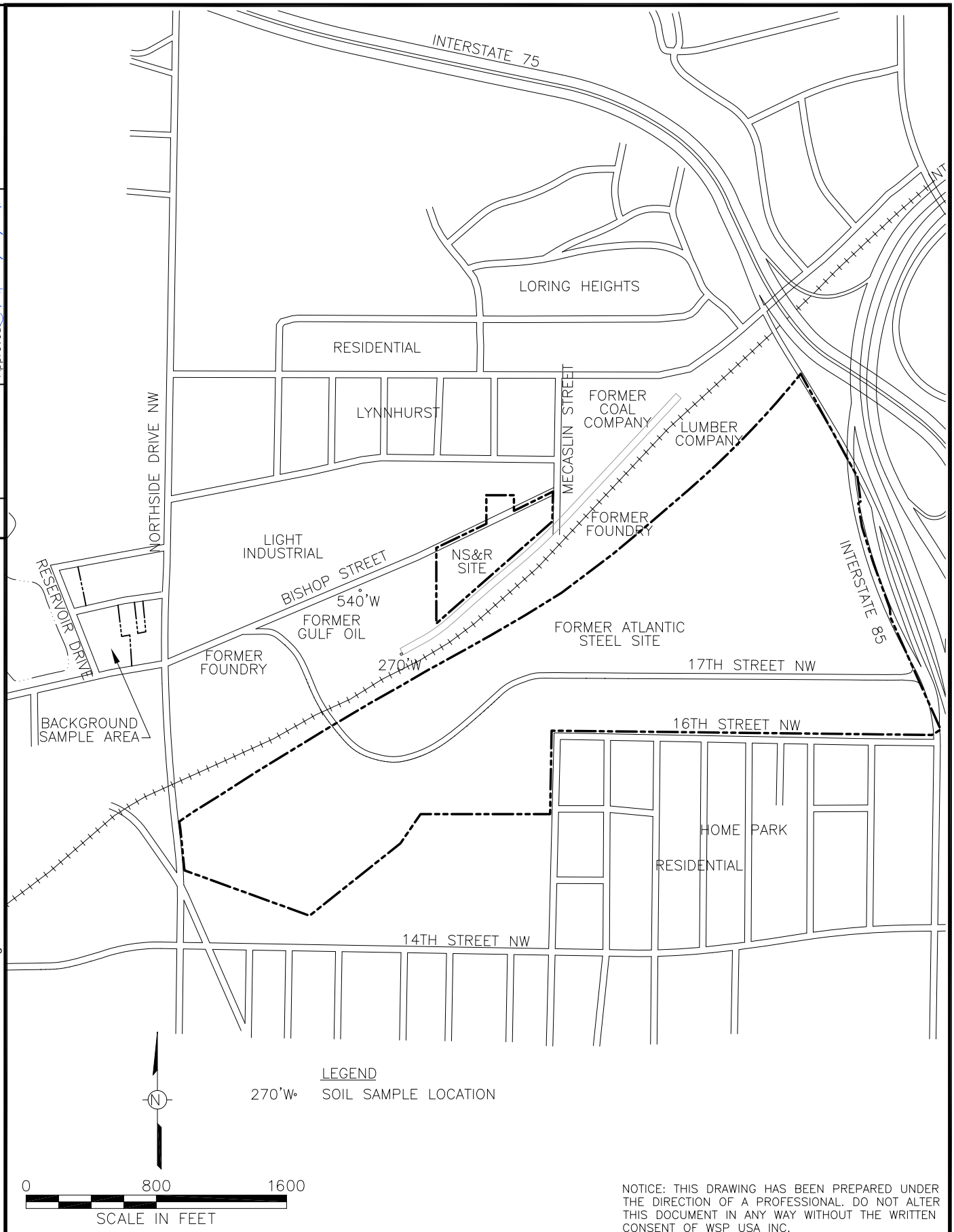
WSP USA Inc.
75 ARLINGTON STREET
4TH FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

FIGURE 1

SITE LOCATION

FORMER NATIONAL SMELTING & REFINING
ATLANTA, GEORGIA

PREPARED FOR
NL INDUSTRIES
DALLAS, TEXAS



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WSP USA Inc.
13530 DULLES TECHNOLOGY DR
SUITE 300
HERNDON, VA 20171
TEL: +1 703.709.6500

Figure 1B

SITE LOCATION
AND HISTORIC LAND USE

FORMER NATIONAL SMELTING & REFINING SITE
ATLANTA, GA

PREPARED FOR
NL INDUSTRIES

A | Drawn By: EGC | Checked: Approved SMB 5/23/2018 | DWG Name: 314V1065-011

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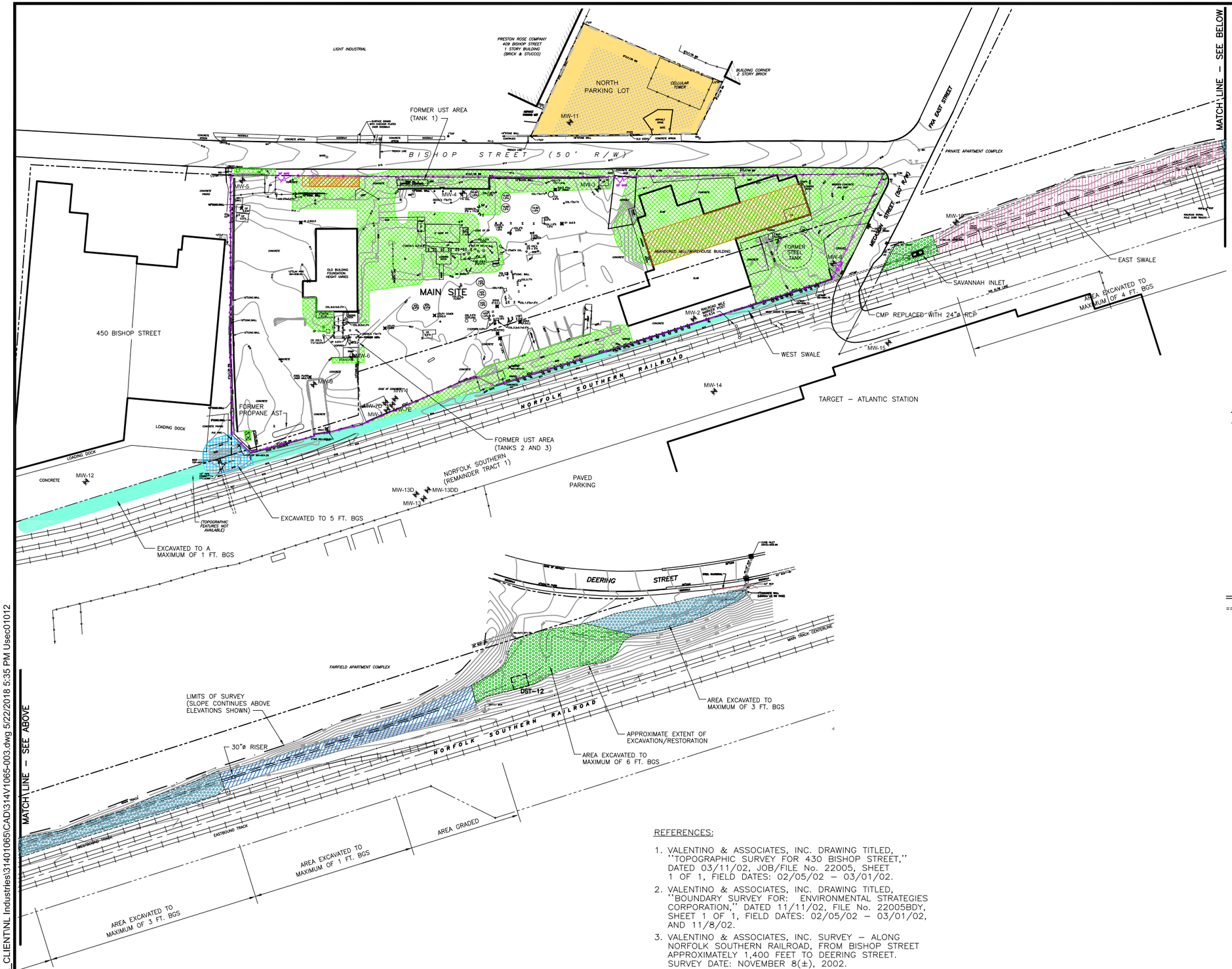

LEGEND

- SEALED OUTFALL/INLET/VAULT
- INLET
- CLF CHAIN LINK FENCE
- CO CLEANOUT
- CONC. CONCRETE
- CP CONCRETE PAD
- CMP CORRUGATED METAL PIPE
- DI STORM WATER DROP INLET
- FH FIRE HYDRANT
- GM GAS METER
- MH MANHOLE
- MHSS SANITARY SEWER MANHOLE
- RR RAILROAD IRONS
- VP VENT PIPE
- WM WATER METER
- WV WATER VALVE
- 1' CONTOUR INTERVAL
- 5' CONTOUR INTERVAL
- GUARDRAIL
- FENCE LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- MONITORING WELL
- UST UNDERGROUND STORAGE TANK

- AREA BACKFILLED WITH DEBRIS AND CAPPED WITH GEOTEXTILE, UNCLASSIFIED FILL, GCL AND SOIL
- AREA GRADED AND CAPPED WITH GCL AND SOIL
- AREA EXCAVATED, BACKFILLED AND RESTORED
- SWALE AREA GRADED AND CAPPED WITH GCL AND GABION MATTRESS
- AREA EXCAVATED, BUT DUE TO PHYSICAL CONSTRAINTS, CLEANUP LEVEL WAS NOT ACHIEVED, AREA BACKFILLED, CAPPED WITH GCL AND GABION MATTRESS
- CORRUGATED HDPE PIPE
- 24"ø REINFORCED CONCRETE PIPE
- SWALE AREA EXCAVATED TO A MAXIMUM OF 1 FOOT BGS, CAPPED WITH AN ORANGE MARKER BARRIER AND UNCLASSIFIED FILL
- SWALE AREA EXCAVATED TO A MAXIMUM OF 4 FEET BGS, CAPPED WITH GCL AND UNCLASSIFIED FILL
- SWALE AREA EXCAVATED TO A MAXIMUM OF 6 FEET BGS, CAPPED WITH AN ORANGE MARKER BARRIER AND UNCLASSIFIED FILL
- AREA EXCAVATED TO A MAXIMUM OF 3 FEET BGS

REFERENCES:

1. VALENTINO & ASSOCIATES, INC. DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR 430 BISHOP STREET," DATED 03/11/02, JOB/FILE No. 22005, SHEET 1 OF 1, FIELD DATES: 02/05/02 – 03/01/02.
2. VALENTINO & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 11/11/02, FILE No. 22005BDY, SHEET 1 OF 1, FIELD DATES: 02/05/02 – 03/01/02, AND 11/8/02.
3. VALENTINO & ASSOCIATES, INC. SURVEY – ALONG NORFOLK SOUTHERN RAILROAD, FROM BISHOP STREET APPROXIMATELY 1,400 FEET TO DEERING STREET. SURVEY DATE: NOVEMBER 8(±), 2002.
4. VALENTINO & ASSOCIATES, INC. SURVEY DRAWING TITLED, "STRIP TOPOGRAPHIC SURVEY FOR: ESC–ENVIRONMENTAL STRATEGIES CORPORATION," REVISED 01/08/04, VA. JOB NO. 22005.
5. SITE SPECIFIC ITEMS AQUIRED FROM ON SITE VERIFICATION AND GOOGLE MAPS.

0 120 240
SCALE IN FEET

THE ORIGINAL VERSION OF THIS DRAWING IS IN COLOR. BLACK AND WHITE COPIES MAY NOT ACCURATELY DEPICT CERTAIN INFORMATION.

B

Drawn By: EGC
Checked:
Approved: SMB 5/22/2018
DWG Name: 314V1065-003

FORMER NATIONAL SMELTING & REFINING SITE
ATLANTA, GEORGIA
PREPARED FOR
NL INDUSTRIES

Figure 2
SITE LAYOUT

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

LEGEND

MONITORING WELL
CHAIN LINK FENCE
FORMER STRUCTURE
SMELTING POT (CLOSED IN PLACE)
AST ABOVEGROUND STORAGE TANK
892.89 GROUNDWATER ELEVATION (FEET ABOVE MSL)
(897.31) GROUNDWATER ELEVATION NOT INCLUDED IN CONTOURING
NM NOT MEASURED
GROUNDWATER ELEVATION CONTOUR
GROUNDWATER FLOW DIRECTION

LIGHT INDUSTRIAL
NORTH PARKING
GRAVEL
CELLULAR TOWER
MW-11 *904.39*
BISHOP STREET
MW-5 *904.34*
CONCRETE
MW-4 *903.95*
12" CONC. WALL
12" BLOCK WALL
MW-3 *900.12*
CP
MW-10 *NM*
MECASLIN STREET
MAIN SITE
"OLD BUILDING" FOUNDATION
FORMER STEEL CANOPY
FORMER STEEL TANK
MW-8 *896.07*
MILL/WAREHOUSE BUILDING FOUNDATION
RAMP
FORMER GARAGE
FORMER OFFICE
MW-6 *898.41*
CONCRETE
MW-9 *897.08*
MW-1 *895.84*
MW-7D *(897.31)*
MW-7E *(891.67)*
MW-7 *896.14*
GRAVEL
GATE
NORFOLK SOUTHERN RAILROAD
MW- *892.89*
RAILROAD MILE MARKER POST NO. 454
WEST SWALE
MW-15 *888.73*
MW-14 *887.94*
450 BISHOP STREET 1 STORY METAL BUILDING
LOADING DOCK
FORMER PROPANE AST
CONCRETE
MW-12 *897.65*
MW-13D *(889.52)*
MW-13DD *NM*
MW-13 *889.10*
NORFOLK SOUTHERN (REMAINDER TRACT 1)
TARGET STORE – ATLANTIC STATION
PAVED PARKING
ATLANTIC STATION DEVELOPMENT

904 903 902 901 900 899 898 897 896 895 894 893 892 891 890 889 888 887

B

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0 80 160
SCALE IN FEET

Drawn By: EGC
Checked:
Approved: SMB 5/22/2018
DWG Name: 314V1065-004

FORMER NATIONAL SMELTING & REFINING SITE
ATLANTA, GEORGIA
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Figure 3
GROUNDWATER ELEVATION MAP
MAY 2018

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
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LEGEND

- MONITORING WELL
- CHAIN LINK FENCE
- FORMER STRUCTURE
- SMELTING POT (CLOSED IN PLACE)
- NS NOT SAMPLED
- <0.25 CONCENTRATION (mg/l)
- ISOCONCENTRATION GREATER THAN RRS

LIGHT INDUSTRIAL

BISHOP STREET

MW-11 NS

GRAVEL

CELLULAR TOWER

ASPHALT PARKING LOT

ASPHALT DRIVE

GATE

CONCRETE APRON

MW-5 <0.005

CONCRETE

MW-4 NS

MW-3 <0.005

MW-10 <0.005

MECASLIN STREET

FORMER STEEL TANK

MW-8 <0.005

BUILDING FOUNDATION

FORMER STEEL CANOPY

MILL/WAREHOUSE BUILDING FOUNDATION

MW-2 <0.005

RAILROAD MILE MARKER POST NO.634

FORMER TANKS 2 AND 3

FORMER OFFICE

FORMER GARAGE

MW-6 <0.25

CONCRETE

GRAVEL

GATE

WEST SWALE

MW-15 <0.005

450 BISHOP STREET

LOADING DOCK

MW-9 <0.005

MW-7D <0.005

MW-7E NS

MW-7 <0.005

MW-1 <0.005

EDGE OF CONCRETE

GRAVEL

GATE

NORFOLK SOUTHERN RAILROAD

MW-14 <0.005

LOADING DOCK

CONCRETE

MW-12 NS

MW-13D <0.005

MW-13DD NS

MW-13 <0.005

NORFOLK SOUTHERN (REMAINDER TRACT 1)

TYPE 1 RRS = 0.005 mg/l

PAVED PARKING

TARGET STORE – ATLANTIC STATION

ATLANTIC STATION DEVELOPMENT

0 80 160

SCALE IN FEET

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FORMER NATIONAL SMELTING & REFINING SITE
ATLANTA, GEORGIA

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Figure 4

BENZENE CONCENTRATIONS IN GROUNDWATER

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

LEGEND

MONITORING WELL

CHAIN LINK FENCE

FORMER STRUCTURE

SMELTING POT (CLOSED IN PLACE)

NS NOT SAMPLED

1.9 CONCENTRATION (mg/l)

ISOCONCENTRATION GREATER THAN RRS

LIGHT INDUSTRIAL

BISHOP STREET

MW-5 <0.005

MW-4 NS

MW-3 <0.005

MW-11 NS

MW-10 <0.005

MW-8 <0.005

MW-2 <0.005

MW-15 <0.005

MW-14 <0.005

MW-6 1.9

MW-9 0.01

MW-1 <0.005

MW-7D <0.005

MW-7E NS

MW-7S <0.005

MW-12 NS

MW-13D <0.005

MW-13DD NS

MW-13S <0.005

0.7

GRAVEL

CELLULAR TOWER

ASPHALT PARKING LOT

ASPHALT DRIVE

GATE

CONCRETE APRON

CONCRETE

18" BLOCK WALL

18" CONC. WALL

EDGE OF CONCRETE

BUILDING FOUNDATION

LOADING DOCK

RAMP

FORMER TANKS 2 AND 3

FORMER OFFICE

FORMER GARAGE

FORMER STEEL CANOPY

FORMER STEEL TANK

MILL/WAREHOUSE BUILDING FOUNDATION

MECASLIN STREET

RAILROAD MILE MARKER POST NO.634

WEST SWALE

NORFOLK SOUTHERN RAILROAD

450 BISHOP STREET

LOADING DOCK

NORFOLK SOUTHERN (REMAINDER TRACT 1)

ATLANTIC STATION DEVELOPMENT

PAVED PARKING

TARGET STORE – ATLANTIC STATION

TYPE 1 RRS = 0.7 mg/l

0 80 160

SCALE IN FEET

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Drawn By: EGC

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Approved: SMB 5/24/2018

DWG Name: 314V1065-014

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ATLANTA, GEORGIA
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Figure 5

ETHYLBENZENE CONCENTRATIONS IN GROUNDWATER

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

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LEGEND

- MONITORING WELL
- CHAIN LINK FENCE
- FORMER STRUCTURE
- SMELTING POT (CLOSED IN PLACE)
- NS NOT SAMPLED
- 4.3 CONCENTRATION (mg/l)
- ISOCONCENTRATION GREATER THAN RRS

LIGHT INDUSTRIAL

BISHOP STREET

MW-11 NS

GRAVEL

CELLULAR TOWER

ASPHALT PARKING LOT

ASPHALT DRIVE

GATE

CONCRETE APRON

MW-5 <0.005

MW-4 NS

MW-3 <0.005

CONCRETE

18" BLOCK WALL

18" CONC. WALL

MW-10 <0.005

MECASLIN STREET

FORMER STEEL TANK

MW-8 <0.005

BUILDING FOUNDATION

FORMER STEEL CANOPY

MILL/WAREHOUSE BUILDING FOUNDATION

MW-2 <0.005

RAILROAD MILE MARKER POST NO.634

450 BISHOP STREET

FORMER TANKS 2 AND 3

FORMER OFFICE

FORMER GARAGE

1.0

MW-6 4.3

CONCRETE

GRAVEL

GATE

WEST SWALE

MW-15 <0.005

MW-9 0.009

MW-7D <0.005

MW-1 <0.005

MW-7E NS

MW-7 <0.005

NORFOLK SOUTHERN RAILROAD

MW-14 <0.005

LOADING DOCK

MW-12 NS

MW-13D <0.005

MW-13DD NS

MW-13 <0.005

NORFOLK SOUTHERN (REMAINDER TRACT 1)

TARGET STORE – ATLANTIC STATION

TYPE 1 RRS = 1.0 mg/l

PAVED PARKING

ATLANTIC STATION DEVELOPMENT

0 80 160

SCALE IN FEET

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Figure 6

TOLUENE CONCENTRATIONS IN GROUNDWATER

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

LEGEND

- MONITORING WELL
- CHAIN LINK FENCE
- FORMER STRUCTURE
- SMELTING POT (CLOSED IN PLACE)
- NS NOT SAMPLED
- 6.2 CONCENTRATION (mg/l)
- ISOCONCENTRATION GREATER THAN RRS

LIGHT INDUSTRIAL

BISHOP STREET

MW-11 NS — GRAVEL — CELLULAR TOWER — ASPHALT PARKING LOT — ASPHALT DRIVE — GATE — CONCRETE APRON — 6' CHAIN LINK FENCE

MW-5 <0.005 — CONCRETE — MW-4 NS — 18" CONC. WALL — 18" BLOCK WALL — MW-3 <0.005

MECASLIN STREET

MW-10 NS

BUILDING FOUNDATION — LOADING DOCK — LOADING DOCK — RAMP

FORMER STEEL CANOPY

FORMER STEEL TANK

MW-8 <0.005

MILL/WAREHOUSE BUILDING FOUNDATION

FORMER TANKS 2 AND 3

MW-2 <0.005

RAILROAD MILE MARKER POST NO.634

FORMER OFFICE — FORMER GARAGE — RAMP

450 BISHOP STREET

MW-6 6.2 — CONCRETE — GRAVEL — GATE — WEST SWALE — MW-15 <0.005

MW-9 0.041 — EDGE OF CONCRETE — MW-1 0.01 — GRAVEL — GATE

MW-7D <0.005 — MW-7E NS — MW-7A <0.005

NORFOLK SOUTHERN RAILROAD

MW-14 <0.005

LOADING DOCK — LOADING DOCK — CONCRETE

MW-12 NS

MW-13D <0.005 — MW-13DD NS — MW-13A <0.005

NORFOLK SOUTHERN (REMAINDER TRACT 1)

TYPE 1 RRS = 10 mg/l

PAVED PARKING

TARGET STORE – ATLANTIC STATION

ATLANTIC STATION DEVELOPMENT

0 80 160

SCALE IN FEET

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Figure 7

XYLENE CONCENTRATIONS IN GROUNDWATER

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

LEGEND

- MONITORING WELL
- CHAIN LINK FENCE
- FORMER STRUCTURE
- SMELTING POT (CLOSED IN PLACE)
- NA NOT ANALYZED
- NS NOT SAMPLED
- 0.65 CONCENTRATION (mg/l)
- ISOCONCENTRATION GREATER THAN RRS

LIGHT INDUSTRIAL

BISHOP STREET

MECASLIN STREET

MW-5 NS

MW-4 NS

MW-3 <0.010

MW-10 <0.010

MW-8 <0.005

MW-11 NS

MW-2 <0.005

MW-15 <0.005

MW-14 <0.005

MW-6 0.65

0.02

MW-9 0.006

MW-7D <0.005

MW-1 <0.005

MW-7E NS

MW-7A <0.005

MW-12 NS

MW-13D <0.005

MW-13DD NS

MW-13A <0.005

CONCRETE

GRAVEL

CELLULAR TOWER

ASPHALT PARKING LOT

ASPHALT DRIVE

GATE

CONCRETE APRON

12" CMP

TREE LINE

12" CONC. WALL

12" BLOCK WALL

CP

BUILDING FOUNDATION

LOADING DOCK

RAMP

FORMER TANKS 2 AND 3

FORMER OFFICE

FORMER GARAGE

FORMER STEEL CANOPY

FORMER STEEL TANK

MILL/WAREHOUSE BUILDING FOUNDATION

RAILROAD MILE MARKER POST NO.634

WEST SWALE

NORFOLK SOUTHERN RAILROAD

450 BISHOP STREET

LOADING DOCK

NORFOLK SOUTHERN (REMAINDER TRACT 1)

ATLANTIC STATION DEVELOPMENT

TARGET STORE – ATLANTIC STATION

PAVED PARKING

TYPE 1 RRS = 0.02 mg/l

0 80 160

SCALE IN FEET

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Figure 8

NAPHTHALENE CONCENTRATIONS IN GROUNDWATER

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

LEGEND

- MONITORING WELL
- CHAIN LINK FENCE
- FORMER STRUCTURE
- SMELTING POT (CLOSED IN PLACE)
- NS NOT SAMPLED
- 0.020 CONCENTRATION (mg/l)
- ISOCONCENTRATION GREATER THAN RSR

LIGHT INDUSTRIAL

BISHOP STREET

MW-11 NS

GRAVEL

CELLULAR TOWER

ASPHALT PARKING LOT

ASPHALT DRIVE

GATE

CONCRETE APRON

MW-5 <0.005

CONCRETE

MW-4 <0.005

MW-3 <0.005

MW-10 <0.005

MECASLIN STREET

BUILDING FOUNDATION

FORMER STEEL CANOPY

FORMER STEEL TANK

MW-8 <0.005

MILL/WAREHOUSE BUILDING FOUNDATION

0.005

MW-2 0.023

RAILROAD MILE MARKER POST NO. 681

FORMER TANKS 2 AND 3

FORMER OFFICE

FORMER GARAGE

MW-15 <0.005

GATE

WEST SWALE

450 BISHOP STREET

MW-6 <0.005

CONCRETE

GRAVEL

NORFOLK SOUTHERN RAILROAD

MW-9 <0.005

0.005

MW-1 <0.005

MW-7D 0.020

MW-7E <0.005

MW-7 <0.005

GATE

MW-14 0.006

LOADING DOCK

LOADING DOCK

CONCRETE

MW-12 <0.005

MW-13D <0.005

MW-13DD <0.005

MW-13 <0.005

NORFOLK SOUTHERN (REMAINDER TRACT 1)

TARGET STORE – ATLANTIC STATION

TYPE 1 RRS = 0.005 mg/l

PAVED PARKING

ATLANTIC STATION DEVELOPMENT

0 80 160

SCALE IN FEET

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Figure 9

CADMIUM CONCENTRATIONS IN GROUNDWATER

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

LEGEND

- MONITORING WELL
- CHAIN LINK FENCE
- FORMER STRUCTURE
- SMELTING POT (CLOSED IN PLACE)
- NA NOT ANALYZED
- NS NOT SAMPLED
- 0.048 CONCENTRATION (mg/l)
- ISOCONCENTRATION GREATER THAN RRS

LIGHT INDUSTRIAL

BISHOP STREET

MW-11 NS

GRAVEL

CELLULAR TOWER

ASPHALT PARKING LOT

ASPHALT DRIVE

GATE

CONCRETE APRON

MW-5 <0.010

MW-4 <0.010

MW-3 <0.010

CONCRETE

18" BLOCK WALL

18" CONC. WALL

MW-10 <0.010

MECASLIN STREET

0.015

FORMER STEEL TANK

MW-8 0.048

BUILDING FOUNDATION

FORMER STEEL CANOPY

MILL/WAREHOUSE BUILDING FOUNDATION

FORMER TANKS 2 AND 3

FORMER OFFICE

FORMER GARAGE

MW-2 <0.010

RAILROAD MILE MARKER POST NO.654

MW-6 <0.010

CONCRETE

GRAVEL

GATE

WEST SWALE

MW-15 <0.010

450 BISHOP STREET

LOADING DOCK

MW-9 <0.010

0.015

MW-1 0.101

MW-7D <0.010

MW-7E <0.010

MW-7A 0.051

NORFOLK SOUTHERN RAILROAD

MW-14 <0.010

CONCRETE

MW-12 <0.010

MW-13D <0.010

MW-13DD <0.010

MW-13 <0.010

NORFOLK SOUTHERN (REMAINDER TRACT 1)

TYPE 1 RRS = 0.015 mg/l

PAVED PARKING

TARGET STORE – ATLANTIC STATION

ATLANTIC STATION DEVELOPMENT

0 80 160

SCALE IN FEET

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DWG Name: 314V1065-019

FORMER NATIONAL SMELTING & REFINING SITE
ATLANTA, GEORGIA
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Figure 10

LEAD CONCENTRATIONS IN GROUNDWATER

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

TABLES

Table 1

Water Level Data
Former National Smelting & Refining Site
Atlanta, Georgia (a)

Well	Screened Interval (bgs)	TOC Elevation	January 11, 2003		February 24, 2004		June 19, 2005	
			Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
MW-1	9.2-19.2	906.04	7.60	898.44	9.12	896.92	9.80	896.24
MW-2	15-25	906.14	12.00	894.14	12.17	893.97	12.62	893.52
MW-3	7-17	911.70	NI	--	12.32	899.38	12.15	899.55
MW-4	8-18	909.70	NI	--	NI	--	5.65	904.05
MW-5	12-22	915.69	NI	--	NI	--	11.90	903.79
MW-6	7-17	908.52	NI	--	NI	--	9.30	899.22
MW-7	28-33	905.62	NI	--	NI	--	9.14	896.48
MW-7D	50-60	905.99	NI	--	NI	--	NI	--
MW-8	5-15	905.75	NI	--	NI	--	10.42	895.33
MW-9	9-19	905.82	NI	--	NI	--	NI	--
MW-10	6-16	901.74	NI	--	NI	--	NI	--
MW-11	12-22	916.69	NI	--	NI	--	NI	--
MW-12	9-19	908.95	NI	--	NI	--	NI	--

Table 1

Water Level Data
Former National Smelting & Refining Site
Atlanta, Georgia (a)

	May 24, 2006		June 22, 2006	
Well	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
MW-1	10.41	895.63	11.22	894.82
MW-2	13.42	892.72	14.20	891.94
MW-3	12.50	899.20	13.15	898.55
MW-4	5.88	903.82	6.40	903.30
MW-5	11.93	903.76	12.21	903.48
MW-6	10.58	897.94	11.41	897.11
MW-7	9.70	895.92	11.33	894.29
MW-7D	10.00	895.99	9.96	896.03
MW-8	10.84	894.91	11.72	894.03
MW-9	8.61	897.21	9.51	896.31
MW-10	9.85	891.89	10.95	890.79
MW-11	NI	--	12.95	903.74
MW-12	NI	--	13.55	895.40

Table 1

Water Level Data
Former National Smelting & Refining Site
Atlanta, Georgia (a)

Well	Screened Interval (bgs)	TOC Elevation	May 27, 2009		July 7, 2009		August 12, 2009	
			Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
MW-1	9.2-19.2	906.04	13.86	892.18	14.59	891.45	nm	--
MW-2	15-25	906.14	15.17	890.97	16.59	889.55	nm	--
MW-3	7-17	911.70	13.92	897.78	14.40	897.30	nm	--
MW-4	8-18	909.70	7.55	902.15	7.72	901.98	nm	--
MW-5	12-22	915.69	12.68	903.01	12.83	902.86	nm	--
MW-6	7-17	908.52	14.50	894.02	14.71	893.81	nm	--
MW-7	28-33	905.62	13.30	892.32	14.04	891.58	nm	--
MW-7D	50-60	905.99	13.27	892.72	13.81	892.18	nm	--
MW-7E	80-90	906.05	18.40	887.65	18.82	887.23	nm	--
MW-8	5-15	905.75	11.46	894.29	12.90	892.85	nm	--
MW-9	9-19	905.82	12.40	893.42	13.12	892.70	nm	--
MW-10	6-16	901.74	9.45	892.29	11.79	889.95	nm	--
MW-11	12-22	916.69	nm	--	14.46	902.23	nm	--
MW-12	9-19	908.95	nm	--	17.81	891.14	nm	--
MW-13	15-25	904.12	NI	--	19.39	884.73	nm	--
MW-13D	28-33	903.60	NI	--	NI	--	18.83	884.77
MW-13DD	40-50	903.67	NI	--	NI	--	19.02	884.65
MW-14	15-25	900.64	NI	--	15.03	885.61	nm	--
MW-15	10-20	897.35	NI	--	11.14	886.21	nm	--

Table 1

Water Level Data
Former National Smelting & Refining Site
Atlanta, Georgia (a)

Well	Screened Interval (bgs)	TOC Elevation	March 16, 2018 Depth to Water	March 16, 2018 Groundwater Elevation	May 14, 2018 Depth to Water	May 14, 2018 Groundwater Elevation
MW-1	9.2-19.2	906.04	9.29	896.75	10.20	895.84
MW-2	15-25	906.14	12.03	894.11	13.25	892.89
MW-3	7-17	911.70	nm	--	11.58	900.12
MW-4	8-18	909.70	nm	--	5.75	903.95
MW-5	12-22	915.69	11.36	904.33	11.35	904.34
MW-6	7-17	908.52	9.35	899.17	10.11	898.41
MW-7	28-33	905.62	8.62	897.00	9.48	896.14
MW-7D	50-60	905.99	8.57	897.42	8.68	897.31
MW-7E	80-90	906.05	14.01	892.04	14.38	891.67
MW-8	5-15	905.75	6.52	899.23	9.68	896.07
MW-9	9-19	905.82	7.88	897.94	8.74	897.08
MW-10	6-16	901.74	nm	--	nm	--
MW-11	12-22	916.69	nm	--	12.30	904.39
MW-12	9-19	908.95	nm	--	11.30	897.65
MW-13	15-25	904.12	nm	--	15.02	889.10
MW-13D	28-33	903.60	nm	--	14.08	889.52
MW-13DD	40-50	903.67	nm	--	nm	--
MW-14	15-25	900.64	nm	--	12.70	887.94
MW-15	10-20	897.35	nm	--	8.62	888.73

a/ Elevations are measured in feet, relative to the National Geodetic Vertical datum of 1929.
Measured from top of casing (TOC). NI = not installed; bgs = below ground surface; nm = not measured.
Surveyed by Valentino & Associates, Inc. (2004-2006) and BSI Engineering Services, Inc. (2009).

Table 2

Groundwater Sampling Results (a)
Former National Smelting & Refining Site
Atlanta, Georgia

	MW-1	MW-1	MW-D (b)	MW-1	MW-1	MW-1	MW-1	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2
Date	1/11/03	2/24/04	2/24/04	6/19/05	5/24/06	5/27/09	5/12/18	1/11/03	2/24/04	6/19/05	5/24/06	5/27/09	5/11/18
Metals (mg/l)													
Antimony	<0.060	<0.020	<0.020	<0.020	NA	NA	NA	<0.060	<0.020	<0.020	NA	NA	NA
Arsenic	<0.010	<0.050	<0.050	<0.050	NA	NA	NA	<0.010	<0.050	<0.050	NA	NA	NA
Cadmium	0.009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.016	0.019	0.023	0.018	0.033	0.023
Chromium	NA	<0.010	<0.010	NA	NA	NA	NA	NA	<0.010	NA	NA	NA	NA
Cobalt	NA	0.027	0.027	0.028	NA	NA	NA	NA	0.030	0.040	NA	NA	NA
Copper	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	NA	0.013	0.022	0.012	0.015	0.011
Lead	0.045	0.166	0.156	0.107	0.023	0.023	0.101	0.029	<0.010	0.020	<0.010	<0.010	<0.010
Manganese	NA	4.88	4.85	NA	NA	NA	NA	NA	1.83	NA	NA	NA	NA
Mercury	NA	<0.0002	<0.0002	NA	NA	NA	NA	NA	<0.0002	NA	NA	NA	NA
Nickel	NA	<0.020	<0.020	NA	NA	NA	NA	NA	0.024	NA	NA	NA	NA
Selenium	NA	NA	NA	<0.020	NA	NA	NA	NA	NA	<0.020	NA	NA	NA
Silver	NA	<0.010	<0.010	<0.010	NA	NA	NA	NA	<0.010	<0.010	NA	NA	NA
Thallium	<0.010	<0.020	<0.020	<0.020	NA	NA	NA	<0.010	<0.020	<0.020	NA	NA	NA
Zinc	NA	0.025	0.024	0.026	<0.020	<0.020	0.031	NA	0.550	0.710	0.549	0.849	0.692
VOCs (mg/l)	NA							NA		NA			NA
Benzene		<0.005	<0.005	0.051	0.056	0.016	<0.005		<0.005		<0.005	<0.005	
Cyclohexane		<0.005	<0.005	NA	0.056	NA	NA		<0.005		<0.005	NA	
Ethylbenzene		<0.005	<0.005	0.029	0.061	<0.005	<0.005		<0.005		<0.005	<0.005	
Isopropylbenzene		<0.005	<0.005	NA	0.011	NA	NA		<0.005		<0.005	NA	
Methylcyclohexane		<0.005	<0.005	NA	0.025	NA	NA		<0.005		<0.005	NA	
Methyl tert butyl ether		NA	NA	NA	NA	<0.005	<0.005		NA		NA	<0.005	
Toluene		<0.005	<0.005	0.014	0.033	<0.005	<0.005		<0.005		<0.005	<0.005	
Xylenes		<0.005	<0.005	0.230	0.425	<0.005	0.010		<0.005		<0.005	<0.005	
PAHs (mg/l)	NA							NA		NA			NA
Naphthalene		<0.010	<0.010	0.031	0.040	<0.005	<0.005		<0.010		<0.010	<0.005	
1-Methylnaphthalene		<0.010	<0.010	<0.010	0.011	NA	NA		<0.010		NA	NA	
2-Methylnaphthalene		<0.010	<0.010	<0.010	0.011	NA	NA		<0.010		NA	NA	
Other PAHs		<0.010	<0.010	<0.010	<0.010	NA	NA		<0.010		NA	NA	

Table 2

Groundwater Sampling Results (a)
Former National Smelting & Refining Site
Atlanta, Georgia

	MW-3	MW-3	MW-3	MW-3	MW-4	MW-4	MW-4	MW-5	MW-5	MW-5
Date	2/24/04	6/19/05	5/23/06	5/27/09	6/19/05	5/23/06	5/27/09	6/19/05	5/23/06	5/27/09
Metals (mg/l)										
Antimony	<0.020	<0.020	NA	NA	<0.020	NA	NA	<0.020	NA	NA
Arsenic	<0.050	<0.050	NA	NA	<0.050	NA	NA	<0.050	NA	NA
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	<0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	<0.020	<0.020	NA	NA	<0.020	NA	NA	<0.020	NA	NA
Copper	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.029	<0.010	<0.010
Lead	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.065	<0.010	<0.010
Manganese	0.078	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	<0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	<0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	<0.020	NA	NA	<0.020	NA	NA	<0.020	NA	NA
Silver	<0.010	<0.010	NA	NA	<0.010	NA	NA	<0.010	NA	NA
Thallium	<0.020	<0.020	NA	NA	<0.020	NA	NA	<0.020	NA	NA
Zinc	0.255	0.590	0.999	0.070	<0.020	<0.020	<0.020	0.038	<0.020	<0.020
VOCs (mg/l)		NA	NA	NA	NA	NA	NA			NA
Benzene	<0.005							<0.001	<0.005	
Cyclohexane	<0.005							NA	<0.005	
Ethylbenzene	<0.005							<0.001	<0.005	
Isopropylbenzene	<0.005							NA	<0.005	
Methylcyclohexane	<0.005							NA	<0.005	
Methyl tert butyl ether	NA							NA	NA	
Toluene	<0.005							<0.001	<0.005	
Xylenes	<0.005							<0.001	<0.005	
PAHs (mg/l)		NA	NA	NA	NA	NA	NA			
Naphthalene	<0.010							<0.010	<0.010	NA
1-Methylnaphthalene	<0.010							<0.010	<0.010	
2-Methylnaphthalene	<0.010							<0.010	<0.010	
Other PAHs	<0.010							<0.010	<0.010	

Table 2

Groundwater Sampling Results (a)
Former National Smelting & Refining Site
Atlanta, Georgia

	MW-6	MW-D (b)	MW-6	MW-100 (b)	MW-6	MW-6	MW-600 (b)	MW-7	MW-7	MW-7	MW-7	MW-7D	MW-7D	MW-7D	MW-7D
Date	6/19/05	6/19/05	5/25/06	5/25/06	5/28/09	5/14/18	5/14/18	6/19/05	5/24/06	5/27/09	5/11/18	5/25/06	6/22/06	5/27/09	5/11/18
Metals (mg/l)															
Antimony	<0.020	<0.020	NA	NA	NA	NA		<0.020	NA	NA	NA	NA	NA	NA	NA
Arsenic	<0.050	<0.050	NA	NA	NA	NA		<0.050	NA	NA	NA	NA	NA	NA	NA
Cadmium	<0.005	<0.005	<0.005	<0.005	0.034	<0.005		0.008	0.009	<0.005	<0.005	0.062	0.069	0.030	0.020
Cobalt	<0.020	<0.010	NA	NA	NA	NA		0.091	NA	NA	NA	NA	NA	NA	NA
Copper	<0.010	<0.010	<0.010	<0.010	0.197	<0.010		0.065	0.054	0.010	0.010	0.136	0.139	0.067	0.042
Lead	<0.010	<0.010	<0.010	<0.010	0.094	<0.010		0.067	<0.010	<0.010	0.051	0.563	0.159	0.033	<0.010
Selenium	<0.020	<0.020	NA	NA	NA	NA		<0.020	NA	NA	NA	NA	NA	NA	NA
Silver	<0.010	<0.010	NA	NA	NA	NA		<0.010	NA	NA	NA	NA	NA	NA	NA
Thallium	<0.020	<0.020	NA	NA	NA	NA		<0.020	NA	NA	NA	NA	NA	NA	NA
Zinc	0.032	0.031	0.029	0.024	0.194	<0.020		0.154	0.157	0.025	<0.020	0.853	0.955	0.438	0.242
VOCs (mg/l)												NA	NA	NA	
Benzene	2.6	2.5	1.80	1.70	12	<0.25	<0.25	<0.001	<0.005	<0.005	<0.005				<0.005
Cyclohexane	NA	NA	0.150	0.150	NA	NA	NA	NA	<0.005	NA	NA				NA
Ethylbenzene	1.6	1.5	0.710	0.600	2.9	1.9	1.9	<0.001	<0.005	<0.005	<0.005				<0.005
Isopropylbenzene	NA	NA	0.030	0.032	NA	NA	NA	NA	<0.005	NA	NA				NA
Methylcyclohexane	NA	NA	0.079	0.077	NA	NA	NA	NA	<0.005	NA	NA				NA
Methyl tert butyl ether	NA	NA	NA	NA	0.024	<0.25	<0.25	NA	NA	<0.005	<0.005				<0.005
Toluene	4.8	4.6	2.40	2.00	13	4.3	4.2	<0.001	<0.005	<0.005	<0.005				<0.005
Xylenes	6.5	6.4	2.04	1.67	12	6.2	6.1	<0.001	<0.005	<0.005	<0.005				<0.005
PAHs (mg/l)												NA	NA	NA	
Naphthalene	0.280	0.320	0.130	0.140	0.88	0.46	0.65	<0.010	<0.010	<0.005	<0.005				<0.005
1-Methylnaphthalene	0.066	0.072	0.025	0.026	NA	NA	NA	<0.010	<0.010	NA	NA				NA
2-Methylnaphthalene	0.120	0.140	0.049	0.050	NA	NA	NA	<0.010	<0.010	NA	NA				NA
Other PAHs	<0.010	<0.010	<0.010	<0.010	NA	NA	NA	<0.010	<0.010	NA	NA				NA

Table 2

Groundwater Sampling Results (a)
Former National Smelting & Refining Site
Atlanta, Georgia

	MW-7E	MW-7E	MW-7E	MW-8	MW-8	MW-8	MW-100 (b)	MW-8	MW-800 (b)	MW-9	MW-9	MW-9	MW-10	MW-11
Date	7/21/06	5/27/09	5/11/18	6/19/05	5/24/06	5/27/09	5/27/09	5/11/18	5/11/18	5/25/06	5/27/09	5/14/18	5/24/06	6/23/06
Metals (mg/l)														
Antimony	NA	NA	NA	<0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	<0.050	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	<0.005	<0.005	<0.005	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA
Cobalt	NA	NA	NA	0.338	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.111	<0.010	<0.010	0.022	<0.010	0.099	0.097	<0.010	<0.010	0.014	<0.010	<0.010	<0.010	NA
Lead	0.0125	<0.010	<0.010	1.48	0.166	0.975	0.972	0.047	0.048	<0.010	<0.010	<0.010	<0.010	NA
Selenium	NA	NA	NA	<0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	<0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	<0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	0.228	<0.020	<0.020	2.64	0.895	0.390	0.384	<0.020	<0.020	0.348	0.343	0.659	<0.020	<0.020
VOCs (mg/l)	NA	NA	NA	NA			NA	NA	NA		NA			NA
Benzene					<0.005	<0.005				<0.005		<0.005	<0.005	
Cyclohexane					<0.005	NA				<0.005		NA	<0.005	
Ethylbenzene					<0.005	<0.005				<0.005		0.01	<0.005	
Isopropylbenzene					<0.005	NA				<0.005		NA	<0.005	
Methylcyclohexane					<0.005	NA				<0.005		NA	<0.005	
Methyl tert butyl ether					NA	<0.005				NA		<0.005	NA	
Toluene					<0.005	<0.005				<0.005		0.009	<0.005	
Xylenes					<0.005	<0.005				<0.005		0.041	<0.005	
PAHs (mg/l)	NA	NA	NA	NA			NA	NA	NA		NA			NA
Naphthalene					<0.010	<0.005				<0.010		0.006	<0.010	
1-Methylnaphthalene					<0.010	NA				<0.010		NA	<0.010	
2-Methylnaphthalene					<0.010	NA				<0.010		NA	<0.010	
Other PAHs					<0.010	NA				<0.010		NA	<0.010	

Table 2

Groundwater Sampling Results (a)
Former National Smelting & Refining Site
Atlanta, Georgia

	MW-12	MW-201 (b)	MW-12	MW-13	MW-130 (b)	MW-13	MW-13D	MW-13D	MW-13DD	MW-130DD (b)	MW-14	MW-14	MW-15	MW-15
Date	6/23/06	6/23/06	5/12/18	7/8/09	7/8/09	5/14/18	8/12/09	5/14/18	8/12/09	8/12/09	7/7/09	5/14/18	7/8/09	5/14/18
Metals (mg/l)														
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005
Copper	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Lead	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.051	0.098	<0.020	<0.020
VOCs (mg/l)	NA	NA	NA				NA		NA	NA		NA		NA
Benzene				<0.005	<0.005	<0.005		<0.005			<0.005		<0.005	
Ethylbenzene				<0.005	<0.005	<0.005		<0.005			<0.005		<0.005	
Methyl tert butyl ether				<0.005	<0.005	<0.005		<0.005			<0.005		<0.005	
Naphthalene				<0.005	<0.005	<0.005		<0.005			<0.005		<0.005	
Toluene				<0.005	<0.005	<0.005		<0.005			<0.005		<0.005	
Xylenes				<0.005	<0.005	<0.005		<0.005			<0.005		<0.005	

a/ NA = not analyzed; NR = not regulated. Shaded value exceeds the Type 1 RRS.
b/ Duplicate of preceding sample.

Table 3

Chemical of Concern in Soil (a)
Former National Smelting & Refining Site
Atlanta, Georgia

MAIN SITE

	CASRN	Maximum Concentration						Type 1
	Number	Pre-Removal Action	Sample	Depth	Post-Removal Action	Sample	Depth	RRS
VOCs (mg/kg)								
Benzene	71432	35	GP-4	9-10	35	GP-4	9-10	0.02
Ethylbenzene	100414	84	Tank2 E	9-10	84	Tank2 E	9-10	20
Toluene	108883	210	GP-4	9-10	210	GP-4	9-10	14
Xylenes	1330207	310	GP-4	9-10	310	GP-4	9-10	20
PAHs (mg/kg)								
Benzo(a)pyrene	50328	11	SF106		<0.330	All	0-12	1.64
Naphthalene	91203	100	Tank2 E	9-10	100	Tank2 E	9-10	100
Metals (mg/kg)								
Antimony	7440360	3,800	SF101		3,630	AXS-14	0-2	4
Arsenic	7440382	2100	SF103		487	G-49	0-2	20
Cadmium	7440439	290	SF103		110	SB-301	1	2
Chromium	7440473	260	SB-304	10	260	SB-304	10	100
Copper	7440508	5,000	SB-301	8	5,000	SB-301	8	100
Lead	7439921	230,000	SB-301	1	230,000	SB-301	1	75
Mercury	7439976	10	SF106		0.44	SB-302	0.25	17
Nickel	7440020	210	SB-301	8	210	SB-301	8	50
Silver	7440224	11	SF103		11	SB-301	8	2
Selenium	7782492	71	SF102		10	SB-301	8	2
Thallium	7440280	15	SF103		8.9	SB-301	1	2
Zinc	7440666	2,800	SF103		2,180	G-29	3-5	100
PCBs (mg/kg)								
Aroclor 1254	11097691	6.3	SF106		<0.033	All	0-2	1.55

a/ Chemicals detected in soil at the Site at concentrations greater than the notification concentrations listed in Appendix I for volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), and polycyclic aromatic compounds (PAHs), or Appendix III, Table 2 for metals. From Section 391-3-19-.07 of the Georgia Rules for Hazardous Site Response. SF = surface soil sample collected in 1999.

Table 3

Chemicals of Concern in Soil (a)
Former National Smelting & Refining Site
Atlanta, Georgia

NORTH PARKING AREA

	Maximum Concentration						Type 3
	Pre-Removal Action	Sample	Depth	Post-Removal Action	Sample	Depth	RRS
Metals (mg/kg)							
Antimony	20,300	AXP-46	0.5-1	7.1	AXP-46	3-3.5	10
Arsenic	9,220	AXP-46	0.5-1	3.7	AXP-8	4-5	38
Cadmium	487	AXP-46	0.5-1	1.0	AXP-48	1-2	39
Lead	125,000	AXP-46	0.5-1	293	CS-3	1	400
Thallium	30	AXP-49	0-0.5	<5	All		10
EAST SWALE							**Type 1**
Metals (mg/kg)							**RRS**
Antimony	297	LAT2-1	0.5-1	35	DST-12RT1	6	4
Arsenic	179	LAT2-1	0.5-1	18	AXRE-13	4-5	20
Cadmium	73	LAT1-3	0.5-1	7.8	AXRE-13	4-5	2
Chromium	208	Deering St	1	208	Deering St	1	100
Lead	46,300	LAT2-1	0.5-1	1,440	DST-12RT1	6	75
Nickel	66	Deering St	1	66	Deering St	1	50
Thallium	3	LAT1-2	1-1.5	1.2	AXRE-13	4-5	2
Zinc	92	G-72	5-7	92	G-72	5-7	100
WEST SWALE							**Type 1**
Metals (mg/kg)							**RRS**
Antimony	5,370	HA-3-15	1-1.5	14.4	AXR-D	2-3	4
Arsenic	945	HA-3-15	1-1.5	2.8	AXR-D	2-3	20
Cadmium	460	SD-202	0-0.5	1.4	AXR-D	2-3	2
Lead	211,000	HA-3-15	1-1.5	243	AXR-D	2-3	75
Nickel	130	SD-202	0-0.5	6.3	Swale 270'W	1	50
Thallium	34	SD-203	0-0.5	1.2	AXR-D	2-3	2
Zinc	3,700	SD-202	0-0.5	23	Swale 270'W	1	100

a/ Chemicals detected in soil at the Site at concentrations greater than the notification concentrations listed in Appendix I for volatile organic compounds (VOCs) and polycyclic aromatic compounds (PAHs), or Appendix III, Table 2 for metals. From Section 391-3-19-.07 of the Georgia Rules for Hazardous Site Response.

Table 4

Regulated Chemicals of Concern in Groundwater
Former National Smelting & Refining Site
Atlanta, Georgia

	CASRN Number	Type 1 RRS (mg/l)	Maximum Concentration	Sample
Cadmium	7440-43-9	0.005	0.023	MW-2
Copper	7440-50-8	1.3	0.042	MW-7D
Lead	7439-92-1	0.015	0.101	MW-1
Nickel	7440-02-0	0.1	0.024	MW-2
Zinc	7440-66-6	2	0.692	MW-2
Benzene	71-43-2	0.005	<0.25	MW-6
Ethylbenzene	100-41-4	0.7	1.9	MW-6
Toluene	108-88-3	1	4.3	MW-6
Xylenes	1330-20-7	10	6.2	MW-6
Naphthalene	91-20-3	0.02	0.65	MW-6

APPENDIX

A LIST OF OWNERS AND POTENTIALLY RESPONSIBLE PARTIES

List of Owners and Potentially Responsible Parties

Pursuant to O.C.G.A. § 12-8-92(9) and 12-8-92.1(a), the following are potentially responsible parties: the current owner/operator of a facility, the owner/operator of a facility at the time of disposal, any party who arranged for disposal of hazardous substances at the facility, and any party who transported hazardous substances to the facility.

Current Owners/Operators of Site:

Main Site

400 Bishop Street NW: Tax parcel 17-0148-LL0081
430 Bishop Street NW: Tax parcel 17-0148-LL0073

Fabric Developers, LLC, parent company to 400 Bishop, LLC
403 W. Ponce de Leon, Suite 104
Decatur, Georgia 30030
c/o Jerold L. Miller, telephone: 404-275-3980
jmiller@fabricdevelopers.com

Southeast corner of Main Site: Tax parcel 17-0148-LL0099

Norfolk Southern Railway Company
1200 Peachtree St NE – Box 73
Three Commercial Place
Norfolk, Virginia 23510

Steven Aufdenkampe, telephone: 404-582-5185
Regional Manager Environmental Remediation
Steven.Aufdenkampe@nscorp.com

Past Owner/Operator:

NL Industries, Inc.
3 Lincoln Center, Suite 1700
5430 LBJ Freeway
Dallas, TX 75240
Shannon Walker, P.E., telephone: 972-450-4282
swalker@valhi.net

Other Potentially Responsible Parties:

- Johnson Controls Inc.
- Exide Corporation
- Honeywell
- C&D Technologies
- Gould, Inc.
- American Biltrite, Inc.
- General Motors
- Lucent Technologies
- Martin Scrap Recycling, Inc.
- Agrico Chemical Company
- Seitzinger's, Inc.

While O.C.G.A. §12-8-92 (9) excludes some recyclers from the definition of persons who arranged for disposal or treatment of hazardous waste, hazardous constituents or hazardous substances, it requires that the person arranged recycling solely of spent lead-acid, nickel-acid, nickel-cadmium or other batteries. It appears from manifests and other information reviewed that the parties listed above did not exclusively send batteries to the smelter, but also sent dross, sludge, scrap oxide, grindings, scrap solder, remelted cable, mixed lead, battery plates, scrap lead, scrap chemical lead, babbitt, foundry-type metal and corroding grade lead.

LEGAL DESCRIPTION – 400 and 430 Bishop Street NW

Fulton County Records, Deed Book 12878, page 66

ALL THAT TRACT or parcel of land lying and being in Land Lot 148 of the 17th land District, City of Atlanta, Fulton County, Georgia, said tract or parcel of land being more particularly described as follows:

Commence at a 1/2" iron pin found at the right-of-way line intersection of the southerly right-of-way line of Bishop Street (50 ft r/w) and the westerly right-of-way line of Mecaslin Street (50 ft r/w)(FKA East Street).

THENCE South 00 degrees 17 minutes 44 seconds West for a distance of 50.79 feet along the westerly right-of-way line of Mecaslin Street to a PK Nail set in concrete at the intersection of the northerly right-of-way line of the Norfolk Southern Railroad (r/w varies) as described in deed book 410 page 369 of Fulton County Records, said PK Nail set in concrete being 100 feet perpendicular from the common centerline between present double main tracks of the Norfolk Southern Railway.

THENCE the following courses and distances along the northerly right-of-way line of the Norfolk Southern Railway. South 46 degrees 28 minutes 14 seconds West for a distance of 642.00 feet to a PK Nail set in concrete, said PK Nail being 100 feet perpendicular from aforesaid common centerline of the Norfolk Southern Railroad.

THENCE South 26 degrees 04 minutes 28 seconds East for a distance of 52.41 feet to a PK Nail set in concrete, said PK Nail set being 50 feet perpendicular from the common centerline of the Norfolk Southern Railroad.

THENCE South 46 degrees 38 minutes 12 seconds West for a distance of 160.61 feet to a 1/2" iron pin set, said 1/2" iron pin set being 50 feet perpendicular from the common centerline of the Norfolk Southern Railroad.

THENCE North 26 degrees 11 minutes 12 seconds West for a distance of 337.79 feet leaving the northerly right-of-way line of the Norfolk Southern Railroad to a 1/2" iron pin found on the southerly right-of-way line of Bishop Street.

THENCE the following courses and distances along the southerly right-of-way line of Bishop Street. North 64 degrees 35 minutes 01 seconds East for a distance of 155.00 feet to a PK Nail set.

THENCE North 64 degrees 23 minutes 07 seconds East for a distance of 208.40 feet to a point.

THENCE North 63 degrees 24 minutes 24 seconds East for a distance of 340.81 feet to a PK Nail set in concrete.

THENCE North 63 degrees 23 minutes 08 seconds East for a distance of 84.84 feet to a 1/2" iron pin found at the intersection of the westerly right-of-way line of Mecaslin Street, said 1/2" iron pin found being the POINT OF BEGINNING.

Said tract or parcel of land contains 3.14 acres or 137,097 square feet.

LEGAL DESCRIPTION – NORFOLK SOUTHERN PROPERTY
ENGINEERING DESCRIPTION

PORTION OF PARCEL NUMBER 19 ON VAL MAP 67/14

ALL THAT STRIP, PIECE OR PARCEL OF LAND situate, lying or being in Land Lot 148, of the 17th District, City of Atlanta, Fulton County, Georgia and being more particularly described as follows:

Commencing at a ½" iron pin found at the intersection of the southerly right of way line of Bishop Street (50 feet wide) with the westerly right of way line of Mecaslin Street, FKA East Street, (50 feet wide); thence,

Along said westerly right of way line of Mecaslin Street, S0° 07'44"W a distance of 50.79 feet to the point of beginning; thence,

Continuing along said westerly right of way line of Mecaslin Street, S0° 07'44"W a distance of 69.37 feet to a point 50 feet north of the common centerline of the main tracks of Norfolk Southern Railway Company, as measured perpendicular thereto; thence,

S46° 08'14"W, along a line 50 feet north of and parallel to the said common centerline of Norfolk Southern Railway Company's main tracks, a distance of 609.83 feet to a point, said point being the southeast corner of Tax Parcel Number 17-148-007; thence,

Along the easterly line of the said Tax Parcel Number 17-148-007, N26° 04'28"W a distance of 52.41 feet to a point; thence,

Leaving said easterly line of Tax Parcel Number 17-148-007, N46° 08'14"E a distance of 642.00 feet to the point of beginning.

Said piece or parcel of property containing 0.72 acres, more or less.

APPENDIX

B PREVIOUS SAMPLING LOCATIONS-SOIL

LIGHT INDUSTRIAL

LEGEND
- MONITORING WELL
- SOIL BORING (1999 TO 2004)
- SOIL BORING (LAW 2001)
- SOIL BORING (2009)
- CHAIN LINK FENCE
- FORMER STRUCTURE
- SMELTING POT (CLOSED IN PLACE)

B I S H O P S T R E E T

CB4X4 FH 20' GATE WM 12" CONC. WALL 15" BLOCK WALL 6' CHAIN LINK FENCE CONCRETE 18" CONC. WALL 6' CLF/3R BW

MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7 MW-7D MW-7E MW-8 MW-9 MW-11 MW-13 MW-14 MW-15

SB-301 SB-302 SB-303 SB-304

GP-1 GP-2 GP-3 GP-4 GP-5 GP-6 GP-7 GP-8 GP-9 GP-10 GP-11 GP-12

AXS-1 AXS-2 AXS-3 AXS-4 AXS-5 AXS-6 AXS-7 AXS-8 AXS-9 AXS-10 AXS-11 AXS-12 AXS-13 AXS-14 AXS-15 AXS-16 AXS-17 AXS-18 AXS-19

K-1 K-2 K-3 K-4 K-5 K-6

G-1 G-2 G-3 G-4 G-5 G-6 G-7 G-8 G-9 G-10 G-11 G-12 G-13 G-14 G-15 G-16 G-17 G-18 G-19 G-20 G-21 G-22 G-23 G-24 G-25 G-26 G-27 G-28 G-29 G-30 G-31 G-32 G-33 G-34 G-35 G-36 G-37 G-38 G-39 G-41 G-42 G-43 G-44 G-45 G-46 G-47 G-48 G-49 G-50 G-51 G-52 G-53 G-54 G-55 G-56 G-57 G-58 G-59 G-60 G-61 G-62 G-63 G-64 G-65 G-66 G-67 G-68 G-69 G-70

CELLULAR TOWER
GRAVEL
ASPHALT PARKING LOT
ASPHALT DRIVE
GATE
CONCRETE APRON
4' HOGWIRE FENCE

OLD BUILDING FOUNDATION
FORMER STEEL CANOPY
FORMER STEEL TANK
FORMER MILL/WAREHOUSE BUILDING FOUNDATION
FORMER GARAGE
FORMER OFFICE
LOADING DOCK
RAMP
5' DEEP PIT
RR IRONS
EDGE OF CONCRETE
CONCRETE
GRAVEL
GATE
WEST SWALE

NORFOLK SOUTHERN RAILROAD
RAILROAD MILE MARKER POST NO. 654
NORFOLK SOUTHERN (REMAINDER TRACT 1)
TARGET – ATLANTIC STATION
MECASLIN STREET

0 60 120
SCALE IN FEET

THE ORIGINAL VERSION OF THIS DRAWING IS IN COLOR. BLACK AND WHITE COPIES MAY NOT ACCURATELY DEPICT CERTAIN INFORMATION.

B

Drawn By: EGC
Checked:
Approved: SMB 5/23/2018
DWG Name: 314V1065-007

FORMER NATIONAL SMELTING & REFINING SITE
ATLANTA, GEORGIA
PREPARED FOR
NL INDUSTRIES

Figure B-1
SAMPLE LOCATIONS – MAIN SITE

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

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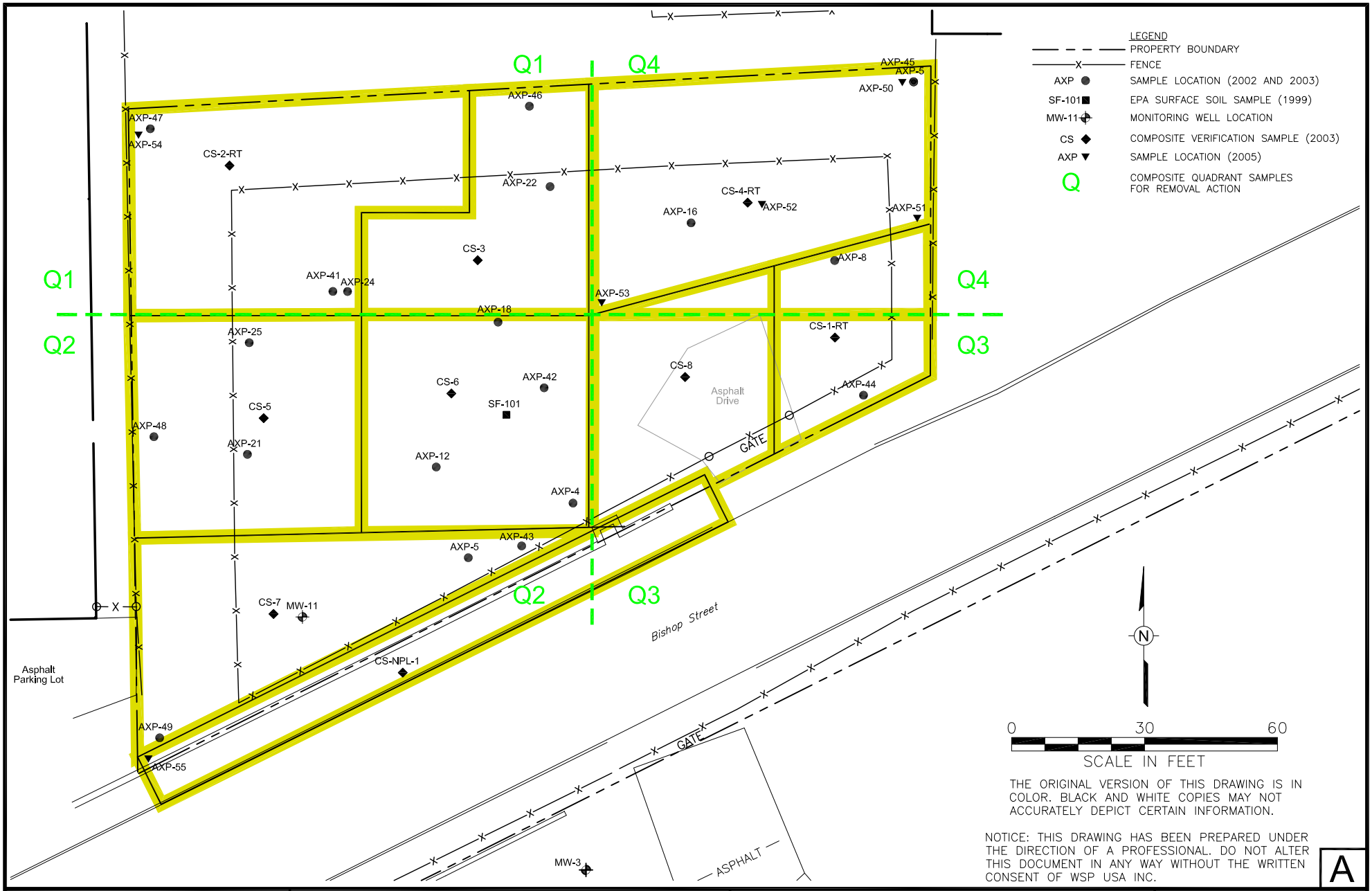

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NOTICE: THIS DRAWING HAS BEEN PREPARED UNDER THE DIRECTION OF A PROFESSIONAL. DO NOT ALTER THIS DOCUMENT IN ANY WAY WITHOUT THE WRITTEN CONSENT OF WSP USA INC.

A

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

Figure B–2

SOIL SAMPLE LOCATIONS – NORTH PARKING AREA

FORMER NATIONAL SMELTING & REFINING SITE
ATLANTA, GEORGIA

PREPARED FOR
NL INDUSTRIES

Drawn By: EGC
Checked:
Approved: GMB 5/23/2018
DWG Name: 314V1065–012

COMMERCIAL/INDUSTRIAL

BISHOP STREET

Gravel

CELLULAR TOWER

ASPHALT PARKING LOT

ASPHALT DRIVE

GATE

CONCRETE APRON

450 Bishop Street

Old Building Foundation

Former Steel Canopy

Former Office

Former Garage

Former Mill/ Warehouse Building

Former Steel Tank

Abandoned Mill/ Warehouse Building

MECASLIN STREET

AXRE-4

AXRD

NORFOLK SOUTHERN RAILROAD

LOADING DOCK

CONCRETE

HA-2-25

HA-1-30

HA-2-10

HA-4-10

HA-0-15

HA-3-15

HA-5-15

AXRW-5

HA-1-10

HA-6-15

AXRW-6

AXRW-7

SWALE 270' W

LEGEND

PROPERTY BOUNDARY

FENCE LINE

SOIL SAMPLING LOCATION

AREA LINED WITH GCL AND VEGETATED

0 80 160

SCALE IN FEET

THE ORIGINAL VERSION OF THIS DRAWING IS IN COLOR. BLACK AND WHITE COPIES MAY NOT ACCURATELY DEPICT CERTAIN INFORMATION.

NOTICE: THIS DRAWING HAS BEEN PREPARED UNDER THE DIRECTION OF A PROFESSIONAL. DO NOT ALTER THIS DOCUMENT IN ANY WAY WITHOUT THE WRITTEN CONSENT OF WSP USA INC.

B

Drawn By: EGC

Checked:

Approved: SMB 5/23/2018

DWG Name: 314V1065-008

FORMER NATIONAL SMELTING & REFINING SITE
ATLANTA, GEORGIA
PREPARED FOR
NL INDUSTRIES

Figure B-3

SAMPLE LOCATIONS – WEST SWALE

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

Residential

Residential

Deering Street

Apartment Complex
(Former Coal Company)

DEERING STREET EXCAVATION
SEE FIGURE B-5

Deering Street

Trabert Avenue

Mecaslin Street

Light
Industrial

Bishop
Street

Main
Site

Norfolk Southern Railroad

WESTBOUND TRACK

MAIN TRACK

EASTBOUND TRACK

AXRC

LAT1-3

LAT2-2

LAT2-3

LAT1-2

SWALE 11B

SWALE 12A

LAT1-1

SWALE 11A

LAT2-1

LAT3-2

SWITCH BOX

LAT3-1

AXRE-22

SWALE 7A

SWALE 6B

SWALE 5B

SWALE 5A

SWALE 6A

SWALE 4B

G-72

SWALE 3B

SWALE 4A

SWALE 3A

SWALE 2A

MW-10

RAILROAD SIGNAL
POLE OVER TRACKS

AXRE-13

SWALE-200E

SWALE-100E

AXRE-6

G-71

Savannah Inlet

LEGEND

TOPOGRAPHIC CONTOUR

PROPERTY LINE

SAMPLE LOCATION

MONITORING WELL LOCATION

REFERENCE:

VALENTINO & ASSOCIATES, INC. SURVEY DRAWING TITLED, "STRIP TOPOGRAPHIC SURVEY FOR: ESC-ENVIRONMENTAL STRATEGIES CORPORATION," REVISED 01/08/04, VA. JOB NO. 22005.

0 100 200

SCALE IN FEET

B

Drawn By: EGC

Checked:

Approved: SMB 5/23/2018

DWG Name: 314V1065-009

FORMER NATIONAL SMELTING & REFINING SITE
ATLANTA, GEORGIA
PREPARED FOR
NL INDUSTRIES

Figure B-4

SAMPLE LOCATIONS - EAST SWALE

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

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LEGEND

PROPERTY LINE

872 TOPOGRAPHIC CONTOUR

RAILROAD

LAT, SWALE SAMPLE LOCATION (2002 AND 2003)

DS/DST SAMPLE LOCATION (2004)

Deering Street

SIDEWALK

18" RCP

42" RCP

48" RCP

AXRC

DST-13

DST-20

DST-4

DST-3

DST-14

DST-19

DST-18

DST-17

DST-16

LAT1-3

DST-15

LAT1-2

DST-8

LAT2-3

DST-1

DST-7

DST-9

DST-2

LAT1-1

DS-2/DST-6

Excavation Limits

LAT2-2

DST-11

DST-10

DST-12

DS-1/DST-5

SWALE 12A

LAT2-1

SWALE 11B

SWALE 11A

LAT3-2

LAT3-1

SWITCH BOX

EB

0 30 60

SCALE IN FEET

NOTICE: THIS DRAWING HAS BEEN PREPARED UNDER THE DIRECTION OF A PROFESSIONAL. DO NOT ALTER THIS DOCUMENT IN ANY WAY WITHOUT THE WRITTEN CONSENT OF WSP USA INC.

B

R:\ACAD\CADD_CLIENT\NL Industries\31401065\CAD\314V1065-010.dwg 5/23/2018 3:31 PM USEC01012

Drawn By: EGC

Checked:

Approved: SMB 5/23/2018

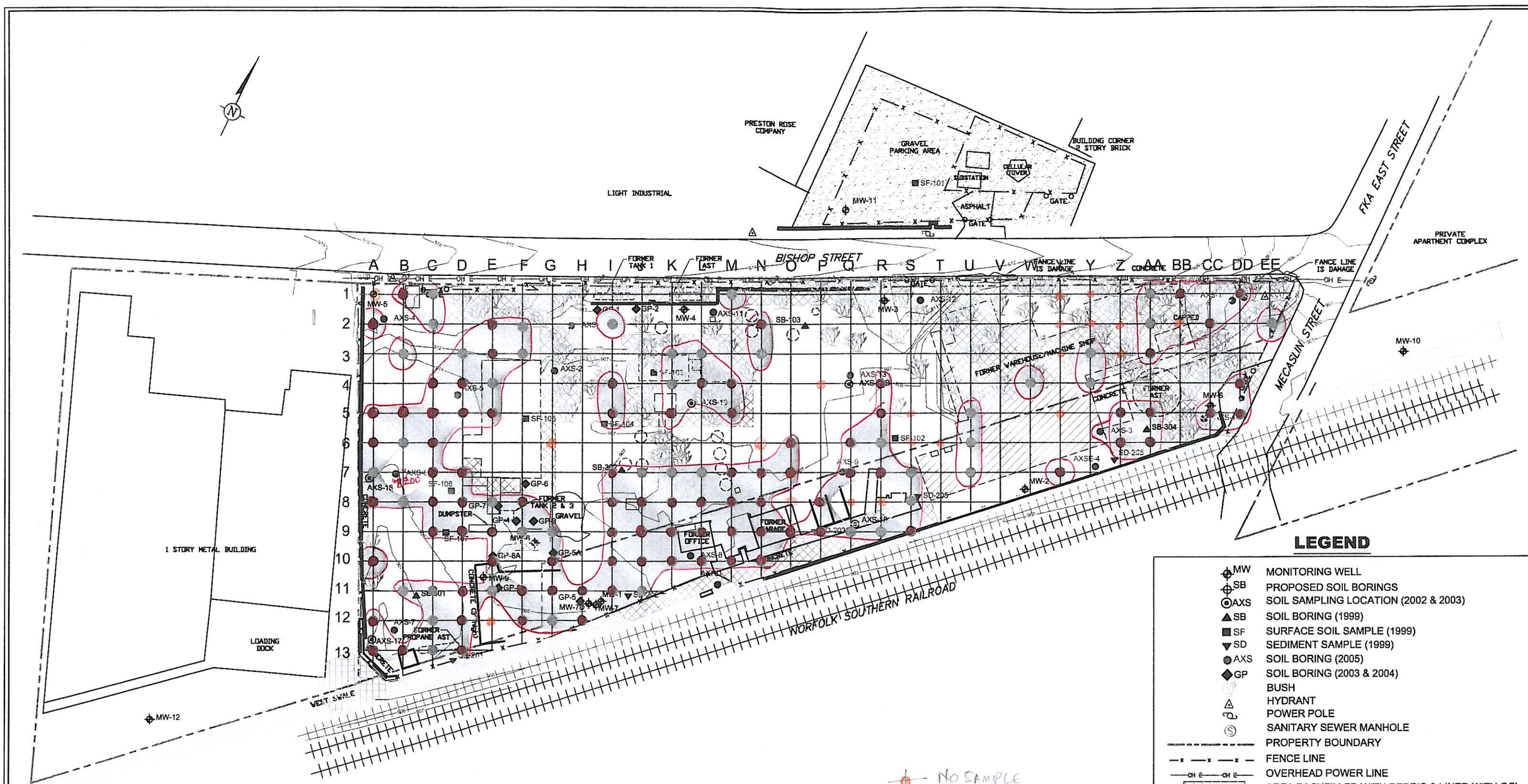
DWG Name: 314V1065-010

FORMER NATIONAL SMELTING & REFINING SITE
ATLANTA, GEORGIA
PREPARED FOR
NL INDUSTRIES

Figure B-5

SAMPLE LOCATIONS – EAST SWALE
AT DEERING STREET EXCAVATION

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330



LEGEND

- MW — MONITORING WELL
- SB — PROPOSED SOIL BORINGS
- AXS — SOIL SAMPLING LOCATION (2002 & 2003)
- SB — SOIL BORING (1999)
- SF — SURFACE SOIL SAMPLE (1999)
- SD — SEDIMENT SAMPLE (1999)
- AXS — SOIL BORING (2005)
- GP — SOIL BORING (2003 & 2004)
- BUSH
- HYDRANT
- POWER POLE
- SANITARY SEWER MANHOLE
- PROPERTY BOUNDARY
- FENCE LINE
- OVERHEAD POWER LINE
- AREA BACKFILLED WITH DEBRIS & LINED WITH GCL
- AREA GRADED & LINED WITH GCL
- AREA EXCAVATED & RESTORED
- SWALE AREA LINED WITH GCL & GABION MATTIRESS
- AREA EXCAVATED, BUT DUE TO PHYSICAL CONSTRAINTS, CLEANUP LEVEL WAS NOT ACHIEVED
- AREA BACKFILLED & LINED WITH GCL & GABION MATTRESS
- 25 FEET GRID

NOTES:
1. BASE MAP DEVELOPED FROM FIGURE 2 OF ENVIRONMENTAL STRATEGIES CONSULTING LLC, 03/11/02
2. ALL BORING LOCATIONS AND UNDERGROUND UTILITIES ARE APPROXIMATE.

KEMRON ENVIRONMENTAL SERVICES

0 40 80
SCALE 1"=80'

DRAWN BY: KG	DATE 15 JANUARY 2007
REVIEWED:	PROJECT NO. SE4414-001-001
APPROVED:	DWG. FILE NO. LEAD. @ 0'

FIGURE 5

LEAD CONCENTRATION MAP @ ZERO FEET BELOW SURFACE

FORMER NATIONAL SMELTING & REFINING SITE
ATLANTA, GEORGIA

M:\SE-ATLANTA PROJECTS\0 SE44\SE 4414-001-001\ LEAD CONCENTRATION SURFACE MAP.dwg 12/17/2007 kgrigoryan CH

APPENDIX

C BORINGS LOGS AND MONITORING WELL CONSTRUCTION DIAGRAMS

Boring Log: MW-1

Project: NS&R/Atlanta, GA
Project No.: 127541
Location: 180'E, 50'N of SW/c prop
Geologist: JFM

Completion Date: January 7, 2003
Surface Elevation (ft. MSL): 906.21
Total Depth (ft. bgs): 20
TOC Elevation (ft. MSL): 906.04
Borehole Diameter (in.) 8

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Sample Data					SUBSURFACE PROFILE		
Depth	Elevation	Blow Count	% Recovery	PID (ppm)	Symbol	Description	Well Construction
0	0					Ground Surface	
	-1					***Concrete***	
2	-3	3-3-4-7	5			***Fill*** Brown, fine-grained SAND	
4	-5		5			Reddish-brown, micaceous, SAND and Silty CLAY. Moist.	
6		12-5-5-4	15			***Silty CLAY*** Reddish brown, mottled, micaceous, moist, soft	
8		3-3-3-3	80				
10	-11	3-4-9-7	0				
12	-13	3-3-7-7	90			***Clayey SILT*** Reddish-brown to brown. Micaceous, soft. Moist	
14	-15	2-4-7-11	90			***Clayey SILT*** Grades from brown to dark gray. Micaceous, laminated. Wet. Slight petroleum-like odor.	
16	-17	4-7-11-13	100			***SILT*** Gray, micaceous. Laminated, with some medium SAND	
18		4-8-14-16	90			***SAPROLITE*** Brown and dark grey. Laminated, micaceous, silty with thin medium-grained SAND lenses. Wet.	
20	-20	4-7-15-15	90			Boring Terminated	
25							

Subcontractor: Richard Simmons Drilling
Denny Harker

Method: 4.25" id HSA

Boring Log: MW-2

Project: NS&R/Atlanta, GA
Project No.: 127541
Location: 150'W, 30'S SE/c prop
Geologist: JFM

Completion Date: January 10, 2003
Surface Elevation (ft. MSL): 906.28
Total Depth (ft. bgs): 25
TOC Elevation (ft. MSL): 906.14
Borehole Diameter (in.) 8

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Sample Data					SUBSURFACE PROFILE		
Depth	Elevation	Blow Count	% Recovery	PID (ppm)	Symbol	Description	Well Construction
0	0					Ground Surface	
1	-1					***Concrete***	
2	-2		50			***FILL*** Black, gravelly SAND, poorly sorted. Damp	
3						***Sandy CLAY (FILL)*** Reddish-brown, fine-grained SAND w/tan CLAY. Stiff. Damp.	
4			50				
5	-5						
6			80			***Sandy CLAY (FILL)*** Grayish-brown and black. Micaceous, some organics. Stiff. Moist	
7	-7						
8			90			***Clayey SILT*** Medium brown, some gravel and CLAY. Micaceous. Wet	
9							
10			90			Black and brown, wet at 10.5 feet bgs	
11	-11						
12			50				
13							
14			80			***Clayey SILT*** Red-brown, mottled, some micaceous fine SAND. Stiff. Damp	
15							
16	-16.5		80				
17	-17.5					Grey mottling from 16.5 to 17.5 ft bgs	
18			95			***Clayey SILT*** Brownish-tan and white, mottled. Micaceous. Plastic, stiff. Moist	
19	-19.5						
20			90			***Clayey SILT*** Brown with gold mica. Moist to wet	
21							
22	-22		90				
23						***Clayey SILT*** Brown with black and white laminations. Loose. Wet	
24			80				
25	-25						

Subcontractor: Richard Simmons Drilling
Denny Harker

Method: 4.25" id HSA

Boring Log: MW-3

Project: NS&R/Atlanta, GA

Project No.: 127541

Location: N prop line, Main Site

Geologist: GMB

Completion Date: 2/19 and 20/04

Surface Elevation (ft. MSL): 911.98

Total Depth (ft. bgs): 20

TOC Elevation (ft. MSL): 911.70

Borehole Diameter (in.) 8

Sample Data					SUBSURFACE PROFILE		
Depth	Elevation	Blow Count	% Recovery	PID (ppm)	Symbol	Description	Well Construction
0	0					Ground Surface	
	-0.6					***FILL*** Red-brown CLAY. Moist.	
1						GCL Concrete	
2			50	0		***Silty CLAY*** Yellow-brown to orange-brown. Micaceous. Dense. Moist. No odor or stains.	
3	-4						
4							
5							
6			63	0		***SAPROLITE*** Red-brown. Micaceous silty CLAY.	
7							
8							
9							
10							
11	-12						
12			83	0		Dark gray silty v. fine SAND Light gray and white silty v. fine SAND Gray and brown silty v. fine SAND	
13						Wet at approx. 13 feet bgs	
14	-15						
15						Red-brown silty CLAY. Stiff. Wet.	
16							
17	-17		90	0		GNEISSIC. Thin folded beds of gray, white, and brown silty v. fine SAND. Dense. Damp.	
18							
19							
20	-20					Boring Terminated	
21							
22							
23							
24							
25							

Subcontractor: Geo Lab

Joe Grantham/Mike Short

Method: Geoprobe/4.25" id HSA

Boring Log: MW-4

Project: NS&R/Atlanta, GA

Project No.: 127541

Location: 100' E of MW-5

Geologist: GMB

Completion Date: 6/15/05

Surface Elevation (ft. MSL): 909.92

Total Depth (ft. bgs): 18

TOC Elevation (ft. MSL): 909.70

Borehole Diameter (in.) 8

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Sample Data				SUBSURFACE PROFILE		
Depth	Sample Interval	% Recovery	PID (ppm)	Symbol	Description	Well Construction
0					Ground Surface	
					Concrete	
1	1	50			*SAPROLITE (migmatitic gneiss)* Golden-brown. Micaceous silty very fine to fine SAND.	
5	2	65				
10	3	100			Yellow-brown silty fine SAND w/mica. Laminated. Damp. Wet at 13 ft bgs.	
15	4	100				
20						

Subcontractor: Geo Lab

Method: Geoprobe/4.25" id HSA

Driller/Operator: Joe Grantham

Boring Log: MW-5

Project: NS&R/Atlanta, GA

Project No.: 127541

Location: NW/c Main Site

Geologist: GMB

Completion Date: 6/15/05

Surface Elevation (ft. MSL): 915.80

Total Depth (ft. bgs): 22

TOC Elevation (ft. MSL): 915.69

Borehole Diameter (in.) 8

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Sample Data				SUBSURFACE PROFILE		
Depth	Sample Interval	% Recovery	PID (ppm)	Symbol	Description	Well Construction
0					Ground Surface	
0				XXXX	*Concrete*	
1	1	50			*FILL* 0.3-5 ft bgs: Red-brown silty CLAY w/granules and mica. Moist. 5-12 ft bgs: Pink-brown clayey fine SAND. Moist. 12-13 ft bgs: Brown mottled w/gray CLAY. Damp. 13-19 ft bgs: Dark brown to brown becoming gray CLAY. Wet.	
5	2	85				
10	3	100				
15	4	100				
20						

Subcontractor: Geo Lab

Method: Geoprobe/4.25" id HSA

Driller/Operator: Joe Grantham

Boring Log: MW-5

Project: NS&R/Atlanta, GA

Project No.: 127541

Location: NW/c Main Site

Geologist: GMB

Completion Date: 6/15/05

Surface Elevation (ft. MSL): 915.80

Total Depth (ft. bgs): 22

TOC Elevation (ft. MSL): 915.69

Borehole Diameter (in.) 8

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Sample Data				SUBSURFACE PROFILE		
Depth	Sample Interval	% Recovery	PID (ppm)	Symbol	Description	Well Construction
21					*SAPROLITE (migmatitic gneiss)* Golden-brown. Micaceous silty very fine to fine SAND. Interbedded with gray and brown (speckled appearance) silty fine SAND. Laminated. Wet.	
22					Boring Terminated	
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						

Subcontractor: Geo Lab

Method: Geoprobe/4.25" id HSA

Driller/Operator: Joe Grantham

Boring Log: MW-6

Project: NS&R/Atlanta, GA

Project No.: 127541

Location: 15' S of fmr UST

Geologist: GMB

Completion Date: 6/15/05

Surface Elevation (ft. MSL): 908.76

Total Depth (ft. bgs): 18

TOC Elevation (ft. MSL): 908.52

Borehole Diameter (in.) 8

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Sample Data				SUBSURFACE PROFILE		
Depth	Sample Interval	% Recovery	PID (ppm)	Symbol	Description	Well Construction
0					Ground Surface	
1	1	80			***FILL*** 0-1.5 ft bgs: Gravel and sand. 1.5-3 ft bgs: Gray or red-brown fine SAND and gravel 3-3.5 ft bgs: CONCRETE 3.5-5 ft bgs: Black SAND, pebbles, brick fragments, cinders, and lead slag. Dry.	
5						
6	2	85				
10					***SAPROLITE*** 5-8.5 ft bgs: Red-brown silty fine SAND w/mica. 8.5-15 ft bgs: Gray silty fine SAND w/mica. Wet at approx. 9.5 ft bgs. Strong petroleum odor, greasy feel.	
12	3	100				
15						
17						
20						

Subcontractor: Geo Lab

Method: Geoprobe/4.25" id HSA

Driller/Operator: Joe Grantham

Boring Log: MW-7

Project: NS&R/Atlanta, GA
Project No.: 127541
Location: 10' SW of MW-1
Geologist: GMB

Completion Date: 6/16/05
Surface Elevation (ft. MSL): 906.04
Total Depth (ft. bgs): 33
TOC Elevation (ft. MSL): 905.62
Borehole Diameter (in.) 8

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Sample Data					SUBSURFACE PROFILE		
Depth	Elevation	Blow Count	% Recovery	PID (ppm)	Symbol	Description	Well Construction
0	0					Ground Surface	
0						***Concrete***	
1							
2			60			***FILL*** Orange-brown, red-brown, and brown. Silty fine SAND w/pebbles. Micaceous. Dry.	
3							
4							
5	-5					Black silty CLAY. Micaceous. Soft.	
6	-6						
7			100			***SAPROLITE*** Orange-brown and gray. Laminated, micaceous, silty CLAY with thin lenses of fine- to medium-grained SAND. Wet at 9 ft bgs.	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

Subcontractor: Geo Lab
Joe Grantham

Method: Geoprobe/4.25" id HSA

Boring Log: MW-7

Project: NS&R/Atlanta, GA
Project No.: 127541
Location: 10' SW of MW-1
Geologist: GMB

Completion Date: 6/16/05
Surface Elevation (ft. MSL): 906.04
Total Depth (ft. bgs): 33
TOC Elevation (ft. MSL): 905.62
Borehole Diameter (in.) 8

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Sample Data					SUBSURFACE PROFILE		
Depth	Elevation	Blow Count	% Recovery	PID (ppm)	Symbol	Description	Well Construction
26	-26						
27						***CLAY*** Gray. Dense.	
28	-28						
29							
30						***SAPROLITE*** Dark grey. Laminated, micaceous, silty CLAY with thin medium-grained SAND lenses. Wet.	
31							
32							
33	-33						
	-33.5					***BEDROCK*** Refusal on rock at 33.5 ft bgs.	
34						Boring Terminated	
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

Subcontractor: Geo Lab
Joe Grantham

Method: Geoprobe/4.25" id HSA

Boring Log: MW-7D

Project: NS&R/Atlanta, GA
Project No.: 127541
Location: 8' W of MW-7
Geologist: GMB

Completion Date: 5/25/2006
Surface Elevation (ft. MSL): 906.24
Total Depth (ft. bgs): 65
TOC Elevation (ft. MSL): 905.99
Borehole Diameter (in.) 12/6

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Sample Data					SUBSURFACE PROFILE		
Depth	Elevation	Blow Count	% Recovery	PID (ppm)	Symbol	Description	Well Construction
0	0					Ground Surface	
						Concrete	
	-5					***FILL*** Orange-brown, red-brown, and brown. Silty fine SAND w/pebbles. Micaceous. Lead slag at approx. 5 feet bgs. Dry.	
10						***SAPROLITE*** Orange-brown and gray. Laminated, micaceous, silty CLAY with thin lenses of fine- to medium-grained SAND.	
30							
40						***Mica SCHIST*** Drilled ahead with 6" air hammer.	
60	-65						
65						Boring Terminated	
70							

Subcontractor: Geo Lab
Joe Grantham

Method: 6.25" id HSA/6" air hammer

Boring Log: MW-7E

Project: National Smelting and Refining
Project No.: 127526-4
Location: Atlanta, Georgia
Completion Date: July 20, 2006

Surface Elevation (feet AMSL*):
TOC Elevation (feet AMSL*):
Total Depth (feet): 90
Borehole Diameter (inches): 2"

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
						Ground Surface	
						Concrete	
						Sandy clay, dark brown, with slag, moist, poorly sorted, sand is medium-grained - fine- and medium-grained with no slag from 6 to 11 feet bgs - saturated at approximately 8.5 feet bgs	
20						Clayey sand, dark brown, saturated, sand is medium-grained, poorly sorted, strong odor - sand content increasing with depth - refusal at 30 feet bgs	
40						Bedrock, quartz and mica - weathered area at 71 to 72 feet bgs - saturated at approximately 80 feet bgs	
60							
80							
100						Bottom of Boring at 90 feet Installed double cased, flush mounted monitoring well using Sch40 4" PVC outer casing set at 65 feet bgs, 2" PVC inner casing, and 0.010" slotted Sch40 PVC screen	

Geologist(s): Catharine London
Subcontractor: Piedmont Environmental Drilling, Inc.
Driller/Operator: Donnie Staton
Method: Hollow Stem Auger and Air Rotary

**AMSL = Above mean sea level*

Boring Log: MW-8

Project: NS&R/Atlanta, GA

Project No.: 127541

Location: SE/c property

Geologist: GMB

Completion Date: 6/16/05

Surface Elevation (ft. MSL): 903.19

Total Depth (ft. bgs): 18

TOC Elevation (ft. MSL): 905.75

Borehole Diameter (in.) 8

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Sample Data				SUBSURFACE PROFILE		
Depth	Sample Interval	% Recovery	PID (ppm)	Symbol	Description	Well Construction
0					Ground Surface	
0-5	1	100			***FILL*** 0-0.5 ft bgs: Red-brown silty CLAY 0.5-1 ft bgs: Brown silty SAND 1-3 ft bgs: Black cinders, sand, and plastic fragments (possible battery cases) 3-5 ft bgs: Gray-brown and black sandy CLAY w/mica.	
5-10	2	100			5-5.5 ft bgs: Brown silty SAND. 5.5-7 ft bgs: Yellow-brown silty CLAY. Dense. 7-8.5 ft bgs: Black and brown silty very fine SAND w/mica. 8.5-9 ft bgs: Brown silty CLAY 9-11 ft bgs: Yellow-brown silty fine SAND w/mica and brick fragments. Wet at 7.5 ft bgs. Creosote odor.	
10-15					***SAPROLITE*** Red-brown and gray silty fine SAND w/mica.	
15					Boring Terminated	
16-20						

Subcontractor: Geo Lab

Method: Geoprobe/4.25" id HSA

Driller/Operator: Joe Grantham

Boring Log: MW-9

Project: NS&R/Atlanta, GA
Project No.: 127541
Location: W of GP-8
Geologist: GMB

Completion Date: 5/23/2006
Surface Elevation (ft. MSL): 906.14
Total Depth (ft. bgs): 19
TOC Elevation (ft. MSL): 905.82
Borehole Diameter (in.) 8

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Sample Data					SUBSURFACE PROFILE		
Depth	Elevation	Blow Count	% Recovery	PID (ppm)	Symbol	Description	Well Construction
0	0					Ground Surface	
0						***Concrete***	
1–5			30			***FILL*** Orange-brown, red-brown, brown and black. Silty fine SAND w/pebbles. Micaceous. Dry. Layers of CONCRETE at 2.5 ft and 4 ft bgs.	
6	-6					***CLAY*** Dark brown becoming brown. Dense. Damp.	
7–9			50				
9	-9					***Silty CLAY*** Brown. Micaceous.	
10–11			100				
12	-12.5					***SAPROLITE*** Brown and gray. Laminated, micaceous. Silty CLAY with thin lenses of fine- to medium-grained SAND. No odor.	
13–18							
19	-19					Boring Terminated	
20–25							

Subcontractor: Geo Lab
Joe Grantham

Method: Geoprobe/4.25" id HSA

Boring Log: MW-10

Project: NS&R/Atlanta, GA

Project No.: 127541

Location: 35' E of Mecaslin culvert

Geologist: GMB

Completion Date: 5/23/2006

Surface Elevation (ft. MSL): 898.42

Total Depth (ft. bgs): 16

TOC Elevation (ft. MSL): 901.74

Borehole Diameter (in.) 8

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Sample Data					SUBSURFACE PROFILE		
Depth	Elevation	Blow Count	% Recovery	PID (ppm)	Symbol	Description	Well Construction
0	0					Ground Surface	
1	-1.5					***Gravel***	
2			50	0		***Silty CLAY*** Brown, red-brown, dark brown, and gray. Micaceous.	
5	-6						
6			40	0		***SAPROLITE*** Silver, tan, and gold, becoming gray. Silty v. fine SAND and clay, with mica. Laminated.	
10			100			Auger refusal at 16 ft bgs.	
15	-16						
16						Boring Terminated	
25							

Subcontractor: Geo Lab

Joe Grantham

Method: Geoprobe/4.25" id HSA

Boring Log: MW-11

Project: NS&R/Atlanta, GA
Project No.: 127562
Location: N. Pkg Area
Geologist: GMB

Completion Date: 6/22/2006
Surface Elevation (ft. MSL): 916.94
Total Depth (ft. bgs): 23
TOC Elevation (ft. MSL): 916.69
Borehole Diameter (in.) 8

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Sample Data					SUBSURFACE PROFILE		
Depth	Elevation	Blow Count	% Recovery	PID (ppm)	Symbol	Description	Well Construction
0	0					Ground Surface	
0						***Gravel***	
1							
2			95			***FILL*** Red-brown clayey fine SAND, micaceous. Dry.	
3							
4							
5	-5						
6							
7			100				
8							
9							
10							
11							
12			100				
13						***SAPROLITE*** Brown and gold. Laminated, micaceous. Silty clayey SAND, with thin lenses of fine- to medium-grained SAND. No odor.	
14							
15							
16							
17			100				
18							
19							
20							
21							
22							
23	-23					Boring Terminated	
24							
25							

Subcontractor: Geo Lab
Robert Sullivan

Method: Geoprobe/4.25" id HSA

Boring Log: MW-12

Project: NS&R/Atlanta, GA

Project No.: 127562

Location: 450 Bishop Street

Geologist: GMB

Completion Date: 6/22/2006

Surface Elevation (ft. MSL): 909.37

Total Depth (ft. bgs): 19

TOC Elevation (ft. MSL): 908.95

Borehole Diameter (in.) 8

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Sample Data					SUBSURFACE PROFILE		
Depth	Elevation	Blow Count	% Recovery	PID (ppm)	Symbol	Description	Well Construction
0	0					Ground Surface	
0						***Concrete***	
1–4			95			***FILL*** Brown, orange-brown, red-brown, dark brown and yellow-brown. Silty clayey fine SAND. Micaceous. Occasional coal fragments. Dry.	
5							
6	-6						
7–9			100				
10							
11–14			100			***SAPROLITE*** Red-brown, with black or white streaks. Laminated, micaceous. Silty fine SAND, some CLAY. Possibly wet at 9 ft bgs. 3" Black and white coarse SAND and Gravel at approx. 14 ft bgs. Becomes Silty CLAY at approx. 15 ft bgs. No odor.	
15							
16–18							
19	-19					Boring Terminated	
20–25							

Subcontractor: Geo Lab

Robert Sullivan

Method: Geoprobe/4.25" id HSA

Boring Log: MW-13

Project: NL-Atlanta

Project No.: 127562

Location: 430 Bishop St., Atlanta, GA

Completion Date: June 13, 2009

Surface Elevation (feet AMSL*): 900.96

TOC Elevation (feet AMSL*): 904.12

Total Depth (feet): 25

Borehole Diameter (inches): 2

**AMSL = Above mean sea level*

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
						Ground Surface	
				100		***Poorly-Graded Sand with Silt and Gravel (SP-SM)*** Brown, fine-grained silty sand with gravel and rock fragments. Dry.	
						Brick fragments and cinders (FILL).	
5						***Poorly-Graded Sand with Gravel (SP)*** Black, coarse-grained sand with cinders and coal (FILL). Dry.	
				90		***SAPROLITE*** Orange-brown, very fine-grained silty sand with some clay and mica throughout. Moist to wet.	
10						Greenish-black with mottled brown, very fine-grained silty sand with biotite. White saprolitic migmatite (quartz-rich) at 9.5 feet bgs.	
				80		Light-brown with mottled black and orange-brown, very fine-grained silty sand with muscovite and biotite mica throughout. Wet at 13 feet bgs.	
15				100			
20						Light-brown, dense, very fine-grained silty sand with greenish-gray, orange, and white mica foliations. Wet.	
25						Bottom of Boring at 25 feet Soil samples collected from 0-2, 5-7, and 10-12 feet bgs for target metals.	

Geologist(s): Heather M. Usle

Subcontractor: Geo Lab

Driller/Operator: Robert Sullivan

Method: Direct Push

WSP Environment & Energy
1740 Massachusetts Avenue
Boxborough, MA 01719
978-635-9600

Boring Log: MW-13D

Project: NL-Atlanta

Project No.: 127562

Location: 430 Bishop St., Atlanta, GA

Completion Date: August 5, 2009

Surface Elevation (feet AMSL*): 901.08

TOC Elevation (feet AMSL*): 903.60

Total Depth (feet): 33

Borehole Diameter (inches): 6

*AMSL = Above mean sea level

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
						Ground Surface	
						Poorly-Graded Sand with Gravel (SP) Light-brown, loose, fine-grained sand with small gravel fragments. Dry.	
						FILL Light grayish-brown, loose, fine-grained sand with brick, coal, slag, and gravel fragments. Dry.	
5						***Poorly-Graded Sand with Gravel (SP)*** Reddish-brown, loose, fine-grained sand with gravel and biotite mica fragments. Dry.	
						Silt with Clay (ML) Light-gray with mottled yellow-orange, soft, very fine-grained clayey silt with foliated silver mica flakes. Moist.	
10						***FILL*** Blackish-brown, loose, fine-grained silty sand with coal, brick, gravel and wire. Gold mica flakes. Moist.	
						SAPROLITE Light reddish-brown to light-brown, soft to hard clayey silt with trace sand. Gold mica foliations. Moist to wet. 5" diameter cobble at 15' bgs.	
15							
20						Light-brown, hard, very fine-grained silt with greenish-black to gray biotite mica foliations. White saprolitic migmatite at 20' bgs. Wet.	
25							

Geologist(s): Heather M. Usle

Subcontractor: Boart Longyear

Driller/Operator: Jeremy Triepke

Method: Rotosonic

WSP Environment & Energy
1740 Massachusetts Avenue
Boxborough, MA 01719
978-635-9600

Boring Log: MW-13D

Project: NL-Atlanta

Project No.: 127562

Location: 430 Bishop St., Atlanta, GA

Completion Date: August 5, 2009

Surface Elevation (feet AMSL*): 901.08

TOC Elevation (feet AMSL*): 903.60

Total Depth (feet): 33

Borehole Diameter (inches): 6

*AMSL = Above mean sea level

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
						Light-brown, hard, very fine-grained silt with greenish-black to gray biotite mica foliations. White saprolitic migmatite at 20' bgs. Wet. *(continued)*	
30						Bluish green-gray with mottled yellow-orange, very stiff, very fine-grained silt with biotite foliations. Wet.	
						Mica Schist Bluish-black, weathered mica schist. Wet.	
35						Bottom of Boring at 33 feet	
40							
45							
50							

Geologist(s): Heather M. Usle

Subcontractor: Boart Longyear

Driller/Operator: Jeremy Triepke

Method: Rotosonic

WSP Environment & Energy
1740 Massachusetts Avenue
Boxborough, MA 01719
978-635-9600

Boring Log: MW-13DD

Project: NL-Atlanta

Project No.: 127562

Location: 430 Bishop St., Atlanta, GA

Completion Date: August 4, 2009

Surface Elevation (feet AMSL*): 901.01

TOC Elevation (feet AMSL*): 903.67

Total Depth (feet): 50

Borehole Diameter (inches): 6

*AMSL = Above mean sea level

Sample Data

Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery
0				100
5				60
10				60
15				100
20				100
25				

Subsurface Profile

Lithology	Description	Well Details
	Ground Surface	
	Poorly-Graded Sand with Gravel (SP) Light-brown, loose, fine-grained sand with small gravel fragments. Dry.	
	FILL Light grayish-brown, loose, fine-grained sand with brick, coal, slag, and gravel fragments. Dry.	
	Poorly-Graded Sand with Gravel (SP) Reddish-brown, loose, fine-grained sand with gravel and biotite mica fragments. Dry.	
	Silt with Clay (ML) Light-gray with mottled yellow-orange, soft, very fine-grained clayey silt with foliated silver mica flakes. Moist.	
	FILL Blackish-brown, loose, fine-grained silty sand with coal, brick, gravel and wire. Gold mica flakes. Moist.	
	SAPROLITE Light reddish-brown to light-brown, soft to hard clayey silt with trace sand. Gold mica foliations. Moist to wet. 5" diameter cobble at 15' bgs.	
	Light-brown, hard, very fine-grained silt with greenish-black to gray biotite mica foliations. Saprolitic migmatitie at 20' bgs. Wet.	

Geologist(s): Heather M. Usle

Subcontractor: Boart Longyear

Driller/Operator: Jeremy Triepke

Method: Rotosonic

WSP Environment & Energy
1740 Massachusetts Avenue
Boxborough, MA 01719
978-635-9600

Boring Log: MW-13DD

Project: NL-Atlanta

Project No.: 127562

Location: 430 Bishop St., Atlanta, GA

Completion Date: August 4, 2009

Surface Elevation (feet AMSL*): 901.01

TOC Elevation (feet AMSL*): 903.67

Total Depth (feet): 50

Borehole Diameter (inches): 6

*AMSL = Above mean sea level

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
				100		Light-brown, hard, very fine-grained silt with greenish-black to gray biotite mica foliations. Saprolitic migmatitie at 20' bgs. Wet. *(continued)*	
30				100		Bluish green-gray with mottled yellow-orange, very stiff, very fine-grained silt with biotite foliations. Wet.	
				100		***Mica Schist*** Bluish-black, weathered mica schist. Wet.	
35				100		Black mica schist with weathered gold mica foliations at 42' bgs. Quartz foliations from 43' to 50' bgs.	
40				100			
45				100			
				100			
50						Bottom of Boring at 50 feet	

Geologist(s): Heather M. Usle

Subcontractor: Boart Longyear

Driller/Operator: Jeremy Triepke

Method: Rotosonic

WSP Environment & Energy
1740 Massachusetts Avenue
Boxborough, MA 01719
978-635-9600

Boring Log: MW-14

Project: NL-Atlanta

Project No.: 127562

Location: 430 Bishop St., Atlanta, GA

Completion Date: June 13, 2009

Surface Elevation (feet AMSL*): 897.32

TOC Elevation (feet AMSL*): 900.64

Total Depth (feet): 25

Borehole Diameter (inches): 2

**AMSL = Above mean sea level*

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
						Ground Surface	
				95		***Poorly-Graded Sand with Gravel (SP)*** Brown, loose, fine-grained sand with roots from 0-0.5 feet bgs. Large gravel and slag (FILL) near 2 feet bgs. Dry.	
						Poorly-Graded Sand with Gravel (SP) Black, coarse-grained sand with small gravel, coal, ash, and brick (FILL). Dry.	
5				80		***Lean Clay (CL)*** Red-brown, stiff clay with trace mica. Moist.	
						SAPROLITE Reddish-brown with mottled orange, medium dense, very fine-grained silty sand with mica. Moist.	
10				85		Light-brown, medium dense, very fine-grained silty sand with mottled yellow, coarse-grained sand and mica. Wet at 10 feet bgs.	
15				80		Bluish-gray with mottled brown, very dense, very fine-grained silty sand with biotite foliations. Wet.	
20						Light-brown with mottled orange, very dense, very fine-grained silty sand with horizontal mica foliations. Yellow-white, coarse-grained sand and weathered rock throughout. Wet.	
25						Bottom of Boring at 25 feet Soil samples collected from 0-2, 5-7, and 9-11 feet bgs for target metals.	

Geologist(s): Heather M. Usle

Subcontractor: Geo Lab

Driller/Operator: Robert Sullivan

Method: Direct Push

WSP Environment & Energy
1740 Massachusetts Avenue
Boxborough, MA 01719
978-635-9600

Boring Log: MW-15

Project: NL-Atlanta

Project No.: 127562

Location: 430 Bishop St., Atlanta, GA

Completion Date: June 15, 2009

Surface Elevation (feet AMSL*): 894.67

TOC Elevation (feet AMSL*): 897.35

Total Depth (feet): 20

Borehole Diameter (inches): 2

**AMSL = Above mean sea level*

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
						Ground Surface	
				60		***Poorly-Graded Sand with Silt and Gravel (SP-SM)*** Brown, fine-grained silty sand with gravel and rock fragments. Dry.	
						Brick fragments and cinders (FILL).	
5						***Poorly-Graded Sand with Gravel (SP)*** Black, coarse-grained sand with cinders and coal (FILL). Dry.	
				65		***Poorly-Graded Sand with Silt and Clay (SP-SM)*** Orange-brown, very fine-grained silty sand with some clay and mica throughout. Moist to wet.	
10						***SAPROLITE*** Greenish-black with mottled brown, very fine-grained silty sand with biotite.	
				60		Light-brown with mottled black and orange-brown, very fine-grained silty sand with muscovite and biotite mica throughout. Wet at 13 feet bgs.	
15							
20						Light-brown, dense, very fine-grained silty sand with greenish-gray, orange, and white mica foliations. Wet.	
						Bottom of Boring at 20 feet Soil samples collected from 0-2 and 5-7 feet bgs for target metals.	
25							

Geologist(s): Heather M. Usle

Subcontractor: Geo Lab

Driller/Operator: Robert Sullivan

Method: Direct Push

WSP Environment & Energy
1740 Massachusetts Avenue
Boxborough, MA 01719
978-635-9600

APPENDIX

D GROUNDWATER MONITORING DATA SHEETS

ENVIRONMENTAL STRATEGIES CORPORATION

Monitoring Well Log

Well ID	**MW-2**	Site:	NS&R/Altanta, Georgia	Sample Date:	1/11/2003
Well Diameter	2 in				
Depth to Water	12 ft	Samplers	JFM		
Total Well Depth	25 ft	Weather Conditions and Notes:	28ºF, clear		
Saturated Thickness	13 ft				
Total Volume	2.1 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
7.00	4.00	

Notes on calibration: Rental unit

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes
	4.78	15.8		0.364	260	5.9	<0.25 gpm
	5.95	17.7		0.248	347	5.8	
	6.12	18.5		0.241	152	5.7	
	6.13	18.8		0.253	47	5.7	
6							

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Metals	HNO3	Plastic	STL		9:15

ENVIRONMENTAL STRATEGIES CORPORATION

Monitoring Well Log

Well ID	**MW-1**	Site:	NS&R/Altanta, Georgia	Sample Date:	1/11/2003
Well Diameter	2 in				
Depth to Water	7.60 ft	Samplers	JFM		
Total Well Depth	20 ft	Weather Conditions and Notes:	32ºF, clear		
Saturated Thickness	12.4 ft				
Total Volume	2.0 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
7.00	4.00	

Notes on calibration: Rental unit

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes
	7.24	18.7		0.412	526	6.3	
	7.13	18.6		0.406	70	6.5	
	7.68	19.2		0.389	9	6.5	
	7.74	19.2		0.391	4	6.5	
6							

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Metals	HNO3	Plastic	STL		10:05

ENVIRONMENTAL STRATEGIES CORPORATION

Monitoring Well Log

Well ID	MW-3	Site:	NS&R/Altanta, Georgia	Sample Date:	2/24/2004
Well Diameter	2 in				
Depth to Water	12.32 ft	Samplers	GMB		
Total Well Depth	17 ft	Weather Conditions and Notes:	50s, light rain, calm		
Saturated Thickness	4.68 ft				
Total Volume	0.7 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
7.00	4.00	

Notes on calibration: Rental unit #832. Horiba U-22 meter

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes
	3.33	18.5	273	0.373	85	5.6	11:05 Clear
	2.49	19.5	258	0.369	5	5.5	11:10
	2.48	19.6	251	0.375	4	5.5	11:15
	2.49	19.6	250	0.376	2	5.5	11:20
2							

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	VOCs (EPA 8260B)	HCl	40 ml	AES		11:20
	PAHs (EPA 8270C)	None	Amber			
	Metals	HNO3	Plastic			

ENVIRONMENTAL STRATEGIES CORPORATION

Monitoring Well Log

Well ID	MW-2	Site:	NS&R/Altanta, Georgia	Sample Date:	2/24/2004
Well Diameter	2 in				
Depth to Water	12.17 ft	Samplers	GMB		
Total Well Depth	25 ft	Weather Conditions and Notes:	50s, light rain, calm		
Saturated Thickness	12.83 ft				
Total Volume	2.1 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
7.00	4.00	

Notes on calibration: Rental unit #832. Horiba U-22 meter

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes
	2.15	17.5	289	0.228	14	4.8	11:52 Clear
	1.75	18.8	325	0.236	4	4.7	12:02 No odor or
	1.29	18.9	336	0.245	3	4.6	12:12 sheen
	1.14	18.9	337	0.246	1	4.6	12:22
4							

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	VOCs (EPA 8260B)	HCl	40 ml	AES		12:22
	PAHs (EPA 8270C)	None	Amber			
	Metals	HNO3	Plastic			

ENVIRONMENTAL STRATEGIES CORPORATION

Monitoring Well Log

Well ID	MW-1	Site:	NS&R/Altanta, Georgia	Sample Date:	2/24/2004
Well Diameter	2 in				
Depth to Water	9.12 ft	Samplers	GMB		
Total Well Depth	20 ft	Weather Conditions and Notes:	50s, overcast, calm		
Saturated Thickness	10.88 ft				
Total Volume	1.7 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
7.00	4.00	

Notes on calibration: Rental unit #832. Horiba U-22 meter

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes
	1.98	19.2	269	0.176	308	5.2	13:43 Clear
	0.55	20.5	101	0.232	55	5.5	13:53
	0.64	20.6	21	0.302	17	5.6	14:03
	0.48	20.6	9	0.306	3	5.7	14:13
3.5							

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	VOCs (EPA 8260B)	HCl	40 ml	AES		14:15
	PAHs (EPA 8270C)	None	Amber			
	Metals	HNO3	Plastic			
	Duplicate of MW-1 is MW-D.					

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	**MW-7**	Site:	NS&R/Atlanta, Georgia	Sample Date:	6/19/2005
Well Diameter	2 in				
Depth to Water	9 ft	Samplers	GMB, JFM		
Total Well Depth	33 ft	Weather Conditions and Notes:	83ºF, cloudy, windy		
Saturated Thickness	24 ft				
Total Volume	3.8 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit 5246
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes
	1.0	21	118	0.571	999	4.1	9:50 Brown
4	0.01	21	128	0.574	284	4.0	9:54 Clear
8	0.01	21	126	0.598	32	4.0	9:58
12	0.01	21	109	0.601	26	4.0	10:02

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Metals	HNO3	Plastic	AES	U	10:05
	Aromatic VOCs (8021B)	HCl	40-ml			
	PAHs (8270C)	None	500-ml			

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	**MW-4**	Site:	NS&R/Atlanta, Georgia	Sample Date:	6/19/2005
Well Diameter	2 in				
Depth to Water	5.65 ft	Samplers	GMB, JFM		
Total Well Depth	18 ft	Weather Conditions and Notes:	83ºF, cloudy, windy		
Saturated Thickness	12.4 ft				
Total Volume	2.0 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit 5246
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes
	3.0	21	-25	0.184	22	5.9	10:27 Clear
	2.5	20	-40	0.151	22	6.0	10:42
	2.4	20	-42	0.152	16	6.0	10:53
~2.5							

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Metals	HNO3	Plastic	AES		10:55

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	**MW-5**	Site:	NS&R/Atlanta, Georgia	Sample Date:	6/19/2005
Well Diameter	2 in				
Depth to Water	11.90 ft	Samplers	GMB, JFM		
Total Well Depth	22 ft	Weather Conditions and Notes:	85ºF, sunny, breeze		
Saturated Thickness	10.1 ft				
Total Volume	1.6 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
7.00	4.00	

Notes on calibration: Pine rental Horiba U-22 unit 5246

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes
	5.1	21	-81	0.157	999	6.0	12:46 Brown, mica
	2.4	21	-44	0.144	999	5.7	12:53
	2.1	20	-38	0.138	999	5.7	13:03
	2.1	20	-32	0.136	267	5.7	13:51 Clear
~4							

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	VOCs (EPA 8021B)	HCl	40 ml	AES		13:51
	PAHs (EPA 8270C)	None	500 ml			
	Metals	HNO3	Plastic		U	

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	**MW-1**	Site:	NS&R/Atlanta, Georgia	Sample Date:	6/19/2005
Well Diameter	2 in				
Depth to Water	9.80 ft	Samplers	GMB, JFM		
Total Well Depth	19.2 ft	Weather Conditions and Notes:	85ºF, sunny, breeze		
Saturated Thickness	9.4 ft				
Total Volume	1.5 gal				

Instrument Calibration Information

D.O. Meter Calibration			ORP Meter Calibration		S.C. Meter Calibration		
DO slope =			ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L		T of stand.				
Air temp =	ºC		Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit 5246
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	2.6	21	-105	0.218	147	5.3	15:13	Clear
	0.01	21	-67	0.276	112	5.2	15:18	
	0.01	21	-82	0.328	60	5.4	15:26	
	0.01	21	-101	0.320	42	5.5	15:33	
	0.01	21	-119	0.321	25	5.5	15:38	Clear
~3.5								

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	VOCs (EPA 8021B)	HCl	40 ml	AES		15:40
	PAHs (EPA 8270C)	None	500 ml			
	Metals	HNO3	Plastic		U	

Monitoring Well Log

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Well ID	**MW-3**	Site:	NS&R/Atlanta, Georgia	Sample Date:	6/19/2005
Well Diameter	2 in				
Depth to Water	12.15 ft	Samplers	GMB, JFM		
Total Well Depth	17 ft	Weather Conditions and Notes:	85ºF, sunny, breeze		
Saturated Thickness	4.9 ft				
Total Volume	0.8 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit 5246
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	5.0	19	-29	0.457	71	5.4	16:28	Light brown
	2.4	19	1	0.423	32	5.2	16:33	Clear
	2.4	19	0	0.425	29	5.3	16:39	
~2								

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Metals	HNO3	Plastic	AES		16:40

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	**MW-2**	Site:	NS&R/Atlanta, Georgia	Sample Date:	6/19/2005
Well Diameter	2 in				
Depth to Water	12.62 ft	Samplers	GMB, JFM		
Total Well Depth	25 ft	Weather Conditions and Notes:	85ºF, sunny, breeze		
Saturated Thickness	12.4 ft				
Total Volume	2.0 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit 5246
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	3.0	20	-36	0.239	198	5.5	17:29	Light gray
	0.01	20	2	0.241	205	4.5	17:36	
	0.01	20	9	0.260	135	4.4	17:43	
	0.01	20	13	0.268	56	4.4	17:53	Clear
~3								

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Metals	HNO3	Plastic	AES		17:55

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	MW-8	Site:	NS&R/Atlanta, Georgia	Sample Date:	6/19/2005
Well Diameter	2 in				
Depth to Water	10.42 ft	Samplers	GMB, JFM		
Total Well Depth	18 ft	Weather Conditions and Notes:	85ºF, sunny, breeze		
Saturated Thickness	7.6 ft				
Total Volume	1.2 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit 5246
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	2.8	18	54	4.21	90	4.1	18:04	Clear
	0.75	18	153	3.41	39	4.0	18:09	
	0.75	18	184	3.55	31	4.0	18:14	
	0.57	18	198	3.63	31	4.0	18:19	Clear
~2.5								

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Metals	HNO3	Plastic	AES		18:20

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	**MW-6**	Site:	NS&R/Atlanta, Georgia	Sample Date:	6/19/2005
Well Diameter	2 in				
Depth to Water	9.30 ft	Samplers	GMB, JFM		
Total Well Depth	17 ft	Weather Conditions and Notes:	85ºF, sunny, breeze		
Saturated Thickness	7.7 ft				
Total Volume	1.2 gal				

Instrument Calibration Information

D.O. Meter Calibration			ORP Meter Calibration		S.C. Meter Calibration		
DO slope =			ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L		T of stand.				
Air temp =	ºC		Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit 5246
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	3.0	20	-4	0.280	35	4.5	18:33	Clear
	0.01	20	-68	0.231	97	4.6	18:40	
	0.01	20	-94	0.205	140	4.6	18:49	
	0.01	20	-108	0.209	57	4.6	18:58	Sheen
~3								

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Metals	HNO3	Plastic	AES	U	18:58
	Aromatic VOCs (8021B)	HCl	40 ml			
	PAHs	None	500 ml			
	Duplicate of MW-6 is MW-1.					

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	**MW-7**	Site:	NS&R/Atlanta, Georgia	Sample Date:	5/24/2006
Well Diameter	2 in				
Depth to Water	10 ft	Samplers	GMB		
Total Well Depth	33 ft	Weather Conditions and Notes:	80s, cloudless, breeze		
Saturated Thickness	23 ft				
Total Volume	3.7 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit #5913.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	0.82	21	427	0.622	999	3.9	9:40	Brown, mica
18	0.00	21	432	0.838	503	3.8	10:00	Clear
33	0.00	21	431	0.888	395	3.8	10:15	
48	0.00	21	432	0.920	51	3.8	10:30	
54	0.00	21	432	0.928	26	3.8	10:36	
63	0.00	21	432	0.932	8	3.8	10:45	

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Metals	HNO3	Plastic	AES	U	10:45
	VOCs (8260B)	HCl	40-ml			
	PAHs (8270C)	None	500-ml			

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	**MW-4**	Site:	NS&R/Atlanta, Georgia	Sample Date:	5/23/2006
Well Diameter	2 in				
Depth to Water	5.88 ft	Samplers	GMB		
Total Well Depth	18 ft	Weather Conditions and Notes:	80s, partly cloudy, breeze		
Saturated Thickness	12.1 ft				
Total Volume	1.9 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit #5913.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	13.2	20	275	0.114	999	4.4	15:19	Brown, silty
12	8.0	20	295	0.122	999	4.4	15:31	
36	8.1	20	311	0.126	415	4.5	15:57	
51	9.7	20	321	0.125	583	4.4	16:14	
66	6.5	20	309	0.126	126	4.6	16:29	Pale orange
78	5.1	20	290	0.126	42	5.0	16:41	
84	4.3	20	287	0.126	10	5.2	16:47	
87	4.2	20	286	0.126	7	5.2	16:50	
90	4.1	20	286	0.126	6	5.2	16:53	

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Metals	HNO3	Plastic	AES		16:53

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	**MW-5**	Site:	NS&R/Atlanta, Georgia	Sample Date:	5/23/2006
Well Diameter	2 in				
Depth to Water	11.9 ft	Samplers	GMB		
Total Well Depth	22 ft	Weather Conditions and Notes:	80s, partly cloudy, breeze		
Saturated Thickness	10.1 ft				
Total Volume	1.6 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit #5913.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	4.2	20	219	0.148	999	5.4	18:20	Brown, mica
15	5.7	20	234	0.135	267	5.2	18:35	Clear
30	8.8	20	279	0.138	960	4.8	18:52	Surged pump
42	6.5	20	260	0.134	460	5.0	19:04	
57	4.8	20	238	0.135	230	5.5	19:19	
66	4.6	20	240	0.139	179	5.7	19:28	
72	4.6	20	251	0.138	55	5.7	19:34	
81	4.6	20	253	0.138	24	5.6	19:43	
87	4.6	20	255	0.138	8	5.6	19:49	
90	4.6	20	254	0.138	7	5.6	19:52	Clear

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	VOCs (EPA 8260B)	HCl	40 ml	AES		19:52
	PAHs (EPA 8270C)	None	500 ml			
	Metals	HNO3	Plastic		U	

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	**MW-1**	Site:	NS&R/Atlanta, Georgia	Sample Date:	5/24/2006
Well Diameter	2 in				
Depth to Water	10.4 ft	Samplers	GMB		
Total Well Depth	19.2 ft	Weather Conditions and Notes:	60s, cloudless, calm		
Saturated Thickness	8.8 ft				
Total Volume	1.4 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit #5913.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	2.6	21	211	0.187	642	4.4	8:30	Red-brown
3	0.00	21	67	0.307	999	5.1	8:33	
12	1.0	21	12	0.482	448	5.6	8:42	
18	1.6	21	33	0.336	795	5.5	8:48	
24	1.1	21	-11	0.392	99	5.6	8:54	
31	0.78	21	-44	0.392	80	5.6	9:03	
32	0.00	21	-39	0.391	22	5.6	9:15	
32	0.00	21	-38	0.391	14	5.6	9:20	Clear, faint
33	0.00	21	-38	0.391	10	5.6	9:25	petroleum
								odor

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	VOCs (EPA 8260B)	HCl	40 ml	AES		9:25
	PAHs (EPA 8270C)	None	500 ml			
	Metals	HNO3	Plastic		U	

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	**MW-3**	Site:	NS&R/Atlanta, Georgia	Sample Date:	5/23/2006
Well Diameter	2 in				
Depth to Water	12.5 ft	Samplers	GMB		
Total Well Depth	17 ft	Weather Conditions and Notes:	80s, partly cloudy, breeze		
Saturated Thickness	4.5 ft				
Total Volume	0.7 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit #5913
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	2.8	19	303	0.368	999	4.9	17:20	Light brown
6	2.3	19	298	0.377	416	4.9	17:26	Clear
12	4.6	19	264	0.383	354	5.1	17:32	
18	4.4	19	264	0.383	198	5.3	17:38	
27	4.0	19	265	0.384	82	5.4	17:46	
30	3.9	19	265	0.383	50	5.4	17:49	
36	3.0	19	265	0.383	14	5.5	17:55	
42	2.7	19	264	0.382	8	5.5	18:01	
45	2.8	19	264	0.383	7	5.5	18:04	

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Metals	HNO3	Plastic	AES		18:05

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	**MW-2**	Site:	NS&R/Atlanta, Georgia	Sample Date:	5/24/2006
Well Diameter	2 in				
Depth to Water	13.40 ft	Samplers	GMB		
Total Well Depth	25 ft	Weather Conditions and Notes:	80s, cloudless, breeze		
Saturated Thickness	11.6 ft				
Total Volume	1.9 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit #5913.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	0.27	21	334	0.236	114	4.8	11:00	Clear
9	0.00	21	365	0.240	61	4.3	11:09	
15	0.00	21	383	0.256	27	4.2	11:15	
21	0.00	21	383	0.256	14	4.2	11:21	Clear
27	0.00	21	383	0.260	18	4.2	11:27	
33	0.00	21	375	0.265	9	4.3	11:33	
36	0.00	21	372	0.266	4	4.3	11:36	

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	VOCs (EPA 8260B)	HCl	40 ml	AES		11:36
	PAHs (EPA 8270C)	None	500 ml			
	Metals	HNO3	Plastic		U	

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	**MW-8**	Site:	NS&R/Atlanta, Georgia	Sample Date:	5/24/2006
Well Diameter	2 in				
Depth to Water	10.80 ft	Samplers	GMB		
Total Well Depth	18 ft	Weather Conditions and Notes:	90ºF, cloudless, breeze		
Saturated Thickness	7.2 ft				
Total Volume	1.2 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit 5913.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	13.4	17	180	2.90	999	3.5	15:00	Brown
6	8.7	17.5	150	3.09	318	3.5	15:06	Clear
15	3.0	18	142	3.01	401	3.5	15:15	
21	4.5	18	172	3.12	561	3.5	15:21	Clear
24	3.5	18	168	3.21	381	3.5	15:24	
25	2.7	18	167	3.20	246	3.5	15:27	
25	2.4	18	148	3.20	28	3.5	15:33	
26	2.2	18	151	3.21	19	3.5	15:36	
26	0.82	18.5	166	3.19	12	3.4	15:42	
27	0.85	18	164	3.19	8	3.4	15:45	Acidic odor

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	VOCs (EPA 8260B)	HCl	40 ml	AES		15:45
	PAHs (EPA 8270C)	None	500 ml			
	Metals	HNO3	Plastic		U	

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	**MW-6**	Site:	NS&R/Atlanta, Georgia	Sample Date:	5/25/2006
Well Diameter	2 in				
Depth to Water	10.6 ft	Samplers	GMB		
Total Well Depth	17 ft	Weather Conditions and Notes:	80s, clouding up, breeze from SW		
Saturated Thickness	6.4 ft				
Total Volume	1.0 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit 5913.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	2.7	20.5	62	0.241	999	4.5	13:03	Brown, odor
9	0.00	20	18	0.288	999	5.2	13:23	
12	0.00	20	16	0.265	857	5.2	13:26	
18	0.00	20	14	0.267	252	5.1	13:29	Surged pump
21	0.00	20	37	0.280	999	5.1	13:38	
27	0.00	20	33	0.272	713	5.0	13:46	
36	0.00	20	33	0.285	226	5.0	13:58	
48	0.00	20	31	0.285	34	5.1	14:18	
49	0.00	20	29	0.293	19	5.2	14:30	
50	0.00	20	29	0.295	13	5.2	14:34	
50	0.00	20	28	0.296	9	5.2	14:42	Clear, odor

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Metals	HNO3	Plastic	AES	U	14:42
	Aromatic VOCs (8021B)	HCl	40 ml			
	PAHs	None	500 ml			
	Duplicate of MW-6 is MW-100.					

Monitoring Well Log

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Well ID	**MW-10**	Site:	NS&R/Atlanta, Georgia	Sample Date:	5/24/2006
Well Diameter	2 in				
Depth to Water	9.9 ft	Samplers	GMB		
Total Well Depth	19 ft	Weather Conditions and Notes:	90s, cloudless, breeze		
Saturated Thickness	9.2 ft				
Total Volume	1.5 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit 5913.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	14?	19	271	0.338	999	5.1	12:35	Brown
9	9.2	19	250	0.311	999	5.0	12:44	
12	5.9	19	255	0.310	662	5.0	12:47	
21	5.8	19	256	0.303	309	5.1	12:56	Clear
30	5.8	19	255	0.303	124	5.1	13:05	Surged pump
33	12.2	19	250	0.324	999	5.1	13:09	
54	7.9	19	256	0.293	853	5.0	13:30	
63	6.0	19	259	0.296	141	5.0	13:39	
69	6.1	19	260	0.300	82	5.0	13:45	Surged pump
84	2.4	19	232	0.308	813	5.0	14:02	
96	6.2	19	254	0.296	169	5.0	14:14	
102	6.1	19	259	0.299	28	5.0	14:20	
108	5.8	19	259	0.298	14	5.0	14:26	
111	5.6	19	259	0.298	12	5.1	14:29	Clear

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Metals	HNO3	Plastic	AES	U	14:30
	Aromatic VOCs (8021B)	HCl	40 ml			
	PAHs	None	500 ml			

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	**MW-9**	Site:	NS&R/Atlanta, Georgia	Sample Date:	5/25/2006
Well Diameter	2 in				
Depth to Water	8.6 ft	Samplers	GMB		
Total Well Depth	19 ft	Weather Conditions and Notes:	70s, partly cloudy/hazy, breeze from NW		
Saturated Thickness	10.4 ft				
Total Volume	1.7 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit 5913.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	2.6	20	215	0.739	999	3.6	8:30	Orange-brown
9	0.00	20	208	0.596	752	3.7	8:39	
12	0.00	20	209	0.607	574	3.7	8:42	Surged pump
18	0.00	20	204	0.605	824	3.8	8:52	
24	0.00	20	200	0.592	558	3.8	8:58	Surged pump
33	0.00	20	188	0.478	498	4.1	9:08	
42	0.00	20	192	0.518	146	4.0	9:17	Surged pump
48	0.00	20	191	0.523	690	4.0	9:23	
55	0.00	20	195	0.534	142	4.0	9:32	Surged pump
63	0.00	20	215	0.503	627	3.8	9:42	
72	0.00	20	205	0.551	595	3.8	9:51	
82	0.00	20	203	0.529	55	3.8	10:03	
94	0.00	20	192	0.534	35	4.0	10:19	
103	0.00	20	193	0.525	12	4.0	10:31	
106	0.00	20	192	0.527	9	4.0	10:35	Clear

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Metals	HNO3	Plastic	AES	U	10:35
	Aromatic VOCs (8021B)	HCl	40 ml			
	PAHs	None	500 ml			

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Monitoring Well Log

Well ID	**MW-7D**	Site:	NS&R/Atlanta, Georgia	Sample Date:	5/26/2006
Well Diameter	2 in				
Depth to Water	10.0 ft	Samplers	GMB		
Total Well Depth	65 ft	Weather Conditions and Notes:	70s, hazy, wind from NW		
Saturated Thickness	55 ft				
Total Volume	8.8 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Pine rental Horiba U-22 unit 5913.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	0.00	22	197	3.43	999	4.2	9:00	Brown
6	0.00	23	254	3.12	229	4.1	9:06	Surged pump
9	0.00	23	275	3.24	591	4.0	9:09	
15	0.00	22	299	3.41	86	3.9	9:15	
33	0.00	21	321	3.47	39	3.8	9:33	Surged pump
45	0.00	21	323	3.47	999	3.8	9:45	
48	0.00	21	326	3.48	567	3.8	9:48	
53	0.00	21	329	3.49	81	3.8	9:53	Surged pump
61	0.00	21	332	3.49	468	3.8	10:01	
76	0.00	22	332	3.42	118	3.8	10:19	
91	0.00	22	331	3.43	150	3.8	10:34	
106	0.00	22	333	3.43	44	3.7	10:49	
124	0.00	22	333	3.43	15	3.7	11:24	
136	0.00	22	336	3.44	10	3.7	11:36	
142	0.00	22	336	3.44	6	3.7	11:42	

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Metals	HNO3	Plastic	AES	U	11:42

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	**MW-11**	Site:	NS&R/Atlanta, Georgia	Sample Date:	6/23/2006
Well Diameter	2 in				
Depth to Water	13 ft	Samplers	GMB		
Total Well Depth	23 ft	Weather Conditions and Notes:	80s, cloudy, breeze		
Saturated Thickness	10 ft				
Total Volume	1.6 gal				

Instrument Calibration Information

D.O. Meter Calibration			ORP Meter Calibration		S.C. Meter Calibration		
DO slope =			ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L		T of stand.				
Air temp =	ºC		Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #7493.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	10.7	20	99	0.128	999	6.2	9:00	Brown, mica
2.5	9.4	20	130	0.123	501	6.0	9:05	Clear
5	9.6	20	132	0.123	999	5.9	9:10	
7.5	9.6	19	140	0.117	423	5.8	9:15	
10	9.2	19	151	0.115	380	5.7	9:20	
12.5	8.9	19	162	0.115	670	5.7	9:25	Surged pump
15	8.4	19	166	0.115	408	5.8	9:30	DTW: 15.5
17.5	8.2	19	169	0.113	165	5.8	9:35	Yellowish
22.5	7.8	19	171	0.113	66	5.9	9:45	
25	7.4	19	171	0.117	47	5.9	9:50	
27.5	7.4	19	170	0.118	58	5.9	9:55	
30	7.4	19	171	0.120	32	5.9	10:00	
32.5	7.4	19	171	0.121	26	5.9	10:05	
35	7.3	19	171	0.122	19	6.0	10:10	Clear
37.5	7.3	19	172	0.122	8	6.0	10:15	
40	7.3	19	173	0.123	6	6.0	10:20	

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Zinc	HNO3	Plastic	AES	U	10:20

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Monitoring Well Log

Well ID	MW-12	Site:	NS&R/Atlanta, Georgia	Sample Date:	6/23/2006
Well Diameter	2 in				
Depth to Water	13.6 ft	Samplers	GMB		
Total Well Depth	19.4 ft	Weather Conditions and Notes:	90s, humid, hazy, breeze		
Saturated Thickness	5.8 ft				
Total Volume	0.9 gal				

Instrument Calibration Information

D.O. Meter Calibration			ORP Meter Calibration		S.C. Meter Calibration		
DO slope =			ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L		T of stand.				
Air temp =	ºC		Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #7493.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	7.8	22	188	0.381	999	6.5	11:00	Brown, silty
5	7.5	21	186	0.362	999	6.4	11:10	
10	7.3	20	184	0.259	676	6.2	11:20	Surged pump
15	7.3	20	199	0.234	853	6.2	11:30	
20	7.9	20	200	0.235	999	6.2	11:40	Surged pump
25	8.2	19.5	196	0.221	243	6.2	11:50	
30	7.7	19.6	195	0.221	203	6.3	12:00	DTW: 14
32.5	7.5	19.6	193	0.224	62	6.3	12:05	
35	7.3	19.6	192	0.227	38	6.3	12:10	
40	8.1	19.5	191	0.228	10	6.3	12:20	
42.5	7.8	19.6	190	0.228	7	6.3	12:30	
45	7.9	19.6	191	0.227	8	6.3	12:35	Clear

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Cd, Cu, Pb, Zn	HNO3	Plastic	AES	U	12:35

ENVIRONMENTAL STRATEGIES CONSULTING LLC

Monitoring Well Log

Well ID	**MW-7D**	Site:	NS&R/Atlanta, Georgia	Sample Date:	6/22/2006
Well Diameter	2 in				
Depth to Water	10.0 ft	Samplers	GMB		
Total Well Depth	65 ft	Weather Conditions and Notes:	90s, humid, clouding up, breeze		
Saturated Thickness	55 ft				
Total Volume	8.8 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.		Expected S.C.	Measured S.C.	Notes
DO in air =	mg/L	T of stand.				
Air temp =	ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #7493.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	0.94	22	130	3.43	107	3.7	16:45	Brown
	0.85	21.5	265	3.49	54	3.6	16:55	Clear
	0.96	21	283	3.48	47	3.6	17:05	
	1.30	21	295	3.45	28	3.6	17:15	
	1.14	21	274	3.40	14	3.7	17:25	
	1.05	21	279	3.38	8	3.7	17:35	
	1.04	21	271	3.37	7	3.7	17:45	Clear
~8								

Colorimetric Analysis

Analyte	Total or Dissolved	Sample Vol. (mL)	D.I. Vol. (mL)	Dilution Factor	Conc. in Dilute Sample (mg/L)	Conc. in Sample (mg/L)	Notes
Fe^{2+}						nm	
Fe total						nm	
Sulfide						nm	

Alkalinity Analysis

Sample Volume (mL)	Acid	Acid Conc. (N)	Digits Used	Alkalinity (mg/L as $CaCO_3$)	Notes
	H_2SO_4			nm	

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
	Metals	HNO3	Plastic	AES	U	17:45

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-1**	**Site:**	NS&R/Atlanta, Georgia	**Sample Date:**	5/27/2009
Well Diameter	2 in				
Depth to Water	13.9 ft	**Samplers**	GMB		
Total Well Depth	19.0 ft	**Weather Conditions and Notes:**	70°, overcast, breeze from the NW Sample has a faint gasoline odor.		
Saturated Thickness	5.1 ft				
Total Volume	0.8 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	242	Expected S.C.	Measured S.C.	Notes
DO in stand. =	8.39 mg/L	T of stand.	23 ºC	4.27-4.71	4.49	
Stand. temp =	23 ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #5573.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	0.00	22.0	11	0.178	53	6.4	14:19	Clear
	0.00	21.6	0	0.177	34	5.3	14:24	
	0.00	21.5	-18	0.180	10	5.4	14:29	
~1.5	0.00	21.5	-25	0.183	2	5.4	14:34	Clear

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
1	Metals	HNO3	250 mL	AES	U	14:34
2	Aromatic VOCs + Naphthalene + MTBE	HCl	40 mL	AES	U	

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-2**	**Site:**	NS&R/Atlanta, Georgia	**Sample Date:**	5/27/2009
Well Diameter	2 in				
Depth to Water	15.2 ft	**Samplers**	GMB		
Total Well Depth	25.0 ft	**Weather Conditions and Notes:**	70°, overcast, breeze from the NW		
Saturated Thickness	9.8 ft				
Total Volume	1.6 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	242	Expected S.C.	Measured S.C.	Notes
DO in stand. =	8.39 mg/L	T of stand.	23 ºC	4.27-4.71	4.49	
Stand. temp =	23 ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #5573.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	0.80	20.5	241	0.313	63	5.1	10:32	Clear
	0.00	20.4	248	0.316	22	5.1	10:37	
	0.00	20.3	253	0.348	12	5.1	10:42	
	0.00	20.4	253	0.410	5.0	5.1	10:47	
	0.00	20.4	254	0.464	1.2	5.1	10:52	
	0.00	20.5	260	0.468	1.0	5.0	10:57	
~3.5	0.00	20.5	262	0.470	1.0	5.0	11:02	Clear

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
1	Metals	HNO3	250 mL	AES	U	11:02
2	Aromatic VOCs + Naphthalene + MTBE	HCl	40 mL	AES	U	

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Well ID	**MW-3**	**Site:**	NS&R/Atlanta, Georgia	**Sample Date:**	5/27/2009
Well Diameter	2 in				
Depth to Water	13.9 ft	**Samplers**	GMB		
Total Well Depth	17.0 ft	**Weather Conditions and Notes:**	70°, overcast, breeze from the NW		
Saturated Thickness	3.1 ft				
Total Volume	0.5 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	242	Expected S.C.	Measured S.C.	Notes
DO in stand. =	8.39 mg/L	T of stand.	23 ºC	4.27-4.71	4.49	
Stand. temp =	23 ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #5573.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	6.5	19.6	202	0.233	32	5.7	9:50	Clear
	5.4	19.6	205	0.234	28	5.7	9:55	
	5.3	19.5	206	0.237	12	5.6	10:00	
~1.5	5.2	19.6	205	0.238	2	5.6	10:05	Clear

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
1	Metals	HNO3	250 mL	AES	U	10:05

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-4**	**Site:**	NS&R/Atlanta, Georgia	**Sample Date:**	5/27/2009
Well Diameter	2 in				
Depth to Water	7.6 ft	**Samplers**	GMB		
Total Well Depth	20.0 ft	**Weather Conditions and Notes:**	70°, overcast, breeze from the NW		
Saturated Thickness	12.5 ft				
Total Volume	2.0 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	242	Expected S.C.	Measured S.C.	Notes
DO in stand. =	8.39 mg/L	T of stand.	23 ºC	4.27-4.71	4.49	
Stand. temp =	23 ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #5573.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	3.2	20.6	184	0.128	74	5.5	9:10	Clear
	2.0	20.4	199	0.128	19	5.4	9:15	
	2.2	20.4	204	0.129	27	5.4	9:20	
	2.2	20.4	210	0.129	8	5.4	9:25	
~2.5	2.2	20.4	212	0.129	1	5.4	9:30	Clear

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
1	Metals	HNO3	250 mL	AES	U	9:30

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-5**	**Site:**	NS&R/Atlanta, Georgia	**Sample Date:**	5/27/2009
Well Diameter	2 in				
Depth to Water	12.7 ft	**Samplers**	GMB		
Total Well Depth	22.0 ft	**Weather Conditions and Notes:**	70°, overcast, breeze from the NW		
Saturated Thickness	9.3 ft				
Total Volume	1.5 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	242	Expected S.C.	Measured S.C.	Notes
DO in stand. =	8.39 mg/L	T of stand.	23 ºC	4.27-4.71	4.49	
Stand. temp =	23 ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #5573.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	3.1	20.8	158	0.136	24	6.0	8:40	Clear
	2.8	20.7	161	0.131	10	5.9	8:45	
	2.5	20.6	168	0.127	5	5.8	8:50	
~1.75	2.6	20.7	170	0.125	1	5.8	8:55	Clear

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
1	Metals	HNO3	250 mL	AES	U	8:55

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-6**	**Site:**	NS&R/Atlanta, Georgia	**Sample Date:**	5/27/2009
Well Diameter	2 in				
Depth to Water	14.5 ft	**Samplers**	GMB		
Total Well Depth	17.0 ft	**Weather Conditions and Notes:**	80°, partly cloudy, breeze from the NW, humid		
Saturated Thickness	2.5 ft				
Total Volume	0.4 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	242	Expected S.C.	Measured S.C.	Notes
DO in stand. =	8.39 mg/L	T of stand.	23 ºC	4.27-4.71	4.49	
Stand. temp =	23 ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #5573.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	0.3	20.6	215	0.776	246	3.7	17:28	Yellowish
~0.5	0.0	20.3	228	0.750	129	3.7	17:32	Yellowish
Started pumping weathered gasoline. Well Purged dry after 0.5 gallons. ~1" of product. Sample collected on 5/28/09.								

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
1	Metals	HNO3	250 mL	AES	U	9:45
2	Aromatic VOCs + Naphthalene + MTBE	HCl	40 mL	AES	U	

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-7**	**Site:**	NS&R/Atlanta, Georgia	**Sample Date:**	5/27/2009
Well Diameter	2 in				
Depth to Water	13.3 ft	**Samplers**	GMB		
Total Well Depth	33.0 ft	**Weather Conditions and Notes:**	80°, raining, breeze from the NW, humid		
Saturated Thickness	19.7 ft				
Total Volume	3.2 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	242	Expected S.C.	Measured S.C.	Notes
DO in stand. =	8.39 mg/L	T of stand.	23 ºC	4.27-4.71	4.49	
Stand. temp =	23 ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #5573.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	7.8	22.1	321	0.386	55	4.0	15:00	Clear
	7.3	21.7	321	0.352	26	4.3	15:05	
	7.2	21.6	319	0.350	12	4.3	15:10	
~2	7.1	21.6	320	0.352	6	4.3	15:15	Clear

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
1	Metals	HNO3	250 mL	AES	U	15:15
2	Aromatic VOCs + Naphthalene + MTBE	HCl	40 mL	AES	U	

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-7D**	**Site:**	NS&R/Atlanta, Georgia	**Sample Date:**	5/27/2009
Well Diameter	2 in				
Depth to Water	13.3 ft	**Samplers**	GMB		
Total Well Depth	65.0 ft	**Weather Conditions and Notes:**	80°, partly cloudy, breeze from the NW, humid		
Saturated Thickness	51.7 ft				
Total Volume	8.3 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	242	Expected S.C.	Measured S.C.	Notes
DO in stand. =	8.39 mg/L	T of stand.	23 ºC	4.27-4.71	4.49	
Stand. temp =	23 ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #5573.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	7.4	22.2	147	2.96	195	4.5	15:30	Clear
	7.0	21.4	174	2.69	237	4.3	15:35	
	6.7	21.3	218	2.14	155	4.0	15:40	
	6.7	21.4	279	2.07	141	3.9	15:45	
	6.7	21.3	307	2.00	82	3.9	15:50	
	6.7	21.2	340	2.01	63	3.9	15:55	
	6.6	21.3	342	2.09	45	3.9	16:00	
	6.6	21.3	352	2.11	29	3.9	16:05	
	6.6	21.3	360	2.17	12	3.9	16:10	
~5	6.6	21.3	363	2.19	5	3.9	16:15	Clear

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
1	Metals	HNO3	250 mL	AES	U	16:15

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-7E**	**Site:**	NS&R/Atlanta, Georgia	**Sample Date:**	5/27/2009
Well Diameter	2 in				
Depth to Water	18.4 ft	**Samplers**	GMB		
Total Well Depth	90.0 ft	**Weather Conditions and Notes:**	80°, partly cloudy, breeze from the NW, humid		
Saturated Thickness	71.6 ft				
Total Volume	11.5 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	242	Expected S.C.	Measured S.C.	Notes
DO in stand. =	8.39 mg/L	T of stand.	23 ºC	4.27-4.71	4.49	
Stand. temp =	23 ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #5573.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	1.3	22.0	-115	1.28	367	11.6	13:10	Cloudy
	0.00	21.9	-116	0.636	139	9.9	13:15	
	0.00	21.8	-135	0.564	464	9.8	13:20	
	0.00	21.4	-114	0.543	196	9.5	13:25	
	0.00	21.4	-131	0.474	147	9.6	13:30	
	0.00	21.4	-127	0.435	89	9.5	13:35	
	0.00	21.4	-116	0.479	72	9.6	13:40	
	0.00	21.4	-107	0.441	53	9.5	13:45	
	0.00	21.4	-92	0.310	19	9.4	13:50	
	0.00	21.4	-82	0.297	10	9.3	13:55	
~5	0.00	21.4	-80	0.296	3	9.3	14:00	Clear

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
1	Metals	HNO3	250 mL	AES	U	14:00

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-8**	**Site:**	NS&R/Atlanta, Georgia	**Sample Date:**	5/27/2009
Well Diameter	2 in				
Depth to Water	11.5 ft	**Samplers**	GMB		
Total Well Depth	18.0 ft	**Weather Conditions and Notes:**	80°, overcast, breeze from the NW		
Saturated Thickness	6.5 ft				
Total Volume	1.0 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	242	Expected S.C.	Measured S.C.	Notes
DO in stand. =	8.39 mg/L	T of stand.	23 ºC	4.27-4.71	4.49	
Stand. temp =	23 ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #5573.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	2.4	18.5	339	10.7	137	3.2	11:21	Yellowish
	0.10	18.2	391	3.58	60	3.0	11:26	Clear
	0.70	18.2	388	3.63	28	2.9	11:31	
	0.76	18.1	377	3.59	20	2.9	11:36	sheen
	0.77	18.2	366	3.57	12	3.0	11:41	
~2.5	0.75	18.2	361	3.56	5	3.0	11:46	Clear

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
1	Metals	HNO3	250 mL	AES	U	11:47
2	Aromatic VOCs + Naphthalene + MTBE	HCl	40 mL	AES	U	
	Duplicate of MW-8 for metals is MW-100					

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-9**	**Site:**	NS&R/Atlanta, Georgia	**Sample Date:**	5/27/2009
Well Diameter	2 in				
Depth to Water	12.4 ft	**Samplers**	GMB		
Total Well Depth	19.0 ft	**Weather Conditions and Notes:**	80°, clouding up, breeze from the NW, humid		
Saturated Thickness	6.6 ft				
Total Volume	1.1 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	242	Expected S.C.	Measured S.C.	Notes
DO in stand. =	8.39 mg/L	T of stand.	23 ºC	4.27-4.71	4.49	
Stand. temp =	23 ºC	Standard used: Zobell's				

pH Meter Calibration			Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #5573.
pH of Stand. 1	pH of Stand. 2	Slope	
7.00	4.00		

Well Purging Information

Purge Volume (gal)	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	1.2	21.2	183	0.559	36	4.4	16:35	Clear
	0.00	21.1	153	0.490	25	4.3	16:40	
	0.00	21.1	146	0.472	21	4.3	16:45	
	0.00	21.0	134	0.424	12	4.3	16:50	
~2	0.00	21.1	129	0.414	3	4.3	16:55	Clear

Laboratory Analysis Information

Bottle No.	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
1	Metals	HNO3	250 mL	AES	U	16:55

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-13**	**Site:**	NS&R/Atlanta, Georgia	**Sample Date:**	7/8/2009
Well Diameter	1 in				
Depth to Water	19.4 ft	**Samplers**	HMU		
Total Well Depth	28.2 ft	**Weather Conditions and Notes:**	80°, partly cloudy and humid		
Saturated Thickness	8.8 ft				
Total Volume	0.4 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	242	Expected S.C.	Measured S.C.	Notes
DO in stand. =	8.39 mg/L	T of stand.	23 ºC	4.27-4.71	4.49	
Stand. temp =	23 ºC	Standard used: Zobell's				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
7.00	4.00	

Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #10925.

Well Purging Information

Purge Volume (gal)	DTW	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	19.68	1.56	8.27	182	0.414	2.91	5.43	10:55	Clear
	19.78	1.42	8.24	183	0.417	0.43	5.44	11:00	
	19.84	0.48	8.08	185	0.418	0.68	5.44	11:05	
	19.85	0.65	8.00	186	0.419	0.62	5.44	11:10	
	19.87	0.64	7.83	187	0.419	0.33	5.44	11:15	
~2	19.89	0.66	7.67	188	0.421	0.10	5.44	11:20	Clear

Laboratory Analysis Information

Bottle No.	Sampling Method	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
1	PP	Metals	HNO3	250 mL	AES	U	11:20
2	GM	VOCs	HCL	40 mL	AES	U	

PP = Peristaltic pump; GM = Gravity method

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-14**	**Site:**	NS&R/Atlanta, Georgia	**Sample Date:**	7/7/2009
Well Diameter	1 in				
Depth to Water	15.0 ft	**Samplers**	HMU		
Total Well Depth	27.9 ft	**Weather Conditions and Notes:**	80°, cloudy and raining		
Saturated Thickness	12.9 ft				
Total Volume	0.5 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	242	Expected S.C.	Measured S.C.	Notes
DO in stand. =	8.39 mg/L	T of stand.	23 ºC	4.27-4.71	4.49	
Stand. temp =	23 ºC	Standard used: Zobell's				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
7.00	4.00	

Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #10925.

Well Purging Information

Purge Volume (gal)	DTW	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	15.56	3.55	23.16	224	0.526	84.3	5.03	14:25	Light-brown
	15.64	0.58	20.56	205	0.394	28.1	5.48	14:30	Clear
	15.67	0.39	20.06	204	0.386	13.0	5.49	14:35	
	15.68	0.22	19.78	203	0.383	5.86	5.49	14:40	
	15.69	0.00	19.75	203	0.380	4.33	5.48	14:45	
~3	15.68	0.00	19.66	204	0.377	2.88	5.48	14:50	Clear

Laboratory Analysis Information

Bottle No.	Sampling Method	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
1	PP	Metals	HNO3	250 mL	AES	U	14:50
2	GM	VOCs	HCL	40 mL	AES	U	

PP = Peristaltic pump; GM = Gravity method

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-15**	**Site:**	NS&R/Atlanta, Georgia	**Sample Date:**	7/8/2009
Well Diameter	1 in				
Depth to Water	11.1 ft	**Samplers**	HMU		
Total Well Depth	22.5 ft	**Weather Conditions and Notes:**	80°, partly cloudy and humid		
Saturated Thickness	11.3 ft				
Total Volume	0.5 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	242	Expected S.C.	Measured S.C.	Notes
DO in stand. =	8.39 mg/L	T of stand.	23 ºC	4.27-4.71	4.49	
Stand. temp =	23 ºC	Standard used: Zobell's				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
7.00	4.00	

Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #10925.

Well Purging Information

Purge Volume (gal)	DTW	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	11.72	1.06	19.48	70	0.606	85.7	6.05	8:40	Clearish-cloudy
	11.83	3.28	19.21	75	0.606	95.4	6.04	8:45	
	11.87	0.24	19.11	77	0.606	164	6.03	8:50	
	11.84	0.07	18.97	81	0.611	49.7	6.03	8:55	
	11.86	2.70	18.42	92	0.617	24.2	6.06	9:05	
	11.99	0.67	17.65	87	0.622	98.4	6.03	9:10	
	12.04	0.13	17.22	92	0.629	88.2	6.04	9:15	
	12.09	0.14	16.70	96	0.637	94.2	6.04	9:20	
	12.1	0.15	16.20	97	0.644	74.0	6.03	9:25	
	12.14	0.04	15.43	98	0.656	97.7	6.03	9:30	
	12.14	0.12	14.06	99	0.679	45.7	6.03	9:35	
	12.16	0.14	13.23	101	0.692	27.3	6.03	9:40	Clear
	12.17	0.20	12.07	102	0.714	12.6	6.02	9:45	
	12.17	0.18	10.89	103	0.726	6.80	6.02	9:50	
~6	12.17	0.16	10.73	104	0.735	4.23	6.02	9:55	Clear

Laboratory Analysis Information

Bottle No.	Sampling Method	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
1	PP	Metals	HNO3	250 mL	AES	U	9:55
2	GM	VOCs	HCL	40 mL	AES	U	

PP = Peristaltic pump; GM = Gravity method

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-13D**	**Site:**	NS&R/Atlanta, Georgia	**Sample Date:**	8/12/2009
Well Diameter	1 in				
Depth to Water	18.8 ft	**Samplers**	HMU		
Total Well Depth	33.0 ft	**Weather Conditions and Notes:**	~85°, cloudy and humid		
Saturated Thickness	14.2 ft				
Total Volume	0.6 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	242	Expected S.C.	Measured S.C.	Notes
DO in stand. =	8.68 mg/L	T of stand.	21 ºC	4.27-4.71	4.49	
Stand. temp =	21 ºC	Standard used: Zobell's				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
7.00	4.00	

Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #14165.

Well Purging Information

Purge Volume (gal)	DTW	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	22.97	0.80	20.30	285	0.252	30	6.53	11:05	Clear
	22.89	0.37	20.05	190	0.260	8.5	6.73	11:10	
	23.14	0.69	19.92	151	0.272	7.6	6.80	11:15	
	22.99	0.48	19.98	136	0.275	5.7	6.82	11:20	
	23.00	0.31	19.94	121	0.281	5.2	6.87	11:25	
	23.00	0.25	19.92	113	0.290	4.7	6.90	11:30	
	23.00	0.18	19.97	114	0.293	4.0	6.89	11:35	
~3	23.00	0.12	19.94	112	0.294	3.9	6.89	11:40	Clear

Laboratory Analysis Information

Bottle No.	Sampling Method	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
1	PP	Metals	HNO3	250 mL	AES	U	11:40

PP = Peristaltic pump; GM = Gravity method

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-13DD**	**Site:**	NS&R/Atlanta, Georgia	**Sample Date:**	8/12/2009
Well Diameter	1 in				
Depth to Water	19.0 ft	**Samplers**	HMU		
Total Well Depth	50.0 ft	**Weather Conditions and Notes:**	~85°, cloudy and humid		
Saturated Thickness	31.0 ft				
Total Volume	1.2 gal				

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	242	Expected S.C.	Measured S.C.	Notes
DO in stand. =	8.68 mg/L	T of stand.	21 ºC	4.27-4.71	4.49	
Stand. temp =	21 ºC	Standard used: Zobell's				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
7.00	4.00	

Notes on calibration: Horiba U-22 meter w/flow-through cell, Pine rental unit #14165.

Well Purging Information

Purge Volume (gal)	DTW	D.O. (mg/L)	T (ºC)	ORP (mV)	S.C. (mS/cm)	Turb. (NTU)	pH	Notes	
	19.82	0.44	20.56	129	0.436	33	6.66	11:55	Cloudy-clear
	19.82	0.36	20.13	108	0.440	8.9	6.61	12:00	Clear
	19.82	0.21	20.12	104	0.442	8.3	6.61	12:05	
	19.82	0.12	20.08	97	0.443	8.1	6.60	12:10	
	19.82	0.00	20.11	86	0.443	5.2	6.61	12:15	
	19.82	0.00	20.06	78	0.443	7.3	6.61	12:20	
	19.82	0.00	19.99	72	0.444	6.2	6.61	12:25	
~4	19.82	0.00	19.99	69	0.444	7.6	6.61	12:30	Clear

Laboratory Analysis Information

Bottle No.	Sampling Method	Analytes	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time
1	PP	Metals	HNO3	250 mL	AES	U	12:30

PP = Peristaltic pump; GM = Gravity method

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-01**	**Site ID:**	**NS&R - Atlanta, GA**	**Sample Date:**	5/12/2018
Well Diameter	2 in	**Sampling Event:**	**May 2018 Groundwater Monitoring Event**		
Depth to Water	10.20 ft				
Total Well Depth	19.00 ft	**Samplers**	AMB		
Saturated Thickness	8.80 ft	**Weather Conditions and**	Sunny, 91° F		
Total Volume	1.4 gal	**Flow Rate**	200-300 mL/min		

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	0	Expected S.C.	Measured S.C.	Notes
DO in stand. =	9.73 mg/L	T of stand.	ºC		4.51	
Stand. temp =	ºC	Standard used:				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
3.93		

Notes on calibration: Horiba U-52 meter w/flow-through cell (rental unit #20532)
LaMotte 2020WE turbidity meter (rental unit # 39542)

Well Purging Information

Start purge: 0945 End purge: 1306 Pump Type: Peristaltic

Time	Purge Volume (L)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/l) *	T (ºC)	ORP (mV)	Appearance of Purge Water	Flow Rate (mL/min)
11:45	1.3	3.9	0.218	15	1.07	27.0	319	Light Brown	250
11:50	2.5	3.8	0.232	12	0.61	24.0	368	Light Brown	250
11:55	3.8	4.0	0.235	6	0.57	22.6	355	Clear	250
12:00	5.0	4.3	0.248	4	0.83	22.4	318	Clear	250
12:05	6.3	4.9	0.286	2	0.87	22.5	224	Clear	250
12:10	7.5	5.0	0.301	1	1.03	22.4	202	Clear	250
12:15	8.8	5.2	0.323	0.6	1.13	22.7	165	Clear	250
12:20	10.0	5.3	0.337	0.9	1.37	22.8	151	Clear	250
12:25	11.3	5.4	0.346	0.8	1.24	22.8	148	Clear	250
12:30	12.5	5.3	0.348	0.5	1.18	22.8	146	Clear	250

Laboratory Analysis Information

# of Bottles	Analytes	Collection Method	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time	Comments
2	VOCs	pump	HCl	40 ml VOA	AES	Unfiltered	12:35	
1	Metals	pump	HNO_3	250 ml	AES	Unfiltered	12:35	

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-02**	**Site ID:**	**NS&R - Atlanta, GA**	**Sample Date:**	5/11/2018
Well Diameter	2 in	**Sampling Event:**	**May 2018 Groundwater Monitoring Event**		
Depth to Water	13.25 ft				
Total Well Depth	25.0 ft	**Samplers**	AMB		
Saturated Thickness	11.75 ft	**Weather Conditions and**	Sunny, 91° F		
Total Volume	1.88 gal	**Flow Rate**	200-300 mL/min		

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	0	Expected S.C.	Measured S.C.	Notes
DO in stand. =	9.73 mg/L	T of stand.	ºC		4.51	
Stand. temp =	ºC	Standard used:				

pH Meter Calibration			Notes on calibration: Horiba U-52 meter w/flow-through cell (rental unit #20532)
pH of Stand. 1	pH of Stand. 2	Slope	LaMotte 2020WE turbidity meter (rental unit # 39542)
3.93			

Well Purging Information

Start purge: 14:35 | End purge: 15:50 | Pump Type: Peristaltic

Time	Purge Volume (L)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/l) *	T (ºC)	ORP (mV)	Appearance of Purge Water	Flow Rate (mL/min)
14:40	1	6.1	0.248	10	1.08	25.3	30	Clear	200
14:45	2	4.9	0.228	3	0.57	23.6	265	Clear	200
14:50	3	4.8	0.226	2	0.56	24.6	282	Clear	200
14:55	4	4.7	0.230	2	0.62	23.6	285	Clear	200
15:00	5	4.7	0.233	2	0.61	24.3	311	Clear	200
15:05	6	4.7	0.232	3	0.59	25.0	312	Clear	200
15:10	7	4.6	0.237	2	0.63	23.5	331	Clear	200
15:15	8	4.7	0.237	2	0.77	23.0	366	Clear	200
15:20	9	4.6	0.240	2	0.87	23.5	368	Clear	200
15:25	10	4.6	0.241	2	0.85	22.5	367	Clear	200
15:30	11	4.6	0.259	1	0.76	22.2	390	Clear	200
15:35	12	4.6	0.264	1	0.77	21.9	395	Clear	200
15:40	13	4.6	0.265	1	0.77	21.9	398	Clear	200
15:45	14	4.6	0.263	1	0.76	21.9	398	Clear	200

Laboratory Analysis Information

# of Bottles	Analytes	Collection Method	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time	Comments
1	Metals	pump	HNO_3	250 ml	AES	Unfiltered	15:50	

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-06**	**Site ID:**	**NS&R - Atlanta, GA**	**Sample Date:**	5/14/2018
Well Diameter	2 in	**Sampling Event:**	**May 2018 Groundwater Monitoring Event**		
Depth to Water	10.11 ft				
Total Well Depth	17.00 ft	**Samplers**	AMB		
Saturated Thickness	6.89 ft	**Weather Conditions and**	Sunny, 91° F		
Total Volume	1.1 gal	**Flow Rate**	200-300 mL/min		

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	0	Expected S.C.	Measured S.C.	Notes
DO in stand. =	9.73 mg/L	T of stand.	ºC		4.51	
Stand. temp =	ºC	Standard used:				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
3.93		

Notes on calibration: Horiba U-52 meter w/flow-through cell (rental unit #20532)
LaMotte 2020WE turbidity meter (rental unit # 39542)

Well Purging Information

Start purge: 0945 | End purge: 1306 | Pump Type: Peristaltic

Time	Purge Volume (L)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/l) *	T (ºC)	ORP (mV)	Appearance of Purge Water	Flow Rate (mL/min)
10:10	1.3	6.0	0.381	21	6.3	20.0	-27	Clear/Sheen	250
10:15	2.5	6.0	0.384	15	6.2	20.2	-32	Clear/Sheen	250
10:20	3.8	6.4	0.405	10	6.1	21.8	-35	Clear/Sheen	250
10:25	5.0	6.1	0.444	7	4.0	19.4	-12	Clear/Sheen	250
10:30	6.3	6.1	0.468	6	2.1	19.0	-31	Clear/Sheen	250
10:35	7.5	6.2	0.477	4	0.69	18.8	-63	Clear/Sheen	250
10:40	8.8	6.2	0.464	3	0.48	18.8	-77	Clear/Sheen	250
10:45	10.0	6.1	0.443	2	0.40	18.8	-83	Clear/Sheen	250
10:50	11.3	6.1	0.460	0.6	0.34	18.8	-88	Clear/Sheen	250
10:55	12.5	6.1	0.458	0.4	0.33	18.8	-89	Clear/Sheen	250
11:00	13.8	6.1	0.460	0.4	0.31	18.8	-89	Clear/Sheen	250

Laboratory Analysis Information

# of Bottles	Analytes	Collection Method	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time	Comments
2	VOCs	pump	HCl	40 ml VOA	AES	Unfiltered	11:05	
1	Metals	pump	HNO_3	250 ml	AES	Unfiltered	11:05	
2	VOCs - Blind duplicate MW-600	pump	HCl	40 ml VOA	AES	Unfiltered	False Time: 12:00	Duplicate Sample

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-07**	**Site ID:**	**NS&R - Atlanta, GA**	**Sample Date:**	5/11/2018
Well Diameter	2 in	**Sampling Event:**	**May 2018 Groundwater Monitoring Event**		
Depth to Water	9.48 ft				
Total Well Depth	33.00 ft	**Samplers**	AMB		
Saturated Thickness	23.52 ft	**Weather Conditions and**	Sunny, 91° F		
Total Volume	3.8 gal	**Flow Rate**	200-300 mL/min		

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	0	Expected S.C.	Measured S.C.	Notes
DO in stand. =	9.73 mg/L	T of stand.	ºC		4.51	
Stand. temp =	ºC	Standard used:				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
3.93		

Notes on calibration: Horiba U-52 meter w/flow-through cell (rental unit #20532)
LaMotte 2020WE turbidity meter (rental unit # 39542)

Well Purging Information

Start purge: 18:18 | End purge: 18:00 | Pump Type: Peristaltic

Time	Purge Volume (L)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/l) *	T (ºC)	ORP (mV)	Appearance of Purge Water	Flow Rate (mL/min)
18:35	1	5.4	0.314	16	3.0	22.4	292	Clear	200
18:40	2	5.7	0.115	12	1.9	21.3	243	Clear	200
18:45	3	5.4	0.128	9	1.6	21.4	252	Clear	200
18:50	4	4.2	0.163	5	0.77	21.5	345	Clear	200
18:55	5	4.2	0.164	5	0.64	21.5	347	Clear	200
19:00	6	4.3	0.166	5	0.66	21.6	348	Clear	200
19:05	7	4.2	0.168	4	0.64	21.6	345	Clear	200
19:10	8	4.2	0.170	4	0.62	21.6	347	Clear	200

Laboratory Analysis Information

# of Bottles	Analytes	Collection Method	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time	Comments
2	VOCs	pump	HCl	40 ml VOA	AES	Unfiltered	19:15	
1	Metals	pump	HNO_3	250 ml	AES	Unfiltered	19:15	

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-07D**	**Site ID:**	**NS&R - Atlanta, GA**	**Sample Date:**	5/11/2018
Well Diameter	2 in	**Sampling Event:**	**May 2018 Groundwater Monitoring Event**		
Depth to Water	8.68 ft				
Total Well Depth	65.00 ft	**Samplers**	AMB		
Saturated Thickness	56.32 ft	**Weather Conditions and**	Sunny, 91° F		
Total Volume	9.0 gal	**Flow Rate**	200-300 mL/min		

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	0	Expected S.C.	Measured S.C.	Notes
DO in stand. =	9.73 mg/L	T of stand.	ºC		4.51	
Stand. temp =	ºC	Standard used:				

pH Meter Calibration			Notes on calibration: Horiba U-52 meter w/flow-through cell (rental unit #20532)
pH of Stand. 1	pH of Stand. 2	Slope	LaMotte 2020WE turbidity meter (rental unit # 39542)
3.93			

Well Purging Information

Start purge: 17:24 | End purge: 18:00 | Pump Type: Peristaltic

Time	Purge Volume (L)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/l) *	T (ºC)	ORP (mV)	Appearance of Purge Water	Flow Rate (mL/min)
17:25	1.3	7.5	1.90	12	4.5	26.8	46	Clear	250
17:30	2.5	3.8	1.88	2	0.25	21.2	398	Clear	250
17:35	3.8	3.7	1.77	2	0.23	21.2	417	Clear	250
17:40	5.0	3.7	1.72	1	0.21	21.2	438	Clear	250
17:45	6.3	3.7	1.72	2	0.22	21.2	443	Clear	250
17:50	7.5	3.7	1.72	1	0.20	21.2	447	Clear	250
17:55	8.8	3.7	1.73	1	0.21	21.2	449	Clear	250

Laboratory Analysis Information

# of Bottles	Analytes	Collection Method	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time	Comments
2	VOCs	pump	HCl	40 ml VOA	AES	Unfiltered	18:00	
1	Metals	pump	HNO_3	250 ml	AES	Unfiltered	18:00	

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-07E**	**Site ID:**	**NS&R - Atlanta, GA**	**Sample Date:**	5/11/2018
Well Diameter	2 in	**Sampling Event:**	**May 2018 Groundwater Monitoring Event**		
Depth to Water	14.38 ft				
Total Well Depth	90.00 ft	**Samplers**	AMB		
Saturated Thickness	75.62 ft	**Weather Conditions and**	Sunny, 91° F		
Total Volume	12.1 gal	**Flow Rate**	200-300 mL/min		

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	0	Expected S.C.	Measured S.C.	Notes
DO in stand. =	9.73 mg/L	T of stand.	ºC		4.51	
Stand. temp =	ºC	Standard used:				

pH Meter Calibration			Notes on calibration: Horiba U-52 meter w/flow-through cell (rental unit #20532)
pH of Stand. 1	pH of Stand. 2	Slope	LaMotte 2020WE turbidity meter (rental unit # 39542)
3.93			

Well Purging Information

Start purge: 16:20 | End purge: 17:15 | Pump Type: Peristaltic

Time	Purge Volume (L)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/l) *	T (ºC)	ORP (mV)	Appearance of Purge Water	Flow Rate (mL/min)
16:30	1.3	5.8	0.112	4	5.5	24.6	176	Clear	250
16:35	2.5	6.7	0.113	3	5.3	21.9	163	Clear	250
16:40	3.8	6.9	0.563	3	1.7	21.7	103	Clear	250
16:45	5.0	7.5	0.748	5	0.43	21.3	0	Clear	250
16:50	6.3	8.2	0.818	13	0.24	21.3	-64	Clear	250
16:55	7.5	8.2	0.816	5	0.22	21.5	-89	Clear	250
17:00	8.8	8.2	0.810	5	0.22	21.9	-96	Clear	250
17:05	10.0	8.2	0.811	5	0.24	21.9	-97	Clear	250
17:10	11.3	8.2	0.810	5	0.23	21.8	-96	Clear	250

Laboratory Analysis Information

# of Bottles	Analytes	Collection Method	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time	Comments
1	Metals	pump	HNO_3	250 ml	AES	Unfiltered	17:15	

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Low-Flow
Groundwater Sampling
Monitoring Form

Well ID	**MW-08**	**Site ID:**	**NS&R - Atlanta, GA**	**Sample Date:**	5/11/2018
Well Diameter	2 in	**Sampling Event:**	**May 2018 Groundwater Monitoring Event**		
Depth to Water	9.68 ft				
Total Well Depth	18.0 ft	**Samplers**	AMB		
Saturated Thickness	8.32 ft	**Weather Conditions and**	Sunny, 91° F		
Total Volume	1.3 gal	**Flow Rate**	200-300 mL/min		

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	0	Expected S.C.	Measured S.C.	Notes
DO in stand. =	9.73 mg/L	T of stand.	ºC		4.51	
Stand. temp =	ºC	Standard used:				

pH Meter Calibration			Notes on calibration: Horiba U-52 meter w/flow-through cell (rental unit #20532)
pH of Stand. 1	pH of Stand. 2	Slope	LaMotte 2020WE turbidity meter (rental unit # 39542)
3.93			

Well Purging Information

Start purge: 13:35 | End purge: 14:25 | Pump Type: Peristaltic

Time	Purge Volume (L)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/l) *	T (ºC)	ORP (mV)	Appearance of Purge Water	Flow Rate (mL/min)
13:40	1.3	5.8	0.446	8	0.54	17.7	20	Clear	250
13:45	2.5	5.9	0.506	8	0.53	17.4	-8	Clear	250
13:50	3.8	5.9	0.500	7	0.53	17.4	-9	Clear	250
13:55	5.0	5.9	0.473	7	0.58	17.4	-5	Clear	250
14:00	6.3	5.8	0.473	7	0.50	17.6	6	Clear	250
14:05	7.5	5.8	0.505	7	0.49	17.5	4	Clear	250
14:10	8.8	5.9	0.505	6	0.48	17.8	-2	Clear	250
14:15	10.0	5.9	0.506	6	0.48	17.8	-3	Clear	250
14:20	11.3	5.9	0.506	6	0.49	17.8	-4	Clear	250

Laboratory Analysis Information

# of Bottles	Analytes	Collection Method	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time	Comments
1	Metals	pump	HNO_3	250 ml	AES	Unfiltered	14:25	
1	Metals - Blind duplicate MW-800	pump	HNO_3	250 ml	AES	Unfiltered	False Time: 12:00	Dupplicate Sample

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-09**	**Site ID:**	**NS&R - Atlanta, GA**	**Sample Date:**	5/14/2018
Well Diameter	2 in	**Sampling Event:**	**May 2018 Groundwater Monitoring Event**		
Depth to Water	8.74 ft				
Total Well Depth	19.0 ft	**Samplers**	AMB		
Saturated Thickness	10.26 ft	**Weather Conditions and**	Sunny, 91° F		
Total Volume	1.6 gal	**Flow Rate**	200-300 mL/min		

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	0	Expected S.C.	Measured S.C.	Notes
DO in stand. =	9.73 mg/L	T of stand.	ºC		4.51	
Stand. temp =	ºC	Standard used:				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
3.93		

Notes on calibration: Horiba U-52 meter w/flow-through cell (rental unit #20532)
LaMotte 2020WE turbidity meter (rental unit # 39542)

Well Purging Information

Start purge: 11:26 | End purge: 12:10 | Pump Type: Perostaltic

Time	Purge Volume (L)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/l) *	T (ºC)	ORP (mV)	Appearance of Purge Water	Flow Rate (mL/min)
11:30	1.3	4.3	1.27	5	0.28	21.0	239	Clear	250
11:35	2.5	4.3	1.10	2	0.25	21.5	244	Clear	250
11:40	3.8	4.3	0.895	2	0.24	21.9	246	Clear	250
11:45	5.0	4.3	0.806	2	0.21	22.3	248	Clear	250
11:50	6.3	4.3	0.799	2	0.20	22.3	248	Clear	250
11:55	7.5	4.3	0.751	2	0.21	22.1	246	Clear	250
12:00	8.8	4.3	0.749	2	0.21	22.0	247	Clear	250
12:05	10.0	4.3	0.748	2	0.20	21.9	247	Clear	250

Laboratory Analysis Information

# of Bottles	Analytes	Collection Method	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time	Comments
1	Metals	pump	HNO_3	250 ml	AES	Unfiltered	12:10	

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-12**	**Site ID:**	**NS&R - Atlanta, GA**	**Sample Date:**	5/12/2018
Well Diameter	2 in	**Sampling Event:**	**May 2018 Groundwater Monitoring Event**		
Depth to Water	11.30 ft				
Total Well Depth	19.0 ft	**Samplers**	AMB		
Saturated Thickness	7.70 ft	**Weather Conditions and**	Sunny, 91° F		
Total Volume	1.2 gal	**Flow Rate**	200-300 mL/min		

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	0	Expected S.C.	Measured S.C.	Notes
DO in stand. =	9.73 mg/L	T of stand.	ºC		4.51	
Stand. temp =	ºC	Standard used:				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
3.93		

Notes on calibration: Horiba U-52 meter w/flow-through cell (rental unit #20532)
LaMotte 2020WE turbidity meter (rental unit # 39542)

Well Purging Information

Start purge: 0945 | End purge: 1306 | Pump Type: Peristaltic

Time	Purge Volume (L)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/l) *	T (ºC)	ORP (mV)	Appearance of Purge Water	Flow Rate (mL/min)
14:10	1.3	5.0	0.193	104	0.97	25.3	230	Light Orange	250
14:15	2.5	5.1	0.231	12	1.1	21.1	251	Light Orange	250
14:20	3.8	5.2	0.249	8	1.3	20.9	262	Clear	250
14:25	5.0	5.2	0.254	5	1.3	20.9	268	Clear	250
14:30	6.3	5.2	0.260	4	1.3	20.8	272	Clear	250
14:35	7.5	5.2	0.262	2	1.2	21.8	277	Clear	250
14:40	8.8	5.1	0.274	3	1.5	21.1	280	Clear	250
14:45	10.0	5.1	0.271	2	1.3	21.3	283	Clear	250
14:50	11.3	5.1	0.269	2	1.3	21.2	284	Clear	250

Laboratory Analysis Information

# of Bottles	Analytes	Collection Method	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time	Comments
1	Metals	pump	HNO_3	250 ml	AES	Unfiltered	14:55	

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-13**	**Site ID:**	**NS&R - Atlanta, GA**	**Sample Date:**	5/14/2018
Well Diameter	2 in	**Sampling Event:**	**May 2018 Groundwater Monitoring Event**		
Depth to Water	15.02 ft				
Total Well Depth	25.0 ft	**Samplers**	AMB		
Saturated Thickness	9.98 ft	**Weather Conditions and**	Sunny, 91° F		
Total Volume	0.4 gal	**Flow Rate**	200-300 mL/min		

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	0	Expected S.C.	Measured S.C.	Notes
DO in stand. =	9.73 mg/L	T of stand.	ºC		4.51	
Stand. temp =	ºC	Standard used:				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
3.93		

Notes on calibration: Horiba U-52 meter w/flow-through cell (rental unit #20532)
LaMotte 2020WE turbidity meter (rental unit # 39542)

Well Purging Information

Start purge: 14:45 | End purge: 15:30 | Pump Type: Peristaltic

Time	Purge Volume (L)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/l) *	T (ºC)	ORP (mV)	Appearance of Purge Water	Flow Rate (mL/min)
15:00	1.25	5.7	0.248	0.0	1.74	23.2	270	Clear	250
15:05	2.5	5.6	0.252	0.0	0.74	21.8	280	Clear	250
15:10	3.75	5.5	0.252	0.0	0.17	21.6	285	Clear	250
15:15	5.0	5.4	0.252	0.0	0.05	21.5	288	Clear	250
15:20	6.25	5.4	0.252	0.0	0.00	21.4	290	Clear	250

Laboratory Analysis Information

# of Bottles	Analytes	Collection Method	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time	Comments
2	VOCs	pump	HCl	40 ml VOA	AES	Unfiltered	15:25	
1	Metals	pump	HNO_3	250 ml	AES	Unfiltered	15:25	

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-13D**	**Site ID:**	**NS&R - Atlanta, GA**	**Sample Date:**	5/14/2018
Well Diameter	2 in	**Sampling Event:**	**May 2018 Groundwater Monitoring Event**		
Depth to Water	14.08 ft				
Total Well Depth	33.0 ft	**Samplers**	AMB		
Saturated Thickness	18.92 ft	**Weather Conditions and**	Sunny, 91° F		
Total Volume	0.8 gal	**Flow Rate**	200-300 mL/min		

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	0	Expected S.C.	Measured S.C.	Notes
DO in stand. =	9.73 mg/L	T of stand.	ºC		4.51	
Stand. temp =	ºC	Standard used:				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
3.93		

Notes on calibration: Horiba U-52 meter w/flow-through cell (rental unit #20532)
LaMotte 2020WE turbidity meter (rental unit # 39542)

Well Purging Information

Start purge: 14:49 End purge: 15:30 Pump Type: Peristaltic

Time	Purge Volume (mL)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/l) *	T (ºC)	ORP (mV)	Appearance of Purge Water	Flow Rate (mL/min)
14:55	1.3	5.5	0.360	2	2.1	21.0	231	Clear	250
15:00	2.5	5.4	0.378	1	1.7	20.3	249	Clear	250
15:05	3.8	5.3	0.392	1	0.63	20.5	273	Clear	250
15:10	5.0	5.2	0.398	0.5	0.31	20.5	287	Clear	250
15:15	6.3	5.2	0.397	0.7	0.27	20.2	293	Clear	250
15:20	7.5	5.2	0.396	0.5	0.23	20.1	299	Clear	250
15:25	8.8	5.2	0.396	0.5	0.22	20.1	301	Clear	250

Laboratory Analysis Information

# of Bottles	Analytes	Collection Method	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time	Comments
2	VOCs	pump	HCl	40 ml VOA	AES	Unfiltered	15:30	
1	Metals	pump	HNO_3	250 ml	AES	Unfiltered	15:30	

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Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-14**	**Site ID:**	**NS&R - Atlanta, GA**	**Sample Date:**	5/14/2018
Well Diameter	2 in	**Sampling Event:**	**May 2018 Groundwater Monitoring Event**		
Depth to Water	12.70 ft				
Total Well Depth	25.00 ft	**Samplers**	AMB		
Saturated Thickness	12.30 ft	**Weather Conditions and**	Sunny, 91° F		
Total Volume	0.5 gal	**Flow Rate**	200-300 mL/min		

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	0	Expected S.C.	Measured S.C.	Notes
DO in stand. =	9.73 mg/L	T of stand.	ºC		4.51	
Stand. temp =	ºC	Standard used:				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
3.93		

Notes on calibration: Horiba U-52 meter w/flow-through cell (rental unit #20532)
LaMotte 2020WE turbidity meter (rental unit # 39542)

Well Purging Information

Start purge: 15:49 | End purge: 16:30 | Pump Type: Peristaltic

Time	Purge Volume (mL)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/l) *	T (ºC)	ORP (mV)	Appearance of Purge Water	Flow Rate (mL/min)
15:50	1.3	5.0	0.355	9	0.42	19.5	260	Clear	250
15:55	2.5	5.0	0.358	7	0.21	18.6	290	Clear	250
16:00	3.8	4.9	0.360	7	0.20	18.5	301	Clear	250
16:05	5.0	4.9	0.364	5	0.19	18.2	310	Clear	250
16:10	6.3	4.9	0.362	4	0.17	18.6	315	Clear	250
16:15	7.5	4.9	0.364	4	0.17	18.3	320	Clear	250
16:20	8.8	4.9	0.365	3	0.16	18.3	321	Clear	250
16:25	10.0	4.9	0.365	3	0.16	18.3	322	Clear	250

Laboratory Analysis Information

# of Bottles	Analytes	Collection Method	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time	Comments
1	Metals	pump	HNO_3	250 ml	AES	Unfiltered	16:30	

75 Arlington Street, 4th Floor
Boston, MA 02116
(617) 426-7330

Low-Flow Groundwater Sampling Monitoring Form

Well ID	**MW-15**	**Site ID:**	**NS&R - Atlanta, GA**	**Sample Date:**	5/14/2018
Well Diameter	2 in	**Sampling Event:**	**May 2018 Groundwater Monitoring Event**		
Depth to Water	8.62 ft				
Total Well Depth	20.00 ft	**Samplers**	AMB		
Saturated Thickness	11.38 ft	**Weather Conditions and**	Sunny, 91° F		
Total Volume	0.5 gal	**Flow Rate**	200-300 mL/min		

Instrument Calibration Information

D.O. Meter Calibration		ORP Meter Calibration		S.C. Meter Calibration		
DO slope =		ORP in stand.	0	Expected S.C.	Measured S.C.	Notes
DO in stand. =	9.73 mg/L	T of stand.	ºC		4.51	
Stand. temp =	ºC	Standard used:				

pH Meter Calibration		
pH of Stand. 1	pH of Stand. 2	Slope
3.93		

Notes on calibration: Horiba U-52 meter w/flow-through cell (rental unit #20532)
LaMotte 2020WE turbidity meter (rental unit # 39542)

Well Purging Information

Start purge: 13:32 | End purge: 14:15 | Pump Type: Peristaltic

Time	Purge Volume (L)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/l) *	T (ºC)	ORP (mV)	Appearance of Purge Water	Flow Rate (mL/min)
13:35	1	5.7	0.539	79	4.5		98	Light Orange	200
13:40	2	6.3	0.589	15	0.80	17.2	127	Clear	200
13:45	3	6.3	0.592	14	0.38	16.8	140	Clear	200
13:50	4	6.3	0.593	6	0.30	16.6	147	Clear	200
13:55	5	6.3	0.593	6	0.26	16.7	152	Clear	200
14:00	6	6.3	0.594	5	0.23	16.6	157	Clear	200
14:05	7	6.3	0.595	5	0.22	16.6	158	Clear	200
14:10	8	6.3	0.595	5	0.21	16.6	159	Clear	200

Laboratory Analysis Information

# of Bottles	Analytes	Collection Method	Preservative	Bottle Type	Anal. Lab.	Filtered/ Unfiltered	Sample Time	Comments
1	Metals	pump	HNO_3	250 ml	AES	Unfiltered	14:15	

APPENDIX

E LABORATORY ANALYTICAL REPORTS

SEVERN TRENT STL

ANALYTICAL REPORT

PROJECT NO. 126988

NL-Atlanta

Lot #: H3A140175

John Johnson

Environmental Strategies Corpo
11911 Freedom Drive, Suite 900
Reston, VA 20190

SEVERN TRENT LABORATORIES, INC.

John Reynolds
Project Manager

January 30, 2003

Severn Trent Laboratories, Inc.
STL Knoxville • 5815 Middlebrook Pike, Knoxville, TN 37921
Tel 865 291 3000 Fax 865 584 4315 • *www.stl-inc.com*

ANALYTICAL METHODS SUMMARY

H3A140175

PARAMETER	ANALYTICAL METHOD
Percent Moisture	MCAWW 160.3 MOD
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

H3A140175

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FF24C	001	HA-2-25(0-0.5)	01/10/03	09:5
FF24K	002	HA-3-15(1.0-1.5)	01/10/03	10:0
FF24M	003	HA-3-15(1.5-2.0)	01/10/03	10:0
FF24N	004	HA-4-10(0-0.5)	01/10/03	10:1
FF24P	005	HA-5-15(0.5-1.0)	01/10/03	17:0
FF24Q	006	HA-5-15(1-1.5)	01/10/03	17:0
FF24R	007	HA-6-15(0-0.5)	01/10/03	17:1
FF24T	008	HA-6-15(0.5-1.0)	01/10/03	17:1
FF24V	009	LAT-1-1(1-1.5)	01/10/03	11:0
FF240	010	LAT-1-2(1-1.5)	01/10/03	11:1
FF242	011	LAT-1-3(0.5-1.0)	01/10/03	11:2
FF245	012	LAT-1-3(1.0-1.5)	01/10/03	11:2
FF249	013	LAT-2-1(0.5-1)	01/10/03	13:0
FF25A	014	EB-01-10-03	01/10/03	08:0
FF25C	015	MW-1	01/11/03	10:0
FF25R	016	MW-2	01/11/03	09:1
FF25V	017	MW-2(1-2)	01/10/03	08:1
FF25W	018	MW-2(3-4)	01/10/03	08:3
FF250	019	MW-2(8-9)	01/10/03	08:4
FF251	020	MW-2(12-13)	01/10/03	09:0
FF252	021	HA-0-15(1.0-1.5)	01/10/03	09:1
FF254	022	HA-1-10(0-0.5)	01/10/03	09:3
FF257	023	HA-1-10(1-1.5)	01/10/03	09:3
FF259	024	HA-1-30(0-0.5)	01/10/03	09:4
FF26E	025	HA-1-30(1.0-1.5)	01/10/03	09:4
FF26G	026	HA-2-10(0-0.5)	01/10/03	09:5
FF26H	027	LAT-2-1(1-1.5)	01/10/03	13:0
FF26K	028	LAT-2-2(0.5-1)	01/10/03	13:1
FF26M	029	LAT-2-2(1-1.5)	01/10/03	13:1
FF26Q	030	LAT-2-3(0.5-1)	01/10/03	13:3
FF26T	031	LAT-2-3(1-1.5)	01/10/03	13:3
FF26X	032	LAT-3-1(0-0.5)	01/10/03	14:0
FF263	033	LAT-3-1(1-1.5)	01/10/03	14:0
FF266	034	LAT-3-2(0.5-1.0)	01/10/03	14:1
FF40N	035	MW-1	01/11/03	10:0
FF40Q	036	MW-2	01/11/03	09:1

(Continued on next page)

PROJECT NARRATIVE
H3A140175

The results reported herein are applicable to the samples submitted for analysis only.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

The batch matrix spike/matrix spike duplicate recoveries were outside control limits for some analytes. However, the laboratory control samples showed acceptable results indicating that the analysis was in control. The batch matrix spike/matrix spike duplicate results are, therefore, attributed to matrix effects. In addition, results outside of limits do not necessarily reflect poor method performance due to high analyte concentrations in the sample relative to the spike level. The affected analytes are flagged appropriately on the matrix spike/matrix spike duplicate report.

The serial dilution of sample HA-2-25(0-0.5) was outside control limits for antimony due to physical or chemical matrix interferences.

Due to a software error on Chart S012703, the raw data documents the date as 01/26/03, when it should be 01/27/03.

SAMPLE SUMMARY

H3A140175

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Sample Data Summary

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: HA-2-25(0-0.5)

TOTAL Metals

Lot-Sample #...: H3A140175-001 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022115						
Arsenic	31.6	1.4	mg/kg	SW846 6010B	01/22-01/26/03	FF24C1AC
		Dilution Factor: 1		Analysis Time..: 18:07		
Cadmium	8.5	0.71	mg/kg	SW846 6010B	01/22-01/26/03	FF24C1AD
		Dilution Factor: 1		Analysis Time..: 18:07		
Lead	8440	4.3	mg/kg	SW846 6010B	01/22-01/26/03	FF24C1AE
		Dilution Factor: 10		Analysis Time..: 16:24		
Antimony	33.1	8.5	mg/kg	SW846 6010B	01/22-01/26/03	FF24C1AF
		Dilution Factor: 1		Analysis Time..: 18:07		
Thallium	ND	1.4	mg/kg	SW846 6010B	01/22-01/26/03	FF24C1AG
		Dilution Factor: 1		Analysis Time..: 18:07		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: HA-3-15(1.0-1.5)

TOTAL Metals

Lot-Sample #...: H3A140175-002 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 27

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022115						
Arsenic	945	1.4	mg/kg	SW846 6010B	01/22-01/26/03	FF24K1AC
		Dilution Factor: 1		Analysis Time..: 17:58		
Cadmium	3.0	0.68	mg/kg	SW846 6010B	01/22-01/26/03	FF24K1AD
		Dilution Factor: 1		Analysis Time..: 17:58		
Lead	211000	204	mg/kg	SW846 6010B	01/22-01/26/03	FF24K1AE
		Dilution Factor: 500		Analysis Time..: 16:42		
Antimony	5370	8.2	mg/kg	SW846 6010B	01/22-01/26/03	FF24K1AF
		Dilution Factor: 1		Analysis Time..: 17:58		
Thallium	5.5	1.4	mg/kg	SW846 6010B	01/22-01/26/03	FF24K1AG
		Dilution Factor: 1		Analysis Time..: 17:58		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: HA-3-15(1.5-2.0)

TOTAL Metals

Lot-Sample #...: H3A140175-003 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 24

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022115						
Arsenic	353	1.3	mg/kg	SW846 6010B	01/22-01/26/03	FF24M1AC
		Dilution Factor: 1		Analysis Time..: 18:03		
Cadmium	3.7	0.66	mg/kg	SW846 6010B	01/22-01/26/03	FF24M1AD
		Dilution Factor: 1		Analysis Time..: 18:03		
Lead	102000	79.2	mg/kg	SW846 6010B	01/22-01/26/03	FF24M1AE
		Dilution Factor: 200		Analysis Time..: 16:46		
Antimony	2330	7.9	mg/kg	SW846 6010B	01/22-01/26/03	FF24M1AF
		Dilution Factor: 1		Analysis Time..: 18:03		
Thallium	3.0	1.3	mg/kg	SW846 6010B	01/22-01/26/03	FF24M1AG
		Dilution Factor: 1		Analysis Time..: 18:03		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: HA-4-10(0-0.5)

TOTAL Metals

Lot-Sample #...: H3A140175-004 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 21

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3017307						
Arsenic	317	1.3	mg/kg	SW846 6010B	01/22-01/28/03	FF24N1AC
		Dilution Factor: 1		Analysis Time..: 20:49		
Cadmium	3.2	0.63	mg/kg	SW846 6010B	01/22-01/28/03	FF24N1AD
		Dilution Factor: 1		Analysis Time..: 20:49		
Lead	77600	38.0	mg/kg	SW846 6010B	01/22-01/28/03	FF24N1AE
		Dilution Factor: 100		Analysis Time..: 16:32		
Antimony	2820	760	mg/kg	SW846 6010B	01/22-01/28/03	FF24N1AF
		Dilution Factor: 100		Analysis Time..: 16:32		
Thallium	3.5	1.3	mg/kg	SW846 6010B	01/22-01/28/03	FF24N1AG
		Dilution Factor: 1		Analysis Time..: 20:49		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: HA-5-15(0.5-1.0)

TOTAL Metals

Lot-Sample #...: H3A140175-005 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 27

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3017307						
Arsenic	24.2	1.4	mg/kg	SW846 6010B	01/22-01/28/03	FF24P1AC
		Dilution Factor: 1		Analysis Time..: 16:37		
Cadmium	3.5	0.68	mg/kg	SW846 6010B	01/22-01/28/03	FF24P1AD
		Dilution Factor: 1		Analysis Time..: 16:37		
Lead	668	0.41	mg/kg	SW846 6010B	01/22-01/28/03	FF24P1AE
		Dilution Factor: 1		Analysis Time..: 16:37		
Antimony	ND	8.2	mg/kg	SW846 6010B	01/22-01/28/03	FF24P1AF
		Dilution Factor: 1		Analysis Time..: 16:37		
Thallium	ND	1.4	mg/kg	SW846 6010B	01/22-01/28/03	FF24P1AG
		Dilution Factor: 1		Analysis Time..: 16:37		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: HA-5-15(1-1.5)

TOTAL Metals

Lot-Sample #...: H3A140175-006 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 29

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022115						
Arsenic	31.8	1.4	mg/kg	SW846 6010B	01/22-01/26/03	FF24Q1AC
		Dilution Factor: 1		Analysis Time..: 16:51		
Cadmium	4.1	0.71	mg/kg	SW846 6010B	01/22-01/26/03	FF24Q1AD
		Dilution Factor: 1		Analysis Time..: 16:51		
Lead	703	0.42	mg/kg	SW846 6010B	01/22-01/26/03	FF24Q1AE
		Dilution Factor: 1		Analysis Time..: 16:51		
Antimony	ND	8.5	mg/kg	SW846 6010B	01/22-01/26/03	FF24Q1AF
		Dilution Factor: 1		Analysis Time..: 16:51		
Thallium	ND	1.4	mg/kg	SW846 6010B	01/22-01/26/03	FF24Q1AG
		Dilution Factor: 1		Analysis Time..: 16:51		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: HA-6-15(0-0.5)

TOTAL Metals

Lot-Sample #...: H3A140175-007 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 20

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022115						
Arsenic	15.0	1.3	mg/kg	SW846 6010B	01/22-01/26/03	FF24R1AC
		Dilution Factor: 1		Analysis Time..: 16:55		
Cadmium	2.6	0.63	mg/kg	SW846 6010B	01/22-01/26/03	FF24R1AD
		Dilution Factor: 1		Analysis Time..: 16:55		
Lead	544	0.38	mg/kg	SW846 6010B	01/22-01/26/03	FF24R1AE
		Dilution Factor: 1		Analysis Time..: 16:55		
Antimony	ND	7.5	mg/kg	SW846 6010B	01/22-01/26/03	FF24R1AF
		Dilution Factor: 1		Analysis Time..: 16:55		
Thallium	ND	1.3	mg/kg	SW846 6010B	01/22-01/26/03	FF24R1AG
		Dilution Factor: 1		Analysis Time..: 16:55		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: HA-6-15(0.5-1.0)

TOTAL Metals

Lot-Sample #...: H3A140175-008 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 6.2

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022115						
Arsenic	8.6	1.1	mg/kg	SW846 6010B	01/22-01/26/03	FF24T1AC
		Dilution Factor: 1		Analysis Time..: 17:04		
Cadmium	2.3	0.53	mg/kg	SW846 6010B	01/22-01/26/03	FF24T1AD
		Dilution Factor: 1		Analysis Time..: 17:04		
Lead	145	0.32	mg/kg	SW846 6010B	01/22-01/26/03	FF24T1AE
		Dilution Factor: 1		Analysis Time..: 17:04		
Antimony	ND	6.4	mg/kg	SW846 6010B	01/22-01/26/03	FF24T1AF
		Dilution Factor: 1		Analysis Time..: 17:04		
Thallium	ND	1.1	mg/kg	SW846 6010B	01/22-01/26/03	FF24T1AG
		Dilution Factor: 1		Analysis Time..: 17:04		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: LAT-1-1(1-1.5)

TOTAL Metals

Lot-Sample #...: H3A140175-009 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 33

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022115						
Arsenic	49.0	1.5	mg/kg	SW846 6010B	01/22-01/26/03	FF24V1AC
		Dilution Factor: 1		Analysis Time..: 18:12		
Cadmium	13.4	0.75	mg/kg	SW846 6010B	01/22-01/26/03	FF24V1AD
		Dilution Factor: 1		Analysis Time..: 18:12		
Lead	18300	45.0	mg/kg	SW846 6010B	01/22-01/26/03	FF24V1AE
		Dilution Factor: 100		Analysis Time..: 17:00		
Antimony	147	9.0	mg/kg	SW846 6010B	01/22-01/26/03	FF24V1AF
		Dilution Factor: 1		Analysis Time..: 18:12		
Thallium	ND	1.5	mg/kg	SW846 6010B	01/22-01/26/03	FF24V1AG
		Dilution Factor: 1		Analysis Time..: 18:12		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: LAT-1-2(1-1.5)

TOTAL Metals

Lot-Sample #...: H3A140175-010 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 45

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022115						
Arsenic	136	1.8	mg/kg	SW846 6010B	01/22-01/26/03	FF2401AC
		Dilution Factor: 1		Analysis Time..: 18:16		
Cadmium	34.2	0.92	mg/kg	SW846 6010B	01/22-01/26/03	FF2401AD
		Dilution Factor: 1		Analysis Time..: 18:16		
Lead	33000	55.0	mg/kg	SW846 6010B	01/22-01/26/03	FF2401AE
		Dilution Factor: 100		Analysis Time..: 17:31		
Antimony	195	11.0	mg/kg	SW846 6010B	01/22-01/26/03	FF2401AF
		Dilution Factor: 1		Analysis Time..: 18:16		
Thallium	2.5	1.8	mg/kg	SW846 6010B	01/22-01/26/03	FF2401AG
		Dilution Factor: 1		Analysis Time..: 18:16		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: LAT-1-3(0.5-1.0)

TOTAL Metals

Lot-Sample #...: H3A140175-011 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 55

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022115						
Arsenic	77.1	2.2	mg/kg	SW846 6010B	01/22-01/26/03	FF2421AC
		Dilution Factor: 1		Analysis Time..: 18:21		
Cadmium	72.4	1.1	mg/kg	SW846 6010B	01/22-01/26/03	FF2421AD
		Dilution Factor: 1		Analysis Time..: 18:21		
Lead	25300	66.2	mg/kg	SW846 6010B	01/22-01/26/03	FF2421AE
		Dilution Factor: 100		Analysis Time..: 17:40		
Antimony	150	13.2	mg/kg	SW846 6010B	01/22-01/26/03	FF2421AF
		Dilution Factor: 1		Analysis Time..: 18:21		
Thallium	2.4	2.2	mg/kg	SW846 6010B	01/22-01/26/03	FF2421AG
		Dilution Factor: 1		Analysis Time..: 18:21		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: LAT-1-3(1.0-1.5)

TOTAL Metals

Lot-Sample #...: H3A140175-012 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 25

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022115						
Arsenic	4.4	1.3	mg/kg	SW846 6010B	01/22-01/26/03	FF2451AC
		Dilution Factor: 1		Analysis Time..: 17:36		
Cadmium	2.8	0.67	mg/kg	SW846 6010B	01/22-01/26/03	FF2451AD
		Dilution Factor: 1		Analysis Time..: 17:36		
Lead	249	0.40	mg/kg	SW846 6010B	01/22-01/26/03	FF2451AE
		Dilution Factor: 1		Analysis Time..: 17:36		
Antimony	8.5	8.0	mg/kg	SW846 6010B	01/22-01/26/03	FF2451AF
		Dilution Factor: 1		Analysis Time..: 17:36		
Thallium	ND	1.3	mg/kg	SW846 6010B	01/22-01/26/03	FF2451AG
		Dilution Factor: 1		Analysis Time..: 17:36		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: LAT-2-1(0.5-1)

TOTAL Metals

Lot-Sample #...: H3A140175-013 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 41

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022115						
Arsenic	179	1.7	mg/kg	SW846 6010B	01/22-01/26/03	FF2491AC
		Dilution Factor: 1		Analysis Time..: 18:25		
Cadmium	11.9	0.85	mg/kg	SW846 6010B	01/22-01/26/03	FF2491AD
		Dilution Factor: 1		Analysis Time..: 18:25		
Lead	46300	51.2	mg/kg	SW846 6010B	01/22-01/26/03	FF2491AE
		Dilution Factor: 100		Analysis Time..: 17:27		
Antimony	297	10.2	mg/kg	SW846 6010B	01/22-01/26/03	FF2491AF
		Dilution Factor: 1		Analysis Time..: 18:25		
Thallium	2.4	1.7	mg/kg	SW846 6010B	01/22-01/26/03	FF2491AG
		Dilution Factor: 1		Analysis Time..: 18:25		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: EB-01-10-03

TOTAL Metals

Lot-Sample #...: H3A140175-014 Matrix.....: WATER
Date Sampled...: 01/10/03 Date Received..: 01/14/03

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022130						
Arsenic	ND	10.0	ug/L	SW846 6010B	01/22-01/24/03	FF25A1AA
		Dilution Factor: 1		Analysis Time..: 19:46		
Cadmium	ND	5.0	ug/L	SW846 6010B	01/22-01/24/03	FF25A1AC
		Dilution Factor: 1		Analysis Time..: 19:46		
Lead	422	3.0	ug/L	SW846 6010B	01/22-01/24/03	FF25A1AD
		Dilution Factor: 1		Analysis Time..: 19:46		
Antimony	ND	60.0	ug/L	SW846 6010B	01/22-01/24/03	FF25A1AE
		Dilution Factor: 1		Analysis Time..: 19:46		
Thallium	ND	10.0	ug/L	SW846 6010B	01/22-01/24/03	FF25A1AF
		Dilution Factor: 1		Analysis Time..: 19:46		

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: MW-1

TOTAL Metals

Lot-Sample #...: H3A140175-015 Matrix.....: WATER
Date Sampled...: 01/11/03 Date Received..: 01/14/03

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022130						
Arsenic	ND	10.0	ug/L	SW846 6010B	01/22-01/24/03	FF25C1AA
		Dilution Factor: 1		Analysis Time..: 19:51		
Cadmium	9.0	5.0	ug/L	SW846 6010B	01/22-01/24/03	FF25C1AC
		Dilution Factor: 1		Analysis Time..: 19:51		
Lead	44.9	3.0	ug/L	SW846 6010B	01/22-01/24/03	FF25C1AD
		Dilution Factor: 1		Analysis Time..: 19:51		
Antimony	ND	60.0	ug/L	SW846 6010B	01/22-01/24/03	FF25C1AE
		Dilution Factor: 1		Analysis Time..: 19:51		
Thallium	ND	10.0	ug/L	SW846 6010B	01/22-01/24/03	FF25C1AF
		Dilution Factor: 1		Analysis Time..: 19:51		

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: MW-2

TOTAL Metals

Lot-Sample #...: H3A140175-016 Matrix.....: WATER
Date Sampled...: 01/11/03 Date Received..: 01/14/03

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022130						
Arsenic	ND	10.0	ug/L	SW846 6010B	01/22-01/24/03	FF25R1AA
		Dilution Factor: 1		Analysis Time..: 19:55		
Cadmium	15.8	5.0	ug/L	SW846 6010B	01/22-01/24/03	FF25R1AC
		Dilution Factor: 1		Analysis Time..: 19:55		
Lead	28.7	3.0	ug/L	SW846 6010B	01/22-01/24/03	FF25R1AD
		Dilution Factor: 1		Analysis Time..: 19:55		
Antimony	ND	60.0	ug/L	SW846 6010B	01/22-01/24/03	FF25R1AE
		Dilution Factor: 1		Analysis Time..: 19:55		
Thallium	ND	10.0	ug/L	SW846 6010B	01/22-01/24/03	FF25R1AF
		Dilution Factor: 1		Analysis Time..: 19:55		

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: MW-2(1-2)

TOTAL Metals

Lot-Sample #...: H3A140175-017 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 20

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022115						
Arsenic	73.7	1.2	mg/kg	SW846 6010B	01/22-01/26/03	FF25V1AC
		Dilution Factor: 1		Analysis Time..: 18:30		
Cadmium	5.3	0.62	mg/kg	SW846 6010B	01/22-01/26/03	FF25V1AD
		Dilution Factor: 1		Analysis Time..: 18:30		
Lead	8920	3.7	mg/kg	SW846 6010B	01/22-01/26/03	FF25V1AE
		Dilution Factor: 10		Analysis Time..: 17:22		
Antimony	252	7.5	mg/kg	SW846 6010B	01/22-01/26/03	FF25V1AF
		Dilution Factor: 1		Analysis Time..: 18:30		
Thallium	ND	1.2	mg/kg	SW846 6010B	01/22-01/26/03	FF25V1AG
		Dilution Factor: 1		Analysis Time..: 18:30		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: MW-2(3-4)

TOTAL Metals

Lot-Sample #...: H3A140175-018 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 22

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022115						
Arsenic	2.1	1.3	mg/kg	SW846 6010B	01/22-01/26/03	FF25W1AC
		Dilution Factor: 1		Analysis Time..: 17:45		
Cadmium	0.71	0.64	mg/kg	SW846 6010B	01/22-01/26/03	FF25W1AD
		Dilution Factor: 1		Analysis Time..: 17:45		
Lead	52.6	0.38	mg/kg	SW846 6010B	01/22-01/26/03	FF25W1AE
		Dilution Factor: 1		Analysis Time..: 17:45		
Antimony	ND	7.6	mg/kg	SW846 6010B	01/22-01/26/03	FF25W1AF
		Dilution Factor: 1		Analysis Time..: 17:45		
Thallium	ND	1.3	mg/kg	SW846 6010B	01/22-01/26/03	FF25W1AG
		Dilution Factor: 1		Analysis Time..: 17:45		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: MW-2(8-9)

TOTAL Metals

Lot-Sample #...: H3A140175-019 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 23

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022115						
Arsenic	54.6	1.3	mg/kg	SW846 6010B	01/22-01/26/03	FF2501AC
		Dilution Factor: 1		Analysis Time..: 18:34		
Cadmium	1.7	0.65	mg/kg	SW846 6010B	01/22-01/26/03	FF2501AD
		Dilution Factor: 1		Analysis Time..: 18:34		
Lead	6130	3.9	mg/kg	SW846 6010B	01/22-01/26/03	FF2501AE
		Dilution Factor: 10		Analysis Time..: 17:18		
Antimony	170	7.8	mg/kg	SW846 6010B	01/22-01/26/03	FF2501AF
		Dilution Factor: 1		Analysis Time..: 18:34		
Thallium	ND	1.3	mg/kg	SW846 6010B	01/22-01/26/03	FF2501AG
		Dilution Factor: 1		Analysis Time..: 18:34		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: MW-2(12-13)

TOTAL Metals

Lot-Sample #...: H3A140175-020 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 32

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3017307						
Arsenic	ND	1.5	mg/kg	SW846 6010B	01/22-01/28/03	FF2511AC
		Dilution Factor: 1		Analysis Time..: 16:50		
Cadmium	1.4	0.73	mg/kg	SW846 6010B	01/22-01/28/03	FF2511AD
		Dilution Factor: 1		Analysis Time..: 16:50		
Lead	10.6	0.44	mg/kg	SW846 6010B	01/22-01/28/03	FF2511AE
		Dilution Factor: 1		Analysis Time..: 16:50		
Antimony	ND	8.8	mg/kg	SW846 6010B	01/22-01/28/03	FF2511AF
		Dilution Factor: 1		Analysis Time..: 16:50		
Thallium	ND	1.5	mg/kg	SW846 6010B	01/22-01/28/03	FF2511AG
		Dilution Factor: 1		Analysis Time..: 16:50		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: HA-0-15(1.0-1.5)

TOTAL Metals

Lot-Sample #...: H3A140175-021 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 24

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3017307						
Arsenic	60.6	1.3	mg/kg	SW846 6010B	01/22-01/28/03	FF2521AC
		Dilution Factor: 1		Analysis Time..: 20:53		
Cadmium	3.4	0.66	mg/kg	SW846 6010B	01/22-01/28/03	FF2521AD
		Dilution Factor: 1		Analysis Time..: 20:53		
Lead	9850	4.0	mg/kg	SW846 6010B	01/22-01/28/03	FF2521AE
		Dilution Factor: 10		Analysis Time..: 16:41		
Antimony	152	7.9	mg/kg	SW846 6010B	01/22-01/28/03	FF2521AF
		Dilution Factor: 1		Analysis Time..: 20:53		
Thallium	ND	1.3	mg/kg	SW846 6010B	01/22-01/28/03	FF2521AG
		Dilution Factor: 1		Analysis Time..: 20:53		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: HA-1-10(0-0.5)

TOTAL Metals

Lot-Sample #...: H3A140175-022 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 29

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3017307						
Arsenic	108	1.4	mg/kg	SW846 6010B	01/22-01/28/03	FF2541AC
		Dilution Factor: 1		Analysis Time..: 20:58		
Cadmium	6.4	0.70	mg/kg	SW846 6010B	01/22-01/28/03	FF2541AD
		Dilution Factor: 1		Analysis Time..: 20:58		
Lead	26500	42.0	mg/kg	SW846 6010B	01/22-01/28/03	FF2541AE
		Dilution Factor: 100		Analysis Time..: 16:46		
Antimony	363	8.4	mg/kg	SW846 6010B	01/22-01/28/03	FF2541AF
		Dilution Factor: 1		Analysis Time..: 20:58		
Thallium	1.9	1.4	mg/kg	SW846 6010B	01/22-01/28/03	FF2541AG
		Dilution Factor: 1		Analysis Time..: 20:58		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: HA-1-10(1-1.5)

TOTAL Metals

Lot-Sample #...: H3A140175-023 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 22

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3017307						
Arsenic	10.2	1.3	mg/kg	SW846 6010B	01/22-01/28/03	FF2571AC
		Dilution Factor: 1		Analysis Time..: 21:02		
Cadmium	1.3	0.64	mg/kg	SW846 6010B	01/22-01/28/03	FF2571AD
		Dilution Factor: 1		Analysis Time..: 21:02		
Lead	7380	3.8	mg/kg	SW846 6010B	01/22-01/28/03	FF2571AE
		Dilution Factor: 10		Analysis Time..: 17:04		
Antimony	263	7.7	mg/kg	SW846 6010B	01/22-01/28/03	FF2571AF
		Dilution Factor: 1		Analysis Time..: 21:02		
Thallium	1.3	1.3	mg/kg	SW846 6010B	01/22-01/28/03	FF2571AG
		Dilution Factor: 1		Analysis Time..: 21:02		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: HA-1-30(0-0.5)

TOTAL Metals

Lot-Sample #...: H3A140175-024 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 28

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3017307						
Arsenic	29.8	1.4	mg/kg	SW846 6010B	01/22-01/28/03	FF2591AC
		Dilution Factor: 1		Analysis Time..: 21:07		
Cadmium	8.2	0.69	mg/kg	SW846 6010B	01/22-01/28/03	FF2591AD
		Dilution Factor: 1		Analysis Time..: 21:07		
Lead	6990	4.1	mg/kg	SW846 6010B	01/22-01/28/03	FF2591AE
		Dilution Factor: 10		Analysis Time..: 17:08		
Antimony	226	8.3	mg/kg	SW846 6010B	01/22-01/28/03	FF2591AF
		Dilution Factor: 1		Analysis Time..: 21:07		
Thallium	ND	1.4	mg/kg	SW846 6010B	01/22-01/28/03	FF2591AG
		Dilution Factor: 1		Analysis Time..: 21:07		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: HA-1-30(1.0-1.5)

TOTAL Metals

Lot-Sample #...: H3A140175-025 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 20

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3017307						
Arsenic	25.1	1.3	mg/kg	SW846 6010B	01/22-01/28/03	FF26E1AC
		Dilution Factor: 1		Analysis Time..: 21:11		
Cadmium	5.8	0.63	mg/kg	SW846 6010B	01/22-01/28/03	FF26E1AD
		Dilution Factor: 1		Analysis Time..: 21:11		
Lead	3390	3.8	mg/kg	SW846 6010B	01/22-01/28/03	FF26E1AE
		Dilution Factor: 10		Analysis Time..: 17:13		
Antimony	33.9	7.5	mg/kg	SW846 6010B	01/22-01/28/03	FF26E1AF
		Dilution Factor: 1		Analysis Time..: 21:11		
Thallium	1.3	1.3	mg/kg	SW846 6010B	01/22-01/28/03	FF26E1AG
		Dilution Factor: 1		Analysis Time..: 21:11		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: HA-2-10(0-0.5)

TOTAL Metals

Lot-Sample #...: H3A140175-026 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 23

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3017307						
Arsenic	435	1.3	mg/kg	SW846 6010B	01/22-01/28/03	FF26G1AC
		Dilution Factor: 1		Analysis Time..: 21:16		
Cadmium	14.3	0.65	mg/kg	SW846 6010B	01/22-01/28/03	FF26G1AD
		Dilution Factor: 1		Analysis Time..: 21:16		
Lead	34000	38.8	mg/kg	SW846 6010B	01/22-01/28/03	FF26G1AE
		Dilution Factor: 100		Analysis Time..: 17:17		
Antimony	893	7.8	mg/kg	SW846 6010B	01/22-01/28/03	FF26G1AF
		Dilution Factor: 1		Analysis Time..: 21:16		
Thallium	3.0	1.3	mg/kg	SW846 6010B	01/22-01/28/03	FF26G1AG
		Dilution Factor: 1		Analysis Time..: 21:16		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: LAT-2-1(1-1.5)

TOTAL Metals

Lot-Sample #...: H3A140175-027 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 31

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3017307						
Arsenic	22.4	1.4	mg/kg	SW846 6010B	01/22-01/28/03	FF26H1AC
		Dilution Factor: 1		Analysis Time..: 21:29		
Cadmium	3.9	0.72	mg/kg	SW846 6010B	01/22-01/28/03	FF26H1AD
		Dilution Factor: 1		Analysis Time..: 21:29		
Lead	6290	4.3	mg/kg	SW846 6010B	01/22-01/28/03	FF26H1AE
		Dilution Factor: 10		Analysis Time..: 17:22		
Antimony	114	8.7	mg/kg	SW846 6010B	01/22-01/28/03	FF26H1AF
		Dilution Factor: 1		Analysis Time..: 21:29		
Thallium	ND	1.4	mg/kg	SW846 6010B	01/22-01/28/03	FF26H1AG
		Dilution Factor: 1		Analysis Time..: 21:29		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: LAT-2-2(0.5-1)

TOTAL Metals

Lot-Sample #...: H3A140175-028 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 49

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3017307						
Arsenic	29.7	2.0	mg/kg	SW846 6010B	01/22-01/28/03	FF26K1AC
		Dilution Factor: 1		Analysis Time..: 21:34		
Cadmium	61.6	0.99	mg/kg	SW846 6010B	01/22-01/28/03	FF26K1AD
		Dilution Factor: 1		Analysis Time..: 21:34		
Lead	18000	59.3	mg/kg	SW846 6010B	01/22-01/28/03	FF26K1AE
		Dilution Factor: 100		Analysis Time..: 17:26		
Antimony	83.6	11.9	mg/kg	SW846 6010B	01/22-01/28/03	FF26K1AF
		Dilution Factor: 1		Analysis Time..: 21:34		
Thallium	ND	2.0	mg/kg	SW846 6010B	01/22-01/28/03	FF26K1AG
		Dilution Factor: 1		Analysis Time..: 21:34		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: LAT-2-2(1-1.5)

TOTAL Metals

Lot-Sample #...: H3A140175-029 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 45

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3017307						
Arsenic	23.0	1.8	mg/kg	SW846 6010B	01/22-01/28/03	FF26M1AC
		Dilution Factor: 1		Analysis Time..: 21:38		
Cadmium	14.9	0.90	mg/kg	SW846 6010B	01/22-01/28/03	FF26M1AD
		Dilution Factor: 1		Analysis Time..: 21:38		
Lead	9440	54.3	mg/kg	SW846 6010B	01/22-01/28/03	FF26M1AE
		Dilution Factor: 100		Analysis Time..: 17:31		
Antimony	41.4	10.9	mg/kg	SW846 6010B	01/22-01/28/03	FF26M1AF
		Dilution Factor: 1		Analysis Time..: 21:38		
Thallium	ND	1.8	mg/kg	SW846 6010B	01/22-01/28/03	FF26M1AG
		Dilution Factor: 1		Analysis Time..: 21:38		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: LAT-2-3(0.5-1)

TOTAL Metals

Lot-Sample #...: H3A140175-030 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 44

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3017307						
Arsenic	28.0	1.8	mg/kg	SW846 6010B	01/22-01/28/03	FF26Q1AC
		Dilution Factor: 1		Analysis Time..: 21:43		
Cadmium	17.9	0.90	mg/kg	SW846 6010B	01/22-01/28/03	FF26Q1AD
		Dilution Factor: 1		Analysis Time..: 21:43		
Lead	6920	54.0	mg/kg	SW846 6010B	01/22-01/28/03	FF26Q1AE
		Dilution Factor: 100		Analysis Time..: 17:35		
Antimony	43.2	10.8	mg/kg	SW846 6010B	01/22-01/28/03	FF26Q1AF
		Dilution Factor: 1		Analysis Time..: 21:43		
Thallium	ND	1.8	mg/kg	SW846 6010B	01/22-01/28/03	FF26Q1AG
		Dilution Factor: 1		Analysis Time..: 21:43		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: LAT-2-3(1-1.5)

TOTAL Metals

Lot-Sample #...: H3A140175-031 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 23

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3017307						
Arsenic	8.9	1.3	mg/kg	SW846 6010B	01/22-01/28/03	FF26T1AC
		Dilution Factor: 1		Analysis Time..: 17:58		
Cadmium	6.1	0.65	mg/kg	SW846 6010B	01/22-01/28/03	FF26T1AD
		Dilution Factor: 1		Analysis Time..: 17:58		
Lead	841	0.39	mg/kg	SW846 6010B	01/22-01/28/03	FF26T1AE
		Dilution Factor: 1		Analysis Time..: 17:58		
Antimony	ND	7.8	mg/kg	SW846 6010B	01/22-01/28/03	FF26T1AF
		Dilution Factor: 1		Analysis Time..: 17:58		
Thallium	ND	1.3	mg/kg	SW846 6010B	01/22-01/28/03	FF26T1AG
		Dilution Factor: 1		Analysis Time..: 17:58		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: LAT-3-1(0-0.5)

TOTAL Metals

Lot-Sample #...: H3A140175-032 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 60

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3017307						
Arsenic	56.9	2.5	mg/kg	SW846 6010B	01/22-01/28/03	FF26X1AC
		Dilution Factor: 1		Analysis Time..: 21:47		
Cadmium	9.0	1.3	mg/kg	SW846 6010B	01/22-01/28/03	FF26X1AD
		Dilution Factor: 1		Analysis Time..: 21:47		
Lead	11400	75.5	mg/kg	SW846 6010B	01/22-01/28/03	FF26X1AE
		Dilution Factor: 100		Analysis Time..: 17:44		
Antimony	107	15.1	mg/kg	SW846 6010B	01/22-01/28/03	FF26X1AF
		Dilution Factor: 1		Analysis Time..: 21:47		
Thallium	ND	2.5	mg/kg	SW846 6010B	01/22-01/28/03	FF26X1AG
		Dilution Factor: 1		Analysis Time..: 21:47		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: LAT-3-1(1-1.5)

TOTAL Metals

Lot-Sample #...: H3A140175-033 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 21

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3017307						
Arsenic	15.8	1.3	mg/kg	SW846 6010B	01/22-01/28/03	FF2631AC
		Dilution Factor: 1		Analysis Time..: 21:52		
Cadmium	7.3	0.64	mg/kg	SW846 6010B	01/22-01/28/03	FF2631AD
		Dilution Factor: 1		Analysis Time..: 21:52		
Lead	2030	3.8	mg/kg	SW846 6010B	01/22-01/28/03	FF2631AE
		Dilution Factor: 10		Analysis Time..: 17:40		
Antimony	20.4	7.6	mg/kg	SW846 6010B	01/22-01/28/03	FF2631AF
		Dilution Factor: 1		Analysis Time..: 21:52		
Thallium	ND	1.3	mg/kg	SW846 6010B	01/22-01/28/03	FF2631AG
		Dilution Factor: 1		Analysis Time..: 21:52		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: LAT-3-2(0.5-1.0)

TOTAL Metals

Lot-Sample #...: H3A140175-034 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03
% Moisture.....: 20

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3017307						
Arsenic	2.0	1.2	mg/kg	SW846 6010B	01/22-01/28/03	FF2661AC
		Dilution Factor: 1		Analysis Time..: 18:02		
Cadmium	0.98	0.62	mg/kg	SW846 6010B	01/22-01/28/03	FF2661AD
		Dilution Factor: 1		Analysis Time..: 18:02		
Lead	47.9	0.37	mg/kg	SW846 6010B	01/22-01/28/03	FF2661AE
		Dilution Factor: 1		Analysis Time..: 18:02		
Antimony	ND	7.5	mg/kg	SW846 6010B	01/22-01/28/03	FF2661AF
		Dilution Factor: 1		Analysis Time..: 18:02		
Thallium	ND	1.2	mg/kg	SW846 6010B	01/22-01/28/03	FF2661AG
		Dilution Factor: 1		Analysis Time..: 18:02		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: MW-1

DISSOLVED Metals

Lot-Sample #...: H3A140175-035 Matrix.....: WATER
Date Sampled...: 01/11/03 Date Received..: 01/14/03

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022129						
Arsenic	ND	10.0	ug/L	SW846 6010B	01/22-01/24/03	FF40N1AC
		Dilution Factor: 1		Analysis Time..: 20:22		
Cadmium	8.7	5.0	ug/L	SW846 6010B	01/22-01/24/03	FF40N1AD
		Dilution Factor: 1		Analysis Time..: 20:22		
Lead	38.9	3.0	ug/L	SW846 6010B	01/22-01/24/03	FF40N1AE
		Dilution Factor: 1		Analysis Time..: 20:22		
Antimony	ND	60.0	ug/L	SW846 6010B	01/22-01/24/03	FF40N1AA
		Dilution Factor: 1		Analysis Time..: 20:22		
Thallium	ND	10.0	ug/L	SW846 6010B	01/22-01/24/03	FF40N1AF
		Dilution Factor: 1		Analysis Time..: 20:22		

ENVIRONMENTAL STRATEGIES CORPORATION

Client Sample ID: MW-2

DISSOLVED Metals

Lot-Sample #...: H3A140175-036 Matrix.....: WATER
Date Sampled...: 01/11/03 Date Received..: 01/14/03

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3022129						
Arsenic	ND	10.0	ug/L	SW846 6010B	01/22-01/24/03	FF40Q1AC
		Dilution Factor: 1		Analysis Time..: 20:27		
Cadmium	15.4	5.0	ug/L	SW846 6010B	01/22-01/24/03	FF40Q1AD
		Dilution Factor: 1		Analysis Time..: 20:27		
Lead	14.1	3.0	ug/L	SW846 6010B	01/22-01/24/03	FF40Q1AE
		Dilution Factor: 1		Analysis Time..: 20:27		
Antimony	ND	60.0	ug/L	SW846 6010B	01/22-01/24/03	FF40Q1AA
		Dilution Factor: 1		Analysis Time..: 20:27		
Thallium	ND	10.0	ug/L	SW846 6010B	01/22-01/24/03	FF40Q1AF
		Dilution Factor: 1		Analysis Time..: 20:27		

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: H3A140175 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: H3A170000-307 Prep Batch #...: 3017307						
Antimony	ND	6.0	mg/kg	SW846 6010B	01/22-01/28/03	FF8881AE
		Dilution Factor: 1				
		Analysis Time..: 13:30				
Arsenic	ND	1.0	mg/kg	SW846 6010B	01/22-01/28/03	FF8881AA
		Dilution Factor: 1				
		Analysis Time..: 13:30				
Cadmium	ND	0.50	mg/kg	SW846 6010B	01/22-01/28/03	FF8881AC
		Dilution Factor: 1				
		Analysis Time..: 13:30				
Lead	ND	0.30	mg/kg	SW846 6010B	01/22-01/28/03	FF8881AD
		Dilution Factor: 1				
		Analysis Time..: 13:30				
Thallium	ND	1.0	mg/kg	SW846 6010B	01/22-01/28/03	FF8881AF
		Dilution Factor: 1				
		Analysis Time..: 13:30				
MB Lot-Sample #: H3A220000-115 Prep Batch #...: 3022115						
Antimony	ND	6.0	mg/kg	SW846 6010B	01/22-01/26/03	FGFRV1AE
		Dilution Factor: 1				
		Analysis Time..: 12:22				
Arsenic	ND	1.0	mg/kg	SW846 6010B	01/22-01/26/03	FGFRV1AA
		Dilution Factor: 1				
		Analysis Time..: 12:22				
Cadmium	ND	0.50	mg/kg	SW846 6010B	01/22-01/26/03	FGFRV1AC
		Dilution Factor: 1				
		Analysis Time..: 12:22				
Lead	ND	0.30	mg/kg	SW846 6010B	01/22-01/26/03	FGFRV1AD
		Dilution Factor: 1				
		Analysis Time..: 12:22				
Thallium	ND	1.0	mg/kg	SW846 6010B	01/22-01/26/03	FGFRV1AF
		Dilution Factor: 1				
		Analysis Time..: 12:22				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H3A140175 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H3A170000-307 **Prep Batch #...:** 3017307					
Arsenic	94	(89 - 110)	SW846 6010B	01/22-01/28/03	FF8881AG
		Dilution Factor: 1		Analysis Time..: 13:34	
Cadmium	98	(90 - 110)	SW846 6010B	01/22-01/28/03	FF8881AH
		Dilution Factor: 1		Analysis Time..: 13:34	
Lead	97	(90 - 110)	SW846 6010B	01/22-01/28/03	FF8881AJ
		Dilution Factor: 1		Analysis Time..: 13:34	
Antimony	94	(88 - 110)	SW846 6010B	01/22-01/28/03	FF8881AK
		Dilution Factor: 1		Analysis Time..: 13:34	
Thallium	96	(90 - 110)	SW846 6010B	01/22-01/28/03	FF8881AL
		Dilution Factor: 1		Analysis Time..: 13:34	
CS Lot-Sample#: H3A220000-115 **Prep Batch #...:** 3022115					
Arsenic	95	(89 - 110)	SW846 6010B	01/22-01/26/03	FGFRV1AG
		Dilution Factor: 1		Analysis Time..: 12:26	
Cadmium	99	(90 - 110)	SW846 6010B	01/22-01/26/03	FGFRV1AH
		Dilution Factor: 1		Analysis Time..: 12:26	
Lead	98	(90 - 110)	SW846 6010B	01/22-01/26/03	FGFRV1AJ
		Dilution Factor: 1		Analysis Time..: 12:26	
Antimony	94	(88 - 110)	SW846 6010B	01/22-01/26/03	FGFRV1AK
		Dilution Factor: 1		Analysis Time..: 12:26	
Thallium	96	(90 - 110)	SW846 6010B	01/22-01/26/03	FGFRV1AL
		Dilution Factor: 1		Analysis Time..: 12:26	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H3A140175 Matrix.....: SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H3A170000-307 Prep Batch #...: 3017307							
Arsenic	200	188	mg/kg	94	SW846 6010B	01/22-01/28/03	FF8881AG
			Dilution Factor: 1		Analysis Time..: 13:34		
Cadmium	5.00	4.92	mg/kg	98	SW846 6010B	01/22-01/28/03	FF8881AH
			Dilution Factor: 1		Analysis Time..: 13:34		
Lead	50.0	48.6	mg/kg	97	SW846 6010B	01/22-01/28/03	FF8881AJ
			Dilution Factor: 1		Analysis Time..: 13:34		
Antimony	50.0	46.8	mg/kg	94	SW846 6010B	01/22-01/28/03	FF8881AK
			Dilution Factor: 1		Analysis Time..: 13:34		
Thallium	200	192	mg/kg	96	SW846 6010B	01/22-01/28/03	FF8881AL
			Dilution Factor: 1		Analysis Time..: 13:34		
CS Lot-Sample#: H3A220000-115 Prep Batch #...: 3022115							
Arsenic	200	189	mg/kg	95	SW846 6010B	01/22-01/26/03	FGFRV1AG
			Dilution Factor: 1		Analysis Time..: 12:26		
Cadmium	5.00	4.96	mg/kg	99	SW846 6010B	01/22-01/26/03	FGFRV1AH
			Dilution Factor: 1		Analysis Time..: 12:26		
Lead	50.0	49.0	mg/kg	98	SW846 6010B	01/22-01/26/03	FGFRV1AJ
			Dilution Factor: 1		Analysis Time..: 12:26		
Antimony	50.0	47.0	mg/kg	94	SW846 6010B	01/22-01/26/03	FGFRV1AK
			Dilution Factor: 1		Analysis Time..: 12:26		
Thallium	200	192	mg/kg	96	SW846 6010B	01/22-01/26/03	FGFRV1AL
			Dilution Factor: 1		Analysis Time..: 12:26		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H3A100141 Matrix.....: SOLID
Date Sampled...: 01/09/03 Date Received..: 01/10/03

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H3A100141-010 Prep Batch #...: 3017307						% Moisture.....: 16	
Antimony	45 N	(75 - 125)			SW846 6010B	01/22-01/28/03	FFWCG1AP
	54 N	(75 - 125)	4.4	(0-20)	SW846 6010B	01/22-01/28/03	FFWCG1AQ
		Dilution Factor: 10					
		Analysis Time..: 16:10					
Arsenic	102	(75 - 125)			SW846 6010B	01/22-01/28/03	FFWCG1AH
	103	(75 - 125)	1.0	(0-20)	SW846 6010B	01/22-01/28/03	FFWCG1AJ
		Dilution Factor: 10					
		Analysis Time..: 16:10					
Cadmium	151 N	(75 - 125)			SW846 6010B	01/22-01/28/03	FFWCG1AK
	137 N	(75 - 125)	8.2	(0-20)	SW846 6010B	01/22-01/28/03	FFWCG1AL
		Dilution Factor: 10					
		Analysis Time..: 16:10					
ead	NC,MSB	(75 - 125)			SW846 6010B	01/22-01/28/03	FFWCG1AM
	NC,MSB	(75 - 125)		(0-20)	SW846 6010B	01/22-01/28/03	FFWCG1AN
		Dilution Factor: 10					
		Analysis Time..: 16:10					
Thallium	96	(75 - 125)			SW846 6010B	01/22-01/28/03	FFWCG1AR
	97	(75 - 125)	1.4	(0-20)	SW846 6010B	01/22-01/28/03	FFWCG1AT
		Dilution Factor: 10					
		Analysis Time..: 16:10					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H3A100141 Matrix.....: SOLID
Date Sampled...: 01/09/03 Date Received..: 01/10/03

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H3A100141-010 Prep Batch #...: 3017307									
								% Moisture.....: 16	
Antimony									
	92.6	59.5	119 N	mg/kg	45		SW846 6010B	01/22-01/28/03	FFWCG1A
	92.6	59.5	125 N	mg/kg	54	4.4	SW846 6010B	01/22-01/28/03	FFWCG1A
			Dilution Factor: 10						
			Analysis Time..: 16:10						
Arsenic									
	17.7	238	261	mg/kg	102		SW846 6010B	01/22-01/28/03	FFWCG1A
	17.7	238	264	mg/kg	103	1.0	SW846 6010B	01/22-01/28/03	FFWCG1A
			Dilution Factor: 10						
			Analysis Time..: 16:10						
Cadmium									
	1.3	5.95	10.3 N	mg/kg	151		SW846 6010B	01/22-01/28/03	FFWCG1A
	1.3	5.95	9.46 N	mg/kg	137	8.2	SW846 6010B	01/22-01/28/03	FFWCG1A
			Dilution Factor: 10						
			Analysis Time..: 16:10						
Lead									
	1210	59.5	1050	mg/kg			SW846 6010B	01/22-01/28/03	FFWCG1A
			Qualifiers: NC,MSB						
	1210	59.5	812	mg/kg			SW846 6010B	01/22-01/28/03	FFWCG1A
			Qualifiers: NC,MSB						
			Dilution Factor: 10						
			Analysis Time..: 16:10						
Thallium									
	1.2	238	229	mg/kg	96		SW846 6010B	01/22-01/28/03	FFWCG1A
	1.2	238	232	mg/kg	97	1.4	SW846 6010B	01/22-01/28/03	FFWCG1A
			Dilution Factor: 10						
			Analysis Time..: 16:10						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H3A140175 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H3A140175-001 Prep Batch #...: 3022115						% Moisture.....: 30	
Antimony	56 N	(75 - 125)			SW846 6010B	01/22-01/26/03	FF24C1AQ
	52 N	(75 - 125)	4.2	(0-20)	SW846 6010B	01/22-01/26/03	FF24C1AR
		Dilution Factor: 10					
		Analysis Time..: 16:28					
Arsenic	97	(75 - 125)			SW846 6010B	01/22-01/26/03	FF24C1AJ
	94	(75 - 125)	2.9	(0-20)	SW846 6010B	01/22-01/26/03	FF24C1AK
		Dilution Factor: 10					
		Analysis Time..: 16:28					
Cadmium	127 N	(75 - 125)			SW846 6010B	01/22-01/26/03	FF24C1AL
	85	(75 - 125)	18	(0-20)	SW846 6010B	01/22-01/26/03	FF24C1AM
		Dilution Factor: 10					
		Analysis Time..: 16:28					
ead	NC,MSB	(75 - 125)			SW846 6010B	01/22-01/26/03	FF24C1AN
	NC,MSB	(75 - 125)		(0-20)	SW846 6010B	01/22-01/26/03	FF24C1AP
		Dilution Factor: 10					
		Analysis Time..: 16:28					
Thallium	94	(75 - 125)			SW846 6010B	01/22-01/26/03	FF24C1AT
	94	(75 - 125)	0.35	(0-20)	SW846 6010B	01/22-01/26/03	FF24C1AU
		Dilution Factor: 10					
		Analysis Time..: 16:28					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H3A140175 Matrix.....: SOLID
Date Sampled...: 01/10/03 Date Received..: 01/14/03

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H3A140175-001 Prep Batch #...: 3022115									
								% Moisture.....: 30	
Antimony									
	33.1	71.2	73.2 N	mg/kg	56		SW846 6010B	01/22-01/26/03	FF24C1A
	33.1	71.2	70.2 N	mg/kg	52	4.2	SW846 6010B	01/22-01/26/03	FF24C1A
			Dilution Factor: 10						
			Analysis Time..: 16:28						
Arsenic									
	31.6	285	309	mg/kg	97		SW846 6010B	01/22-01/26/03	FF24C1A
	31.6	285	300	mg/kg	94	2.9	SW846 6010B	01/22-01/26/03	FF24C1A
			Dilution Factor: 10						
			Analysis Time..: 16:28						
Cadmium									
	8.5	7.12	17.6 N	mg/kg	127		SW846 6010B	01/22-01/26/03	FF24C1A
	8.5	7.12	14.6	mg/kg	85	18	SW846 6010B	01/22-01/26/03	FF24C1A
			Dilution Factor: 10						
			Analysis Time..: 16:28						
Lead									
	8440	71.2	10600	mg/kg			SW846 6010B	01/22-01/26/03	FF24C1A
			Qualifiers: NC,MSB						
	8440	71.2	8520	mg/kg			SW846 6010B	01/22-01/26/03	FF24C1A
			Qualifiers: NC,MSB						
			Dilution Factor: 10						
			Analysis Time..: 16:28						
Thallium									
	ND	285	269	mg/kg	94		SW846 6010B	01/22-01/26/03	FF24C1A
	ND	285	268	mg/kg	94	0.35	SW846 6010B	01/22-01/26/03	FF24C1A
			Dilution Factor: 10						
			Analysis Time..: 16:28						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

N Spiked analyte recovery is outside stated control limits.

METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: H3A140175 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: H3A220000-129 **Prep Batch #...:** 3022129						
Antimony	ND	60.0	ug/L	SW846 6010B	01/22-01/24/03	FGFT01AA
		Dilution Factor: 1				
		Analysis Time..: 14:56				
Arsenic	ND	10.0	ug/L	SW846 6010B	01/22-01/24/03	FGFT01AC
		Dilution Factor: 1				
		Analysis Time..: 14:56				
Cadmium	ND	5.0	ug/L	SW846 6010B	01/22-01/24/03	FGFT01AD
		Dilution Factor: 1				
		Analysis Time..: 14:56				
Lead	ND	3.0	ug/L	SW846 6010B	01/22-01/24/03	FGFT01AE
		Dilution Factor: 1				
		Analysis Time..: 14:56				
Thallium	ND	10.0	ug/L	SW846 6010B	01/22-01/24/03	FGFT01AF
		Dilution Factor: 1				
		Analysis Time..: 14:56				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: H3A140175 Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H3A220000-129 Prep Batch #...: 3022129					
Antimony	97	(90 - 110)	SW846 6010B	01/22-01/24/03	FGFT01AG
		Dilution Factor: 1	Analysis Time..: 15:00		
Arsenic	98	(90 - 110)	SW846 6010B	01/22-01/24/03	FGFT01AH
		Dilution Factor: 1	Analysis Time..: 15:00		
Cadmium	99	(90 - 110)	SW846 6010B	01/22-01/24/03	FGFT01AJ
		Dilution Factor: 1	Analysis Time..: 15:00		
Lead	99	(90 - 110)	SW846 6010B	01/22-01/24/03	FGFT01AK
		Dilution Factor: 1	Analysis Time..: 15:00		
Thallium	98	(90 - 110)	SW846 6010B	01/22-01/24/03	FGFT01AL
		Dilution Factor: 1	Analysis Time..: 15:00		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: H3A140175 Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H3A220000-129 Prep Batch #...: 3022129							
Antimony	500	484	ug/L	97	SW846 6010B	01/22-01/24/03	FGFT01AG
			Dilution Factor: 1		Analysis Time..: 15:00		
Arsenic	2000	1950	ug/L	98	SW846 6010B	01/22-01/24/03	FGFT01AH
			Dilution Factor: 1		Analysis Time..: 15:00		
Cadmium	50.0	49.6	ug/L	99	SW846 6010B	01/22-01/24/03	FGFT01AJ
			Dilution Factor: 1		Analysis Time..: 15:00		
Lead	500	494	ug/L	99	SW846 6010B	01/22-01/24/03	FGFT01AK
			Dilution Factor: 1		Analysis Time..: 15:00		
Thallium	2000	1970	ug/L	98	SW846 6010B	01/22-01/24/03	FGFT01AL
			Dilution Factor: 1		Analysis Time..: 15:00		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: H3A140175 **Matrix.....:** WATER
Date Sampled...: 01/11/03 **Date Received..:** 01/14/03

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H3A140175-036 **Prep Batch #...:** 3022129							
Antimony	97	(75 - 125)			SW846 6010B	01/22-01/24/03	FF40Q1AG
	99	(75 - 125)	1.9	(0-20)	SW846 6010B	01/22-01/24/03	FF40Q1AH
		Dilution Factor: 1					
		Analysis Time..: 20:40					
Arsenic	98	(75 - 125)			SW846 6010B	01/22-01/24/03	FF40Q1AJ
	100	(75 - 125)	2.4	(0-20)	SW846 6010B	01/22-01/24/03	FF40Q1AK
		Dilution Factor: 1					
		Analysis Time..: 20:40					
Cadmium	98	(75 - 125)			SW846 6010B	01/22-01/24/03	FF40Q1AL
	95	(75 - 125)	2.1	(0-20)	SW846 6010B	01/22-01/24/03	FF40Q1AM
		Dilution Factor: 1					
		Analysis Time..: 20:40					
Lead	97	(75 - 125)			SW846 6010B	01/22-01/24/03	FF40Q1AN
	100	(75 - 125)	2.3	(0-20)	SW846 6010B	01/22-01/24/03	FF40Q1AP
		Dilution Factor: 1					
		Analysis Time..: 20:40					
Thallium	98	(75 - 125)			SW846 6010B	01/22-01/24/03	FF40Q1AQ
	100	(75 - 125)	2.3	(0-20)	SW846 6010B	01/22-01/24/03	FF40Q1AR
		Dilution Factor: 1					
		Analysis Time..: 20:40					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: H3A140175 **Matrix.....:** WATER
Date Sampled...: 01/11/03 **Date Received..:** 01/14/03

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H3A140175-036 **Prep Batch #...:** 3022129									
Antimony									
	ND	500	496	ug/L	97		SW846 6010B	01/22-01/24/03	FF40Q1A
	ND	500	505	ug/L	99	1.9	SW846 6010B	01/22-01/24/03	FF40Q1A
			Dilution Factor: 1						
			Analysis Time..: 20:40						
Arsenic									
	ND	2000	1960	ug/L	98		SW846 6010B	01/22-01/24/03	FF40Q1A
	ND	2000	2000	ug/L	100	2.4	SW846 6010B	01/22-01/24/03	FF40Q1A
			Dilution Factor: 1						
			Analysis Time..: 20:40						
Cadmium									
	15.4	50.0	64.3	ug/L	98		SW846 6010B	01/22-01/24/03	FF40Q1A
	15.4	50.0	62.9	ug/L	95	2.1	SW846 6010B	01/22-01/24/03	FF40Q1A
			Dilution Factor: 1						
			Analysis Time..: 20:40						
Lead									
	14.1	500	501	ug/L	97		SW846 6010B	01/22-01/24/03	FF40Q1A
	14.1	500	513	ug/L	100	2.3	SW846 6010B	01/22-01/24/03	FF40Q1A
			Dilution Factor: 1						
			Analysis Time..: 20:40						
Thallium									
	ND	2000	1950	ug/L	98		SW846 6010B	01/22-01/24/03	FF40Q1A
	ND	2000	2000	ug/L	100	2.3	SW846 6010B	01/22-01/24/03	FF40Q1A
			Dilution Factor: 1						
			Analysis Time..: 20:40						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: H3A140175 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: H3A220000-130 **Prep Batch #...:** 3022130						
Antimony	ND	60.0	ug/L	SW846 6010B	01/22-01/24/03	FGFT21AC
		Dilution Factor: 1				
		Analysis Time..: 14:47				
Arsenic	ND	10.0	ug/L	SW846 6010B	01/22-01/24/03	FGFT21AD
		Dilution Factor: 1				
		Analysis Time..: 14:47				
Cadmium	ND	5.0	ug/L	SW846 6010B	01/22-01/24/03	FGFT21AG
		Dilution Factor: 1				
		Analysis Time..: 14:47				
Lead	ND	3.0	ug/L	SW846 6010B	01/22-01/24/03	FGFT21AN
		Dilution Factor: 1				
		Analysis Time..: 14:47				
Thallium	ND	10.0	ug/L	SW846 6010B	01/22-01/24/03	FGFT21CP
		Dilution Factor: 1				
		Analysis Time..: 14:47				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H3A140175 Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H3A220000-130 Prep Batch #...: 3022130					
Antimony	98	(90 - 110)	SW846 6010B	01/22-01/24/03	FGFT21A2
		Dilution Factor: 1	Analysis Time..: 14:51		
Arsenic	99	(90 - 110)	SW846 6010B	01/22-01/24/03	FGFT21A3
		Dilution Factor: 1	Analysis Time..: 14:51		
Cadmium	101	(90 - 110)	SW846 6010B	01/22-01/24/03	FGFT21A6
		Dilution Factor: 1	Analysis Time..: 14:51		
Lead	100	(90 - 110)	SW846 6010B	01/22-01/24/03	FGFT21CD
		Dilution Factor: 1	Analysis Time..: 14:51		
Thallium	99	(90 - 110)	SW846 6010B	01/22-01/24/03	FGFT21CQ
		Dilution Factor: 1	Analysis Time..: 14:51		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H3A140175 Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H3A220000-130 Prep Batch #...: 3022130							
Antimony	500	491	ug/L	98	SW846 6010B	01/22-01/24/03	FGFT21A2
			Dilution Factor: 1		Analysis Time..: 14:51		
Arsenic	2000	1980	ug/L	99	SW846 6010B	01/22-01/24/03	FGFT21A3
			Dilution Factor: 1		Analysis Time..: 14:51		
Cadmium	50.0	50.4	ug/L	101	SW846 6010B	01/22-01/24/03	FGFT21A6
			Dilution Factor: 1		Analysis Time..: 14:51		
Lead	500	499	ug/L	100	SW846 6010B	01/22-01/24/03	FGFT21CD
			Dilution Factor: 1		Analysis Time..: 14:51		
Thallium	2000	1990	ug/L	99	SW846 6010B	01/22-01/24/03	FGFT21CQ
			Dilution Factor: 1		Analysis Time..: 14:51		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H3A140175 **Matrix.....:** WATER
Date Sampled...: 01/09/03 **Date Received..:** 01/10/03

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H3A100268-002 **Prep Batch #...:** 3022130							
Antimony	100	(75 - 125)			SW846 6010B	01/22-01/24/03	FFXDR1A8
	99	(75 - 125)	1.1	(0-20)	SW846 6010B	01/22-01/24/03	FFXDR1A9
		Dilution Factor: 1					
		Analysis Time..: 20:04					
Arsenic	100	(75 - 125)			SW846 6010B	01/22-01/24/03	FFXDR1CA
	99	(75 - 125)	1.4	(0-20)	SW846 6010B	01/22-01/24/03	FFXDR1CC
		Dilution Factor: 1					
		Analysis Time..: 20:04					
Cadmium	103	(75 - 125)			SW846 6010B	01/22-01/24/03	FFXDR1CH
	102	(75 - 125)	0.97	(0-20)	SW846 6010B	01/22-01/24/03	FFXDR1CJ
		Dilution Factor: 1					
		Analysis Time..: 20:04					
Lead	101	(75 - 125)			SW846 6010B	01/22-01/24/03	FFXDR1CW
	100	(75 - 125)	0.89	(0-20)	SW846 6010B	01/22-01/24/03	FFXDR1CX
		Dilution Factor: 1					
		Analysis Time..: 20:04					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H3A140175 **Matrix.....:** WATER
Date Sampled...: 01/09/03 **Date Received..:** 01/10/03

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: H3A100268-002 **Prep Batch #...:** 3022130									
Antimony									
	ND	500	500	ug/L	100		SW846 6010B	01/22-01/24/03	FFXDR1A
	ND	500	494	ug/L	99	1.1	SW846 6010B	01/22-01/24/03	FFXDR1A
			Dilution Factor: 1						
			Analysis Time..: 20:04						
Arsenic									
	ND	2000	2010	ug/L	100		SW846 6010B	01/22-01/24/03	FFXDR1C
	ND	2000	1980	ug/L	99	1.4	SW846 6010B	01/22-01/24/03	FFXDR1C
			Dilution Factor: 1						
			Analysis Time..: 20:04						
Cadmium									
	ND	50.0	51.5	ug/L	103		SW846 6010B	01/22-01/24/03	FFXDR1C
	ND	50.0	51.0	ug/L	102	0.97	SW846 6010B	01/22-01/24/03	FFXDR1C
			Dilution Factor: 1						
			Analysis Time..: 20:04						
Lead									
	ND	500	505	ug/L	101		SW846 6010B	01/22-01/24/03	FFXDR1C
	ND	500	501	ug/L	100	0.89	SW846 6010B	01/22-01/24/03	FFXDR1C
			Dilution Factor: 1						
			Analysis Time..: 20:04						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Sample Receipt Documentation

No. 023488

CHAIN OF CUSTODY RECORD

~~H3A140175~~ H3A140175

Page 1 of 3

PROJECT NO.	PROJECT NAME AND LOCATION:
126988	NL - Atlanta

SAMPLERS: (Signature) _____ PRINT NAME: Jesse Morgan

SAMPLE I.D.	SAMPLE LOCATION	DATE	TIME	MATRIX	NO. OF CONTAINERS	Lead	Arsenic	Cadmium	Thallium	Antimony		REMARKS
HA-2-25 (0-0.5)	✓	1/10/03	955	Soil	1	X	X	X	X	X		
HA-3-15 (1.0-1.5)	✓	1/10/03	1000	Soil	1	↓	↓	↓	↓	↓		Very High levels Expected for HA-3-15
HA-3-15 (1.5-2.0)	✓	1/10/03	1005	Soil	1							
HA-4-10 (0-0.5)	✓	1/10/03	1015	Soil	1							
HA-5-15 (0.5-1.0)	✓	1/10/03	1700	Soil	1							
HA-5-15 (1-1.5)	✓	1/10/03	1705	Soil	1							
HA-6-15 (0-0.5)	✓	1/10/03	1710	Soil	1							Rec'd temp. 3°c
HA-6-15 (0.5-1.0)	✓	1/10/03	1715	Soil	1							Custody Seals intact
Lat-1-1 (1-1.5)	✓	1/10/03	1100	Soil	1							1 Cooler-Fedex #
Lat-1-2 (1-1.5)	✓	1/10/03	1110	Soil	1							8332 1081 9228
Lat-1-3 (0.5-1.0)	✓	1/10/03	1120	Soil	1							MF# 01-14-03
Lat-1-3 (1.0-1.5)	✓	1/10/03	1125	Soil	1							
Lat-2-1 (0.5-1)	✓	1/10/03	1300	Soil	1	↓	↓	↓	↓	↓		

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
_____	1/11/03 1200	_____
Relinquished by: (Signature)	Date/Time.	Received by: (Signature)
_____	1/13/03 1600	
Received for Laboratory by: (Signature)	PRINT NAME:	Date/Time
_____	Matthew F. Howard	01-14-03 09:00

LAB NAME: STL - Knoxville

CITY:

COURIER:

AIRBILL NO.

CUSTODY SEAL NOS:

COOLER NO:

ENVIRONMENTAL STRATEGIES CORPORATION
11911 Freedom Drive
Reston, Virginia 20190
(703) 709-6500 • Fax (703) 318-3995
Fax (412) 787-8065

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ATTENTION LAB: SEND ANALYTICAL RESULTS TO THE FOLLOWING ESC STAFF MEMBER:

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H3A140173

No. 023487

CHAIN OF CUSTODY RECORD

Page 2 of 3

PROJECT NO.	PROJECT NAME AND LOCATION:
126988	NL - Atlanta

SAMPLERS: *(Signature)* — PRINT NAME: Jesse F. Morgan

SAMPLE I.D.	SAMPLE LOCATION	DATE	TIME	MATRIX	NO. OF CONTAINERS	Lead	Arsenic	Cadmium	Thallium	Antimony		REMARKS
EB-01-10-03	Split Spoon - MW-1	1/10/03	0905	Aq	1	X	X	X	X	X	PH<2	Total
MW-1		1/11/03	1005	Aq	2	X	X	X	X	X	↓	Total + Dissolved
MW-2		1/11/03	915	Aq	2	X	X	X	X	X	↓	Total + Dissolved
MW-2 (1-2)		1/10/03	815	SAI	1	X	X	X	X	X		
MW-2 (3-4)		1/10/03	830	Soil	1	X	X	X	X	X		
MW-2 (8-9)		1/10/03	845	Soil	1	X	X	X	X	X		
MW-2 (12-13)		1/10/03	900	Soil	1	X	X	X	X	X		
HA-0-15 (1.0-1.5)		1/10/03	915	Soil	1	X	X	X	X	X		
HA-1-10 (0-0.5)		1/10/03	930	Soil	1	X	X	X	X	X		
HA-1-10 (1-1.5)		1/10/03	935	Soil	1	X	X	X	X	X		
HA-1-30 (0-0.5)		1/10/03	940	Soil	1	X	X	X	X	X		
HA-1-30 (1.0-1.5)		1/10/03	945	Soil	1	X	X	X	X	X		
HA-2-10 (0-0.5)		1/10/03	950	Soil	1	X	X	X	X	X		

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	LAB NAME: STL-Knoxville
	1/11/03 1200		CITY:
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	COURIER:
	1/13/03 1600		AIRBILL NO.
Received for Laboratory by: *(Signature)*	PRINT NAME:	Date/Time	CUSTODY SEAL NOS:
	Matthew F. Howard	01-14-03 0900	COOLER NO:

ATTENTION LAB: SEND ANALYTICAL RESULTS TO THE FOLLOWING ESC STAFF MEMBER:

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Reston, Virginia 20190
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H3A140175

CHAIN OF CUSTODY RECORD

Page 3 of 3

PROJECT NO.	PROJECT NAME AND LOCATION:
126985	NL - Atlanta

SAMPLERS: (Signature) Jesse Morgan

PRINT NAME: Jesse Morgan

SAMPLE I.D.	SAMPLE LOCATION	DATE	TIME	MATRIX	NO. OF CONTAINERS	Lead	Arsenic	Cadmium	Thallium	Antimony		REMARKS
Lat-2-1 (1-1.5)		1/10/03	1305	Soil	1	X	X	X	X	X		
Lat-2-2 (0.5-1)		1/10/03	1310	Soil	1							
Lat-2-2 (1-1.5)		1/10/03	1315	Soil	1							
Lat-2-3 (0.5-1)		1/10/03	1330	Soil	1							
Lat-2-3 (1-1.5)		1/10/03	1335	Soil	1							
Lat-3-1 (0-0.5)		1/10/03	1400	Soil	1							
Lat-3-1 (1-1.5)		1/10/03	1405	Soil	1							
Lat-3-2 (0.5-1.0)		1/10/03	1415	Soil	1							

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	LAB NAME: STL-Knoxville
Jesse Morgan	1/11/03 1200		CITY:
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	COURIER:
	1/13/03 1600		AIRBILL NO.
Received for Laboratory by: (Signature)	PRINT NAME:	Date/Time	CUSTODY SEAL NOS:
Matthew F. Howard	Matthew F. Howard	01-14-03 0900	COOLER NO:

ATTENTION LAB: SEND ANALYTICAL RESULTS TO THE FOLLOWING ESC STAFF MEMBER:

ENVIRONMENTAL STRATEGIES CORPORATION
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Reston, Virginia 20190
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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

March 01, 2004

Gigi Beaulieu
Environmental Strategies Corporation, LLC
1740 Massachusettes Avenue
Boxborough, MA 01719

TEL: (978) 808-4612
FAX (978) 264-0537

RE: National Smelting & Refining

Order No.: 0402A27

Dear Gigi Beaulieu:

Analytical Environmental Services, Inc. received 6 samples on 2/24/2004 4:22:00 PM for the analyses presented in the following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water, effective 07/02/03-06/30/04.
-AIHA Certification number 505 for analysis of Air, Paint Chips, Soil and Dust Wipes, effective until 05/01/04.

These results relate only to the items tested. This report may only be reproduced in full and contains 40 total pages (including cover letter).

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Josh Sitz
Project Manager

No. 027526

0402A27

CHAIN OF CUSTODY RECORD

Page 1 of 1

PROJECT NO.	PROJECT NAME AND LOCATION:
127541/02	NSQR/Atlanta, GA

SAMPLERS: *(Signature)*	PRINT NAME:
GBeaulieu	Gisèle Beaulieu

SAMPLE I.D.	SAMPLE LOCATION	DATE	TIME	MATRIX	NO. OF CONTAINERS	VOCs (8260B)	PAHs (8270C)	metals	PCBs (8082)			REMARKS
MW-3		2/24/04	11:20	GW	5	X	X	X				Samples chilled on wet ice. Metals = Sb, As, Cd, Cr, Co, Cu, Pb, Mn, Hg, Ag, Ni, Tl and Zn
MW-2			12:22	GW	5	X	X	X				
MW-1			14:15	GW	5	X	X	X				
MW-D			13:15	GW	5	X	X	X				
Trip Blank			—	Aq	2	X						
540'W			14:55	Soil	3		X	X	X			
	end											

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
GBeaulieu	2/24 4:0:	M. Gefin
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
MGefin 21	2/24 4:22	Ahmet Can
Received for Laboratory by: *(Signature)*	PRINT NAME:	Date/Time

LAB NAME: AES
CITY: Atlanta, GA
COURIER: Self
AIRBILL NO. —
CUSTODY SEAL NOS: —
COOLER NO: —

ATTENTION LAB: SEND ANALYTICAL RESULTS TO THE FOLLOWING ESC STAFF MEMBER: GBeaulieu

ENVIRONMENTAL STRATEGIES
11911 Freedom Drive
Reston, Virginia 20190
~~(703) 709-6500 • Fax (703) 318-3905~~
Fax (412) 787-8065

ESC

CA ____ MA X PA ____ MN ____

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Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client ESC Work Order Number 0402A27

Checklist completed by Signature Date 2/24/04

Carrier name: FedEx __ UPS __ Courier ✓ Client __ US Mail __ Other _____

Shipping container/cooler in good condition?	Yes ✓	No __	Not Present __
Custody seals intact on shipping container/cooler?	Yes __	No __	Not Present ✓
Custody seals intact on sample bottles?	Yes __	No __	Not Present ✓
Container/Temp Blank temperature in compliance? (4°C±2)*	Yes ✓	No __	

Cooler #1 4.7° ✓ Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present?	Yes ✓	No __	
Chain of custody signed when relinquished and received?	Yes ✓	No __	
Chain of custody agrees with sample labels?	Yes ✓	No __	
Samples in proper container/bottle?	Yes ✓	No __	
Sample containers intact?	Yes ✓	No __	
Sufficient sample volume for indicated test?	Yes ✓	No __	
All samples received within holding time?	Yes ✓	No __	
Was TAT marked on the COC?	Yes __	No ✓	
Proceed with Standard TAT as per project history?	Yes ✓	No __	Not Applicable __
Water - VOA vials have zero headspace?	No VOA vials submitted __	Yes ✓	No __
Water - pH acceptable upon receipt?	Yes ✓	No __	Not Applicable __

Adjusted? _____ Checked by ND

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Analytical Environmental Services, Inc. **Date:** *01-Mar-04*

CLIENT:	Environmental Strategies Corporation, LLC
Project:	National Smelting & Refining
Lab Order:	0402A27

CASE NARRATIVE

All samples were received and analyzed within the EPA recommended holding times.

Samples were analyzed using the methods outlined in the following references:
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition
All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except as indicated in the case narrative.

Metals Analysis by Method 6010B:

Matrix spike recoveries for Sb, Cr, Co, and Zn on sample 0402A27-006A were outside control limits biased low. LCS recovery was within control limits indicating possible matrix interference.

Matrix spike recoveries for Pb and Mn on sample 0402A27-006A were outside control limits due to insignificant spike amount as compared to sample concentration.

RPD value for Mn on sample 0402A27-006A was outside advisory control limits due to suspected non-homogeneous sample matrix.

Analytical Environmental Services, Inc.

Date: *01-Mar-04*

CLIENT: Environmental Strategies Corporation, LLC
Client Sample ID: MW-3
Lab Order: 0402A27
Collection Date: 2/24/2004 11:20:00 AM
Project: National Smelting & Refining
Lab ID: 0402A27-001
Matrix: GROUNDWATER

Analyses	Result	Rpt. Limit	Qual	Units	DF	Date Analyzed
METALS, TOTAL		**SW6010B**				Analyst: **CDW**
Antimony	BRL	0.0200		mg/L	1	2/25/2004 11:47:00 PM
Arsenic	BRL	0.0500		mg/L	1	2/25/2004 11:47:00 PM
Cadmium	BRL	0.0050		mg/L	1	2/25/2004 11:47:00 PM
Chromium	BRL	0.0100		mg/L	1	2/25/2004 11:47:00 PM
Cobalt	BRL	0.0200		mg/L	1	2/25/2004 11:47:00 PM
Copper	BRL	0.0100		mg/L	1	2/25/2004 11:47:00 PM
Lead	BRL	0.0100		mg/L	1	2/25/2004 11:47:00 PM
Manganese	0.0784	0.0050		mg/L	1	2/25/2004 11:47:00 PM
Nickel	BRL	0.0200		mg/L	1	2/25/2004 11:47:00 PM
Silver	BRL	0.0100		mg/L	1	2/25/2004 11:47:00 PM
Thallium	BRL	0.0200		mg/L	1	2/25/2004 11:47:00 PM
Zinc	0.255	0.0200		mg/L	1	2/25/2004 11:47:00 PM
MERCURY, TOTAL		**SW7470A**				Analyst: **CDW**
Mercury	BRL	0.00020		mg/L	1	2/27/2004 10:25:00 AM
POLYAROMATIC HYDROCARBONS		**SW8270C**				Analyst: **YH**
Naphthalene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
Acenaphthylene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
1-Methylnaphthalene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
2-Methylnaphthalene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
Acenaphthene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
Fluorene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
Phenanthrene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
Anthracene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
Fluoranthene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
Pyrene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
Benz(a)anthracene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
Chrysene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
Benzo(b)fluoranthene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
Benzo(k)fluoranthene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
Benzo(a)pyrene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	1	2/25/2004 5:59:00 PM
Surr: Nitrobenzene-d5	66.3	32.3-136		%REC	1	2/25/2004 5:59:00 PM
Surr: 2-Fluorobiphenyl	76.2	37-135		%REC	1	2/25/2004 5:59:00 PM
Surr: 4-Terphenyl-d14	84.8	21.9-145		%REC	1	2/25/2004 5:59:00 PM
TCL VOLATILE ORGANICS		**SW8260B**				Analyst: **TMP**
1,1,1-Trichloroethane	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
N	Analyte not NELAC certified	P	NELAC analyte certification pending
Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Analytical Environmental Services, Inc.

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CLIENT: Environmental Strategies Corporation, LLC
Lab Order: 0402A27
Project: National Smelting & Refining
Lab ID: 0402A27-001

Client Sample ID: MW-3
Collection Date: 2/24/2004 11:20:00 AM
Matrix: GROUNDWATER

Analyses	Result	Rpt. Limit	Qual	Units	DF	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**				Analyst: **TMP**
1,1,2-Trichloroethane	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
1,1-Dichloroethane	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
1,1-Dichloroethene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
1,2,4-Trichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
1,2-Dibromoethane	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
1,2-Dichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
1,2-Dichloroethane	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
1,2-Dichloropropane	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
1,3-Dichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
1,4-Dichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
2-Butanone	BRL	10		µg/L	1	2/26/2004 1:26:00 PM
2-Hexanone	BRL	10		µg/L	1	2/26/2004 1:26:00 PM
4-Methyl-2-pentanone	BRL	10		µg/L	1	2/26/2004 1:26:00 PM
Acetone	BRL	20		µg/L	1	2/26/2004 1:26:00 PM
Benzene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Bromodichloromethane	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Bromoform	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Bromomethane	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Carbon disulfide	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Carbon tetrachloride	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Chlorobenzene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Chloroethane	BRL	10		µg/L	1	2/26/2004 1:26:00 PM
Chloroform	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Chloromethane	BRL	10		µg/L	1	2/26/2004 1:26:00 PM
cis-1,2-Dichloroethene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
cis-1,3-Dichloropropene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Cyclohexane	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Dibromochloromethane	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Dichlorodifluoromethane	BRL	10		µg/L	1	2/26/2004 1:26:00 PM
Ethylbenzene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Freon-113	BRL	10		µg/L	1	2/26/2004 1:26:00 PM
Isopropylbenzene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
m,p-Xylene	BRL	10		µg/L	1	2/26/2004 1:26:00 PM
Methyl acetate	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Methyl tert-butyl ether	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Methylcyclohexane	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Methylene chloride	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
o-Xylene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Styrene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
N	Analyte not NELAC certified	P	NELAC analyte certification pending
Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Analytical Environmental Services, Inc.

Date: *01-Mar-04*

CLIENT: Environmental Strategies Corporation, LLC
Client Sample ID: MW-3
Lab Order: 0402A27
Collection Date: 2/24/2004 11:20:00 AM
Project: National Smelting & Refining
Lab ID: 0402A27-001
Matrix: GROUNDWATER

Analyses	Result	Rpt. Limit	Qual	Units	DF	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**				Analyst: **TMP**
Tetrachloroethene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Toluene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
trans-1,2-Dichloroethene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
trans-1,3-Dichloropropene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Trichloroethene	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Trichlorofluoromethane	BRL	5.0		µg/L	1	2/26/2004 1:26:00 PM
Vinyl chloride	BRL	2.0		µg/L	1	2/26/2004 1:26:00 PM
Surr: 4-Bromofluorobenzene	96.2	63.1-121		%REC	1	2/26/2004 1:26:00 PM
Surr: Dibromofluoromethane	105	69.5-126		%REC	1	2/26/2004 1:26:00 PM
Surr: Toluene-d8	104	74.2-120		%REC	1	2/26/2004 1:26:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
N	Analyte not NELAC certified	P	NELAC analyte certification pending
Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Analytical Environmental Services, Inc.

Date: *01-Mar-04*

CLIENT: Environmental Strategies Corporation, LLC
Client Sample ID: MW-2
Lab Order: 0402A27
Collection Date: 2/24/2004 12:22:00 PM
Project: National Smelting & Refining
Lab ID: 0402A27-002
Matrix: GROUNDWATER

Analyses	Result	Rpt. Limit	Qual	Units	DF	Date Analyzed
METALS, TOTAL		**SW6010B**				Analyst: **CDW**
Antimony	BRL	0.0200		mg/L	1	2/25/2004 11:52:00 PM
Arsenic	BRL	0.0500		mg/L	1	2/25/2004 11:52:00 PM
Cadmium	0.0190	0.0050		mg/L	1	2/25/2004 11:52:00 PM
Chromium	BRL	0.0100		mg/L	1	2/25/2004 11:52:00 PM
Cobalt	0.0296	0.0200		mg/L	1	2/25/2004 11:52:00 PM
Copper	0.0126	0.0100		mg/L	1	2/25/2004 11:52:00 PM
Lead	BRL	0.0100		mg/L	1	2/25/2004 11:52:00 PM
Manganese	1.83	0.0050		mg/L	1	2/25/2004 11:52:00 PM
Nickel	0.0241	0.0200		mg/L	1	2/25/2004 11:52:00 PM
Silver	BRL	0.0100		mg/L	1	2/25/2004 11:52:00 PM
Thallium	BRL	0.0200		mg/L	1	2/25/2004 11:52:00 PM
Zinc	0.550	0.0200		mg/L	1	2/25/2004 11:52:00 PM
MERCURY, TOTAL		**SW7470A**				Analyst: **CDW**
Mercury	BRL	0.00020		mg/L	1	2/27/2004 10:25:00 AM
POLYAROMATIC HYDROCARBONS		**SW8270C**				Analyst: **YH**
Naphthalene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
Acenaphthylene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
1-Methylnaphthalene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
2-Methylnaphthalene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
Acenaphthene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
Fluorene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
Phenanthrene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
Anthracene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
Fluoranthene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
Pyrene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
Benz(a)anthracene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
Chrysene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
Benzo(b)fluoranthene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
Benzo(k)fluoranthene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
Benzo(a)pyrene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	1	2/25/2004 7:50:00 PM
Surr: Nitrobenzene-d5	73.3	32.3-136		%REC	1	2/25/2004 7:50:00 PM
Surr: 2-Fluorobiphenyl	80.5	37-135		%REC	1	2/25/2004 7:50:00 PM
Surr: 4-Terphenyl-d14	86.9	21.9-145		%REC	1	2/25/2004 7:50:00 PM
TCL VOLATILE ORGANICS		**SW8260B**				Analyst: **TMP**
1,1,1-Trichloroethane	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Analytical Environmental Services, Inc.

Date: *01-Mar-04*

CLIENT: Environmental Strategies Corporation, LLC
Client Sample ID: MW-2
Lab Order: 0402A27
Collection Date: 2/24/2004 12:22:00 PM
Project: National Smelting & Refining
Lab ID: 0402A27-002
Matrix: GROUNDWATER

Analyses	Result	Rpt. Limit	Qual	Units	DF	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**				Analyst: **TMP**
1,1,2-Trichloroethane	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
1,1-Dichloroethane	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
1,1-Dichloroethene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
1,2,4-Trichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
1,2-Dibromoethane	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
1,2-Dichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
1,2-Dichloroethane	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
1,2-Dichloropropane	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
1,3-Dichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
1,4-Dichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
2-Butanone	BRL	10		µg/L	1	2/26/2004 1:51:00 PM
2-Hexanone	BRL	10		µg/L	1	2/26/2004 1:51:00 PM
4-Methyl-2-pentanone	BRL	10		µg/L	1	2/26/2004 1:51:00 PM
Acetone	BRL	20		µg/L	1	2/26/2004 1:51:00 PM
Benzene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Bromodichloromethane	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Bromoform	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Bromomethane	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Carbon disulfide	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Carbon tetrachloride	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Chlorobenzene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Chloroethane	BRL	10		µg/L	1	2/26/2004 1:51:00 PM
Chloroform	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Chloromethane	BRL	10		µg/L	1	2/26/2004 1:51:00 PM
cis-1,2-Dichloroethene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
cis-1,3-Dichloropropene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Cyclohexane	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Dibromochloromethane	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Dichlorodifluoromethane	BRL	10		µg/L	1	2/26/2004 1:51:00 PM
Ethylbenzene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Freon-113	BRL	10		µg/L	1	2/26/2004 1:51:00 PM
Isopropylbenzene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
m,p-Xylene	BRL	10		µg/L	1	2/26/2004 1:51:00 PM
Methyl acetate	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Methyl tert-butyl ether	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Methylcyclohexane	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Methylene chloride	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
o-Xylene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Styrene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM

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Matrix: GROUNDWATER

Analyses	Result	Rpt. Limit	Qual	Units	DF	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**				Analyst: **TMP**
Tetrachloroethene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Toluene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
trans-1,2-Dichloroethene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
trans-1,3-Dichloropropene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Trichloroethene	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Trichlorofluoromethane	BRL	5.0		µg/L	1	2/26/2004 1:51:00 PM
Vinyl chloride	BRL	2.0		µg/L	1	2/26/2004 1:51:00 PM
Surr: 4-Bromofluorobenzene	96.6	63.1-121		%REC	1	2/26/2004 1:51:00 PM
Surr: Dibromofluoromethane	102	69.5-126		%REC	1	2/26/2004 1:51:00 PM
Surr: Toluene-d8	103	74.2-120		%REC	1	2/26/2004 1:51:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
N	Analyte not NELAC certified	P	NELAC analyte certification pending
Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Analytical Environmental Services, Inc.

Date: *01-Mar-04*

CLIENT:	Environmental Strategies Corporation, LLC	**Client Sample ID:**	MW-1
Lab Order:	0402A27	**Collection Date:**	2/24/2004 2:15:00 PM
Project:	National Smelting & Refining		
Lab ID:	0402A27-003	**Matrix:**	GROUNDWATER

Analyses	Result	Rpt. Limit	Qual	Units	DF	Date Analyzed
METALS, TOTAL		**SW6010B**				Analyst: **CDW**
Antimony	BRL	0.0200		mg/L	1	2/25/2004 11:56:00 PM
Arsenic	BRL	0.0500		mg/L	1	2/25/2004 11:56:00 PM
Cadmium	BRL	0.0050		mg/L	1	2/25/2004 11:56:00 PM
Chromium	BRL	0.0100		mg/L	1	2/25/2004 11:56:00 PM
Cobalt	0.0268	0.0200		mg/L	1	2/25/2004 11:56:00 PM
Copper	BRL	0.0100		mg/L	1	2/25/2004 11:56:00 PM
Lead	0.166	0.0100		mg/L	1	2/25/2004 11:56:00 PM
Manganese	4.88	0.0050		mg/L	1	2/25/2004 11:56:00 PM
Nickel	BRL	0.0200		mg/L	1	2/25/2004 11:56:00 PM
Silver	BRL	0.0100		mg/L	1	2/25/2004 11:56:00 PM
Thallium	BRL	0.0200		mg/L	1	2/25/2004 11:56:00 PM
Zinc	0.0246	0.0200		mg/L	1	2/25/2004 11:56:00 PM
MERCURY, TOTAL		**SW7470A**				Analyst: **CDW**
Mercury	BRL	0.00020		mg/L	1	2/27/2004 10:25:00 AM
POLYAROMATIC HYDROCARBONS		**SW8270C**				Analyst: **YH**
Naphthalene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
Acenaphthylene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
1-Methylnaphthalene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
2-Methylnaphthalene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
Acenaphthene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
Fluorene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
Phenanthrene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
Anthracene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
Fluoranthene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
Pyrene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
Benz(a)anthracene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
Chrysene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
Benzo(b)fluoranthene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
Benzo(k)fluoranthene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
Benzo(a)pyrene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	1	2/25/2004 8:27:00 PM
Surr: Nitrobenzene-d5	71.2	32.3-136		%REC	1	2/25/2004 8:27:00 PM
Surr: 2-Fluorobiphenyl	77.8	37-135		%REC	1	2/25/2004 8:27:00 PM
Surr: 4-Terphenyl-d14	85.6	21.9-145		%REC	1	2/25/2004 8:27:00 PM
TCL VOLATILE ORGANICS		**SW8260B**				Analyst: **TMP**
1,1,1-Trichloroethane	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
N	Analyte not NELAC certified	P	NELAC analyte certification pending
Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Analytical Environmental Services, Inc.

Date: *01-Mar-04*

CLIENT: Environmental Strategies Corporation, LLC
Lab Order: 0402A27
Project: National Smelting & Refining
Lab ID: 0402A27-003

Client Sample ID: MW-1
Collection Date: 2/24/2004 2:15:00 PM
Matrix: GROUNDWATER

Analyses	Result	Rpt. Limit	Qual	Units	DF	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**				Analyst: **TMP**
1,1,2-Trichloroethane	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
1,1-Dichloroethane	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
1,1-Dichloroethene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
1,2,4-Trichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
1,2-Dibromoethane	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
1,2-Dichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
1,2-Dichloroethane	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
1,2-Dichloropropane	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
1,3-Dichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
1,4-Dichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
2-Butanone	BRL	10		µg/L	1	2/26/2004 2:16:00 PM
2-Hexanone	BRL	10		µg/L	1	2/26/2004 2:16:00 PM
4-Methyl-2-pentanone	BRL	10		µg/L	1	2/26/2004 2:16:00 PM
Acetone	BRL	20		µg/L	1	2/26/2004 2:16:00 PM
Benzene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Bromodichloromethane	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Bromoform	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Bromomethane	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Carbon disulfide	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Carbon tetrachloride	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Chlorobenzene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Chloroethane	BRL	10		µg/L	1	2/26/2004 2:16:00 PM
Chloroform	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Chloromethane	BRL	10		µg/L	1	2/26/2004 2:16:00 PM
cis-1,2-Dichloroethene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
cis-1,3-Dichloropropene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Cyclohexane	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Dibromochloromethane	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Dichlorodifluoromethane	BRL	10		µg/L	1	2/26/2004 2:16:00 PM
Ethylbenzene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Freon-113	BRL	10		µg/L	1	2/26/2004 2:16:00 PM
Isopropylbenzene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
m,p-Xylene	BRL	10		µg/L	1	2/26/2004 2:16:00 PM
Methyl acetate	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Methyl tert-butyl ether	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Methylcyclohexane	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Methylene chloride	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
o-Xylene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Styrene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
N	Analyte not NELAC certified	P	NELAC analyte certification pending
Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Analytical Environmental Services, Inc.

Date: *01-Mar-04*

CLIENT: Environmental Strategies Corporation, LLC
Client Sample ID: MW-1
Lab Order: 0402A27
Collection Date: 2/24/2004 2:15:00 PM
Project: National Smelting & Refining
Lab ID: 0402A27-003
Matrix: GROUNDWATER

Analyses	Result	Rpt. Limit	Qual	Units	DF	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**				Analyst: **TMP**
Tetrachloroethene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Toluene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
trans-1,2-Dichloroethene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
trans-1,3-Dichloropropene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Trichloroethene	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Trichlorofluoromethane	BRL	5.0		µg/L	1	2/26/2004 2:16:00 PM
Vinyl chloride	BRL	2.0		µg/L	1	2/26/2004 2:16:00 PM
Surr: 4-Bromofluorobenzene	98.3	63.1-121		%REC	1	2/26/2004 2:16:00 PM
Surr: Dibromofluoromethane	102	69.5-126		%REC	1	2/26/2004 2:16:00 PM
Surr: Toluene-d8	104	74.2-120		%REC	1	2/26/2004 2:16:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
N	Analyte not NELAC certified	P	NELAC analyte certification pending
Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Analytical Environmental Services, Inc.

Date: *01-Mar-04*

CLIENT:	Environmental Strategies Corporation, LLC	**Client Sample ID:**	MW-D
Lab Order:	0402A27	**Collection Date:**	2/24/2004 1:15:00 PM
Project:	National Smelting & Refining		
Lab ID:	0402A27-004	**Matrix:**	GROUNDWATER

Analyses	Result	Rpt. Limit	Qual	Units	DF	Date Analyzed
METALS, TOTAL		**SW6010B**				Analyst: **CDW**
Antimony	BRL	0.0200		mg/L	1	2/26/2004 12:01:00 AM
Arsenic	BRL	0.0500		mg/L	1	2/26/2004 12:01:00 AM
Cadmium	BRL	0.0050		mg/L	1	2/26/2004 12:01:00 AM
Chromium	BRL	0.0100		mg/L	1	2/26/2004 12:01:00 AM
Cobalt	0.0269	0.0200		mg/L	1	2/26/2004 12:01:00 AM
Copper	BRL	0.0100		mg/L	1	2/26/2004 12:01:00 AM
Lead	0.156	0.0100		mg/L	1	2/26/2004 12:01:00 AM
Manganese	4.85	0.0050		mg/L	1	2/26/2004 12:01:00 AM
Nickel	BRL	0.0200		mg/L	1	2/26/2004 12:01:00 AM
Silver	BRL	0.0100		mg/L	1	2/26/2004 12:01:00 AM
Thallium	BRL	0.0200		mg/L	1	2/26/2004 12:01:00 AM
Zinc	0.0236	0.0200		mg/L	1	2/26/2004 12:01:00 AM
MERCURY, TOTAL		**SW7470A**				Analyst: **CDW**
Mercury	BRL	0.00020		mg/L	1	2/27/2004 10:25:00 AM
POLYAROMATIC HYDROCARBONS		**SW8270C**				Analyst: **YH**
Naphthalene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
Acenaphthylene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
1-Methylnaphthalene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
2-Methylnaphthalene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
Acenaphthene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
Fluorene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
Phenanthrene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
Anthracene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
Fluoranthene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
Pyrene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
Benz(a)anthracene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
Chrysene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
Benzo(b)fluoranthene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
Benzo(k)fluoranthene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
Benzo(a)pyrene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	1	2/25/2004 9:04:00 PM
Surr: Nitrobenzene-d5	71.7	32.3-136		%REC	1	2/25/2004 9:04:00 PM
Surr: 2-Fluorobiphenyl	75.4	37-135		%REC	1	2/25/2004 9:04:00 PM
Surr: 4-Terphenyl-d14	80.4	21.9-145		%REC	1	2/25/2004 9:04:00 PM
TCL VOLATILE ORGANICS		**SW8260B**				Analyst: **TMP**
1,1,1-Trichloroethane	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
N	Analyte not NELAC certified	P	NELAC analyte certification pending
Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Analytical Environmental Services, Inc.

Date: *01-Mar-04*

CLIENT: Environmental Strategies Corporation, LLC
Lab Order: 0402A27
Project: National Smelting & Refining
Lab ID: 0402A27-004

Client Sample ID: MW-D
Collection Date: 2/24/2004 1:15:00 PM
Matrix: GROUNDWATER

Analyses	Result	Rpt. Limit	Qual	Units	DF	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**				Analyst: **TMP**
1,1,2-Trichloroethane	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
1,1-Dichloroethane	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
1,1-Dichloroethene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
1,2,4-Trichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
1,2-Dibromoethane	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
1,2-Dichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
1,2-Dichloroethane	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
1,2-Dichloropropane	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
1,3-Dichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
1,4-Dichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
2-Butanone	BRL	10		µg/L	1	2/26/2004 2:41:00 PM
2-Hexanone	BRL	10		µg/L	1	2/26/2004 2:41:00 PM
4-Methyl-2-pentanone	BRL	10		µg/L	1	2/26/2004 2:41:00 PM
Acetone	BRL	20		µg/L	1	2/26/2004 2:41:00 PM
Benzene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Bromodichloromethane	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Bromoform	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Bromomethane	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Carbon disulfide	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Carbon tetrachloride	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Chlorobenzene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Chloroethane	BRL	10		µg/L	1	2/26/2004 2:41:00 PM
Chloroform	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Chloromethane	BRL	10		µg/L	1	2/26/2004 2:41:00 PM
cis-1,2-Dichloroethene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
cis-1,3-Dichloropropene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Cyclohexane	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Dibromochloromethane	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Dichlorodifluoromethane	BRL	10		µg/L	1	2/26/2004 2:41:00 PM
Ethylbenzene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Freon-113	BRL	10		µg/L	1	2/26/2004 2:41:00 PM
Isopropylbenzene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
m,p-Xylene	BRL	10		µg/L	1	2/26/2004 2:41:00 PM
Methyl acetate	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Methyl tert-butyl ether	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Methylcyclohexane	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Methylene chloride	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
o-Xylene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Styrene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Valu e above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
N	Analyte not NELAC certified	P	NELAC analyte certification pending
Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Analytical Environmental Services, Inc.

Date: *01-Mar-04*

CLIENT: Environmental Strategies Corporation, LLC
Client Sample ID: MW-D
Lab Order: 0402A27
Collection Date: 2/24/2004 1:15:00 PM
Project: National Smelting & Refining
Lab ID: 0402A27-004
Matrix: GROUNDWATER

Analyses	Result	Rpt. Limit	Qual	Units	DF	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**				Analyst: **TMP**
Tetrachloroethene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Toluene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
trans-1,2-Dichloroethene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
trans-1,3-Dichloropropene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Trichloroethene	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Trichlorofluoromethane	BRL	5.0		µg/L	1	2/26/2004 2:41:00 PM
Vinyl chloride	BRL	2.0		µg/L	1	2/26/2004 2:41:00 PM
Surr: 4-Bromofluorobenzene	97.4	63.1-121		%REC	1	2/26/2004 2:41:00 PM
Surr: Dibromofluoromethane	99.6	69.5-126		%REC	1	2/26/2004 2:41:00 PM
Surr: Toluene-d8	104	74.2-120		%REC	1	2/26/2004 2:41:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
N	Analyte not NELAC certified	P	NELAC analyte certification pending
Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Analytical Environmental Services, Inc.

Date: *01-Mar-04*

CLIENT:	Environmental Strategies Corporation, LLC	**Client Sample ID:**	TRIP BLANK
Lab Order:	0402A27	**Collection Date:**	2/24/2004
Project:	National Smelting & Refining		
Lab ID:	0402A27-005	**Matrix:**	AQUEOUS

Analyses	Result	Rpt. Limit	Qual	Units	DF	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**				Analyst: **TMP**
1,1,1-Trichloroethane	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
1,1,2-Trichloroethane	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
1,1-Dichloroethane	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
1,1-Dichloroethene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
1,2,4-Trichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
1,2-Dibromoethane	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
1,2-Dichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
1,2-Dichloroethane	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
1,2-Dichloropropane	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
1,3-Dichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
1,4-Dichlorobenzene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
2-Butanone	BRL	10		µg/L	1	2/26/2004 12:36:00 PM
2-Hexanone	BRL	10		µg/L	1	2/26/2004 12:36:00 PM
4-Methyl-2-pentanone	BRL	10		µg/L	1	2/26/2004 12:36:00 PM
Acetone	BRL	20		µg/L	1	2/26/2004 12:36:00 PM
Benzene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Bromodichloromethane	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Bromoform	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Bromomethane	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Carbon disulfide	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Carbon tetrachloride	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Chlorobenzene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Chloroethane	BRL	10		µg/L	1	2/26/2004 12:36:00 PM
Chloroform	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Chloromethane	BRL	10		µg/L	1	2/26/2004 12:36:00 PM
cis-1,2-Dichloroethene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
cis-1,3-Dichloropropene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Cyclohexane	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Dibromochloromethane	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Dichlorodifluoromethane	BRL	10		µg/L	1	2/26/2004 12:36:00 PM
Ethylbenzene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Freon-113	BRL	10		µg/L	1	2/26/2004 12:36:00 PM
Isopropylbenzene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
m,p-Xylene	BRL	10		µg/L	1	2/26/2004 12:36:00 PM
Methyl acetate	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Methyl tert-butyl ether	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Methylcyclohexane	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Methylene chloride	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
N	Analyte not NELAC certified	P	NELAC analyte certification pending
Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Analytical Environmental Services, Inc.

Date: *01-Mar-04*

CLIENT:	Environmental Strategies Corporation, LLC	**Client Sample ID:**	TRIP BLANK
Lab Order:	0402A27	**Collection Date:**	2/24/2004
Project:	National Smelting & Refining		
Lab ID:	0402A27-005	**Matrix:**	AQUEOUS

Analyses	Result	Rpt. Limit	Qual	Units	DF	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**				Analyst: **TMP**
o-Xylene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Styrene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Tetrachloroethene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Toluene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
trans-1,2-Dichloroethene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
trans-1,3-Dichloropropene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Trichloroethene	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Trichlorofluoromethane	BRL	5.0		µg/L	1	2/26/2004 12:36:00 PM
Vinyl chloride	BRL	2.0		µg/L	1	2/26/2004 12:36:00 PM
Surr: 4-Bromofluorobenzene	96.1	63.1-121		%REC	1	2/26/2004 12:36:00 PM
Surr: Dibromofluoromethane	101	69.5-126		%REC	1	2/26/2004 12:36:00 PM
Surr: Toluene-d8	102	74.2-120		%REC	1	2/26/2004 12:36:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Analytical Environmental Services, Inc.

Date: *01-Mar-04*

CLIENT: Environmental Strategies Corporation, LLC
Lab Order: 0402A27
Project: National Smelting & Refining
Lab ID: 0402A27-006

Client Sample ID: 540W
Collection Date: 2/24/2004 2:55:00 PM
Matrix: SOIL

Analyses	Result	Rpt. Limit	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS		**SW8082**				Analyst: **JMZ**
Aroclor 1016	BRL	33		µg/Kg	1	2/27/2004 1:48:00 PM
Aroclor 1221	BRL	33		µg/Kg	1	2/27/2004 1:48:00 PM
Aroclor 1232	BRL	33		µg/Kg	1	2/27/2004 1:48:00 PM
Aroclor 1242	BRL	33		µg/Kg	1	2/27/2004 1:48:00 PM
Aroclor 1248	BRL	33		µg/Kg	1	2/27/2004 1:48:00 PM
Aroclor 1254	BRL	33		µg/Kg	1	2/27/2004 1:48:00 PM
Aroclor 1260	BRL	33		µg/Kg	1	2/27/2004 1:48:00 PM
Surr: Decachlorobiphenyl	92.9	20.9-163		%REC	1	2/27/2004 1:48:00 PM
Surr: Tetrachloro-m-xylene	88.5	28.6-126		%REC	1	2/27/2004 1:48:00 PM
METALS, TOTAL		**SW6010B**				Analyst: **CDW**
Antimony	12.8	4.54		mg/Kg	1	2/25/2004 8:54:00 PM
Arsenic	5.24	4.54		mg/Kg	1	2/25/2004 8:54:00 PM
Cadmium	2.68	2.27		mg/Kg	1	2/25/2004 8:54:00 PM
Chromium	130	2.27		mg/Kg	1	2/25/2004 8:54:00 PM
Cobalt	40.1	2.27		mg/Kg	1	2/25/2004 8:54:00 PM
Copper	107	2.27		mg/Kg	1	2/25/2004 8:54:00 PM
Lead	621	4.54		mg/Kg	1	2/25/2004 8:54:00 PM
Manganese	1340	4.54		mg/Kg	1	2/25/2004 8:54:00 PM
Nickel	36.6	4.54		mg/Kg	1	2/25/2004 8:54:00 PM
Silver	BRL	2.27		mg/Kg	1	2/25/2004 8:54:00 PM
Thallium	BRL	4.54		mg/Kg	1	2/25/2004 8:54:00 PM
Zinc	167	4.54		mg/Kg	1	2/25/2004 8:54:00 PM
TOTAL MERCURY		**SW7471A**				Analyst: **SSS**
Mercury	BRL	0.0899		mg/Kg	1	2/28/2004
POLYAROMATIC HYDROCARBONS		**SW8270C**				Analyst: **YH**
Naphthalene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM
Acenaphthylene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM
1-Methylnaphthalene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM
2-Methylnaphthalene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM
Acenaphthene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM
Fluorene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM
Phenanthrene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM
Anthracene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM
Fluoranthene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM
Pyrene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM
Benz(a)anthracene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM
Chrysene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM
Benzo(b)fluoranthene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM
Benzo(k)fluoranthene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
N	Analyte not NELAC certified	P	NELAC analyte certification pending
Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

Analytical Environmental Services, Inc.

Date: *01-Mar-04*

CLIENT:	Environmental Strategies Corporation, LLC	**Client Sample ID:**	540W
Lab Order:	0402A27	**Collection Date:**	2/24/2004 2:55:00 PM
Project:	National Smelting & Refining		
Lab ID:	0402A27-006	**Matrix:**	SOIL

Analyses	Result	Rpt. Limit	Qual	Units	DF	Date Analyzed
POLYAROMATIC HYDROCARBONS		**SW8270C**				Analyst: **YH**
Benzo(a)pyrene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM
Dibenz(a,h)anthracene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM
Benzo(g,h,i)perylene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM
Indeno(1,2,3-cd)pyrene	BRL	330		µg/Kg	1	2/26/2004 11:01:00 PM
Surr: 2-Fluorobiphenyl	74.6	12.9-120		%REC	1	2/26/2004 11:01:00 PM
Surr: 4-Terphenyl-d14	58.8	41.5-128		%REC	1	2/26/2004 11:01:00 PM
Surr: Nitrobenzene-d5	72.0	10-121		%REC	1	2/26/2004 11:01:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
N	Analyte not NELAC certified	P	NELAC analyte certification pending
Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42876

Sample ID **MB-42876**	SampType: **MBLK**	TestCode: **6010B_W_T**	Units: **mg/L**	Prep Date: **2/25/2004**	RunNo: **48146**
Client ID:	Batch ID: **42876**	TestNo: **SW6010B**		Analysis Date: **2/25/2004**	SeqNo: **902450**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	BRL	0.0200									
Arsenic	BRL	0.0500									
Cadmium	BRL	0.00500									
Chromium	BRL	0.0100									
Cobalt	BRL	0.0200									
Copper	BRL	0.0100									
Lead	BRL	0.0100									
Manganese	BRL	0.00500									
Nickel	BRL	0.0200									
Silver	BRL	0.0100									
Thallium	BRL	0.0200									
Zinc	BRL	0.0200									

Sample ID **LCS-42876**	SampType: **LCS**	TestCode: **6010B_W_T**	Units: **mg/L**	Prep Date: **2/25/2004**	RunNo: **48169**
Client ID:	Batch ID: **42876**	TestNo: **SW6010B**		Analysis Date: **2/26/2004**	SeqNo: **902822**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.8725	0.0200	1	0	87.2	85	115	0	0		
Arsenic	0.9502	0.0500	1	0	95	85	115	0	0		
Cadmium	0.9995	0.00500	1	0	100	85	115	0	0		
Chromium	0.9933	0.0100	1	0	99.3	85	115	0	0		
Cobalt	1.002	0.0200	1	0	100	85	115	0	0		
Copper	0.9787	0.0100	1	0	97.9	85	115	0	0		
Lead	0.9574	0.0100	1	0	95.7	85	115	0	0		
Manganese	0.9859	0.00500	1	0	98.6	85	115	0	0		
Nickel	0.989	0.0200	1	0	98.9	85	115	0	0		
Silver	0.09103	0.0100	0.1	0	91	85	115	0	0		
Thallium	0.9965	0.0200	1	0	99.7	85	115	0	0		
Zinc	0.9998	0.0200	1	0	100	85	115	0	0		

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits
- BRL Below Reporting Limit
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits
- E Value above quantitation range
- N Analyte not NELAC certified

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42876

Sample ID **0402A18-001BMS** SampType: **MS** TestCode: **6010B_W_T** Units: **mg/L** Prep Date: **2/25/2004** RunNo: **48146**
Client ID: Batch ID: **42876** TestNo: **SW6010B** Analysis Date: **2/25/2004** SeqNo: **902453**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.841	0.0200	1	0	84.1	75	125	0	0		
Arsenic	0.9905	0.0500	1	0	99	75	125	0	0		
Cadmium	1.021	0.00500	1	0.00039	102	75	125	0	0		
Chromium	1.014	0.0100	1	0.00515	101	75	125	0	0		
Cobalt	1.011	0.0200	1	0	101	75	125	0	0		
Copper	1.054	0.0100	1	0.06845	98.6	75	125	0	0		
Lead	0.9444	0.0100	1	0.00542	93.9	75	125	0	0		
Manganese	1.007	0.00500	1	0.00952	99.8	75	125	0	0		
Nickel	0.9938	0.0200	1	0	99.4	75	125	0	0		
Silver	0.08684	0.0100	0.1	0	86.8	75	125	0	0		
Thallium	1.032	0.0200	1	0	103	75	125	0	0		
Zinc	1.33	0.0200	1	0.3009	103	75	125	0	0		

Sample ID **0402A18-001BDUP** SampType: **DUP** TestCode: **6010B_W_T** Units: **mg/L** Prep Date: **2/25/2004** RunNo: **48146**
Client ID: Batch ID: **42876** TestNo: **SW6010B** Analysis Date: **2/25/2004** SeqNo: **902452**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	BRL	0.0200	0	0	0	0	0	0	0	20	
Arsenic	BRL	0.0500	0	0	0	0	0	0	0	20	
Cadmium	BRL	0.00500	0	0	0	0	0	0.00039	0	20	
Chromium	BRL	0.0100	0	0	0	0	0	0.00515	0	20	
Cobalt	BRL	0.0200	0	0	0	0	0	0	0	20	
Copper	0.06693	0.0100	0	0	0	0	0	0.06845	2.25	20	
Lead	BRL	0.0100	0	0	0	0	0	0.00542	0	20	
Manganese	0.00968	0.00500	0	0	0	0	0	0.00952	1.67	20	
Nickel	BRL	0.0200	0	0	0	0	0	0	0	20	
Silver	BRL	0.0100	0	0	0	0	0	0	0	20	
Thallium	BRL	0.0200	0	0	0	0	0	0	0	20	
Zinc	0.2979	0.0200	0	0	0	0	0	0.3009	0.989	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- BRL Below Reporting Limit
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- N Analyte not NELAC certified
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42882

Sample ID **MB-42882**	SampType: **MBLK**	TestCode: **8270_PAH_W**	Units: **µg/L**	Prep Date: **2/25/2004**	RunNo: **48174**
Client ID:	Batch ID: **42882**	TestNo: **SW8270C**		Analysis Date: **2/25/2004**	SeqNo: **903023**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	BRL	10									
2-Methylnaphthalene	BRL	10									
Acenaphthene	BRL	10									
Acenaphthylene	BRL	10									
Anthracene	BRL	10									
Benz(a)anthracene	BRL	10									
Benzo(a)pyrene	BRL	10									
Benzo(b)fluoranthene	BRL	10									
Benzo(g,h,i)perylene	BRL	10									
Benzo(k)fluoranthene	BRL	10									
Chrysene	BRL	10									
Dibenz(a,h)anthracene	BRL	10									
Fluoranthene	BRL	10									
Fluorene	BRL	10									
Indeno(1,2,3-cd)pyrene	BRL	10									
Naphthalene	BRL	10									
Phenanthrene	BRL	10									
Pyrene	BRL	10									
Surr: 2-Fluorobiphenyl	36.94	0	50	0	73.9	37	135	0	0		
Surr: 4-Terphenyl-d14	39.35	0	50	0	78.7	21.9	145	0	0		
Surr: Nitrobenzene-d5	35.38	0	50	0	70.8	32.3	136	0	0		

Sample ID **LCS-42882**	SampType: **LCS**	TestCode: **8270_PAH_W**	Units: **µg/L**	Prep Date: **2/25/2004**	RunNo: **48174**
Client ID:	Batch ID: **42882**	TestNo: **SW8270C**		Analysis Date: **2/25/2004**	SeqNo: **903024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	44.91	10	50	0	89.8	57	120	0	0		
Acenaphthylene	51.91	10	50	0	104	57.4	130	0	0		
Anthracene	45.77	10	50	0	91.5	53.8	145	0	0		
Benz(a)anthracene	47.63	10	50	0	95.3	60.3	132	0	0		
Benzo(a)pyrene	45.38	10	50	0	90.8	49.3	141	0	0		

Qualifiers:

- B Analyte detected in the associated Method Blank
- BRL Below Reporting Limit
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- N Analyte not NELAC certified
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42882

Sample ID **LCS-42882** SampType: **LCS** TestCode: **8270_PAH_W** Units: **µg/L** Prep Date: **2/25/2004** RunNo: **48174**
Client ID: Batch ID: **42882** TestNo: **SW8270C** Analysis Date: **2/25/2004** SeqNo: **903024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(b)fluoranthene	46.52	10	50	0	93	56.5	131	0	0		
Benzo(g,h,i)perylene	46.18	10	50	0	92.4	41.9	144	0	0		
Benzo(k)fluoranthene	46.15	10	50	0	92.3	50.6	137	0	0		
Chrysene	46.88	10	50	0	93.8	62.5	129	0	0		
Dibenz(a,h)anthracene	47.1	10	50	0	94.2	41.4	141	0	0		
Fluoranthene	44.36	10	50	0	88.7	66.7	128	0	0		
Fluorene	44.44	10	50	0	88.9	62.4	124	0	0		
Indeno(1,2,3-cd)pyrene	44.5	10	50	0	89	46.7	138	0	0		
Naphthalene	42.22	10	50	0	84.4	50	120	0	0		
Phenanthrene	46.15	10	50	0	92.3	66.8	124	0	0		
Pyrene	48.89	10	50	0	97.8	62.4	127	0	0		
Surr: 2-Fluorobiphenyl	42.11	0	50	0	84.2	37	135	0	0		
Surr: 4-Terphenyl-d14	43.86	0	50	0	87.7	21.9	145	0	0		
Surr: Nitrobenzene-d5	39.14	0	50	0	78.3	32.3	136	0	0		

Sample ID **0402A27-001BMS** SampType: **MS** TestCode: **8270_PAH_W** Units: **µg/L** Prep Date: **2/25/2004** RunNo: **48174**
Client ID: **MW-3** Batch ID: **42882** TestNo: **SW8270C** Analysis Date: **2/25/2004** SeqNo: **903026**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	46.59	10	50	0	93.2	47.9	127	0	0		
Acenaphthylene	52.14	10	50	0	104	52.5	133	0	0		
Anthracene	48.04	10	50	0	96.1	55	140	0	0		
Benz(a)anthracene	49.84	10	50	0	99.7	56	131	0	0		
Benzo(a)pyrene	48.85	10	50	0	97.7	49.3	135	0	0		
Benzo(b)fluoranthene	46.56	10	50	0	93.1	48.2	133	0	0		
Benzo(g,h,i)perylene	49.31	10	50	0	98.6	42.4	141	0	0		
Benzo(k)fluoranthene	53.05	10	50	0	106	44.3	134	0	0		
Chrysene	49.69	10	50	0	99.4	54.5	130	0	0		
Dibenz(a,h)anthracene	50.44	10	50	0	101	42.7	138	0	0		
Fluoranthene	47.1	10	50	0	94.2	59.9	128	0	0		
Fluorene	46.42	10	50	0	92.8	56.4	128	0	0		

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
BRL Below Reporting Limit
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits
E Value above quantitation range
N Analyte not NELAC certified

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42882

Sample ID 0402A27-001BMS	SampType: MS	TestCode: 8270_PAH_W	Units: µg/L	Prep Date: 2/25/2004	RunNo: 48174
Client ID: MW-3	Batch ID: 42882	TestNo: SW8270C		Analysis Date: 2/25/2004	SeqNo: 903026

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Indeno(1,2,3-cd)pyrene	47.16	10	50	0	94.3	43.5	138	0	0		
Naphthalene	41.75	10	50	0	83.5	47.1	127	0	0		
Phenanthrene	48.46	10	50	0	96.9	60.2	127	0	0		
Pyrene	50.99	10	50	0	102	55.7	129	0	0		
Surr: 2-Fluorobiphenyl	43.79	0	50	0	87.6	37	135	0	0		
Surr: 4-Terphenyl-d14	46.03	0	50	0	92.1	21.9	145	0	0		
Surr: Nitrobenzene-d5	38.12	0	50	0	76.2	32.3	136	0	0		

Sample ID 0402A27-001BMSD	SampType: MSD	TestCode: 8270_PAH_W	Units: µg/L	Prep Date: 2/25/2004	RunNo: 48174
Client ID: MW-3	Batch ID: 42882	TestNo: SW8270C		Analysis Date: 2/25/2004	SeqNo: 903027

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	41.5	10	50	0	83	47.9	127	46.59	11.6	19.6	
Acenaphthylene	46.78	10	50	0	93.6	52.5	133	52.14	10.8	19.5	
Anthracene	43.13	10	50	0	86.3	55	140	48.04	10.8	19.4	
Benz(a)anthracene	43.95	10	50	0	87.9	56	131	49.84	12.6	19.6	
Benzo(a)pyrene	42.32	10	50	0	84.6	49.3	135	48.85	14.3	19.6	
Benzo(b)fluoranthene	42.74	10	50	0	85.5	48.2	133	46.56	8.56	22	
Benzo(g,h,i)perylene	44.22	10	50	0	88.4	42.4	141	49.31	10.9	20.7	
Benzo(k)fluoranthene	43.95	10	50	0	87.9	44.3	134	53.05	18.8	23.9	
Chrysene	43.86	10	50	0	87.7	54.5	130	49.69	12.5	19.7	
Dibenz(a,h)anthracene	45.23	10	50	0	90.5	42.7	138	50.44	10.9	20.7	
Fluoranthene	42.14	10	50	0	84.3	59.9	128	47.1	11.1	19.5	
Fluorene	41.35	10	50	0	82.7	56.4	128	46.42	11.6	20.6	
Indeno(1,2,3-cd)pyrene	43.7	10	50	0	87.4	43.5	138	47.16	7.62	20.8	
Naphthalene	39.32	10	50	0	78.6	47.1	127	41.75	5.99	24.2	
Phenanthrene	43.66	10	50	0	87.3	60.2	127	48.46	10.4	18.8	
Pyrene	44.07	10	50	0	88.1	55.7	129	50.99	14.6	18.5	
Surr: 2-Fluorobiphenyl	39.1	0	50	0	78.2	37	135	43.79	0	0	
Surr: 4-Terphenyl-d14	39.82	0	50	0	79.6	21.9	145	46.03	0	0	
Surr: Nitrobenzene-d5	35.45	0	50	0	70.9	32.3	136	38.12	0	0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- BRL Below Reporting Limit
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- N Analyte not NELAC certified
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42890

Sample ID **MB-42890**	SampType: **MBLK**	TestCode: **8082_S**	Units: **µg/Kg**	Prep Date: **2/25/2004**	RunNo: **48245**
Client ID:	Batch ID: **42890**	TestNo: **SW8082**		Analysis Date: **2/27/2004**	SeqNo: **904858**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	BRL	33									
Aroclor 1221	BRL	33									
Aroclor 1232	BRL	33									
Aroclor 1242	BRL	33									
Aroclor 1248	BRL	33									
Aroclor 1254	BRL	33									
Aroclor 1260	BRL	33									
Surr: Decachlorobiphenyl	18.53	0	16.67	0	111	20.9	163	0	0		
Surr: Tetrachloro-m-xylene	14.22	0	16.67	0	85.3	28.6	126	0	0		

Sample ID **LCS-42890**	SampType: **LCS**	TestCode: **8082_S**	Units: **µg/Kg**	Prep Date: **2/25/2004**	RunNo: **48245**
Client ID:	Batch ID: **42890**	TestNo: **SW8082**		Analysis Date: **2/27/2004**	SeqNo: **904859**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	147	33	166.7	0	88.2	63.1	124	0	0		
Aroclor 1260	146.3	33	166.7	0	87.8	74.7	120	0	0		
Surr: Decachlorobiphenyl	18.18	0	16.67	0	109	20.9	163	0	0		
Surr: Tetrachloro-m-xylene	12.28	0	16.67	0	73.6	28.6	126	0	0		

Sample ID **0402A27-006AMS**	SampType: **MS**	TestCode: **8082_S**	Units: **µg/Kg**	Prep Date: **2/25/2004**	RunNo: **48245**
Client ID: **540W**	Batch ID: **42890**	TestNo: **SW8082**		Analysis Date: **2/27/2004**	SeqNo: **904861**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	144.3	33	166.4	0	86.7	58.2	129	0	0		
Aroclor 1260	130.2	33	166.4	10.9	71.7	20.8	147	0	0		
Surr: Decachlorobiphenyl	14.8	0	16.64	0	88.9	20.9	163	0	0		
Surr: Tetrachloro-m-xylene	14.26	0	16.64	0	85.7	28.6	126	0	0		

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits
- BRL Below Reporting Limit
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits
- E Value above quantitation range
- N Analyte not NELAC certified

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42890

Sample ID **0402A27-006AMSD** SampType: **MSD** TestCode: **8082_S** Units: **µg/Kg** Prep Date: **2/25/2004** RunNo: **48245**
Client ID: **540W** Batch ID: **42890** TestNo: **SW8082** Analysis Date: **2/27/2004** SeqNo: **904862**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	150.7	33	166.4	0	90.5	58.2	129	144.3	4.31	35.3	
Aroclor 1260	138.4	33	166.4	10.9	76.6	20.8	147	130.2	6.13	27.3	
Surr: Decachlorobiphenyl	15.25	0	16.65	0	91.6	20.9	163	14.8	0	0	
Surr: Tetrachloro-m-xylene	14.71	0	16.65	0	88.3	28.6	126	14.26	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42892

Sample ID MB-42892	SampType: MBLK	TestCode: 6010B_S	Units: mg/Kg	Prep Date: 2/25/2004	RunNo: 48146
Client ID:	Batch ID: 42892	TestNo: SW6010B		Analysis Date: 2/25/2004	SeqNo: 902424

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	BRL	0.500									
Arsenic	BRL	0.500									
Cadmium	BRL	0.250									
Chromium	BRL	0.250									
Cobalt	BRL	0.250									
Copper	BRL	0.250									
Lead	BRL	0.500									
Manganese	BRL	0.500									
Nickel	BRL	0.500									
Silver	BRL	0.250									
Thallium	BRL	0.500									
Zinc	BRL	0.500									

Sample ID LCS-42892	SampType: LCS	TestCode: 6010B_S	Units: mg/Kg	Prep Date: 2/25/2004	RunNo: 48146
Client ID:	Batch ID: 42892	TestNo: SW6010B		Analysis Date: 2/25/2004	SeqNo: 902422

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	41.98	5.00	50	0.04315	83.9	80	120	0	0		
Arsenic	46.55	5.00	50	0	93.1	80	120	0	0		
Cadmium	50.14	2.50	50	0.0037	100	80	120	0	0		
Chromium	50.73	2.50	50	0.07105	101	80	120	0	0		
Cobalt	50.25	2.50	50	0.0033	100	80	120	0	0		
Copper	49.42	2.50	50	0.0068	98.8	80	120	0	0		
Lead	47.84	5.00	50	0.00535	95.7	80	120	0	0		
Manganese	49.54	5.00	50	0.01045	99.1	80	120	0	0		
Nickel	49.5	5.00	50	0.004	99	80	120	0	0		
Silver	4.204	2.50	5	0.00375	84	80	120	0	0		
Thallium	50.38	5.00	50	0	101	80	120	0	0		
Zinc	50.57	5.00	50	0.0127	101	80	120	0	0		

Qualifiers:

- B Analyte detected in the associated Method Blank
- BRL Below Reporting Limit
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- N Analyte not NELAC certified
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42892

Sample ID 0402A27-006AMS	SampType: MS	TestCode: 6010B_S	Units: mg/Kg	Prep Date: 2/25/2004	RunNo: 48146
Client ID: 540W	Batch ID: 42892	TestNo: SW6010B		Analysis Date: 2/25/2004	SeqNo: 902427

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	26.2	4.50	44.96	12.81	29.8	75	125	0	0		S
Arsenic	43.81	4.50	44.96	5.238	85.8	75	125	0	0		
Cadmium	42.39	2.25	44.96	2.677	88.3	75	125	0	0		
Chromium	157.9	2.25	44.96	130	62.2	75	125	0	0		S
Cobalt	71.19	2.25	44.96	40.1	69.2	75	125	0	0		S
Copper	142.9	2.25	44.96	107.5	78.7	75	125	0	0		
Lead	600.1	4.50	44.96	621.3	-47.1	75	125	0	0		S
Manganese	946	4.50	44.96	1344	-886	75	125	0	0		S
Nickel	72.37	4.50	44.96	36.58	79.6	75	125	0	0		
Silver	3.654	2.25	4.496	0	81.3	75	125	0	0		
Thallium	43.01	4.50	44.96	2.885	89.3	75	125	0	0		
Zinc	197.4	4.50	44.96	166.9	68	75	125	0	0		S

Sample ID 0402A27-006ADUP	SampType: DUP	TestCode: 6010B_S	Units: mg/Kg	Prep Date: 2/25/2004	RunNo: 48146
Client ID: 540W	Batch ID: 42892	TestNo: SW6010B		Analysis Date: 2/25/2004	SeqNo: 902426

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	10.67	4.62	0	0	0	0	0	12.81	18.2	20	
Arsenic	4.653	4.62	0	0	0	0	0	5.238	11.8	20	
Cadmium	BRL	2.31	0	0	0	0	0	2.677	0	20	
Chromium	116.6	2.31	0	0	0	0	0	130	10.8	20	
Cobalt	37.1	2.31	0	0	0	0	0	40.1	7.76	20	
Copper	100	2.31	0	0	0	0	0	107.5	7.21	20	
Lead	567.2	4.62	0	0	0	0	0	621.3	9.12	20	
Manganese	1025	4.62	0	0	0	0	0	1344	27.0	20	R
Nickel	34.12	4.62	0	0	0	0	0	36.58	6.96	20	
Silver	BRL	2.31	0	0	0	0	0	0	0	20	
Thallium	BRL	4.62	0	0	0	0	0	2.885	0	20	
Zinc	156.9	4.62	0	0	0	0	0	166.9	6.13	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits
- BRL Below Reporting Limit
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits
- E Value above quantitation range
- N Analyte not NELAC certified

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42908

Sample ID **MB-42908**	SampType: **MBLK**	TestCode: **8270_PAH_S**	Units: **µg/Kg**	Prep Date: **2/26/2004**	RunNo: **48207**
Client ID:	Batch ID: **42908**	TestNo: **SW8270C**		Analysis Date: **2/26/2004**	SeqNo: **904067**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	BRL	330									
2-Methylnaphthalene	BRL	330									
Acenaphthene	BRL	330									
Acenaphthylene	BRL	330									
Anthracene	BRL	330									
Benz(a)anthracene	BRL	330									
Benzo(a)pyrene	BRL	330									
Benzo(b)fluoranthene	BRL	330									
Benzo(g,h,i)perylene	BRL	330									
Benzo(k)fluoranthene	BRL	330									
Chrysene	BRL	330									
Dibenz(a,h)anthracene	BRL	330									
Fluoranthene	BRL	330									
Fluorene	BRL	330									
Indeno(1,2,3-cd)pyrene	BRL	330									
Naphthalene	BRL	330									
Phenanthrene	BRL	330									
Pyrene	BRL	330									
Surr: 2-Fluorobiphenyl	1188	0	1667	0	71.3	12.9	120	0	0		
Surr: 4-Terphenyl-d14	1274	0	1667	0	76.5	41.5	128	0	0		
Surr: Nitrobenzene-d5	1110	0	1667	0	66.6	10	121	0	0		

Sample ID **LCS-42908**	SampType: **LCS**	TestCode: **8270_PAH_S**	Units: **µg/Kg**	Prep Date: **2/26/2004**	RunNo: **48207**
Client ID:	Batch ID: **42908**	TestNo: **SW8270C**		Analysis Date: **2/26/2004**	SeqNo: **904068**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1383	330	1667	0	83	17.5	122	0	0		
Acenaphthylene	1594	330	1667	0	95.7	24	120	0	0		
Anthracene	1406	330	1667	0	84.4	51.6	126	0	0		
Benz(a)anthracene	1455	330	1667	0	87.3	65.5	120	0	0		
Benzo(a)pyrene	1380	330	1667	0	82.8	64	120	0	0		

Qualifiers:

- B Analyte detected in the associated Method Blank
- BRL Below Reporting Limit
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- N Analyte not NELAC certified
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42908

Sample ID **LCS-42908**	SampType: **LCS**	TestCode: **8270_PAH_S**	Units: **µg/Kg**	Prep Date: **2/26/2004**	RunNo: **48207**
Client ID:	Batch ID: **42908**	TestNo: **SW8270C**		Analysis Date: **2/26/2004**	SeqNo: **904068**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(b)fluoranthene	1443	330	1667	0	86.6	63.4	120	0	0		
Benzo(g,h,i)perylene	1442	330	1667	0	86.5	52.3	131	0	0		
Benzo(k)fluoranthene	1450	330	1667	0	87	60.7	123	0	0		
Chrysene	1429	330	1667	0	85.7	62.5	120	0	0		
Dibenz(a,h)anthracene	1481	330	1667	0	88.8	57.3	125	0	0		
Fluoranthene	1400	330	1667	0	84	61.9	120	0	0		
Fluorene	1380	330	1667	0	82.8	30.3	120	0	0		
Indeno(1,2,3-cd)pyrene	1381	330	1667	0	82.9	55.8	125	0	0		
Naphthalene	1262	330	1667	0	75.7	20.4	120	0	0		
Phenanthrene	1415	330	1667	0	84.9	49.4	120	0	0		
Pyrene	1477	330	1667	0	88.6	58.6	120	0	0		
Surr: 2-Fluorobiphenyl	1299	0	1667	0	77.9	12.9	120	0	0		
Surr: 4-Terphenyl-d14	1325	0	1667	0	79.5	41.5	128	0	0		
Surr: Nitrobenzene-d5	1154	0	1667	0	69.3	10	121	0	0		

Sample ID **0402A72-001BMS**	SampType: **MS**	TestCode: **8270_PAH_S**	Units: **µg/Kg**	Prep Date: **2/26/2004**	RunNo: **48207**
Client ID:	Batch ID: **42908**	TestNo: **SW8270C**		Analysis Date: **2/26/2004**	SeqNo: **904071**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1337	330	1666	0	80.3	13.9	121	0	0		
Acenaphthylene	1563	330	1666	0	93.9	14.6	120	0	0		
Anthracene	1374	330	1666	0	82.5	43.4	131	0	0		
Benz(a)anthracene	1420	330	1666	0	85.2	39.7	139	0	0		
Benzo(a)pyrene	1343	330	1666	0	80.7	36.3	141	0	0		
Benzo(b)fluoranthene	1377	330	1666	0	82.7	52.4	121	0	0		
Benzo(g,h,i)perylene	1384	330	1666	0	83.1	37.5	137	0	0		
Benzo(k)fluoranthene	1400	330	1666	0	84.1	48.3	128	0	0		
Chrysene	1402	330	1666	0	84.2	48.7	128	0	0		
Dibenz(a,h)anthracene	1417	330	1666	0	85.1	44.3	129	0	0		
Fluoranthene	1338	330	1666	0	80.4	54.6	121	0	0		
Fluorene	1322	330	1666	0	79.4	23	120	0	0		

Qualifiers:

- B Analyte detected in the associated Method Blank
- BRL Below Reporting Limit
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- N Analyte not NELAC certified
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42908

Sample ID **0402A72-001BMS** SampType: **MS** TestCode: **8270_PAH_S** Units: **µg/Kg** Prep Date: **2/26/2004** RunNo: **48207**
Client ID: Batch ID: **42908** TestNo: **SW8270C** Analysis Date: **2/26/2004** SeqNo: **904071**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Indeno(1,2,3-cd)pyrene	1350	330	1666	0	81.1	44.8	128	0	0		
Naphthalene	1255	330	1666	0	75.4	10	120	0	0		
Phenanthrene	1367	330	1666	0	82.1	43.9	120	0	0		
Pyrene	1427	330	1666	0	85.7	42.4	128	0	0		
Surr: 2-Fluorobiphenyl	1248	0	1666	0	74.9	12.9	120	0	0		
Surr: 4-Terphenyl-d14	1282	0	1666	0	77	41.5	128	0	0		
Surr: Nitrobenzene-d5	1157	0	1666	0	69.5	10	121	0	0		

Sample ID **0402A72-001BMSD** SampType: **MSD** TestCode: **8270_PAH_S** Units: **µg/Kg** Prep Date: **2/26/2004** RunNo: **48207**
Client ID: Batch ID: **42908** TestNo: **SW8270C** Analysis Date: **2/26/2004** SeqNo: **904072**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1269	330	1664	0	76.2	13.9	121	1337	5.28	49	
Acenaphthylene	1477	330	1664	0	88.8	14.6	120	1563	5.65	51.1	
Anthracene	1321	330	1664	0	79.4	43.4	131	1374	3.97	36.6	
Benz(a)anthracene	1385	330	1664	0	83.2	39.7	139	1420	2.49	38.6	
Benzo(a)pyrene	1312	330	1664	0	78.8	36.3	141	1343	2.40	37.7	
Benzo(b)fluoranthene	1357	330	1664	0	81.5	52.4	121	1377	1.43	42.1	
Benzo(g,h,i)perylene	1338	330	1664	0	80.4	37.5	137	1384	3.37	29.5	
Benzo(k)fluoranthene	1344	330	1664	0	80.8	48.3	128	1400	4.09	33.3	
Chrysene	1358	330	1664	0	81.6	48.7	128	1402	3.20	40.8	
Dibenz(a,h)anthracene	1381	330	1664	0	83	44.3	129	1417	2.57	29.1	
Fluoranthene	1297	330	1664	0	77.9	54.6	121	1338	3.12	21.9	
Fluorene	1288	330	1664	0	77.4	23	120	1322	2.62	39.5	
Indeno(1,2,3-cd)pyrene	1311	330	1664	0	78.8	44.8	128	1350	2.92	24	
Naphthalene	1192	330	1664	0	71.6	10	120	1255	5.13	47.1	
Phenanthrene	1334	330	1664	0	80.2	43.9	120	1367	2.46	31.5	
Pyrene	1390	330	1664	0	83.5	42.4	128	1427	2.62	23.9	
Surr: 2-Fluorobiphenyl	1192	0	1664	0	71.6	12.9	120	1248	0	0	
Surr: 4-Terphenyl-d14	1236	0	1664	0	74.2	41.5	128	1282	0	0	
Surr: Nitrobenzene-d5	1088	0	1664	0	65.4	10	121	1157	0	0	

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
BRL Below Reporting Limit
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits
E Value above quantitation range
N Analyte not NELAC certified

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42924

Sample ID **LCS-42924** SampType: **LCS** TestCode: **8260_TCL4.2** Units: **µg/L** Prep Date: **2/26/2004** RunNo: **48122**
Client ID: Batch ID: **42924** TestNo: **SW8260B** Analysis Date: **2/25/2004** SeqNo: **902430**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	57.55	5.0	50	0	115	58.1	142	0	0		
Benzene	45.35	5.0	50	0	90.7	74	127	0	0		
Chlorobenzene	45.26	5.0	50	0	90.5	79.8	118	0	0		
Toluene	43.53	5.0	50	0	87.1	78.5	124	0	0		
Trichloroethene	42.38	5.0	50	0	84.8	74.2	138	0	0		
Surr: 4-Bromofluorobenzene	48.38	0	50	0	96.8	63.1	121	0	0		
Surr: Dibromofluoromethane	50.39	0	50	0	101	69.5	126	0	0		
Surr: Toluene-d8	51.31	0	50	0	103	74.2	120	0	0		

Sample ID **0402A46-001AMS** SampType: **MS** TestCode: **8260_TCL4.2** Units: **µg/L** Prep Date: **2/26/2004** RunNo: **48156**
Client ID: Batch ID: **42924** TestNo: **SW8260B** Analysis Date: **2/26/2004** SeqNo: **903156**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	62.57	5.0	50	0	125	51.1	151	0	0		
Benzene	49.03	5.0	50	0	98.1	68.9	131	0	0		
Chlorobenzene	48.44	5.0	50	0	96.9	75.4	123	0	0		
Toluene	47.66	5.0	50	0	95.3	74.8	128	0	0		
Trichloroethene	47.13	5.0	50	0	94.3	66.3	145	0	0		
Surr: 4-Bromofluorobenzene	48.28	0	50	0	96.6	63.1	121	0	0		
Surr: Dibromofluoromethane	50.49	0	50	0	101	69.5	126	0	0		
Surr: Toluene-d8	50.55	0	50	0	101	74.2	120	0	0		

Sample ID **0402A46-001AMSD** SampType: **MSD** TestCode: **8260_TCL4.2** Units: **µg/L** Prep Date: **2/26/2004** RunNo: **48156**
Client ID: Batch ID: **42924** TestNo: **SW8260B** Analysis Date: **2/26/2004** SeqNo: **903157**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	62.17	5.0	50	0	124	51.1	151	62.57	0.641	14.3	
Benzene	48.08	5.0	50	0	96.2	68.9	131	49.03	1.96	10	
Chlorobenzene	48.04	5.0	50	0	96.1	75.4	123	48.44	0.829	10	
Toluene	46.89	5.0	50	0	93.8	74.8	128	47.66	1.63	10	
Trichloroethene	45.49	5.0	50	0	91	66.3	145	47.13	3.54	11	

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
BRL Below Reporting Limit
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits
E Value above quantitation range
N Analyte not NELAC certified

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42924

Sample ID 0402A46-001AMSD	SampType: MSD	TestCode: 8260_TCL4.2	Units: µg/L	Prep Date: 2/26/2004	RunNo: 48156
Client ID:	Batch ID: 42924	TestNo: SW8260B		Analysis Date: 2/26/2004	SeqNo: 903157

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	47.87	0	50	0	95.7	63.1	121	48.28	0	0	
Surr: Dibromofluoromethane	50.72	0	50	0	101	69.5	126	50.49	0	0	
Surr: Toluene-d8	49.82	0	50	0	99.6	74.2	120	50.55	0	0	

Sample ID MB-42924	SampType: MBLK	TestCode: 8260B_W	Units: µg/L	Prep Date: 2/26/2004	RunNo: 48122
Client ID:	Batch ID: 42924	TestNo: SW8260B		Analysis Date: 2/25/2004	SeqNo: 902318

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloroethene, Total	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									

Qualifiers:

- B Analyte detected in the associated Method Blank
- BRL Below Reporting Limit
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- N Analyte not NELAC certified
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42924

Sample ID **MB-42924**	SampType: **MBLK**	TestCode: **8260B_W**	Units: **µg/L**	Prep Date: **2/26/2004**	RunNo: **48122**
Client ID:	Batch ID: **42924**	TestNo: **SW8260B**		Analysis Date: **2/25/2004**	SeqNo: **902318**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	10									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
Naphthalene	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	49.9	5.0	50	0	99.8	63.1	121	0	0		
Surr: Dibromofluoromethane	48.2	5.0	50	0	96.4	69.5	126	0	0		

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits
- BRL Below Reporting Limit
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits
- E Value above quantitation range
- N Analyte not NELAC certified

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42924

Sample ID MB-42924	SampType: MBLK	TestCode: 8260B_W	Units: µg/L	Prep Date: 2/26/2004	RunNo: 48122
Client ID:	Batch ID: 42924	TestNo: SW8260B		Analysis Date: 2/25/2004	SeqNo: 902318

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	51.4	5.0	50	0	103	74.2	120	0	0		

Sample ID MB-42924	SampType: MBLK	TestCode: 8260B_W	Units: µg/L	Prep Date: 2/26/2004	RunNo: 48156
Client ID:	Batch ID: 42924	TestNo: SW8260B		Analysis Date: 2/26/2004	SeqNo: 902604

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloroethene, Total	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									

Qualifiers:

- B Analyte detected in the associated Method Blank
- BRL Below Reporting Limit
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- N Analyte not NELAC certified
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42924

Sample ID **MB-42924**	SampType: **MBLK**	TestCode: **8260B_W**	Units: **µg/L**	Prep Date: **2/26/2004**	RunNo: **48156**
Client ID:	Batch ID: **42924**	TestNo: **SW8260B**		Analysis Date: **2/26/2004**	SeqNo: **902604**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	10									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
Naphthalene	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	48.33	5.0	50	0	96.7	63.1	121	0	0		
Surr: Dibromofluoromethane	50.73	5.0	50	0	101	69.5	126	0	0		
Surr: Toluene-d8	51.34	5.0	50	0	103	74.2	120	0	0		

Qualifiers:

- B Analyte detected in the associated Method Blank
- BRL Below Reporting Limit
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- N Analyte not NELAC certified
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42924

Sample ID **LCS-42924**	SampType: **LCS**	TestCode: **8260B_W**	Units: **µg/L**	Prep Date: **2/26/2004**	RunNo: **48156**
Client ID:	Batch ID: **42924**	TestNo: **SW8260B**		Analysis Date: **2/26/2004**	SeqNo: **902605**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	56.43	5.0	50	0	113	58.1	142	0	0		
Benzene	44.81	5.0	50	0	89.6	74	127	0	0		
Chlorobenzene	45.11	5.0	50	0	90.2	79.8	118	0	0		
Toluene	42.76	5.0	50	0	85.5	78.5	124	0	0		
Trichloroethene	41.44	5.0	50	0	82.9	74.2	138	0	0		
Surr: 4-Bromofluorobenzene	47.66	5.0	50	0	95.3	63.1	121	0	0		
Surr: Dibromofluoromethane	48.5	5.0	50	0	97	69.5	126	0	0		
Surr: Toluene-d8	49.98	5.0	50	0	100	74.2	120	0	0		

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits
- BRL Below Reporting Limit
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits
- E Value above quantitation range
- N Analyte not NELAC certified

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42949

Sample ID MB-42949	SampType: MBLK	TestCode: 245.1_W	Units: mg/L	Prep Date: 2/27/2004	RunNo: 48218
Client ID:	Batch ID: 42949	TestNo: E245.1		Analysis Date: 2/27/2004	SeqNo: 904336

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	BRL	0.000200	0	0	0	0	0	0	0		

Sample ID LCS-42949	SampType: LCS	TestCode: 245.1_W	Units: mg/L	Prep Date: 2/27/2004	RunNo: 48218
Client ID:	Batch ID: 42949	TestNo: E245.1		Analysis Date: 2/27/2004	SeqNo: 904338

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004945	0.000200	0.005	0	98.9	85	115	0	0		

Sample ID 0402986-001IMS	SampType: MS	TestCode: 245.1_W	Units: mg/L	Prep Date: 2/27/2004	RunNo: 48218
Client ID:	Batch ID: 42949	TestNo: E245.1		Analysis Date: 2/27/2004	SeqNo: 904343

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005085	0.000200	0.005	0.00005888	101	70	130	0	0		

Sample ID 0402986-001IMSD	SampType: MSD	TestCode: 245.1_W	Units: mg/L	Prep Date: 2/27/2004	RunNo: 48218
Client ID:	Batch ID: 42949	TestNo: E245.1		Analysis Date: 2/27/2004	SeqNo: 904344

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005096	0.000200	0.005	0.00005888	101	70	130	0.005085	0.216	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits
- BRL Below Reporting Limit
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits
- E Value above quantitation range
- N Analyte not NELAC certified

CLIENT: Environmental Strategies Corporation, LLC
Work Order: 0402A27
Project: National Smelting & Refining

ANALYTICAL QC SUMMARY REPORT

BatchID: 42987

Sample ID	MB-42987	SampType:	MBLK	TestCode:	7471A_S	Units:	mg/Kg	Prep Date:	2/28/2004	RunNo:	48236
Client ID:		Batch ID:	42987	TestNo:	SW7471A			Analysis Date:	2/28/2004	SeqNo:	904767

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	BRL	0.100									

Sample ID	LCS-42987	SampType:	LCS	TestCode:	7471A_S	Units:	mg/Kg	Prep Date:	2/28/2004	RunNo:	48236
Client ID:		Batch ID:	42987	TestNo:	SW7471A			Analysis Date:	2/28/2004	SeqNo:	904768

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.3719	0.100	0.4	0	93	80	120	0	0		

Sample ID	0402A27-006AMS	SampType:	MS	TestCode:	7471A_S	Units:	mg/Kg	Prep Date:	2/28/2004	RunNo:	48236
Client ID:	540W	Batch ID:	42987	TestNo:	SW7471A			Analysis Date:	2/28/2004	SeqNo:	904770

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.3818	0.0895	0.358	0.04741	93.4	70	130	0	0		

Sample ID	0402A27-006AMSD	SampType:	MSD	TestCode:	7471A_S	Units:	mg/Kg	Prep Date:	2/28/2004	RunNo:	48236
Client ID:	540W	Batch ID:	42987	TestNo:	SW7471A			Analysis Date:	2/28/2004	SeqNo:	904771

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.3987	0.0937	0.3747	0.04741	93.8	70	130	0.3818	4.34	30	

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits
- BRL Below Reporting Limit
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits
- E Value above quantitation range
- N Analyte not NELAC certified

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

September 23, 2005

GiGi Beaulieu
Environmental Strategies Corporation
1740 Massachusetts Ave.
Boxborough, MA 01719

TEL: (978) 635-9600
FAX (978) 264-0537

RE: NL/Atlanta, GA

Dear GiGi Beaulieu:

Order No.: 0506948

Analytical Environmental Services, Inc. received 10 samples on 6/20/2005 10:50:00 AM for the analyses presented in the following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. Sample results are not dry weight corrected, unless if Pmoist analysis are requested on the chain of custody or other project specific arrangements have been made.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water, effective 06/01/05-06/30/06.
-AIHA Certification number 505 for analysis of Industrial Hygiene samples (Organics, Inorganics), Paint Chips, Soil and Dust Wipes, effective until 02/01/07.

These results relate only to the items tested. This report may only be reproduced in full and contains 21 total pages (including cover letter).

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Allison Cantrell

Allison Cantrell
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 050948

Date: ______ Page 1 of 1

COMPANY: Environmental Strategies Consulting LLC

ADDRESS: 1740 Massachusetts Ave Boxborough, MA 01719

PHONE: 978-635-9600

FAX: 978-264-0537

SAMPLED BY: Giselle Beaulieu

SIGNATURE: GBeaulieu

ANALYSIS REQUESTED: 8021 B, 8270 C, metals

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	8021 B (H)	8270 C (I)	metals (N)	REMARKS	No # of Containers
1	MW-7	6/19/05	10:05	X		GW	X	X	X	Metals are:	5
2	MW-4		10:55	X		GW	■	■	(X)	Sb, As, Cd, Co, Cu	1
3	MW-5		13:51	X		GW	X	X	X	Pb, Ag, Se, Th, Zn	5
4	MW-1		15:40	X		GW	X	X	X		5
5	MW-3		16:40	X		GW			X		1
6	MW-2		17:55	X		GW			X		1
7	MW-8		18:20	X		GW			X		1
8	MW-6		18:58	X		GW	X	X	X		5
9	Trip Blank		—	—		W	X				2
10	MW-D		19:30	X		GW	X	X	X		5
11	—— end ——										
12											
13											
14											

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: GBeaulieu	6/19/05 10:50	1: [signature]	6/20/05 10:50
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: NL/Atlanta, GA

PROJECT #: 127541/05

SITE ADDRESS: 430 Bishop St

SEND REPORT TO: GBeaulieu

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: ______ PO#: ______

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

(CLIENT) FedEx UPS MAIL COURIER GREYHOUND OTHER ______

RECEIPT

Total # of Containers: 31

Turnaround Time Request

- [X] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same Day Rush (auth req.)
- [ ] Other ______

STATE PROGRAM (if any): ______

E-mail? (Y)/N; Fax? Y/(N)

DATA PACKAGE: I (II) III IV

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Environmental Strategies Consulting Work Order Number 0506948

Checklist completed by Brent Ammons 6/20/05
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 4.7°c Cooler #2 5.1°c Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ mr 6/20/05 No ✓

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes __ No ✓ Not Applicable __

Adjusted? BA Checked by BA

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

C:\Documents and Settings\Chemist\Desktop\SampleReceiptChecklistRptREV.rtf

Analytical Environmental Services, Inc.

Date: *23-Sep-05*

CLIENT: Environmental Strategies Corporation
Project: NL/Atlanta, GA
Lab ID: 0506948-001

Client Sample ID: MW-7
Collection Date: 6/19/2005 10:05:00 AM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Antimony	BRL	0.0200		mg/L	59043	1	6/23/2005 6:34 PM
Arsenic	BRL	0.0500		mg/L	59043	1	6/23/2005 6:34 PM
Cadmium	0.0083	0.0050		mg/L	59043	1	6/23/2005 6:34 PM
Cobalt	0.0912	0.0200		mg/L	59043	1	6/23/2005 6:34 PM
Copper	0.0645	0.0100		mg/L	59043	1	6/23/2005 6:34 PM
Lead	0.0670	0.0100		mg/L	59043	1	6/23/2005 6:34 PM
Selenium	BRL	0.0200		mg/L	59043	1	6/23/2005 6:34 PM
Silver	BRL	0.0100		mg/L	59043	1	6/23/2005 6:34 PM
Thallium	BRL	0.0200		mg/L	59043	1	6/23/2005 6:34 PM
Zinc	0.154	0.0200		mg/L	59043	1	6/23/2005 6:34 PM
POLYAROMATIC HYDROCARBONS		**SW8270C**			**(SW3535)**		Analyst: **JMZ**
Naphthalene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
Acenaphthylene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
1-Methylnaphthalene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
2-Methylnaphthalene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
Acenaphthene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
Fluorene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
Phenanthrene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
Anthracene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
Fluoranthene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
Pyrene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
Benz(a)anthracene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
Chrysene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
Benzo(b)fluoranthene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
Benzo(k)fluoranthene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
Benzo(a)pyrene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
Dibenz(a,h)anthracene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
Benzo(g,h,i)perylene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	59008	1	6/22/2005 11:04 AM
Surr: Nitrobenzene-d5	72.3	26.3-132		%REC	59008	1	6/22/2005 11:04 AM
Surr: 2-Fluorobiphenyl	84.0	46.6-117		%REC	59008	1	6/22/2005 11:04 AM
Surr: 4-Terphenyl-d14	102	34-135		%REC	59008	1	6/22/2005 11:04 AM
VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **TMP**
Benzene	BRL	1.0		µg/L	59169	1	6/23/2005 5:54 AM
Toluene	BRL	1.0		µg/L	59169	1	6/23/2005 5:54 AM
Ethylbenzene	BRL	1.0		µg/L	59169	1	6/23/2005 5:54 AM
m,p-Xylene	BRL	1.0		µg/L	59169	1	6/23/2005 5:54 AM
o-Xylene	BRL	1.0		µg/L	59169	1	6/23/2005 5:54 AM
Surr: 4-Bromofluorobenzene	126	59.6-144		%REC	59169	1	6/23/2005 5:54 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
E	Estimated (Value above quantitation range)
S	Surrogate Recovery outside accepted recovery limits
Narr	See Case Narrative
NC	Not Confirmed

Analytical Environmental Services, Inc.

Date: *23-Sep-05*

CLIENT: Environmental Strategies Corporation
Project: NL/Atlanta, GA
Lab ID: 0506948-002

Client Sample ID: MW-4
Collection Date: 6/19/2005 10:55:00 AM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Antimony	BRL	0.0200		mg/L	59043	1	6/23/2005 6:38 PM
Arsenic	BRL	0.0500		mg/L	59043	1	6/23/2005 6:38 PM
Cadmium	BRL	0.0050		mg/L	59043	1	6/23/2005 6:38 PM
Cobalt	BRL	0.0200		mg/L	59043	1	6/23/2005 6:38 PM
Copper	BRL	0.0100		mg/L	59043	1	6/23/2005 6:38 PM
Lead	BRL	0.0100		mg/L	59043	1	6/23/2005 6:38 PM
Selenium	BRL	0.0200		mg/L	59043	1	6/23/2005 6:38 PM
Silver	BRL	0.0100		mg/L	59043	1	6/23/2005 6:38 PM
Thallium	BRL	0.0200		mg/L	59043	1	6/23/2005 6:38 PM
Zinc	BRL	0.0200		mg/L	59043	1	6/23/2005 6:38 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *23-Sep-05*

CLIENT: Environmental Strategies Corporation
Project: NL/Atlanta, GA
Lab ID: 0506948-003

Client Sample ID: MW-5
Collection Date: 6/19/2005 1:51:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Antimony	BRL	0.0200		mg/L	59043	1	6/23/2005 6:53 PM
Arsenic	BRL	0.0500		mg/L	59043	1	6/23/2005 6:53 PM
Cadmium	BRL	0.0050		mg/L	59043	1	6/23/2005 6:53 PM
Cobalt	BRL	0.0200		mg/L	59043	1	6/23/2005 6:53 PM
Copper	0.0292	0.0100		mg/L	59043	1	6/23/2005 6:53 PM
Lead	0.0651	0.0100		mg/L	59043	1	6/23/2005 6:53 PM
Selenium	BRL	0.0200		mg/L	59043	1	6/23/2005 6:53 PM
Silver	BRL	0.0100		mg/L	59043	1	6/23/2005 6:53 PM
Thallium	BRL	0.0200		mg/L	59043	1	6/23/2005 6:53 PM
Zinc	0.0376	0.0200		mg/L	59043	1	6/23/2005 6:53 PM
POLYAROMATIC HYDROCARBONS		**SW8270C**			**(SW3535)**		Analyst: **JMZ**
Naphthalene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
Acenaphthylene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
1-Methylnaphthalene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
2-Methylnaphthalene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
Acenaphthene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
Fluorene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
Phenanthrene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
Anthracene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
Fluoranthene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
Pyrene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
Benz(a)anthracene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
Chrysene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
Benzo(b)fluoranthene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
Benzo(k)fluoranthene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
Benzo(a)pyrene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	59008	1	6/22/2005 12:26 PM
Surr: Nitrobenzene-d5	71.8	26.3-132		%REC	59008	1	6/22/2005 12:26 PM
Surr: 2-Fluorobiphenyl	81.1	46.6-117		%REC	59008	1	6/22/2005 12:26 PM
Surr: 4-Terphenyl-d14	93.6	34-135		%REC	59008	1	6/22/2005 12:26 PM
VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **TMP**
Benzene	BRL	1.0		µg/L	59169	1	6/23/2005 7:14 AM
Toluene	BRL	1.0		µg/L	59169	1	6/23/2005 7:14 AM
Ethylbenzene	BRL	1.0		µg/L	59169	1	6/23/2005 7:14 AM
m,p-Xylene	BRL	1.0		µg/L	59169	1	6/23/2005 7:14 AM
o-Xylene	BRL	1.0		µg/L	59169	1	6/23/2005 7:14 AM
Surr: 4-Bromofluorobenzene	130	59.6-144		%REC	59169	1	6/23/2005 7:14 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *23-Sep-05*

CLIENT: Environmental Strategies Corporation
Project: NL/Atlanta, GA
Lab ID: 0506948-004

Client Sample ID: MW-1
Collection Date: 6/19/2005 3:40:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Antimony	BRL	0.0200		mg/L	59043	1	6/23/2005 6:57 PM
Arsenic	BRL	0.0500		mg/L	59043	1	6/23/2005 6:57 PM
Cadmium	BRL	0.0050		mg/L	59043	1	6/23/2005 6:57 PM
Cobalt	0.0282	0.0200		mg/L	59043	1	6/23/2005 6:57 PM
Copper	BRL	0.0100		mg/L	59043	1	6/23/2005 6:57 PM
Lead	0.107	0.0100		mg/L	59043	1	6/23/2005 6:57 PM
Selenium	BRL	0.0200		mg/L	59043	1	6/23/2005 6:57 PM
Silver	BRL	0.0100		mg/L	59043	1	6/23/2005 6:57 PM
Thallium	BRL	0.0200		mg/L	59043	1	6/23/2005 6:57 PM
Zinc	0.0262	0.0200		mg/L	59043	1	6/23/2005 6:57 PM
POLYAROMATIC HYDROCARBONS		**SW8270C**			**(SW3535)**		Analyst: **JMZ**
Naphthalene	31	10		µg/L	59008	1	6/22/2005 12:53 PM
Acenaphthylene	BRL	10		µg/L	59008	1	6/22/2005 12:53 PM
1-Methylnaphthalene	BRL	10		µg/L	59008	1	6/22/2005 12:53 PM
2-Methylnaphthalene	BRL	10		µg/L	59008	1	6/22/2005 12:53 PM
Acenaphthene	BRL	10		µg/L	59008	1	6/22/2005 12:53 PM
Fluorene	BRL	10		µg/L	59008	1	6/22/2005 12:53 PM
Phenanthrene	BRL	10		µg/L	59008	1	6/22/2005 12:53 PM
Anthracene	BRL	10		µg/L	59008	1	6/22/2005 12:53 PM
Fluoranthene	BRL	10		µg/L	59008	1	6/22/2005 12:53 PM
Pyrene	BRL	10		µg/L	59008	1	6/22/2005 12:53 PM
Benz(a)anthracene	BRL	10		µg/L	59008	1	6/22/2005 12:53 PM
Chrysene	BRL	10		µg/L	59008	1	6/22/2005 12:53 PM
Benzo(b)fluoranthene	BRL	10		µg/L	59008	1	6/22/2005 12:53 PM
Benzo(k)fluoranthene	BRL	10		µg/L	59008	1	6/22/2005 12:53 PM
Benzo(a)pyrene	BRL	10		µg/L	59008	1	6/22/2005 12:53 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	59008	1	6/22/2005 12:53 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	59008	1	6/22/2005 12:53 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	59008	1	6/22/2005 12:53 PM
Surr: Nitrobenzene-d5	69.8	26.3-132		%REC	59008	1	6/22/2005 12:53 PM
Surr: 2-Fluorobiphenyl	71.0	46.6-117		%REC	59008	1	6/22/2005 12:53 PM
Surr: 4-Terphenyl-d14	86.4	34-135		%REC	59008	1	6/22/2005 12:53 PM
VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **TMP**
Benzene	51	1.0		µg/L	59169	1	6/23/2005 6:48 AM
Toluene	14	1.0		µg/L	59169	1	6/23/2005 6:48 AM
Ethylbenzene	29	1.0		µg/L	59169	1	6/23/2005 6:48 AM
m,p-Xylene	210	1.0		µg/L	59169	1	6/23/2005 6:48 AM
o-Xylene	20	1.0		µg/L	59169	1	6/23/2005 6:48 AM
Surr: 4-Bromofluorobenzene	135	59.6-144		%REC	59169	1	6/23/2005 6:48 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *23-Sep-05*

CLIENT: Environmental Strategies Corporation
Project: NL/Atlanta, GA
Lab ID: 0506948-005

Client Sample ID: MW-3
Collection Date: 6/19/2005 4:40:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Antimony	BRL	0.0200		mg/L	59043	1	6/23/2005 7:00 PM
Arsenic	BRL	0.0500		mg/L	59043	1	6/23/2005 7:00 PM
Cadmium	BRL	0.0050		mg/L	59043	1	6/23/2005 7:00 PM
Cobalt	BRL	0.0200		mg/L	59043	1	6/23/2005 7:00 PM
Copper	BRL	0.0100		mg/L	59043	1	6/23/2005 7:00 PM
Lead	BRL	0.0100		mg/L	59043	1	6/23/2005 7:00 PM
Selenium	BRL	0.0200		mg/L	59043	1	6/23/2005 7:00 PM
Silver	BRL	0.0100		mg/L	59043	1	6/23/2005 7:00 PM
Thallium	BRL	0.0200		mg/L	59043	1	6/23/2005 7:00 PM
Zinc	0.590	0.0200		mg/L	59043	1	6/23/2005 7:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
E	Estimated (Value above quantitation range)
S	Surrogate Recovery outside accepted recovery limits
Narr	See Case Narrative
NC	Not Confirmed

Analytical Environmental Services, Inc.

Date: *23-Sep-05*

CLIENT: Environmental Strategies Corporation
Project: NL/Atlanta, GA
Lab ID: 0506948-006

Client Sample ID: MW-2
Collection Date: 6/19/2005 5:55:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Antimony	BRL	0.0200		mg/L	59043	1	6/23/2005 7:04 PM
Arsenic	BRL	0.0500		mg/L	59043	1	6/23/2005 7:04 PM
Cadmium	0.0233	0.0050		mg/L	59043	1	6/23/2005 7:04 PM
Cobalt	0.0397	0.0200		mg/L	59043	1	6/23/2005 7:04 PM
Copper	0.0216	0.0100		mg/L	59043	1	6/23/2005 7:04 PM
Lead	0.0201	0.0100		mg/L	59043	1	6/23/2005 7:04 PM
Selenium	BRL	0.0200		mg/L	59043	1	6/23/2005 7:04 PM
Silver	BRL	0.0100		mg/L	59043	1	6/23/2005 7:04 PM
Thallium	BRL	0.0200		mg/L	59043	1	6/23/2005 7:04 PM
Zinc	0.710	0.0200		mg/L	59043	1	6/23/2005 7:04 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
E	Estimated (Value above quantitation range)
S	Surrogate Recovery outside accepted recovery limits
Narr	See Case Narrative
NC	Not Confirmed

Analytical Environmental Services, Inc.

Date: *23-Sep-05*

CLIENT: Environmental Strategies Corporation
Project: NL/Atlanta, GA
Lab ID: 0506948-007

Client Sample ID: MW-8
Collection Date: 6/19/2005 6:20:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Antimony	BRL	0.0200		mg/L	59043	1	6/23/2005 7:08 PM
Arsenic	BRL	0.0500		mg/L	59043	1	6/23/2005 7:08 PM
Cadmium	0.0068	0.0050		mg/L	59043	1	6/23/2005 7:08 PM
Cobalt	0.338	0.0200		mg/L	59043	1	6/23/2005 7:08 PM
Copper	0.0223	0.0100		mg/L	59043	1	6/23/2005 7:08 PM
Lead	1.48	0.0100		mg/L	59043	1	6/23/2005 7:08 PM
Selenium	BRL	0.0200		mg/L	59043	1	6/23/2005 7:08 PM
Silver	BRL	0.0100		mg/L	59043	1	6/23/2005 7:08 PM
Thallium	BRL	0.0200		mg/L	59043	1	6/23/2005 7:08 PM
Zinc	2.64	0.0200		mg/L	59043	1	6/23/2005 7:08 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *23-Sep-05*

CLIENT: Environmental Strategies Corporation
Project: NL/Atlanta, GA
Lab ID: 0506948-008

Client Sample ID: MW-6
Collection Date: 6/19/2005 6:58:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Antimony	BRL	0.0200		mg/L	59043	1	6/23/2005 7:12 PM
Arsenic	BRL	0.0500		mg/L	59043	1	6/23/2005 7:12 PM
Cadmium	BRL	0.0050		mg/L	59043	1	6/23/2005 7:12 PM
Cobalt	BRL	0.0200		mg/L	59043	1	6/23/2005 7:12 PM
Copper	BRL	0.0100		mg/L	59043	1	6/23/2005 7:12 PM
Lead	BRL	0.0100		mg/L	59043	1	6/23/2005 7:12 PM
Selenium	BRL	0.0200		mg/L	59043	1	6/23/2005 7:12 PM
Silver	BRL	0.0100		mg/L	59043	1	6/23/2005 7:12 PM
Thallium	BRL	0.0200		mg/L	59043	1	6/23/2005 7:12 PM
Zinc	0.0317	0.0200		mg/L	59043	1	6/23/2005 7:12 PM
POLYAROMATIC HYDROCARBONS		**SW8270C**			**(SW3535)**		Analyst: **JMZ**
Naphthalene	280	100		µg/L	59008	10	6/22/2005 6:55 PM
Acenaphthylene	BRL	10		µg/L	59008	1	6/22/2005 1:21 PM
1-Methylnaphthalene	66	10		µg/L	59008	1	6/22/2005 1:21 PM
2-Methylnaphthalene	120	10		µg/L	59008	1	6/22/2005 1:21 PM
Acenaphthene	BRL	10		µg/L	59008	1	6/22/2005 1:21 PM
Fluorene	BRL	10		µg/L	59008	1	6/22/2005 1:21 PM
Phenanthrene	BRL	10		µg/L	59008	1	6/22/2005 1:21 PM
Anthracene	BRL	10		µg/L	59008	1	6/22/2005 1:21 PM
Fluoranthene	BRL	10		µg/L	59008	1	6/22/2005 1:21 PM
Pyrene	BRL	10		µg/L	59008	1	6/22/2005 1:21 PM
Benz(a)anthracene	BRL	10		µg/L	59008	1	6/22/2005 1:21 PM
Chrysene	BRL	10		µg/L	59008	1	6/22/2005 1:21 PM
Benzo(b)fluoranthene	BRL	10		µg/L	59008	1	6/22/2005 1:21 PM
Benzo(k)fluoranthene	BRL	10		µg/L	59008	1	6/22/2005 1:21 PM
Benzo(a)pyrene	BRL	10		µg/L	59008	1	6/22/2005 1:21 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	59008	1	6/22/2005 1:21 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	59008	1	6/22/2005 1:21 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	59008	1	6/22/2005 1:21 PM
Surr: Nitrobenzene-d5	56.9	26.3-132		%REC	59008	1	6/22/2005 1:21 PM
Surr: 2-Fluorobiphenyl	81.9	46.6-117		%REC	59008	1	6/22/2005 1:21 PM
Surr: 4-Terphenyl-d14	92.6	34-135		%REC	59008	1	6/22/2005 1:21 PM
VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **TMP**
Benzene	2600	50		µg/L	59169	50	6/23/2005 12:34 AM
Toluene	4800	50		µg/L	59169	50	6/23/2005 12:34 AM
Ethylbenzene	1600	50		µg/L	59169	50	6/23/2005 12:34 AM
m,p-Xylene	4800	50		µg/L	59169	50	6/23/2005 12:34 AM
o-Xylene	1700	50		µg/L	59169	50	6/23/2005 12:34 AM
Surr: 4-Bromofluorobenzene	122	59.6-144		%REC	59169	50	6/23/2005 12:34 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *23-Sep-05*

CLIENT: Environmental Strategies Corporation
Project: NL/Atlanta, GA
Lab ID: 0506948-009

Client Sample ID: TRIP BLANK
Collection Date: 6/19/2005
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
VOLATILE ORGANICS		**SW8260B**		**(SW5030B)**			Analyst: **TMP**
Benzene	BRL	1.0		µg/L	59169	1	6/23/2005 3:14 AM
Toluene	BRL	1.0		µg/L	59169	1	6/23/2005 3:14 AM
Ethylbenzene	BRL	1.0		µg/L	59169	1	6/23/2005 3:14 AM
m,p-Xylene	BRL	1.0		µg/L	59169	1	6/23/2005 3:14 AM
o-Xylene	BRL	1.0		µg/L	59169	1	6/23/2005 3:14 AM
Surr: 4-Bromofluorobenzene	130	59.6-144		%REC	59169	1	6/23/2005 3:14 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *23-Sep-05*

CLIENT: Environmental Strategies Corporation
Project: NL/Atlanta, GA
Lab ID: 0506948-010

Client Sample ID: MW-D
Collection Date: 6/19/2005 7:30:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Antimony	BRL	0.0200		mg/L	59043	1	6/23/2005 6:23 PM
Arsenic	BRL	0.0500		mg/L	59043	1	6/23/2005 6:23 PM
Cadmium	BRL	0.0050		mg/L	59043	1	6/23/2005 6:23 PM
Cobalt	BRL	0.0200		mg/L	59043	1	6/23/2005 6:23 PM
Copper	BRL	0.0100		mg/L	59043	1	6/23/2005 6:23 PM
Lead	BRL	0.0100		mg/L	59043	1	6/23/2005 6:23 PM
Selenium	BRL	0.0200		mg/L	59043	1	6/23/2005 6:23 PM
Silver	BRL	0.0100		mg/L	59043	1	6/23/2005 6:23 PM
Thallium	BRL	0.0200		mg/L	59043	1	6/23/2005 6:23 PM
Zinc	0.0306	0.0200		mg/L	59043	1	6/23/2005 6:23 PM
POLYAROMATIC HYDROCARBONS		**SW8270C**			**(SW3535)**		Analyst: **JMZ**
Naphthalene	320	100		µg/L	59008	10	6/22/2005 7:22 PM
Acenaphthylene	BRL	10		µg/L	59008	1	6/22/2005 1:48 PM
1-Methylnaphthalene	72	10		µg/L	59008	1	6/22/2005 1:48 PM
2-Methylnaphthalene	140	10		µg/L	59008	1	6/22/2005 1:48 PM
Acenaphthene	BRL	10		µg/L	59008	1	6/22/2005 1:48 PM
Fluorene	BRL	10		µg/L	59008	1	6/22/2005 1:48 PM
Phenanthrene	BRL	10		µg/L	59008	1	6/22/2005 1:48 PM
Anthracene	BRL	10		µg/L	59008	1	6/22/2005 1:48 PM
Fluoranthene	BRL	10		µg/L	59008	1	6/22/2005 1:48 PM
Pyrene	BRL	10		µg/L	59008	1	6/22/2005 1:48 PM
Benz(a)anthracene	BRL	10		µg/L	59008	1	6/22/2005 1:48 PM
Chrysene	BRL	10		µg/L	59008	1	6/22/2005 1:48 PM
Benzo(b)fluoranthene	BRL	10		µg/L	59008	1	6/22/2005 1:48 PM
Benzo(k)fluoranthene	BRL	10		µg/L	59008	1	6/22/2005 1:48 PM
Benzo(a)pyrene	BRL	10		µg/L	59008	1	6/22/2005 1:48 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	59008	1	6/22/2005 1:48 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	59008	1	6/22/2005 1:48 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	59008	1	6/22/2005 1:48 PM
Surr: Nitrobenzene-d5	45.8	26.3-132		%REC	59008	1	6/22/2005 1:48 PM
Surr: 2-Fluorobiphenyl	81.6	46.6-117		%REC	59008	1	6/22/2005 1:48 PM
Surr: 4-Terphenyl-d14	96.2	34-135		%REC	59008	1	6/22/2005 1:48 PM
VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **TMP**
Benzene	2500	50		µg/L	59169	50	6/23/2005 1:00 AM
Toluene	4600	50		µg/L	59169	50	6/23/2005 1:00 AM
Ethylbenzene	1500	50		µg/L	59169	50	6/23/2005 1:00 AM
m,p-Xylene	4700	50		µg/L	59169	50	6/23/2005 1:00 AM
o-Xylene	1700	50		µg/L	59169	50	6/23/2005 1:00 AM
Surr: 4-Bromofluorobenzene	126	59.6-144		%REC	59169	50	6/23/2005 1:00 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

CLIENT: Environmental Strategies Corporation
Work Order: 0506948
Project: NL/Atlanta, GA

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010B_W_T

Sample ID **MB-59043**	SampType: **MBLK**	TestCode: **6010B_W_T**	Units: **mg/L**	Prep Date: **6/21/2005**	RunNo: **67649**
Client ID:	Batch ID: **59043**	TestNo: **SW6010B**		Analysis Date: **6/23/2005**	SeqNo: **1331105**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	BRL	0.0200									
Arsenic	BRL	0.0500									
Cadmium	BRL	0.00500									
Cobalt	BRL	0.0200									
Copper	BRL	0.0100									
Lead	BRL	0.0100									
Selenium	BRL	0.0200									
Silver	BRL	0.0100									
Thallium	BRL	0.0200									
Zinc	BRL	0.0200									

Sample ID **LCS-59043**	SampType: **LCS**	TestCode: **6010B_W_T**	Units: **mg/L**	Prep Date: **6/21/2005**	RunNo: **67649**
Client ID:	Batch ID: **59043**	TestNo: **SW6010B**		Analysis Date: **6/23/2005**	SeqNo: **1331104**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	1.08	0.0200	1	0	108	85	115	0	0		
Arsenic	1.066	0.0500	1	0	107	85	115	0	0		
Cadmium	1.038	0.00500	1	0	104	85	115	0	0		
Cobalt	1.044	0.0200	1	0	104	85	115	0	0		
Copper	1.036	0.0100	1	0	104	85	115	0	0		
Lead	1.038	0.0100	1	0	104	85	115	0	0		
Selenium	1.031	0.0200	1	0	103	85	115	0	0		
Silver	0.1049	0.0100	0.1	0	105	85	115	0	0		
Thallium	1.028	0.0200	1	0	103	85	115	0	0		
Zinc	1.041	0.0200	1	0	104	85	115	0	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Environmental Strategies Corporation
Work Order: 0506948
Project: NL/Atlanta, GA

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010B_W_T

Sample ID 0506948-010CMS	SampType: MS	TestCode: 6010B_W_T	Units: mg/L	Prep Date: 6/21/2005	RunNo: 67649
Client ID: MW-D	Batch ID: 59043	TestNo: SW6010B		Analysis Date: 6/23/2005	SeqNo: 1331107

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	1.083	0.0200	1	0	108	75	125	0	0		
Arsenic	1.075	0.0500	1	0	108	75	125	0	0		
Cadmium	1.03	0.00500	1	0	103	75	125	0	0		
Cobalt	1.047	0.0200	1	0.01459	103	75	125	0	0		
Copper	1.027	0.0100	1	0.002018	102	75	125	0	0		
Lead	1.028	0.0100	1	0.003695	102	75	125	0	0		
Selenium	1.032	0.0200	1	0	103	75	125	0	0		
Silver	0.1032	0.0100	0.1	0	103	75	125	0	0		
Thallium	1.013	0.0200	1	0	101	75	125	0	0		
Zinc	1.059	0.0200	1	0.03055	103	75	125	0	0		

Sample ID 0506948-010CMSD	SampType: MSD	TestCode: 6010B_W_T	Units: mg/L	Prep Date: 6/21/2005	RunNo: 67649
Client ID: MW-D	Batch ID: 59043	TestNo: SW6010B		Analysis Date: 6/23/2005	SeqNo: 1331108

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	1.089	0.0200	1	0	109	75	125	1.083	0.624	20	
Arsenic	1.082	0.0500	1	0	108	75	125	1.075	0.656	20	
Cadmium	1.037	0.00500	1	0	104	75	125	1.03	0.676	20	
Cobalt	1.053	0.0200	1	0.01459	104	75	125	1.047	0.608	20	
Copper	1.026	0.0100	1	0.002018	102	75	125	1.027	0.0477	20	
Lead	1.033	0.0100	1	0.003695	103	75	125	1.028	0.489	20	
Selenium	1.041	0.0200	1	0	104	75	125	1.032	0.868	20	
Silver	0.104	0.0100	0.1	0	104	75	125	0.1032	0.770	20	
Thallium	1.021	0.0200	1	0	102	75	125	1.013	0.788	20	
Zinc	1.069	0.0200	1	0.03055	104	75	125	1.059	0.944	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Environmental Strategies Corporation
Work Order: 0506948
Project: NL/Atlanta, GA

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_PAH_W

Sample ID **MB-59008**	SampType: **MBLK**	TestCode: **8270_PAH_W**	Units: **µg/L**	Prep Date: **6/20/2005**	RunNo: **67398**
Client ID:	Batch ID: **59008**	TestNo: **SW8270C**		Analysis Date: **6/20/2005**	SeqNo: **1326180**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	BRL	10									
2-Methylnaphthalene	BRL	10									
Acenaphthene	BRL	10									
Acenaphthylene	BRL	10									
Anthracene	BRL	10									
Benz(a)anthracene	BRL	10									
Benzo(a)pyrene	BRL	10									
Benzo(b)fluoranthene	BRL	10									
Benzo(g,h,i)perylene	BRL	10									
Benzo(k)fluoranthene	BRL	10									
Chrysene	BRL	10									
Dibenz(a,h)anthracene	BRL	10									
Fluoranthene	BRL	10									
Fluorene	BRL	10									
Indeno(1,2,3-cd)pyrene	BRL	10									
Naphthalene	BRL	10									
Phenanthrene	BRL	10									
Pyrene	BRL	10									
Surr: 2-Fluorobiphenyl	41.69	0	50	0	83.4	46.6	117	0	0		
Surr: 4-Terphenyl-d14	43.91	0	50	0	87.8	34	135	0	0		
Surr: Nitrobenzene-d5	42.34	0	50	0	84.7	26.3	132	0	0		

Sample ID **LCS-59008**	SampType: **LCS**	TestCode: **8270_PAH_W**	Units: **µg/L**	Prep Date: **6/20/2005**	RunNo: **67398**
Client ID:	Batch ID: **59008**	TestNo: **SW8270C**		Analysis Date: **6/20/2005**	SeqNo: **1326181**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	42.82	10	50	0	85.6	67.4	120	0	0		
Acenaphthylene	54.67	10	50	0	109	64.8	122	0	0		
Anthracene	44.59	10	50	0	89.2	67.3	130	0	0		
Benz(a)anthracene	43.35	10	50	0	86.7	69.8	120	0	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Environmental Strategies Corporation
Work Order: 0506948
Project: NL/Atlanta, GA

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_PAH_W

Sample ID **LCS-59008**	SampType: **LCS**	TestCode: **8270_PAH_W**	Units: **µg/L**	Prep Date: **6/20/2005**	RunNo: **67398**
Client ID:	Batch ID: **59008**	TestNo: **SW8270C**		Analysis Date: **6/20/2005**	SeqNo: **1326181**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(a)pyrene	47.21	10	50	0	94.4	56.8	127	0	0		
Benzo(b)fluoranthene	45.43	10	50	0	90.9	52.1	127	0	0		
Benzo(g,h,i)perylene	48.93	10	50	0	97.9	42.8	144	0	0		
Benzo(k)fluoranthene	52.32	10	50	0	105	49.4	137	0	0		
Chrysene	45.19	10	50	0	90.4	70.6	120	0	0		
Dibenz(a,h)anthracene	46.93	10	50	0	93.9	47.7	138	0	0		
Fluoranthene	42.89	10	50	0	85.8	69.6	120	0	0		
Fluorene	44.68	10	50	0	89.4	68.6	120	0	0		
Indeno(1,2,3-cd)pyrene	42.86	10	50	0	85.7	52.6	134	0	0		
Naphthalene	40.15	10	50	0	80.3	62.6	120	0	0		
Phenanthrene	44.86	10	50	0	89.7	70.1	120	0	0		
Pyrene	44.81	10	50	0	89.6	66.6	123	0	0		
Surr: 2-Fluorobiphenyl	43.23	0	50	0	86.5	46.6	117	0	0		
Surr: 4-Terphenyl-d14	44.97	0	50	0	89.9	34	135	0	0		
Surr: Nitrobenzene-d5	43.17	0	50	0	86.3	26.3	132	0	0		

Sample ID **0506909-001CMS**	SampType: **MS**	TestCode: **8270_PAH_W**	Units: **µg/L**	Prep Date: **6/20/2005**	RunNo: **67398**
Client ID:	Batch ID: **59008**	TestNo: **SW8270C**		Analysis Date: **6/20/2005**	SeqNo: **1326184**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	27.45	10	50	0	54.9	54.2	120	0	0		
Acenaphthylene	34.72	10	50	0	69.4	55.9	123	0	0		
Anthracene	42.07	10	50	0	84.1	62	124	0	0		
Benz(a)anthracene	40.37	10	50	0	80.7	55.3	120	0	0		
Benzo(a)pyrene	44.45	10	50	0	88.9	42	128	0	0		
Benzo(b)fluoranthene	43.3	10	50	0	86.6	40.4	126	0	0		
Benzo(g,h,i)perylene	43.73	10	50	0	87.5	27.5	146	0	0		
Benzo(k)fluoranthene	48.39	10	50	0	96.8	39.2	132	0	0		
Chrysene	42.57	10	50	0	85.1	54.7	120	0	0		
Dibenz(a,h)anthracene	44.51	10	50	0	89	32.6	141	0	0		

Qualifiers:

B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Environmental Strategies Corporation
Work Order: 0506948
Project: NL/Atlanta, GA

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_PAH_W

Sample ID **0506909-001CMS**	SampType: **MS**	TestCode: **8270_PAH_W**	Units: **µg/L**	Prep Date: **6/20/2005**	RunNo: **67398**
Client ID:	Batch ID: **59008**	TestNo: **SW8270C**		Analysis Date: **6/20/2005**	SeqNo: **1326184**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoranthene	42.31	10	50	0	84.6	61.2	120	0	0		
Fluorene	31.33	10	50	0	62.7	59.1	120	0	0		
Indeno(1,2,3-cd)pyrene	38	10	50	0	76	35.3	140	0	0		
Naphthalene	30.11	10	50	0	60.2	39.4	120	0	0		
Phenanthrene	42.46	10	50	0	84.9	62.1	120	0	0		
Pyrene	42.89	10	50	0	85.8	47.9	131	0	0		
Surr: 2-Fluorobiphenyl	24.58	0	50	0	49.2	46.6	117	0	0		
Surr: 4-Terphenyl-d14	38.04	0	50	0	76.1	34	135	0	0		
Surr: Nitrobenzene-d5	35.23	0	50	0	70.5	26.3	132	0	0		

Sample ID **0506909-001CMSD**	SampType: **MSD**	TestCode: **8270_PAH_W**	Units: **µg/L**	Prep Date: **6/20/2005**	RunNo: **67398**
Client ID:	Batch ID: **59008**	TestNo: **SW8270C**		Analysis Date: **6/20/2005**	SeqNo: **1326185**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	31.95	10	50	0	63.9	54.2	120	27.45	15.2	29	
Acenaphthylene	39.27	10	50	0	78.5	55.9	123	34.72	12.3	19.1	
Anthracene	44.37	10	50	0	88.7	62	124	42.07	5.32	19.3	
Benz(a)anthracene	40.03	10	50	0	80.1	55.3	120	40.37	0.846	21.7	
Benzo(a)pyrene	43.75	10	50	0	87.5	42	128	44.45	1.59	24.1	
Benzo(b)fluoranthene	44.66	10	50	0	89.3	40.4	126	43.3	3.09	24.1	
Benzo(g,h,i)perylene	42.51	10	50	0	85	27.5	146	43.73	2.83	27.9	
Benzo(k)fluoranthene	48.36	10	50	0	96.7	39.2	132	48.39	0.0620	24.9	
Chrysene	41.67	10	50	0	83.3	54.7	120	42.57	2.14	22.2	
Dibenz(a,h)anthracene	43.99	10	50	0	88	32.6	141	44.51	1.18	27.4	
Fluoranthene	42.82	10	50	0	85.6	61.2	120	42.31	1.20	18.7	
Fluorene	34.1	10	50	0	68.2	59.1	120	31.33	8.47	19.5	
Indeno(1,2,3-cd)pyrene	37.33	10	50	0	74.7	35.3	140	38	1.78	26.6	
Naphthalene	37.1	10	50	0	74.2	39.4	120	30.11	20.8	21	
Phenanthrene	44.04	10	50	0	88.1	62.1	120	42.46	3.65	20	
Pyrene	43.18	10	50	0	86.4	47.9	131	42.89	0.674	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- BRL Below Reporting Limit
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- N Analyte not NELAC certified
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Strategies Corporation
Work Order: 0506948
Project: NL/Atlanta, GA

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_PAH_W

Sample ID **0506909-001CMSD**	SampType: **MSD**	TestCode: **8270_PAH_W**	Units: **µg/L**	Prep Date: **6/20/2005**	RunNo: **67398**
Client ID:	Batch ID: **59008**	TestNo: **SW8270C**		Analysis Date: **6/20/2005**	SeqNo: **1326185**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2-Fluorobiphenyl	29.89	0	50	0	59.8	46.6	117	24.58	0	0	
Surr: 4-Terphenyl-d14	38.03	0	50	0	76.1	34	135	38.04	0	0	
Surr: Nitrobenzene-d5	43.1	0	50	0	86.2	26.3	132	35.23	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Environmental Strategies Corporation
Work Order: 0506948
Project: NL/Atlanta, GA

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEX_W-MS

Sample ID **MB-59169**	SampType: **MBLK**	TestCode: **BTEX_W-MS**	Units: **µg/L**	Prep Date: **6/22/2005**	RunNo: **67551**
Client ID:	Batch ID: **59169**	TestNo: **SW8260B**		Analysis Date: **6/22/2005**	SeqNo: **1329402**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	BRL	1.0									
Ethylbenzene	BRL	1.0									
m,p-Xylene	BRL	1.0									
o-Xylene	BRL	1.0									
Toluene	BRL	1.0									
Surr: 4-Bromofluorobenzene	63.11	0	50	0	126	59.6	144	0	0		

Sample ID **LCS-59169**	SampType: **LCS**	TestCode: **BTEX_W-MS**	Units: **µg/L**	Prep Date: **6/22/2005**	RunNo: **67551**
Client ID:	Batch ID: **59169**	TestNo: **SW8260B**		Analysis Date: **6/22/2005**	SeqNo: **1329405**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	57.98	1.0	50	0	116	74.9	126	0	0		
Ethylbenzene	47.04	1.0	50	0	94.1	85.1	126	0	0		
m,p-Xylene	94.95	1.0	100	0	95	84.5	128	0	0		
o-Xylene	46.95	1.0	50	0	93.9	81.7	129	0	0		
Toluene	45.9	1.0	50	0	91.8	81.3	125	0	0		
Surr: 4-Bromofluorobenzene	63.61	0	50	0	127	59.6	144	0	0		

Sample ID **0506967-004AMS**	SampType: **MS**	TestCode: **BTEX_W-MS**	Units: **µg/L**	Prep Date: **6/22/2005**	RunNo: **67551**
Client ID:	Batch ID: **59169**	TestNo: **SW8260B**		Analysis Date: **6/23/2005**	SeqNo: **1329428**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	58.3	1.0	50	0	117	69.7	128	0	0		
Ethylbenzene	47.14	1.0	50	0	94.3	77	131	0	0		
m,p-Xylene	95.58	1.0	100	0	95.6	76.6	132	0	0		
o-Xylene	48.3	1.0	50	0	96.6	71.5	136	0	0		
Toluene	46.99	1.0	50	0	94	76.2	128	0	0		
Surr: 4-Bromofluorobenzene	64.15	0	50	0	128	59.6	144	0	0		

Qualifiers:

- B Analyte detected in the associated Method Blank
- BRL Below Reporting Limit
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- N Analyte not NELAC certified
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Strategies Corporation
Work Order: 0506948
Project: NL/Atlanta, GA

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEX_W-MS

Sample ID **0506967-004AMSD**	SampType: **MSD**	TestCode: **BTEX_W-MS**	Units: **µg/L**	Prep Date: **6/22/2005**	RunNo: **67551**
Client ID:	Batch ID: **59169**	TestNo: **SW8260B**		Analysis Date: **6/23/2005**	SeqNo: **1329430**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	56.87	1.0	50	0	114	69.7	128	58.3	2.48	20	
Ethylbenzene	46.57	1.0	50	0	93.1	77	131	47.14	1.22	20	
m,p-Xylene	92.89	1.0	100	0	92.9	76.6	132	95.58	2.85	20	
o-Xylene	46.92	1.0	50	0	93.8	71.5	136	48.3	2.90	20	
Toluene	45.61	1.0	50	0	91.2	76.2	128	46.99	2.98	20	
Surr: 4-Bromofluorobenzene	63.46	0	50	0	127	59.6	144	64.15	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

June 02, 2006

GiGi Beaulieu
Environmental Strategies Corporation
11911 Freedom Drive
Reston, VA 20190

TEL: (978) 635-9600
FAX (978) 264-0537

RE: NL Atlanta

Order No.: 0605G32

Dear GiGi Beaulieu:

Analytical Environmental Services, Inc. received 13 samples on 5/26/2006 1:00:00 PM for the analyses presented in the following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. Sample results are not dry weight corrected, unless if Pmoist analysis are requested on the chain of custody or other project specific arrangements have been made.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water, effective 06/01/05-06/30/06.
-AIHA Certification number 505 for analysis of Industrial Hygiene samples (Organics, Inorganics), Paint Chips, Soil and Dust Wipes, effective until 02/01/07.

These results relate only to the items tested. This report may only be reproduced in full and contains 37 total pages (including cover letter).

If you have any questions regarding these test results, please feel free to call.

Sincerely,

James Forrest
Project Manager

CHAIN OF CUSTODY RECORD

0605G32

No. 038408

Project Number:	Site and Location:
127562/04	NL/Atlanta, GA

Sampler's Name(s): Giselle Beaulieu

Sampler's Signature(s): GBeaulieu

Matrices: S = Soil; Aq = Water; A = Air; Bu = Bulk; W = Wipe; Bi = Biota; OW = Oily Waste; O = Other

Sample Identification:	Date	Time	Matrix	Number of Containers	Cd, Cu, Pb, Zn	PAHs (8270C)	Aromatic VOCs (8021B)	Remarks
MW-4	5/23/06	16:53	Aq	1	X			Samples chilled on
MW-3	"	18:05	Aq	1	X			wet ice.
MW-5	"	19:52	Aq	5	X	X	X	
MW-1	5/24/06	9:25	Aq	5	X	X	X	
MW-7	"	10:45	Aq	5	X	X	X	
MW-2	"	11:36	Aq	5	X	X	X	
MW-10	"	14:30	Aq	5	X	X	X	
MW-8	"	15:45	Aq	5	X	X	X	
MW-9	5/25/06	10:35	Aq	5	X	X	X	
MW-6	"	14:42	Aq	5	X	X	X	
MW-TD	5/26/06	11:42	Aq	1	X			
MW-100	5/25/06	16:00	Aq	5	X	X	X	
Trip Blank	—	—	Aq	2			X	
end								

Requested Analyses

Relinquished by (Signature):	Date	Time	Received by (Signature):	Laboratory Name:
GBeaulieu	5/26/06	12:55	CLIENT 5/26/06 1:00	AES
Relinquished by (Signature):	Date	Time	Received by (Signature):	Laboratory Location: Atlanta, GA
				Custody Seal Numbers: —
Turn-Around Time: Standard			Tracking Number: —	Method of Shipment: Self

ENVIRONMENTAL STRATEGIES CONSULTING LLC
A QUANTA TECHNICAL SERVICES COMPANY

☐ Reston Office: 11911 Freedom Dr, # 900, Reston, VA 20190
Tel: (703) 709-6500, Fax: (703) 709-8505

☐ Pittsburgh Office: 300 Corporate Center Dr, # 200, Moon Twp, PA 15108
Tel: (412) 604-1040, Fax: (412) 604-1055

☐ Denver Office: 4600 South Ulster, # 930, Denver, CO 80237
Tel: (303) 850-9200, Fax: (303) 850-9214

☐ Minneapolis Office: 123 North 3rd St, #706, Minneapolis, MN 55401
Tel: (612) 343-0510, Fax: (612) 343-0506

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Env. Strategies Work Order Number 0605G32

Checklist completed by Hamerton 5/26/06
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition?	Yes ✓	No __	Not Present __
Custody seals intact on shipping container/cooler?	Yes __	No __	Not Present ✓
Custody seals intact on sample bottles?	Yes __	No __	Not Present ✓
Container/Temp Blank temperature in compliance? (4°C±2)*	Yes ✓	No __	

Cooler #1 2.5°C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present?	Yes ✓	No __
Chain of custody signed when relinquished and received?	Yes ✓	No __
Chain of custody agrees with sample labels?	Yes ✓	No __
Samples in proper container/bottle?	Yes ✓	No __
Sample containers intact?	Yes ✓	No __
Sufficient sample volume for indicated test?	Yes ✓	No __
All samples received within holding time?	Yes ✓	No __
Was TAT marked on the COC?	Yes ✓	No __
Proceed with Standard TAT as per project history?	Yes __	No __ Not Applicable ✓
Water - VOA vials have zero headspace?	No VOA vials submitted __	Yes ✓ No __
Water - pH acceptable upon receipt?	Yes ✓	No __ Not Applicable __

Adjusted? _____ Checked by HC

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT:	Environmental Strategies Corporation	**Client Sample ID:**	MW-4
Project:	NL Atlanta	**Collection Date:**	5/23/2006 4:53:00 PM
Lab ID:	0605G32-001	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Cadmium	BRL	0.0050		mg/L	71418	1	5/31/2006 5:26 PM
Copper	BRL	0.0100		mg/L	71418	1	5/31/2006 5:26 PM
Lead	BRL	0.0100		mg/L	71418	1	5/31/2006 5:26 PM
Zinc	BRL	0.0200		mg/L	71418	1	5/31/2006 5:26 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT:	Environmental Strategies Corporation	**Client Sample ID:**	MW-3
Project:	NL Atlanta	**Collection Date:**	5/23/2006 6:05:00 PM
Lab ID:	0605G32-002	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Cadmium	BRL	0.0050		mg/L	71418	1	5/31/2006 5:29 PM
Copper	BRL	0.0100		mg/L	71418	1	5/31/2006 5:29 PM
Lead	BRL	0.0100		mg/L	71418	1	5/31/2006 5:29 PM
Zinc	0.999	0.0200		mg/L	71418	1	5/31/2006 5:29 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Client Sample ID: MW-5
Project: NL Atlanta
Collection Date: 5/23/2006 7:52:00 PM
Lab ID: 0605G32-003
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Cadmium	BRL	0.0050		mg/L	71418	1	5/31/2006 5:33 PM
Copper	BRL	0.0100		mg/L	71418	1	5/31/2006 5:33 PM
Lead	BRL	0.0100		mg/L	71418	1	5/31/2006 5:33 PM
Zinc	BRL	0.0200		mg/L	71418	1	5/31/2006 5:33 PM
POLYAROMATIC HYDROCARBONS		**SW8270C**			**(SW3535)**		Analyst: **DA**
Naphthalene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
Acenaphthylene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
1-Methylnaphthalene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
2-Methylnaphthalene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
Acenaphthene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
Fluorene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
Phenanthrene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
Anthracene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
Fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
Pyrene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
Benz(a)anthracene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
Chrysene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
Benzo(b)fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
Benzo(k)fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
Benzo(a)pyrene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	71369	1	5/31/2006 6:57 PM
Surr: Nitrobenzene-d5	81.7	29.9-115		%REC	71369	1	5/31/2006 6:57 PM
Surr: 2-Fluorobiphenyl	69.7	46.6-115		%REC	71369	1	5/31/2006 6:57 PM
Surr: 4-Terphenyl-d14	87.5	55.9-118		%REC	71369	1	5/31/2006 6:57 PM
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
1,1,1-Trichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
1,1,2-Trichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
1,1-Dichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
1,1-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
1,2,4-Trichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
1,2-Dibromoethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
1,2-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
1,2-Dichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
1,2-Dichloropropane	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
1,3-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
1,4-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Client Sample ID: MW-5
Project: NL Atlanta
Collection Date: 5/23/2006 7:52:00 PM
Lab ID: 0605G32-003
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
2-Butanone	BRL	50		µg/L	71407	1	5/29/2006 9:25 PM
2-Hexanone	BRL	10		µg/L	71407	1	5/29/2006 9:25 PM
4-Methyl-2-pentanone	BRL	10		µg/L	71407	1	5/29/2006 9:25 PM
Acetone	BRL	50		µg/L	71407	1	5/29/2006 9:25 PM
Benzene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Bromodichloromethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Bromoform	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Bromomethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Carbon disulfide	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Carbon tetrachloride	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Chlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Chloroethane	BRL	10		µg/L	71407	1	5/29/2006 9:25 PM
Chloroform	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Chloromethane	BRL	10		µg/L	71407	1	5/29/2006 9:25 PM
cis-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
cis-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Cyclohexane	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Dibromochloromethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Dichlorodifluoromethane	BRL	10		µg/L	71407	1	5/29/2006 9:25 PM
Ethylbenzene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Freon-113	BRL	10		µg/L	71407	1	5/29/2006 9:25 PM
Isopropylbenzene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
m,p-Xylene	BRL	10		µg/L	71407	1	5/29/2006 9:25 PM
Methyl acetate	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Methyl tert-butyl ether	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Methylcyclohexane	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Methylene chloride	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
o-Xylene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Styrene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Tetrachloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Toluene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
trans-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
trans-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Trichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Trichlorofluoromethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:25 PM
Vinyl chloride	BRL	2.0		µg/L	71407	1	5/29/2006 9:25 PM
Surr: 4-Bromofluorobenzene	76.0	63.7-115		%REC	71407	1	5/29/2006 9:25 PM
Surr: Dibromofluoromethane	94.3	70.4-123		%REC	71407	1	5/29/2006 9:25 PM
Surr: Toluene-d8	92.0	73.4-115		%REC	71407	1	5/29/2006 9:25 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL Atlanta
Lab ID: 0605G32-004

Client Sample ID: MW-1
Collection Date: 5/24/2006 9:25:00 AM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Cadmium	BRL	0.0050		mg/L	71418	1	5/31/2006 5:37 PM
Copper	BRL	0.0100		mg/L	71418	1	5/31/2006 5:37 PM
Lead	0.0230	0.0100		mg/L	71418	1	5/31/2006 5:37 PM
Zinc	BRL	0.0200		mg/L	71418	1	5/31/2006 5:37 PM
POLYAROMATIC HYDROCARBONS		**SW8270C**			**(SW3535)**		Analyst: **DA**
Naphthalene	40	10		µg/L	71369	1	5/31/2006 9:39 PM
Acenaphthylene	BRL	10		µg/L	71369	1	5/31/2006 9:39 PM
1-Methylnaphthalene	11	10		µg/L	71369	1	5/31/2006 9:39 PM
2-Methylnaphthalene	11	10		µg/L	71369	1	5/31/2006 9:39 PM
Acenaphthene	BRL	10		µg/L	71369	1	5/31/2006 9:39 PM
Fluorene	BRL	10		µg/L	71369	1	5/31/2006 9:39 PM
Phenanthrene	BRL	10		µg/L	71369	1	5/31/2006 9:39 PM
Anthracene	BRL	10		µg/L	71369	1	5/31/2006 9:39 PM
Fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 9:39 PM
Pyrene	BRL	10		µg/L	71369	1	5/31/2006 9:39 PM
Benz(a)anthracene	BRL	10		µg/L	71369	1	5/31/2006 9:39 PM
Chrysene	BRL	10		µg/L	71369	1	5/31/2006 9:39 PM
Benzo(b)fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 9:39 PM
Benzo(k)fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 9:39 PM
Benzo(a)pyrene	BRL	10		µg/L	71369	1	5/31/2006 9:39 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	71369	1	5/31/2006 9:39 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	71369	1	5/31/2006 9:39 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	71369	1	5/31/2006 9:39 PM
Surr: Nitrobenzene-d5	52.5	29.9-115		%REC	71369	1	5/31/2006 9:39 PM
Surr: 2-Fluorobiphenyl	70.9	46.6-115		%REC	71369	1	5/31/2006 9:39 PM
Surr: 4-Terphenyl-d14	88.3	55.9-118		%REC	71369	1	5/31/2006 9:39 PM
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
1,1,1-Trichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
1,1,2-Trichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
1,1-Dichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
1,1-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
1,2,4-Trichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
1,2-Dibromoethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
1,2-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
1,2-Dichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
1,2-Dichloropropane	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
1,3-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
1,4-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL Atlanta
Lab ID: 0605G32-004

Client Sample ID: MW-1
Collection Date: 5/24/2006 9:25:00 AM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
2-Butanone	BRL	50		µg/L	71407	1	5/29/2006 9:50 PM
2-Hexanone	BRL	10		µg/L	71407	1	5/29/2006 9:50 PM
4-Methyl-2-pentanone	BRL	10		µg/L	71407	1	5/29/2006 9:50 PM
Acetone	BRL	50		µg/L	71407	1	5/29/2006 9:50 PM
Benzene	56	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Bromodichloromethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Bromoform	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Bromomethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Carbon disulfide	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Carbon tetrachloride	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Chlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Chloroethane	BRL	10		µg/L	71407	1	5/29/2006 9:50 PM
Chloroform	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Chloromethane	BRL	10		µg/L	71407	1	5/29/2006 9:50 PM
cis-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
cis-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Cyclohexane	56	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Dibromochloromethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Dichlorodifluoromethane	BRL	10		µg/L	71407	1	5/29/2006 9:50 PM
Ethylbenzene	61	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Freon-113	BRL	10		µg/L	71407	1	5/29/2006 9:50 PM
Isopropylbenzene	11	5.0		µg/L	71407	1	5/29/2006 9:50 PM
m,p-Xylene	350	10		µg/L	71407	1	5/29/2006 9:50 PM
Methyl acetate	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Methyl tert-butyl ether	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Methylcyclohexane	25	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Methylene chloride	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
o-Xylene	75	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Styrene	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Tetrachloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Toluene	33	5.0		µg/L	71407	1	5/29/2006 9:50 PM
trans-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
trans-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Trichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Trichlorofluoromethane	BRL	5.0		µg/L	71407	1	5/29/2006 9:50 PM
Vinyl chloride	BRL	2.0		µg/L	71407	1	5/29/2006 9:50 PM
Surr: 4-Bromofluorobenzene	90.6	63.7-115		%REC	71407	1	5/29/2006 9:50 PM
Surr: Dibromofluoromethane	81.5	70.4-123		%REC	71407	1	5/29/2006 9:50 PM
Surr: Toluene-d8	88.7	73.4-115		%REC	71407	1	5/29/2006 9:50 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
E	Estimated (Value above quantitation range)
S	Surrogate Recovery outside accepted recovery limits
Narr	See Case Narrative
NC	Not Confirmed

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL Atlanta
Lab ID: 0605G32-005

Client Sample ID: MW-7
Collection Date: 5/24/2006 10:45:00 AM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Cadmium	0.0093	0.0050		mg/L	71418	1	5/31/2006 5:40 PM
Copper	0.0544	0.0100		mg/L	71418	1	5/31/2006 5:40 PM
Lead	BRL	0.0100		mg/L	71418	1	5/31/2006 5:40 PM
Zinc	0.157	0.0200		mg/L	71418	1	5/31/2006 5:40 PM
POLYAROMATIC HYDROCARBONS		**SW8270C**			**(SW3535)**		Analyst: **DA**
Naphthalene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
Acenaphthylene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
1-Methylnaphthalene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
2-Methylnaphthalene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
Acenaphthene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
Fluorene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
Phenanthrene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
Anthracene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
Fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
Pyrene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
Benz(a)anthracene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
Chrysene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
Benzo(b)fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
Benzo(k)fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
Benzo(a)pyrene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	71369	1	5/31/2006 10:12 PM
Surr: Nitrobenzene-d5	82.9	29.9-115		%REC	71369	1	5/31/2006 10:12 PM
Surr: 2-Fluorobiphenyl	64.8	46.6-115		%REC	71369	1	5/31/2006 10:12 PM
Surr: 4-Terphenyl-d14	96.0	55.9-118		%REC	71369	1	5/31/2006 10:12 PM
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
1,1,1-Trichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
1,1,2-Trichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
1,1-Dichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
1,1-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
1,2,4-Trichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
1,2-Dibromoethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
1,2-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
1,2-Dichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
1,2-Dichloropropane	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
1,3-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
1,4-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL Atlanta
Lab ID: 0605G32-005

Client Sample ID: MW-7
Collection Date: 5/24/2006 10:45:00 AM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
2-Butanone	BRL	50		µg/L	71407	1	5/29/2006 10:15 PM
2-Hexanone	BRL	10		µg/L	71407	1	5/29/2006 10:15 PM
4-Methyl-2-pentanone	BRL	10		µg/L	71407	1	5/29/2006 10:15 PM
Acetone	BRL	50		µg/L	71407	1	5/29/2006 10:15 PM
Benzene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Bromodichloromethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Bromoform	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Bromomethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Carbon disulfide	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Carbon tetrachloride	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Chlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Chloroethane	BRL	10		µg/L	71407	1	5/29/2006 10:15 PM
Chloroform	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Chloromethane	BRL	10		µg/L	71407	1	5/29/2006 10:15 PM
cis-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
cis-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Cyclohexane	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Dibromochloromethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Dichlorodifluoromethane	BRL	10		µg/L	71407	1	5/29/2006 10:15 PM
Ethylbenzene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Freon-113	BRL	10		µg/L	71407	1	5/29/2006 10:15 PM
Isopropylbenzene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
m,p-Xylene	BRL	10		µg/L	71407	1	5/29/2006 10:15 PM
Methyl acetate	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Methyl tert-butyl ether	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Methylcyclohexane	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Methylene chloride	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
o-Xylene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Styrene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Tetrachloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Toluene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
trans-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
trans-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Trichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Trichlorofluoromethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:15 PM
Vinyl chloride	BRL	2.0		µg/L	71407	1	5/29/2006 10:15 PM
Surr: 4-Bromofluorobenzene	82.2	63.7-115		%REC	71407	1	5/29/2006 10:15 PM
Surr: Dibromofluoromethane	90.1	70.4-123		%REC	71407	1	5/29/2006 10:15 PM
Surr: Toluene-d8	82.1	73.4-115		%REC	71407	1	5/29/2006 10:15 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL Atlanta
Lab ID: 0605G32-006

Client Sample ID: MW-2
Collection Date: 5/24/2006 11:36:00 AM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Cadmium	0.0183	0.0050		mg/L	71418	1	5/31/2006 5:51 PM
Copper	0.0121	0.0100		mg/L	71418	1	5/31/2006 5:51 PM
Lead	BRL	0.0100		mg/L	71418	1	5/31/2006 5:51 PM
Zinc	0.549	0.0200		mg/L	71418	1	5/31/2006 5:51 PM
POLYAROMATIC HYDROCARBONS		**SW8270C**			**(SW3535)**		Analyst: **DA**
Naphthalene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
Acenaphthylene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
1-Methylnaphthalene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
2-Methylnaphthalene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
Acenaphthene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
Fluorene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
Phenanthrene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
Anthracene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
Fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
Pyrene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
Benz(a)anthracene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
Chrysene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
Benzo(b)fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
Benzo(k)fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
Benzo(a)pyrene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	71369	1	5/31/2006 10:44 PM
Surr: Nitrobenzene-d5	70.1	29.9-115		%REC	71369	1	5/31/2006 10:44 PM
Surr: 2-Fluorobiphenyl	80.0	46.6-115		%REC	71369	1	5/31/2006 10:44 PM
Surr: 4-Terphenyl-d14	95.1	55.9-118		%REC	71369	1	5/31/2006 10:44 PM
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
1,1,1-Trichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
1,1,2-Trichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
1,1-Dichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
1,1-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
1,2,4-Trichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
1,2-Dibromoethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
1,2-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
1,2-Dichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
1,2-Dichloropropane	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
1,3-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
1,4-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL Atlanta
Lab ID: 0605G32-006

Client Sample ID: MW-2
Collection Date: 5/24/2006 11:36:00 AM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
2-Butanone	BRL	50		µg/L	71407	1	5/29/2006 10:40 PM
2-Hexanone	BRL	10		µg/L	71407	1	5/29/2006 10:40 PM
4-Methyl-2-pentanone	BRL	10		µg/L	71407	1	5/29/2006 10:40 PM
Acetone	BRL	50		µg/L	71407	1	5/29/2006 10:40 PM
Benzene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Bromodichloromethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Bromoform	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Bromomethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Carbon disulfide	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Carbon tetrachloride	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Chlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Chloroethane	BRL	10		µg/L	71407	1	5/29/2006 10:40 PM
Chloroform	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Chloromethane	BRL	10		µg/L	71407	1	5/29/2006 10:40 PM
cis-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
cis-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Cyclohexane	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Dibromochloromethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Dichlorodifluoromethane	BRL	10		µg/L	71407	1	5/29/2006 10:40 PM
Ethylbenzene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Freon-113	BRL	10		µg/L	71407	1	5/29/2006 10:40 PM
Isopropylbenzene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
m,p-Xylene	BRL	10		µg/L	71407	1	5/29/2006 10:40 PM
Methyl acetate	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Methyl tert-butyl ether	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Methylcyclohexane	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Methylene chloride	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
o-Xylene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Styrene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Tetrachloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Toluene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
trans-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
trans-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Trichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Trichlorofluoromethane	BRL	5.0		µg/L	71407	1	5/29/2006 10:40 PM
Vinyl chloride	BRL	2.0		µg/L	71407	1	5/29/2006 10:40 PM
Surr: 4-Bromofluorobenzene	78.5	63.7-115		%REC	71407	1	5/29/2006 10:40 PM
Surr: Dibromofluoromethane	94.4	70.4-123		%REC	71407	1	5/29/2006 10:40 PM
Surr: Toluene-d8	87.7	73.4-115		%REC	71407	1	5/29/2006 10:40 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
E	Estimated (Value above quantitation range)
S	Surrogate Recovery outside accepted recovery limits
Narr	See Case Narrative
NC	Not Confirmed

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Client Sample ID: MW-10
Project: NL Atlanta
Collection Date: 5/24/2006 2:30:00 PM
Lab ID: 0605G32-007
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Cadmium	BRL	0.0050		mg/L	71418	1	5/31/2006 5:54 PM
Copper	BRL	0.0100		mg/L	71418	1	5/31/2006 5:54 PM
Lead	BRL	0.0100		mg/L	71418	1	5/31/2006 5:54 PM
Zinc	BRL	0.0200		mg/L	71418	1	5/31/2006 5:54 PM
POLYAROMATIC HYDROCARBONS		**SW8270C**			**(SW3535)**		Analyst: **DA**
Naphthalene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
Acenaphthylene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
1-Methylnaphthalene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
2-Methylnaphthalene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
Acenaphthene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
Fluorene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
Phenanthrene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
Anthracene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
Fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
Pyrene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
Benz(a)anthracene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
Chrysene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
Benzo(b)fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
Benzo(k)fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
Benzo(a)pyrene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	71369	1	5/31/2006 11:16 PM
Surr: Nitrobenzene-d5	60.7	29.9-115		%REC	71369	1	5/31/2006 11:16 PM
Surr: 2-Fluorobiphenyl	60.0	46.6-115		%REC	71369	1	5/31/2006 11:16 PM
Surr: 4-Terphenyl-d14	97.3	55.9-118		%REC	71369	1	5/31/2006 11:16 PM
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
1,1,1-Trichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
1,1,2-Trichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
1,1-Dichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
1,1-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
1,2,4-Trichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
1,2-Dibromoethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
1,2-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
1,2-Dichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
1,2-Dichloropropane	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
1,3-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
1,4-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL Atlanta
Lab ID: 0605G32-007

Client Sample ID: MW-10
Collection Date: 5/24/2006 2:30:00 PM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
2-Butanone	BRL	50		µg/L	71407	1	5/29/2006 11:04 PM
2-Hexanone	BRL	10		µg/L	71407	1	5/29/2006 11:04 PM
4-Methyl-2-pentanone	BRL	10		µg/L	71407	1	5/29/2006 11:04 PM
Acetone	BRL	50		µg/L	71407	1	5/29/2006 11:04 PM
Benzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Bromodichloromethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Bromoform	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Bromomethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Carbon disulfide	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Carbon tetrachloride	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Chlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Chloroethane	BRL	10		µg/L	71407	1	5/29/2006 11:04 PM
Chloroform	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Chloromethane	BRL	10		µg/L	71407	1	5/29/2006 11:04 PM
cis-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
cis-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Cyclohexane	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Dibromochloromethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Dichlorodifluoromethane	BRL	10		µg/L	71407	1	5/29/2006 11:04 PM
Ethylbenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Freon-113	BRL	10		µg/L	71407	1	5/29/2006 11:04 PM
Isopropylbenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
m,p-Xylene	BRL	10		µg/L	71407	1	5/29/2006 11:04 PM
Methyl acetate	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Methyl tert-butyl ether	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Methylcyclohexane	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Methylene chloride	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
o-Xylene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Styrene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Tetrachloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Toluene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
trans-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
trans-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Trichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Trichlorofluoromethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:04 PM
Vinyl chloride	BRL	2.0		µg/L	71407	1	5/29/2006 11:04 PM
Surr: 4-Bromofluorobenzene	74.9	63.7-115		%REC	71407	1	5/29/2006 11:04 PM
Surr: Dibromofluoromethane	96.4	70.4-123		%REC	71407	1	5/29/2006 11:04 PM
Surr: Toluene-d8	87.9	73.4-115		%REC	71407	1	5/29/2006 11:04 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
E	Estimated (Value above quantitation range)
S	Surrogate Recovery outside accepted recovery limits
Narr	See Case Narrative
NC	Not Confirmed

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL Atlanta
Lab ID: 0605G32-008

Client Sample ID: MW-8
Collection Date: 5/24/2006 3:45:00 PM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Cadmium	BRL	0.0050		mg/L	71418	1	5/31/2006 5:58 PM
Copper	BRL	0.0100		mg/L	71418	1	5/31/2006 5:58 PM
Lead	0.166	0.0100		mg/L	71418	1	5/31/2006 5:58 PM
Zinc	0.895	0.0200		mg/L	71418	1	5/31/2006 5:58 PM
POLYAROMATIC HYDROCARBONS		**SW8270C**			**(SW3535)**		Analyst: **DA**
Naphthalene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
Acenaphthylene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
1-Methylnaphthalene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
2-Methylnaphthalene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
Acenaphthene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
Fluorene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
Phenanthrene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
Anthracene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
Fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
Pyrene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
Benz(a)anthracene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
Chrysene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
Benzo(b)fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
Benzo(k)fluoranthene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
Benzo(a)pyrene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	71369	1	5/31/2006 11:49 PM
Surr: Nitrobenzene-d5	84.9	29.9-115		%REC	71369	1	5/31/2006 11:49 PM
Surr: 2-Fluorobiphenyl	68.2	46.6-115		%REC	71369	1	5/31/2006 11:49 PM
Surr: 4-Terphenyl-d14	93.8	55.9-118		%REC	71369	1	5/31/2006 11:49 PM
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
1,1,1-Trichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
1,1,2-Trichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
1,1-Dichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
1,1-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
1,2,4-Trichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
1,2-Dibromoethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
1,2-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
1,2-Dichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
1,2-Dichloropropane	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
1,3-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
1,4-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL Atlanta
Lab ID: 0605G32-008

Client Sample ID: MW-8
Collection Date: 5/24/2006 3:45:00 PM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
2-Butanone	BRL	50		µg/L	71407	1	5/29/2006 11:29 PM
2-Hexanone	BRL	10		µg/L	71407	1	5/29/2006 11:29 PM
4-Methyl-2-pentanone	BRL	10		µg/L	71407	1	5/29/2006 11:29 PM
Acetone	BRL	50		µg/L	71407	1	5/29/2006 11:29 PM
Benzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Bromodichloromethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Bromoform	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Bromomethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Carbon disulfide	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Carbon tetrachloride	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Chlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Chloroethane	BRL	10		µg/L	71407	1	5/29/2006 11:29 PM
Chloroform	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Chloromethane	BRL	10		µg/L	71407	1	5/29/2006 11:29 PM
cis-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
cis-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Cyclohexane	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Dibromochloromethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Dichlorodifluoromethane	BRL	10		µg/L	71407	1	5/29/2006 11:29 PM
Ethylbenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Freon-113	BRL	10		µg/L	71407	1	5/29/2006 11:29 PM
Isopropylbenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
m,p-Xylene	BRL	10		µg/L	71407	1	5/29/2006 11:29 PM
Methyl acetate	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Methyl tert-butyl ether	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Methylcyclohexane	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Methylene chloride	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
o-Xylene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Styrene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Tetrachloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Toluene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
trans-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
trans-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Trichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Trichlorofluoromethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:29 PM
Vinyl chloride	BRL	2.0		µg/L	71407	1	5/29/2006 11:29 PM
Surr: 4-Bromofluorobenzene	79.0	63.7-115		%REC	71407	1	5/29/2006 11:29 PM
Surr: Dibromofluoromethane	98.8	70.4-123		%REC	71407	1	5/29/2006 11:29 PM
Surr: Toluene-d8	91.8	73.4-115		%REC	71407	1	5/29/2006 11:29 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
E	Estimated (Value above quantitation range)
S	Surrogate Recovery outside accepted recovery limits
Narr	See Case Narrative
NC	Not Confirmed

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL Atlanta
Lab ID: 0605G32-009

Client Sample ID: MW-9
Collection Date: 5/25/2006 10:35:00 AM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Cadmium	BRL	0.0050		mg/L	71418	1	5/31/2006 6:02 PM
Copper	0.0142	0.0100		mg/L	71418	1	5/31/2006 6:02 PM
Lead	BRL	0.0100		mg/L	71418	1	5/31/2006 6:02 PM
Zinc	0.348	0.0200		mg/L	71418	1	5/31/2006 6:02 PM
POLYAROMATIC HYDROCARBONS		**SW8270C**			**(SW3535)**		Analyst: **DA**
Naphthalene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
Acenaphthylene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
1-Methylnaphthalene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
2-Methylnaphthalene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
Acenaphthene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
Fluorene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
Phenanthrene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
Anthracene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
Fluoranthene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
Pyrene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
Benz(a)anthracene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
Chrysene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
Benzo(b)fluoranthene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
Benzo(k)fluoranthene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
Benzo(a)pyrene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
Dibenz(a,h)anthracene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
Benzo(g,h,i)perylene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	71369	1	6/1/2006 12:21 AM
Surr: Nitrobenzene-d5	75.5	29.9-115		%REC	71369	1	6/1/2006 12:21 AM
Surr: 2-Fluorobiphenyl	72.1	46.6-115		%REC	71369	1	6/1/2006 12:21 AM
Surr: 4-Terphenyl-d14	98.3	55.9-118		%REC	71369	1	6/1/2006 12:21 AM
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
1,1,1-Trichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
1,1,2-Trichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
1,1-Dichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
1,1-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
1,2,4-Trichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
1,2-Dibromoethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
1,2-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
1,2-Dichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
1,2-Dichloropropane	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
1,3-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
1,4-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL Atlanta
Lab ID: 0605G32-009

Client Sample ID: MW-9
Collection Date: 5/25/2006 10:35:00 AM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
2-Butanone	BRL	50		µg/L	71407	1	5/29/2006 11:54 PM
2-Hexanone	BRL	10		µg/L	71407	1	5/29/2006 11:54 PM
4-Methyl-2-pentanone	BRL	10		µg/L	71407	1	5/29/2006 11:54 PM
Acetone	BRL	50		µg/L	71407	1	5/29/2006 11:54 PM
Benzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Bromodichloromethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Bromoform	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Bromomethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Carbon disulfide	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Carbon tetrachloride	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Chlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Chloroethane	BRL	10		µg/L	71407	1	5/29/2006 11:54 PM
Chloroform	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Chloromethane	BRL	10		µg/L	71407	1	5/29/2006 11:54 PM
cis-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
cis-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Cyclohexane	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Dibromochloromethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Dichlorodifluoromethane	BRL	10		µg/L	71407	1	5/29/2006 11:54 PM
Ethylbenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Freon-113	BRL	10		µg/L	71407	1	5/29/2006 11:54 PM
Isopropylbenzene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
m,p-Xylene	BRL	10		µg/L	71407	1	5/29/2006 11:54 PM
Methyl acetate	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Methyl tert-butyl ether	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Methylcyclohexane	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Methylene chloride	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
o-Xylene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Styrene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Tetrachloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Toluene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
trans-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
trans-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Trichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Trichlorofluoromethane	BRL	5.0		µg/L	71407	1	5/29/2006 11:54 PM
Vinyl chloride	BRL	2.0		µg/L	71407	1	5/29/2006 11:54 PM
Surr: 4-Bromofluorobenzene	77.8	63.7-115		%REC	71407	1	5/29/2006 11:54 PM
Surr: Dibromofluoromethane	96.7	70.4-123		%REC	71407	1	5/29/2006 11:54 PM
Surr: Toluene-d8	90.0	73.4-115		%REC	71407	1	5/29/2006 11:54 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
E	Estimated (Value above quantitation range)
S	Surrogate Recovery outside accepted recovery limits
Narr	See Case Narrative
NC	Not Confirmed

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL Atlanta
Lab ID: 0605G32-010

Client Sample ID: MW-6
Collection Date: 5/25/2006 2:42:00 PM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Cadmium	BRL	0.0050		mg/L	71418	1	5/31/2006 6:05 PM
Copper	BRL	0.0100		mg/L	71418	1	5/31/2006 6:05 PM
Lead	BRL	0.0100		mg/L	71418	1	5/31/2006 6:05 PM
Zinc	0.0288	0.0200		mg/L	71418	1	5/31/2006 6:05 PM
POLYAROMATIC HYDROCARBONS		**SW8270C**			**(SW3535)**		Analyst: **DA**
Naphthalene	130	10		µg/L	71369	1	6/1/2006 12:53 AM
Acenaphthylene	BRL	10		µg/L	71369	1	6/1/2006 12:53 AM
1-Methylnaphthalene	25	10		µg/L	71369	1	6/1/2006 12:53 AM
2-Methylnaphthalene	49	10		µg/L	71369	1	6/1/2006 12:53 AM
Acenaphthene	BRL	10		µg/L	71369	1	6/1/2006 12:53 AM
Fluorene	BRL	10		µg/L	71369	1	6/1/2006 12:53 AM
Phenanthrene	BRL	10		µg/L	71369	1	6/1/2006 12:53 AM
Anthracene	BRL	10		µg/L	71369	1	6/1/2006 12:53 AM
Fluoranthene	BRL	10		µg/L	71369	1	6/1/2006 12:53 AM
Pyrene	BRL	10		µg/L	71369	1	6/1/2006 12:53 AM
Benz(a)anthracene	BRL	10		µg/L	71369	1	6/1/2006 12:53 AM
Chrysene	BRL	10		µg/L	71369	1	6/1/2006 12:53 AM
Benzo(b)fluoranthene	BRL	10		µg/L	71369	1	6/1/2006 12:53 AM
Benzo(k)fluoranthene	BRL	10		µg/L	71369	1	6/1/2006 12:53 AM
Benzo(a)pyrene	BRL	10		µg/L	71369	1	6/1/2006 12:53 AM
Dibenz(a,h)anthracene	BRL	10		µg/L	71369	1	6/1/2006 12:53 AM
Benzo(g,h,i)perylene	BRL	10		µg/L	71369	1	6/1/2006 12:53 AM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	71369	1	6/1/2006 12:53 AM
Surr: Nitrobenzene-d5	45.0	29.9-115		%REC	71369	1	6/1/2006 12:53 AM
Surr: 2-Fluorobiphenyl	69.1	46.6-115		%REC	71369	1	6/1/2006 12:53 AM
Surr: 4-Terphenyl-d14	90.8	55.9-118		%REC	71369	1	6/1/2006 12:53 AM
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
1,1,1-Trichloroethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
1,1,2,2-Tetrachloroethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
1,1,2-Trichloroethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
1,1-Dichloroethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
1,1-Dichloroethene	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
1,2,4-Trichlorobenzene	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
1,2-Dibromo-3-chloropropane	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
1,2-Dibromoethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
1,2-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
1,2-Dichloroethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
1,2-Dichloropropane	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
1,3-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
1,4-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL Atlanta
Lab ID: 0605G32-010

Client Sample ID: MW-6
Collection Date: 5/25/2006 2:42:00 PM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
2-Butanone	BRL	50		µg/L	71407	1	5/30/2006 12:20 AM
2-Hexanone	BRL	10		µg/L	71407	1	5/30/2006 12:20 AM
4-Methyl-2-pentanone	12	10		µg/L	71407	1	5/30/2006 12:20 AM
Acetone	BRL	50		µg/L	71407	1	5/30/2006 12:20 AM
Benzene	1800	500		µg/L	71407	100	6/2/2006 12:39 PM
Bromodichloromethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Bromoform	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Bromomethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Carbon disulfide	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Carbon tetrachloride	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Chlorobenzene	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Chloroethane	BRL	10		µg/L	71407	1	5/30/2006 12:20 AM
Chloroform	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Chloromethane	BRL	10		µg/L	71407	1	5/30/2006 12:20 AM
cis-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
cis-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Cyclohexane	150	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Dibromochloromethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Dichlorodifluoromethane	BRL	10		µg/L	71407	1	5/30/2006 12:20 AM
Ethylbenzene	710	50		µg/L	71407	10	6/2/2006 10:59 AM
Freon-113	BRL	10		µg/L	71407	1	5/30/2006 12:20 AM
Isopropylbenzene	30	5.0		µg/L	71407	1	5/30/2006 12:20 AM
m,p-Xylene	1500	100		µg/L	71407	10	6/2/2006 10:59 AM
Methyl acetate	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Methyl tert-butyl ether	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Methylcyclohexane	79	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Methylene chloride	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
o-Xylene	540	50		µg/L	71407	10	6/2/2006 10:59 AM
Styrene	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Tetrachloroethene	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Toluene	2400	500		µg/L	71407	100	6/2/2006 12:39 PM
trans-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
trans-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Trichloroethene	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Trichlorofluoromethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:20 AM
Vinyl chloride	BRL	2.0		µg/L	71407	1	5/30/2006 12:20 AM
Surr: 4-Bromofluorobenzene	95.6	63.7-115		%REC	71407	10	6/2/2006 10:59 AM
Surr: 4-Bromofluorobenzene	86.0	63.7-115		%REC	71407	100	6/2/2006 12:39 PM
Surr: 4-Bromofluorobenzene	91.8	63.7-115		%REC	71407	1	5/30/2006 12:20 AM
Surr: Dibromofluoromethane	86.1	70.4-123		%REC	71407	10	6/2/2006 10:59 AM
Surr: Dibromofluoromethane	95.0	70.4-123		%REC	71407	100	6/2/2006 12:39 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Client Sample ID: MW-6
Project: NL Atlanta
Collection Date: 5/25/2006 2:42:00 PM
Lab ID: 0605G32-010
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
Surr: Dibromofluoromethane	77.2	70.4-123		%REC	71407	1	5/30/2006 12:20 AM
Surr: Toluene-d8	84.0	73.4-115		%REC	71407	10	6/2/2006 10:59 AM
Surr: Toluene-d8	86.8	73.4-115		%REC	71407	100	6/2/2006 12:39 PM
Surr: Toluene-d8	82.5	73.4-115		%REC	71407	1	5/30/2006 12:20 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
E	Estimated (Value above quantitation range)
S	Surrogate Recovery outside accepted recovery limits
Narr	See Case Narrative
NC	Not Confirmed

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL Atlanta
Lab ID: 0605G32-011

Client Sample ID: MW-7D
Collection Date: 5/26/2006 11:42:00 AM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Cadmium	0.0615	0.0050		mg/L	71418	1	5/31/2006 6:09 PM
Copper	0.136	0.0100		mg/L	71418	1	5/31/2006 6:09 PM
Lead	0.563	0.0100		mg/L	71418	1	5/31/2006 6:09 PM
Zinc	0.853	0.0200		mg/L	71418	1	5/31/2006 6:09 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
E	Estimated (Value above quantitation range)
S	Surrogate Recovery outside accepted recovery limits
Narr	See Case Narrative
NC	Not Confirmed

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Client Sample ID: MW-100
Project: NL Atlanta
Collection Date: 5/25/2006 4:00:00 PM
Lab ID: 0605G32-012
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Cadmium	BRL	0.0050		mg/L	71418	1	5/31/2006 6:16 PM
Copper	BRL	0.0100		mg/L	71418	1	5/31/2006 6:16 PM
Lead	BRL	0.0100		mg/L	71418	1	5/31/2006 6:16 PM
Zinc	0.0236	0.0200		mg/L	71418	1	5/31/2006 6:16 PM
POLYAROMATIC HYDROCARBONS		**SW8270C**			**(SW3535)**		Analyst: **DA**
Naphthalene	140	10		µg/L	71369	1	6/1/2006 1:26 AM
Acenaphthylene	BRL	10		µg/L	71369	1	6/1/2006 1:26 AM
1-Methylnaphthalene	26	10		µg/L	71369	1	6/1/2006 1:26 AM
2-Methylnaphthalene	50	10		µg/L	71369	1	6/1/2006 1:26 AM
Acenaphthene	BRL	10		µg/L	71369	1	6/1/2006 1:26 AM
Fluorene	BRL	10		µg/L	71369	1	6/1/2006 1:26 AM
Phenanthrene	BRL	10		µg/L	71369	1	6/1/2006 1:26 AM
Anthracene	BRL	10		µg/L	71369	1	6/1/2006 1:26 AM
Fluoranthene	BRL	10		µg/L	71369	1	6/1/2006 1:26 AM
Pyrene	BRL	10		µg/L	71369	1	6/1/2006 1:26 AM
Benz(a)anthracene	BRL	10		µg/L	71369	1	6/1/2006 1:26 AM
Chrysene	BRL	10		µg/L	71369	1	6/1/2006 1:26 AM
Benzo(b)fluoranthene	BRL	10		µg/L	71369	1	6/1/2006 1:26 AM
Benzo(k)fluoranthene	BRL	10		µg/L	71369	1	6/1/2006 1:26 AM
Benzo(a)pyrene	BRL	10		µg/L	71369	1	6/1/2006 1:26 AM
Dibenz(a,h)anthracene	BRL	10		µg/L	71369	1	6/1/2006 1:26 AM
Benzo(g,h,i)perylene	BRL	10		µg/L	71369	1	6/1/2006 1:26 AM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	71369	1	6/1/2006 1:26 AM
Surr: Nitrobenzene-d5	47.8	29.9-115		%REC	71369	1	6/1/2006 1:26 AM
Surr: 2-Fluorobiphenyl	70.0	46.6-115		%REC	71369	1	6/1/2006 1:26 AM
Surr: 4-Terphenyl-d14	90.7	55.9-118		%REC	71369	1	6/1/2006 1:26 AM
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
1,1,1-Trichloroethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
1,1,2,2-Tetrachloroethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
1,1,2-Trichloroethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
1,1-Dichloroethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
1,1-Dichloroethene	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
1,2,4-Trichlorobenzene	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
1,2-Dibromo-3-chloropropane	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
1,2-Dibromoethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
1,2-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
1,2-Dichloroethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
1,2-Dichloropropane	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
1,3-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
1,4-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL Atlanta
Lab ID: 0605G32-012

Client Sample ID: MW-100
Collection Date: 5/25/2006 4:00:00 PM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
2-Butanone	BRL	50		µg/L	71407	1	5/30/2006 12:45 AM
2-Hexanone	BRL	10		µg/L	71407	1	5/30/2006 12:45 AM
4-Methyl-2-pentanone	13	10		µg/L	71407	1	5/30/2006 12:45 AM
Acetone	BRL	50		µg/L	71407	1	5/30/2006 12:45 AM
Benzene	1700	50		µg/L	71407	10	6/2/2006 11:24 AM
Bromodichloromethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Bromoform	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Bromomethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Carbon disulfide	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Carbon tetrachloride	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Chlorobenzene	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Chloroethane	BRL	10		µg/L	71407	1	5/30/2006 12:45 AM
Chloroform	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Chloromethane	BRL	10		µg/L	71407	1	5/30/2006 12:45 AM
cis-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
cis-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Cyclohexane	150	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Dibromochloromethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Dichlorodifluoromethane	BRL	10		µg/L	71407	1	5/30/2006 12:45 AM
Ethylbenzene	600	50		µg/L	71407	10	6/2/2006 11:24 AM
Freon-113	BRL	10		µg/L	71407	1	5/30/2006 12:45 AM
Isopropylbenzene	32	5.0		µg/L	71407	1	5/30/2006 12:45 AM
m,p-Xylene	1200	100		µg/L	71407	10	6/2/2006 11:24 AM
Methyl acetate	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Methyl tert-butyl ether	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Methylcyclohexane	77	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Methylene chloride	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
o-Xylene	470	50		µg/L	71407	10	6/2/2006 11:24 AM
Styrene	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Tetrachloroethene	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Toluene	2000	500		µg/L	71407	100	6/2/2006 1:04 PM
trans-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
trans-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Trichloroethene	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Trichlorofluoromethane	BRL	5.0		µg/L	71407	1	5/30/2006 12:45 AM
Vinyl chloride	BRL	2.0		µg/L	71407	1	5/30/2006 12:45 AM
Surr: 4-Bromofluorobenzene	92.8	63.7-115		%REC	71407	10	6/2/2006 11:24 AM
Surr: 4-Bromofluorobenzene	91.2	63.7-115		%REC	71407	1	5/30/2006 12:45 AM
Surr: 4-Bromofluorobenzene	85.2	63.7-115		%REC	71407	100	6/2/2006 1:04 PM
Surr: Dibromofluoromethane	78.0	70.4-123		%REC	71407	1	5/30/2006 12:45 AM
Surr: Dibromofluoromethane	96.3	70.4-123		%REC	71407	100	6/2/2006 1:04 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
E	Estimated (Value above quantitation range)
S	Surrogate Recovery outside accepted recovery limits
Narr	See Case Narrative
NC	Not Confirmed

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL Atlanta
Lab ID: 0605G32-012

Client Sample ID: MW-100
Collection Date: 5/25/2006 4:00:00 PM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
Surr: Dibromofluoromethane	82.3	70.4-123		%REC	71407	10	6/2/2006 11:24 AM
Surr: Toluene-d8	80.4	73.4-115		%REC	71407	1	5/30/2006 12:45 AM
Surr: Toluene-d8	88.1	73.4-115		%REC	71407	100	6/2/2006 1:04 PM
Surr: Toluene-d8	84.1	73.4-115		%REC	71407	10	6/2/2006 11:24 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL Atlanta
Lab ID: 0605G32-013

Client Sample ID: TRIP BLANK
Collection Date: 5/25/2006
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
1,1,1-Trichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
1,1,2-Trichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
1,1-Dichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
1,1-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
1,2,4-Trichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
1,2-Dibromoethane	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
1,2-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
1,2-Dichloroethane	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
1,2-Dichloropropane	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
1,3-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
1,4-Dichlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
2-Butanone	BRL	50		µg/L	71407	1	5/29/2006 6:05 PM
2-Hexanone	BRL	10		µg/L	71407	1	5/29/2006 6:05 PM
4-Methyl-2-pentanone	BRL	10		µg/L	71407	1	5/29/2006 6:05 PM
Acetone	BRL	50		µg/L	71407	1	5/29/2006 6:05 PM
Benzene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Bromodichloromethane	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Bromoform	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Bromomethane	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Carbon disulfide	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Carbon tetrachloride	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Chlorobenzene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Chloroethane	BRL	10		µg/L	71407	1	5/29/2006 6:05 PM
Chloroform	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Chloromethane	BRL	10		µg/L	71407	1	5/29/2006 6:05 PM
cis-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
cis-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Cyclohexane	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Dibromochloromethane	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Dichlorodifluoromethane	BRL	10		µg/L	71407	1	5/29/2006 6:05 PM
Ethylbenzene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Freon-113	BRL	10		µg/L	71407	1	5/29/2006 6:05 PM
Isopropylbenzene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
m,p-Xylene	BRL	10		µg/L	71407	1	5/29/2006 6:05 PM
Methyl acetate	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Methyl tert-butyl ether	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Methylcyclohexane	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Methylene chloride	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
o-Xylene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
E	Estimated (Value above quantitation range)
S	Surrogate Recovery outside accepted recovery limits
Narr	See Case Narrative
NC	Not Confirmed

Analytical Environmental Services, Inc.

Date: *02-Jun-06*

CLIENT: Environmental Strategies Corporation
Client Sample ID: TRIP BLANK
Project: NL Atlanta
Collection Date: 5/25/2006
Lab ID: 0605G32-013
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS		**SW8260B**			**(SW5030B)**		Analyst: **HW**
Styrene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Tetrachloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Toluene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
trans-1,2-Dichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
trans-1,3-Dichloropropene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Trichloroethene	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Trichlorofluoromethane	BRL	5.0		µg/L	71407	1	5/29/2006 6:05 PM
Vinyl chloride	BRL	2.0		µg/L	71407	1	5/29/2006 6:05 PM
Surr: 4-Bromofluorobenzene	73.3	63.7-115		%REC	71407	1	5/29/2006 6:05 PM
Surr: Dibromofluoromethane	94.7	70.4-123		%REC	71407	1	5/29/2006 6:05 PM
Surr: Toluene-d8	90.0	73.4-115		%REC	71407	1	5/29/2006 6:05 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank		

CLIENT: Environmental Strategies Corporation
Work Order: 0605G32
Project: NL Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010B_W_T

Sample ID: MB-71418	SampType: MBLK	TestCode: 6010B_W_T	Units: mg/L	Prep Date: 5/31/2006	RunNo: 84772
Client ID:	Batch ID: 71418	TestNo: SW6010B		Analysis Date: 5/31/2006	SeqNo: 1681763

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	BRL	0.00500									
Copper	BRL	0.0100									
Lead	BRL	0.0100									
Zinc	BRL	0.0200									

Sample ID: LCS-71418	SampType: LCS	TestCode: 6010B_W_T	Units: mg/L	Prep Date: 5/31/2006	RunNo: 84772
Client ID:	Batch ID: 71418	TestNo: SW6010B		Analysis Date: 5/31/2006	SeqNo: 1681761

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.014	0.00500	1	0	101	85	115	0	0		
Copper	1.008	0.0100	1	0	101	85	115	0	0		
Lead	1.006	0.0100	1	0	101	85	115	0	0		
Zinc	1.005	0.0200	1	0.004139	100	85	115	0	0		

Sample ID: 0605G14-002BMS	SampType: MS	TestCode: 6010B_W_T	Units: mg/L	Prep Date: 5/31/2006	RunNo: 84772
Client ID:	Batch ID: 71418	TestNo: SW6010B		Analysis Date: 5/31/2006	SeqNo: 1681766

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.017	0.00500	1	0	102	75	125	0	0		
Copper	1.01	0.0100	1	0.00277	101	75	125	0	0		
Lead	0.9995	0.0100	1	0.003794	99.6	75	125	0	0		
Zinc	1.022	0.0200	1	0.01974	100	75	125	0	0		

Sample ID: 0605G14-002BMSD	SampType: MSD	TestCode: 6010B_W_T	Units: mg/L	Prep Date: 5/31/2006	RunNo: 84772
Client ID:	Batch ID: 71418	TestNo: SW6010B		Analysis Date: 5/31/2006	SeqNo: 1681768

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.014	0.00500	1	0	101	75	125	1.017	0.313	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Environmental Strategies Corporation
Work Order: 0605G32
Project: NL Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010B_W_T

Sample ID: 0605G14-002BMSD	SampType: MSD	TestCode: 6010B_W_T	Units: mg/L	Prep Date: 5/31/2006	RunNo: 84772
Client ID:	Batch ID: 71418	TestNo: SW6010B		Analysis Date: 5/31/2006	SeqNo: 1681768

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	1.009	0.0100	1	0.00277	101	75	125	1.01	0.0763	20	
Lead	0.9989	0.0100	1	0.003794	99.5	75	125	0.9995	0.0564	20	
Zinc	1.024	0.0200	1	0.01974	100	75	125	1.022	0.227	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Environmental Strategies Corporation
Work Order: 0605G32
Project: NL Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_TCL4.2_W

Sample ID: MB-71407	SampType: MBLK	TestCode: 8260_TCL4.2	Units: µg/L	Prep Date: 5/29/2006	RunNo: 84680
Client ID:	Batch ID: 71407	TestNo: SW8260B		Analysis Date: 5/29/2006	SeqNo: 1679908

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									

Qualifiers:

- B Analyte detected in the associated Method Blank
- BRL Below Reporting Limit
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- N Analyte not NELAC certified
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Strategies Corporation
Work Order: 0605G32
Project: NL Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_TCL4.2_W

Sample ID: MB-71407	SampType: MBLK	TestCode: 8260_TCL4.2	Units: µg/L	Prep Date: 5/29/2006	RunNo: 84680
Client ID:	Batch ID: 71407	TestNo: SW8260B		Analysis Date: 5/29/2006	SeqNo: 1679908

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	10									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	39.09	0	50	0	78.2	63.7	115	0	0		
Surr: Dibromofluoromethane	47.02	0	50	0	94	70.4	123	0	0		
Surr: Toluene-d8	42.7	0	50	0	85.4	73.4	115	0	0		

Sample ID: LCS-71407	SampType: LCS	TestCode: 8260_TCL4.2	Units: µg/L	Prep Date: 5/29/2006	RunNo: 84680
Client ID:	Batch ID: 71407	TestNo: SW8260B		Analysis Date: 5/29/2006	SeqNo: 1679909

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	57.71	5.0	50	0	115	65.4	159	0	0		
Benzene	49.55	5.0	50	0	99.1	77.4	127	0	0		
Chlorobenzene	50.96	5.0	50	0	102	79.9	124	0	0		
Toluene	50.2	5.0	50	0	100	79.6	127	0	0		

Qualifiers:

- B Analyte detected in the associated Method Blank
- BRL Below Reporting Limit
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- N Analyte not NELAC certified
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Strategies Corporation
Work Order: 0605G32
Project: NL Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_TCL4.2_W

Sample ID: LCS-71407	SampType: LCS	TestCode: 8260_TCL4.2	Units: µg/L	Prep Date: 5/29/2006	RunNo: 84680
Client ID:	Batch ID: 71407	TestNo: SW8260B		Analysis Date: 5/29/2006	SeqNo: 1679909

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	52.76	5.0	50	0	106	73.2	134	0	0		
Surr: 4-Bromofluorobenzene	38.34	0	50	0	76.7	63.7	115	0	0		
Surr: Dibromofluoromethane	43.06	0	50	0	86.1	70.4	123	0	0		
Surr: Toluene-d8	42.1	0	50	0	84.2	73.4	115	0	0		

Sample ID: 0605F65-003AMS	SampType: MS	TestCode: 8260_TCL4.2	Units: µg/L	Prep Date: 5/29/2006	RunNo: 84680
Client ID:	Batch ID: 71407	TestNo: SW8260B		Analysis Date: 5/29/2006	SeqNo: 1679911

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	58.71	5.0	50	0	117	58.9	163	0	0		
Benzene	49.81	5.0	50	0	99.6	72.6	130	0	0		
Chlorobenzene	51.72	5.0	50	0	103	75.8	126	0	0		
Toluene	50.42	5.0	50	0	101	74.7	129	0	0		
Trichloroethene	52.81	5.0	50	1.19	103	70	134	0	0		
Surr: 4-Bromofluorobenzene	39.39	0	50	0	78.8	63.7	115	0	0		
Surr: Dibromofluoromethane	44.95	0	50	0	89.9	70.4	123	0	0		
Surr: Toluene-d8	42.29	0	50	0	84.6	73.4	115	0	0		

Sample ID: 0605F65-003AMSD	SampType: MSD	TestCode: 8260_TCL4.2	Units: µg/L	Prep Date: 5/29/2006	RunNo: 84680
Client ID:	Batch ID: 71407	TestNo: SW8260B		Analysis Date: 5/29/2006	SeqNo: 1679920

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	54.7	5.0	50	0	109	58.9	163	58.71	7.07	15.8	
Benzene	47.83	5.0	50	0	95.7	72.6	130	49.81	4.06	10	
Chlorobenzene	49.81	5.0	50	0	99.6	75.8	126	51.72	3.76	10	
Toluene	49.17	5.0	50	0	98.3	74.7	129	50.42	2.51	10	
Trichloroethene	50.24	5.0	50	1.19	98.1	70	134	52.81	4.99	11	
Surr: 4-Bromofluorobenzene	37.9	0	50	0	75.8	63.7	115	39.39	0	0	
Surr: Dibromofluoromethane	43.46	0	50	0	86.9	70.4	123	44.95	0	0	
Surr: Toluene-d8	42.07	0	50	0	84.1	73.4	115	42.29	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Environmental Strategies Corporation
Work Order: 0605G32
Project: NL Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_PAH_W

Sample ID: MB-71369	SampType: MBLK	TestCode: 8270_PAH_W	Units: µg/L	Prep Date: 5/30/2006	RunNo: 84778
Client ID:	Batch ID: 71369	TestNo: SW8270C		Analysis Date: 5/31/2006	SeqNo: 1681915

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	BRL	10									
2-Methylnaphthalene	BRL	10									
Acenaphthene	BRL	10									
Acenaphthylene	BRL	10									
Anthracene	BRL	10									
Benz(a)anthracene	BRL	10									
Benzo(a)pyrene	BRL	10									
Benzo(b)fluoranthene	BRL	10									
Benzo(g,h,i)perylene	BRL	10									
Benzo(k)fluoranthene	BRL	10									
Chrysene	BRL	10									
Dibenz(a,h)anthracene	BRL	10									
Fluoranthene	BRL	10									
Fluorene	BRL	10									
Indeno(1,2,3-cd)pyrene	BRL	10									
Naphthalene	BRL	10									
Phenanthrene	BRL	10									
Pyrene	BRL	10									
Surr: 2-Fluorobiphenyl	38.14	0	50	0	76.3	46.6	115	0	0		
Surr: 4-Terphenyl-d14	46.55	0	50	0	93.1	55.9	118	0	0		
Surr: Nitrobenzene-d5	33.82	0	50	0	67.6	29.9	115	0	0		

Sample ID: LCS-71369	SampType: LCS	TestCode: 8270_PAH_W	Units: µg/L	Prep Date: 5/30/2006	RunNo: 84778
Client ID:	Batch ID: 71369	TestNo: SW8270C		Analysis Date: 5/31/2006	SeqNo: 1681916

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	37.82	10	50	0	75.6	63.6	120	0	0		
Acenaphthylene	37.1	10	50	0	74.2	61.3	118	0	0		
Anthracene	43.02	10	50	0	86	69	120	0	0		
Benz(a)anthracene	41.46	10	50	0	82.9	65.7	120	0	0		

Qualifiers:

- B Analyte detected in the associated Method Blank
- BRL Below Reporting Limit
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- N Analyte not NELAC certified
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Strategies Corporation
Work Order: 0605G32
Project: NL Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_PAH_W

Sample ID: LCS-71369	SampType: LCS	TestCode: 8270_PAH_W	Units: µg/L	Prep Date: 5/30/2006	RunNo: 84778
Client ID:	Batch ID: 71369	TestNo: SW8270C		Analysis Date: 5/31/2006	SeqNo: 1681916

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(a)pyrene	40.03	10	50	0	80.1	67.4	120	0	0		
Benzo(b)fluoranthene	40.34	10	50	0	80.7	57.4	120	0	0		
Benzo(g,h,i)perylene	41.35	10	50	0	82.7	57.7	120	0	0		
Benzo(k)fluoranthene	38.43	10	50	0	76.9	71.1	120	0	0		
Chrysene	44.35	10	50	0	88.7	70.6	120	0	0		
Dibenz(a,h)anthracene	40.14	10	50	0	80.3	59	120	0	0		
Fluoranthene	44.01	10	50	0	88	64.3	120	0	0		
Fluorene	40.91	10	50	0	81.8	65.6	120	0	0		
Indeno(1,2,3-cd)pyrene	40.57	10	50	0	81.1	52.2	120	0	0		
Naphthalene	34.95	10	50	0	69.9	57.9	120	0	0		
Phenanthrene	41.05	10	50	0	82.1	68.8	120	0	0		
Pyrene	43.83	10	50	0	87.7	67.6	120	0	0		
Surr: 2-Fluorobiphenyl	39.71	0	50	0	79.4	46.6	115	0	0		
Surr: 4-Terphenyl-d14	44.22	0	50	0	88.4	55.9	118	0	0		
Surr: Nitrobenzene-d5	24.79	0	50	0	49.6	29.9	115	0	0		

Sample ID: 0605G32-003CMS	SampType: MS	TestCode: 8270_PAH_W	Units: µg/L	Prep Date: 5/30/2006	RunNo: 84778
Client ID: MW-5	Batch ID: 71369	TestNo: SW8270C		Analysis Date: 5/31/2006	SeqNo: 1682184

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	35.95	10	50	0	71.9	36.2	109	0	0		
Acenaphthylene	34.22	10	50	0	68.4	30.5	133	0	0		
Anthracene	39.27	10	50	0	78.5	54.2	110	0	0		
Benz(a)anthracene	40.06	10	50	0	80.1	56.3	110	0	0		
Benzo(a)pyrene	38.85	10	50	0	77.7	44.8	122	0	0		
Benzo(b)fluoranthene	38.18	10	50	0	76.4	45.4	112	0	0		
Benzo(g,h,i)perylene	40.26	10	50	0	80.5	38	124	0	0		
Benzo(k)fluoranthene	37.83	10	50	0	75.7	55.7	121	0	0		
Chrysene	42.13	10	50	0	84.3	61	114	0	0		
Dibenz(a,h)anthracene	38.85	10	50	0	77.7	47.6	113	0	0		

Qualifiers:

- B Analyte detected in the associated Method Blank
- BRL Below Reporting Limit
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- N Analyte not NELAC certified
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Strategies Corporation
Work Order: 0605G32
Project: NL Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_PAH_W

Sample ID: **0605G32-003CMS** SampType: **MS** TestCode: **8270_PAH_W** Units: **µg/L** Prep Date: **5/30/2006** RunNo: **84778**
Client ID: **MW-5** Batch ID: **71369** TestNo: **SW8270C** Analysis Date: **5/31/2006** SeqNo: **1682184**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoranthene	40.77	10	50	0	81.5	57.4	104	0	0		
Fluorene	38.17	10	50	0	76.3	42.9	114	0	0		
Indeno(1,2,3-cd)pyrene	39.03	10	50	0	78.1	44	118	0	0		
Naphthalene	30.82	10	50	0	61.6	13.5	127	0	0		
Phenanthrene	39.18	10	50	0	78.4	53.5	111	0	0		
Pyrene	42.53	10	50	0	85.1	55	118	0	0		
Surr: 2-Fluorobiphenyl	36.77	0	50	0	73.5	46.6	115	0	0		
Surr: 4-Terphenyl-d14	41.93	0	50	0	83.9	55.9	118	0	0		
Surr: Nitrobenzene-d5	30.63	0	50	0	61.3	29.9	115	0	0		

Sample ID: **0605G32-003CMSD** SampType: **MSD** TestCode: **8270_PAH_W** Units: **µg/L** Prep Date: **5/30/2006** RunNo: **84778**
Client ID: **MW-5** Batch ID: **71369** TestNo: **SW8270C** Analysis Date: **5/31/2006** SeqNo: **1682191**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	33.5	10	50	0	67	36.2	109	35.95	7.06	31.9	
Acenaphthylene	31.73	10	50	0	63.5	30.5	133	34.22	7.55	32	
Anthracene	37.61	10	50	0	75.2	54.2	110	39.27	4.32	24	
Benz(a)anthracene	40.57	10	50	0	81.1	56.3	110	40.06	1.27	25.6	
Benzo(a)pyrene	37.9	10	50	0	75.8	44.8	122	38.85	2.48	28.9	
Benzo(b)fluoranthene	38.17	10	50	0	76.3	45.4	112	38.18	0.0262	27.3	
Benzo(g,h,i)perylene	38.67	10	50	0	77.3	38	124	40.26	4.03	31.1	
Benzo(k)fluoranthene	38.34	10	50	0	76.7	55.7	121	37.83	1.34	29.6	
Chrysene	42.6	10	50	0	85.2	61	114	42.13	1.11	27.1	
Dibenz(a,h)anthracene	38.02	10	50	0	76	47.6	113	38.85	2.16	33.6	
Fluoranthene	40.31	10	50	0	80.6	57.4	104	40.77	1.13	21.2	
Fluorene	36.07	10	50	0	72.1	42.9	114	38.17	5.66	31.2	
Indeno(1,2,3-cd)pyrene	38.95	10	50	0	77.9	44	118	39.03	0.205	30.7	
Naphthalene	29.64	10	50	0	59.3	13.5	127	30.82	3.90	33.6	
Phenanthrene	37.77	10	50	0	75.5	53.5	111	39.18	3.66	24	
Pyrene	42.83	10	50	0	85.7	55	118	42.53	0.703	21.5	

Qualifiers:

B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Environmental Strategies Corporation
Work Order: 0605G32
Project: NL Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_PAH_W

Sample ID: 0605G32-003CMSD	SampType: MSD	TestCode: 8270_PAH_W	Units: µg/L	Prep Date: 5/30/2006	RunNo: 84778
Client ID: MW-5	Batch ID: 71369	TestNo: SW8270C		Analysis Date: 5/31/2006	SeqNo: 1682191

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2-Fluorobiphenyl	32.09	0	50	0	64.2	46.6	115	36.77	0	0	
Surr: 4-Terphenyl-d14	41.23	0	50	0	82.5	55.9	118	41.93	0	0	
Surr: Nitrobenzene-d5	21	0	50	0	42	29.9	115	30.63	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

June 29, 2006

GiGi Beaulieu
Environmental Strategies Corporation
11911 Freedom Drive
Reston, VA 20190
TEL: (978) 635-9600
FAX (978) 264-0537

RE: NL/Atlanta, GA

Order No.: 0606E02

Dear GiGi Beaulieu:

Analytical Environmental Services, Inc. received 4 samples on 6/23/2006 2:01:00 PM for the analyses presented in the following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. Sample results are not dry weight corrected, unless if Pmoist analysis are requested on the chain of custody or other project specific arrangements have been made.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water, effective 06/01/05-06/30/06.
-AIHA Certification number 505 for analysis of Industrial Hygiene samples (Organics, Inorganics), Paint Chips, Soil and Dust Wipes, effective until 02/01/07.

These results relate only to the items tested. This report may only be reproduced in full and contains 9 total pages (including cover letter).

If you have any questions regarding these test results, please feel free to call.

Sincerely,

James Forrest
Project Manager

CHAIN OF CUSTODY RECORD

0600902

No. 038420

Project Number:	Site and Location:
127562/04	NL/Atlanta, GA

Sampler's Name(s): Giselle Beaulieu

Sampler's Signature(s): GBeaulieu

Matrices: S = Soil; Aq = Water; A = Air; Bu = Bulk; W = Wipe; Bi = Biota; OW = Oily Waste; O = Other

Requested Analyses: Copper, Cadmium, Pb, Zinc

Sample Identification:	Date	Time	Matrix	Number of Containers	Copper	Cadmium	Pb	Zinc							Remarks
MW-7D	6/22/06	17:45	Aq	1	X	X	X								Samples chilled on wet ice.
MW-11	6/23/06	10:20	Aq	1			X								
MW-12	6/23/06	12:35	Aq	1	X	X	X								
MW-201	6/23/06	13:00	Aq	1	X	X	X								
end															

Relinquished by (Signature): GBeaulieu	Date: 6/23/06 Time: 17:00	Received by (Signature): Kristine Boyle	Date: 6-23-06 Time: 2:01 PM
Relinquished by (Signature):	Date: Time:	Received by (Signature):	
Turn-Around Time: Standard		Tracking Number: —	

Laboratory Name: AES

Laboratory Location: Atlanta, GA

Custody Seal Numbers: —

Method of Shipment: self

ENVIRONMENTAL STRATEGIES CONSULTING LLC
A QUANTA TECHNICAL SERVICES COMPANY

☐ Reston Office: 11911 Freedom Dr, # 900, Reston, VA 20190
Tel: (703) 709-6500, Fax: (703) 709-8505

☐ Pittsburgh Office: 300 Corporate Center Dr, # 200, Moon Twp, PA 15108
Tel: (412) 604-1040, Fax: (412) 604-1055

☐ Denver Office: 4600 South Ulster, # 930, Denver, CO 80237
Tel: (303) 850-9200, Fax: (303) 850-9214

☐ Minneapolis Office: 123 North 3rd St, #706, Minneapolis, MN 55401
Tel: (612) 343-0510, Fax: (612) 343-0506

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Env Strategies Work Order Number 0606E02

Checklist completed by Mary Robinson 6-22-6
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.1c Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted ✓ Yes __ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by MM

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

C:\Documents and Settings\Chemist\Desktop\Checklist.rtf

Analytical Environmental Services, Inc.

Date: *29-Jun-06*

CLIENT: Environmental Strategies Corporation
Client Sample ID: MW-7D
Project: NL/Atlanta, GA
Collection Date: 6/22/2006 5:45:00 PM
Lab ID: 0606E02-001
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **AO**
Cadmium	0.0688	0.0050		mg/L	72363	1	6/27/2006 4:48 PM
Copper	0.139	0.0100		mg/L	72363	1	6/27/2006 4:48 PM
Lead	0.159	0.0100		mg/L	72363	1	6/27/2006 4:48 PM
Zinc	0.955	0.0200		mg/L	72363	1	6/27/2006 4:48 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
E	Estimated (Value above quantitation range)
S	Surrogate Recovery outside accepted recovery limits
Narr	See Case Narrative
NC	Not Confirmed

Analytical Environmental Services, Inc.

Date: *29-Jun-06*

CLIENT:	Environmental Strategies Corporation	**Client Sample ID:**	MW-11
Project:	NL/Atlanta, GA	**Collection Date:**	6/23/2006 10:20:00 AM
Lab ID:	0606E02-002	**Matrix:**	AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **AO**
Zinc	BRL	0.0200		mg/L	72363	1	6/27/2006 4:52 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: *29-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL/Atlanta, GA
Lab ID: 0606E02-003

Client Sample ID: MW-12
Collection Date: 6/23/2006 12:35:00 PM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **AO**
Cadmium	BRL	0.0050		mg/L	72363	1	6/27/2006 4:56 PM
Copper	BRL	0.0100		mg/L	72363	1	6/27/2006 4:56 PM
Lead	BRL	0.0100		mg/L	72363	1	6/27/2006 4:56 PM
Zinc	BRL	0.0200		mg/L	72363	1	6/27/2006 4:56 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
E	Estimated (Value above quantitation range)
S	Surrogate Recovery outside accepted recovery limits
Narr	See Case Narrative
NC	Not Confirmed

Analytical Environmental Services, Inc.

Date: *29-Jun-06*

CLIENT: Environmental Strategies Corporation
Project: NL/Atlanta, GA
Lab ID: 0606E02-004

Client Sample ID: MW-201
Collection Date: 6/23/2006 1:00:00 PM
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **AO**
Cadmium	BRL	0.0050		mg/L	72363	1	6/27/2006 5:00 PM
Copper	BRL	0.0100		mg/L	72363	1	6/27/2006 5:00 PM
Lead	BRL	0.0100		mg/L	72363	1	6/27/2006 5:00 PM
Zinc	BRL	0.0200		mg/L	72363	1	6/27/2006 5:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
E	Estimated (Value above quantitation range)
S	Surrogate Recovery outside accepted recovery limits
Narr	See Case Narrative
NC	Not Confirmed

CLIENT: Environmental Strategies Corporation
Work Order: 0606E02
Project: NL/Atlanta, GA

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010B_W_T

Sample ID: MB-72363	SampType: MBLK	TestCode: 6010B_W_T	Units: mg/L	Prep Date: 6/26/2006	RunNo: 86232
Client ID:	Batch ID: 72363	TestNo: SW6010B		Analysis Date: 6/27/2006	SeqNo: 1711224

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	BRL	0.00500									
Copper	BRL	0.0100									
Lead	BRL	0.0100									
Zinc	BRL	0.0200									

Sample ID: LCS-72363	SampType: LCS	TestCode: 6010B_W_T	Units: mg/L	Prep Date: 6/26/2006	RunNo: 86232
Client ID:	Batch ID: 72363	TestNo: SW6010B		Analysis Date: 6/27/2006	SeqNo: 1711223

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.062	0.00500	1	0	106	85	115	0	0		
Copper	1.052	0.0100	1	0	105	85	115	0	0		
Lead	1.052	0.0100	1	0	105	85	115	0	0		
Zinc	1.062	0.0200	1	0	106	85	115	0	0		

Sample ID: 0606C40-001AMS	SampType: MS	TestCode: 6010B_W_T	Units: mg/L	Prep Date: 6/26/2006	RunNo: 86232
Client ID:	Batch ID: 72363	TestNo: SW6010B		Analysis Date: 6/27/2006	SeqNo: 1711227

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.069	0.00500	1	0	107	75	125	0	0		
Copper	1.051	0.0100	1	0	105	75	125	0	0		
Lead	1.052	0.0100	1	0	105	75	125	0	0		
Zinc	1.08	0.0200	1	0.007813	107	75	125	0	0		

Sample ID: 0606C40-001AMSD	SampType: MSD	TestCode: 6010B_W_T	Units: mg/L	Prep Date: 6/26/2006	RunNo: 86232
Client ID:	Batch ID: 72363	TestNo: SW6010B		Analysis Date: 6/27/2006	SeqNo: 1711229

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.051	0.00500	1	0	105	75	125	1.069	1.70	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Environmental Strategies Corporation
Work Order: 0606E02
Project: NL/Atlanta, GA

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010B_W_T

Sample ID: 0606C40-001AMSD	SampType: MSD	TestCode: 6010B_W_T	Units: mg/L	Prep Date: 6/26/2006	RunNo: 86232
Client ID:	Batch ID: 72363	TestNo: SW6010B		Analysis Date: 6/27/2006	SeqNo: 1711229

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	1.035	0.0100	1	0	104	75	125	1.051	1.50	20	
Lead	1.037	0.0100	1	0	104	75	125	1.052	1.45	20	
Zinc	1.061	0.0200	1	0.007813	105	75	125	1.08	1.86	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

July 27, 2006

GiGi Beaulieu
Environmental Strategies Corporation
1740 Massachusettes Avenue
Boxborough, MA 07179
TEL: (978) 808-4612
FAX: (978) 264-0537

RE: NL

Order No.: 0607A49

Dear GiGi Beaulieu:

Analytical Environmental Services, Inc. received 1 sample on 7/21/2006 1:30:00 PM for the analyses presented in the following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. Sample results are not dry weight corrected, unless if Pmoist analysis are requested on the chain of custody or other project specific arrangements have been made.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water, effective 06/01/06-06/30/07.
-AIHA Certification number 505 for analysis of Industrial Hygiene samples (Organics, Inorganics), Paint Chips, Soil and Dust Wipes, effective until 02/01/07.

These results relate only to the items tested. This report may only be reproduced in full and contains 7 total pages (including cover letter).

If you have any questions regarding these test results, please feel free to call.

Sincerely,

James Forrest
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 0607A49

Date: 7-21-06 Page 1 of 1

COMPANY: Environmental Strategies Consulting

ADDRESS: Mass.

PHONE: 978-635-9600

FAX:

SAMPLED BY: Catharine London

SIGNATURE: Catharine London

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	ANALYSIS REQUESTED: Cadmium	Copper	Lead	Zinc	PRESERVATION (See codes)	REMARKS	No # of Containers
1	MW-7E	7-21-06	12:30	X	-	GW	V	V	V	V			
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Catharine London	7-21-2006 13:45	1:	7/21/06 1:30
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: NL

PROJECT #: 12

SITE ADDRESS: 430 Bishop St.

SEND REPORT TO: Gigi Beaulieu

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

RECEIPT

Total # of Containers

Turnaround Time Request

- X Standard 5 Business Days
- 2 Business Day Rush
- Next Business Day Rush
- Same Day Rush (auth req.)
- Other

STATE PROGRAM (if any):

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

CLIENT FedEx UPS MAIL (COURIER)

GREYHOUND OTHER

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.

SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Env Strategies Work Order Number 0607A49

Checklist completed by Harun Erdem 7/21/06
Signature Date

Carrier name: FedEx __ UPS __ Courier ✓ Client __ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 4.0°C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted ✓ Yes __ No __

Water - pH acceptable upon receipt? Yes __ No ✓ Not Applicable __

Adjusted? _____ Checked by HF

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\I\Sample Receipt\Documents on C\my documents\IMPORTANT DOCUMENTS - EROL\Checklist.rtf

Analytical Environmental Services, Inc. **Date:** *27-Jul-06*

CLIENT:	Environmental Strategies Corporation
Project:	NL
Lab Order:	0607A49

CASE NARRATIVE

Sample/Cooler Receipt Non-Conformance:

Sample was received with a pH above method required limit of <2. No attempt to adjust pH was made due to sample matrix.

Analytical Environmental Services, Inc.

Date: *27-Jul-06*

CLIENT:	Environmental Strategies Corporation	**Client Sample ID:**	MW-7E
Lab Order:	0607A49	**Tag Number:**	
Project:	NL	**Collection Date:**	7/21/2006 12:30:00 PM
Lab ID:	0607A49-001A	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	BatchID	DF	Date Analyzed
METALS, TOTAL		**SW6010B**			**(SW3010A)**		Analyst: **BB**
Cadmium	BRL	0.0050		mg/L	73426	1	7/25/2006 9:59:55 AM
Copper	0.111	0.0100		mg/L	73426	1	7/25/2006 9:59:55 AM
Lead	0.0125	0.0100		mg/L	73426	1	7/25/2006 9:59:55 AM
Zinc	0.228	0.0200		mg/L	73426	1	7/25/2006 9:59:55 AM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	N	Analyte not NELAC certified	P	NELAC analyte certification pending
	Rpt Limit	Reporting Limit	S	Spike Recovery outside accepted recovery limits

CLIENT: Environmental Strategies Corporation
Work Order: 0607A49
Project: NL

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010B_W_T

Sample ID: **MB-73426**	SampType: **MBLK**	TestCode: **6010B_W_T**	Units: **mg/L**	Prep Date: **7/24/2006**	RunNo: **87814**
Client ID:	Batch ID: **73426**	TestNo: **SW6010B**		Analysis Date: **7/25/2006**	SeqNo: **1745194**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	BRL	0.00500									
Copper	BRL	0.0100									
Lead	BRL	0.0100									
Zinc	BRL	0.0200									

Sample ID: **LCS-73426**	SampType: **LCS**	TestCode: **6010B_W_T**	Units: **mg/L**	Prep Date: **7/24/2006**	RunNo: **87814**
Client ID:	Batch ID: **73426**	TestNo: **SW6010B**		Analysis Date: **7/25/2006**	SeqNo: **1745193**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.03	0.00500	1	0	103	85	115	0	0		
Copper	1.027	0.0100	1	0	103	85	115	0	0		
Lead	1.025	0.0100	1	0	102	85	115	0	0		
Zinc	1.028	0.0200	1	0	103	85	115	0	0		

Sample ID: **0607A58-006BMS**	SampType: **MS**	TestCode: **6010B_W_T**	Units: **mg/L**	Prep Date: **7/24/2006**	RunNo: **87814**
Client ID:	Batch ID: **73426**	TestNo: **SW6010B**		Analysis Date: **7/25/2006**	SeqNo: **1745196**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.011	0.00500	1	0	101	75	125	0	0		
Copper	1.004	0.0100	1	0.002753	100	75	125	0	0		
Lead	0.9682	0.0100	1	0	96.8	75	125	0	0		
Zinc	1.018	0.0200	1	0.03601	98.2	75	125	0	0		

Sample ID: **0607A58-006BMSD**	SampType: **MSD**	TestCode: **6010B_W_T**	Units: **mg/L**	Prep Date: **7/24/2006**	RunNo: **87814**
Client ID:	Batch ID: **73426**	TestNo: **SW6010B**		Analysis Date: **7/25/2006**	SeqNo: **1745197**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.034	0.00500	1	0	103	75	125	1.011	2.30	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

CLIENT: Environmental Strategies Corporation
Work Order: 0607A49
Project: NL

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010B_W_T

Sample ID: **0607A58-006BMSD**	SampType: **MSD**	TestCode: **6010B_W_T**	Units: **mg/L**	Prep Date: **7/24/2006**	RunNo: **87814**
Client ID:	Batch ID: **73426**	TestNo: **SW6010B**		Analysis Date: **7/25/2006**	SeqNo: **1745197**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	1.021	0.0100	1	0.002753	102	75	125	1.004	1.71	20	
Lead	0.9827	0.0100	1	0	98.3	75	125	0.9682	1.49	20	
Zinc	1.037	0.0200	1	0.03601	100	75	125	1.018	1.84	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	N	Analyte not NELAC certified
R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

June 04, 2009

Gigi Beaulieu
WSP Environmental Strategies Corp
11190 Sunrise Valley Drive, Suite 300
Reston, VA 20191

TEL: (978) 635-9600
FAX: (978) 264-0537

RE: NL/Atlanta

Order No.: 0905J28

Dear Gigi Beaulieu:

Analytical Environmental Services, Inc. received 13 samples on 5/28/2009 12:30:00 PM for the analyses presented in the following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/08-06/30/09.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 08/01/09.

These results relate only to the items tested. This report may only be reproduced in full and contains 20 total pages (including cover letter).

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Mirzeta Kararic
James Forrest
for Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 0905J29

Date: _____ Page 1 of 1

COMPANY: WSP Environment & Energy

ADDRESS: 1740 Massachusetts Ave Boxborough, MA 01719

PHONE: 978-635-9600

FAX: 978-264-0537

SAMPLED BY: Giselle Beaulieu

SIGNATURE: GBeaulieu

ANALYSIS REQUESTED

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes) N	H+I	Cd,Cr,Pb,Zn	BTEX (8021)	Naphthalene	MTBE	REMARKS	No # of Containers
1	MW-5	5/27/09	8:55	x		GW	X						Samples chilled	1
2	MW-4		9:30	x		GW	x						on wet ice.	1
3	MW-3		10:05	x		GW	x							1
4	MW-2		11:02	x		GW	x	x	x	x				3
5	MW-8		11:47	x		GW	x	x	x	x				3
6	MW-100		12:15	x		GW	x							1
7	MW-7E		14:00	x		GW	x	[illegible]			GR			1
8	MW-1		14:34	x		GW	x	x	x	x				3
9	MW-7D		16:15	x		GW	x							1
10	MW-7		15:15	x		GW	x	x	x	x				3
11	MW-9		16:55	x		GW	x							1
12	MW-6	5/28/09	9:45	x		GW	x	x	x	x				3
13	Trip Blank		—	—		W		x	x	x				2
14	——end——													

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: GBeaulieu	5/28/09 12:30	1: [signature]	5/28/09 12:30
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: NL/Atlanta

PROJECT #: 127562/09

SITE ADDRESS: 430 Bishop St NW

SEND REPORT TO: G Beaulieu

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: _____ PO#: _____

RECEIPT

Total # of Containers: _____

Turnaround Time Request

- ☒ Standard 5 Business Days
- ○ 2 Business Day Rush
- ○ Next Business Day Rush
- ○ Same Day Rush **(auth req.)**
- ○ Other _____

STATE PROGRAM (if any): _____

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

(CLIENT) FedEx UPS MAIL COURIER

GREYHOUND OTHER_____

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client WSP Env. Work Order Number 0905J28

Checklist completed by [signature] 5/28/09
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present —

Custody seals intact on sample bottles? Yes __ No __ Not Present —

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.1°C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable —

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by [signature]

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Analytical Environmental Services, Inc.

Date: *04-Jun-09*

CLIENT: WSP Environmental Strategies Corp
Client Sample ID: MW-5
Project: NL/Atlanta
Collection Date: 5/27/2009 8:55:00 AM
Lab ID: 0905J28-001
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					**(SW3010A)**		Analyst: **JY**
Cadmium	BRL	0.0050		mg/L	113937	1	6/3/2009 4:16 PM
Copper	BRL	0.0100		mg/L	113937	1	6/3/2009 4:16 PM
Lead	BRL	0.0100		mg/L	113937	1	6/3/2009 4:16 PM
Zinc	BRL	0.0200		mg/L	113937	1	6/3/2009 4:16 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *04-Jun-09*

CLIENT: WSP Environmental Strategies Corp
Client Sample ID: MW-4
Project: NL/Atlanta
Collection Date: 5/27/2009 9:30:00 AM
Lab ID: 0905J28-002
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					**(SW3010A)**		Analyst: **JY**
Cadmium	BRL	0.0050		mg/L	113937	1	6/4/2009 9:25 AM
Copper	BRL	0.0100		mg/L	113937	1	6/4/2009 9:25 AM
Lead	BRL	0.0100		mg/L	113937	1	6/4/2009 9:25 AM
Zinc	BRL	0.0200		mg/L	113937	1	6/4/2009 9:25 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *04-Jun-09*

CLIENT: WSP Environmental Strategies Corp
Client Sample ID: MW-3
Project: NL/Atlanta
Collection Date: 5/27/2009 10:05:00 AM
Lab ID: 0905J28-003
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					**(SW3010A)**		Analyst: **JY**
Cadmium	BRL	0.0050		mg/L	113937	1	6/4/2009 9:28 AM
Copper	BRL	0.0100		mg/L	113937	1	6/4/2009 9:28 AM
Lead	BRL	0.0100		mg/L	113937	1	6/4/2009 9:28 AM
Zinc	0.0701	0.0200		mg/L	113937	1	6/4/2009 9:28 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *04-Jun-09*

CLIENT: WSP Environmental Strategies Corp
Client Sample ID: MW-2
Project: NL/Atlanta
Collection Date: 5/27/2009 11:02:00 AM
Lab ID: 0905J28-004
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					**(SW3010A)**		Analyst: **JY**
Cadmium	0.0333	0.0050		mg/L	113937	1	6/4/2009 9:31 AM
Copper	0.0151	0.0100		mg/L	113937	1	6/4/2009 9:31 AM
Lead	BRL	0.0100		mg/L	113937	1	6/4/2009 9:31 AM
Zinc	0.849	0.0200		mg/L	113937	1	6/4/2009 9:31 AM
VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B					**(SW5030B)**		Analyst: **NWH**
Methyl tert-butyl ether	BRL	5.0		ug/L	113913	1	6/1/2009 2:16 PM
Benzene	BRL	5.0		ug/L	113913	1	6/1/2009 2:16 PM
Toluene	BRL	5.0		ug/L	113913	1	6/1/2009 2:16 PM
Ethylbenzene	BRL	5.0		ug/L	113913	1	6/1/2009 2:16 PM
Naphthalene	BRL	5.0		ug/L	113913	1	6/1/2009 2:16 PM
Xylenes, Total	BRL	5.0		ug/L	113913	1	6/1/2009 2:16 PM
Surr: 4-Bromofluorobenzene	103	61.3-128		%REC	113913	1	6/1/2009 2:16 PM
Surr: Dibromofluoromethane	108	67.8-130		%REC	113913	1	6/1/2009 2:16 PM
Surr: Toluene-d8	98.9	70.6-121		%REC	113913	1	6/1/2009 2:16 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *04-Jun-09*

CLIENT: WSP Environmental Strategies Corp
Project: NL/Atlanta
Lab ID: 0905J28-005

Client Sample ID: MW-8
Collection Date: 5/27/2009 11:47:00 AM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					(SW3010A)		Analyst: **JY**
Cadmium	BRL	0.0050		mg/L	113937	1	6/4/2009 9:35 AM
Copper	0.0991	0.0100		mg/L	113937	1	6/4/2009 9:35 AM
Lead	0.975	0.0100		mg/L	113937	1	6/4/2009 9:35 AM
Zinc	0.390	0.0200		mg/L	113937	1	6/4/2009 9:35 AM
VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B					(SW5030B)		Analyst: **NWH**
Methyl tert-butyl ether	BRL	5.0		ug/L	113913	1	5/30/2009 6:40 PM
Benzene	BRL	5.0		ug/L	113913	1	5/30/2009 6:40 PM
Toluene	BRL	5.0		ug/L	113913	1	5/30/2009 6:40 PM
Ethylbenzene	BRL	5.0		ug/L	113913	1	5/30/2009 6:40 PM
Naphthalene	BRL	5.0		ug/L	113913	1	5/30/2009 6:40 PM
Xylenes, Total	BRL	5.0		ug/L	113913	1	5/30/2009 6:40 PM
Surr: 4-Bromofluorobenzene	102	61.3-128		%REC	113913	1	5/30/2009 6:40 PM
Surr: Dibromofluoromethane	108	67.8-130		%REC	113913	1	5/30/2009 6:40 PM
Surr: Toluene-d8	99.6	70.6-121		%REC	113913	1	5/30/2009 6:40 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

CLIENT: WSP Environmental Strategies Corp **Client Sample ID:** MW-100
Project: NL/Atlanta **Collection Date:** 5/27/2009 12:15:00 PM
Lab ID: 0905J28-006 **Matrix:** GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					**(SW3010A)**		Analyst: **JY**
Cadmium	BRL	0.0050		mg/L	113937	1	6/4/2009 9:38 AM
Copper	0.0965	0.0100		mg/L	113937	1	6/4/2009 9:38 AM
Lead	0.972	0.0100		mg/L	113937	1	6/4/2009 9:38 AM
Zinc	0.384	0.0200		mg/L	113937	1	6/4/2009 9:38 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *04-Jun-09*

CLIENT: WSP Environmental Strategies Corp
Client Sample ID: MW-7E
Project: NL/Atlanta
Collection Date: 5/27/2009 2:00:00 PM
Lab ID: 0905J28-007
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					**(SW3010A)**		Analyst: **JY**
Cadmium	BRL	0.0050		mg/L	113937	1	6/4/2009 9:42 AM
Copper	BRL	0.0100		mg/L	113937	1	6/4/2009 9:42 AM
Lead	BRL	0.0100		mg/L	113937	1	6/4/2009 9:42 AM
Zinc	BRL	0.0200		mg/L	113937	1	6/4/2009 9:42 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

CLIENT: WSP Environmental Strategies Corp **Client Sample ID:** MW-1
Project: NL/Atlanta **Collection Date:** 5/27/2009 2:34:00 PM
Lab ID: 0905J28-008 **Matrix:** GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					(SW3010A)		Analyst: **JY**
Cadmium	BRL	0.0050		mg/L	113937	1	6/4/2009 9:45 AM
Copper	BRL	0.0100		mg/L	113937	1	6/4/2009 9:45 AM
Lead	0.0226	0.0100		mg/L	113937	1	6/4/2009 9:45 AM
Zinc	BRL	0.0200		mg/L	113937	1	6/4/2009 9:45 AM
VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B					(SW5030B)		Analyst: **NWH**
Methyl tert-butyl ether	BRL	5.0		ug/L	113913	1	5/30/2009 7:08 PM
Benzene	16	5.0		ug/L	113913	1	5/30/2009 7:08 PM
Toluene	BRL	5.0		ug/L	113913	1	5/30/2009 7:08 PM
Ethylbenzene	BRL	5.0		ug/L	113913	1	5/30/2009 7:08 PM
Naphthalene	BRL	5.0		ug/L	113913	1	5/30/2009 7:08 PM
Xylenes, Total	BRL	5.0		ug/L	113913	1	5/30/2009 7:08 PM
Surr: 4-Bromofluorobenzene	107	61.3-128		%REC	113913	1	5/30/2009 7:08 PM
Surr: Dibromofluoromethane	110	67.8-130		%REC	113913	1	5/30/2009 7:08 PM
Surr: Toluene-d8	100	70.6-121		%REC	113913	1	5/30/2009 7:08 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *04-Jun-09*

CLIENT: WSP Environmental Strategies Corp
Client Sample ID: MW-7D
Project: NL/Atlanta
Collection Date: 5/27/2009 4:15:00 PM
Lab ID: 0905J28-009
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					**(SW3010A)**		Analyst: **JY**
Cadmium	0.0300	0.0050		mg/L	113937	1	6/4/2009 9:49 AM
Copper	0.0671	0.0100		mg/L	113937	1	6/4/2009 9:49 AM
Lead	0.0325	0.0100		mg/L	113937	1	6/4/2009 9:49 AM
Zinc	0.438	0.0200		mg/L	113937	1	6/4/2009 9:49 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

CLIENT: WSP Environmental Strategies Corp **Client Sample ID:** MW-7
Project: NL/Atlanta **Collection Date:** 5/27/2009 3:15:00 PM
Lab ID: 0905J28-010 **Matrix:** GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					(SW3010A)		Analyst: **JY**
Cadmium	BRL	0.0050		mg/L	113937	1	6/4/2009 9:52 AM
Copper	0.0104	0.0100		mg/L	113937	1	6/4/2009 9:52 AM
Lead	BRL	0.0100		mg/L	113937	1	6/4/2009 9:52 AM
Zinc	0.0245	0.0200		mg/L	113937	1	6/4/2009 9:52 AM
VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B					(SW5030B)		Analyst: **NWH**
Methyl tert-butyl ether	BRL	5.0		ug/L	113913	1	5/30/2009 7:35 PM
Benzene	BRL	5.0		ug/L	113913	1	5/30/2009 7:35 PM
Toluene	BRL	5.0		ug/L	113913	1	5/30/2009 7:35 PM
Ethylbenzene	BRL	5.0		ug/L	113913	1	5/30/2009 7:35 PM
Naphthalene	BRL	5.0		ug/L	113913	1	5/30/2009 7:35 PM
Xylenes, Total	BRL	5.0		ug/L	113913	1	5/30/2009 7:35 PM
Surr: 4-Bromofluorobenzene	102	61.3-128		%REC	113913	1	5/30/2009 7:35 PM
Surr: Dibromofluoromethane	113	67.8-130		%REC	113913	1	5/30/2009 7:35 PM
Surr: Toluene-d8	99.8	70.6-121		%REC	113913	1	5/30/2009 7:35 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *04-Jun-09*

CLIENT: WSP Environmental Strategies Corp
Client Sample ID: MW-9
Project: NL/Atlanta
Collection Date: 5/27/2009 4:55:00 PM
Lab ID: 0905J28-011
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					(SW3010A)		Analyst: JY
Cadmium	BRL	0.0050		mg/L	113937	1	6/4/2009 9:56 AM
Copper	BRL	0.0100		mg/L	113937	1	6/4/2009 9:56 AM
Lead	BRL	0.0100		mg/L	113937	1	6/4/2009 9:56 AM
Zinc	0.343	0.0200		mg/L	113937	1	6/4/2009 9:56 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *04-Jun-09*

CLIENT: WSP Environmental Strategies Corp
Client Sample ID: MW-6
Project: NL/Atlanta
Collection Date: 5/28/2009 9:45:00 AM
Lab ID: 0905J28-012
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					(SW3010A)		Analyst: **JY**
Cadmium	0.0338	0.0050		mg/L	113937	1	6/4/2009 10:06 AM
Copper	0.197	0.0100		mg/L	113937	1	6/4/2009 10:06 AM
Lead	0.0938	0.0100		mg/L	113937	1	6/4/2009 10:06 AM
Zinc	0.194	0.0200		mg/L	113937	1	6/4/2009 10:06 AM
VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B					(SW5030B)		Analyst: **NWH**
Methyl tert-butyl ether	24	5.0		ug/L	113913	1	5/30/2009 8:03 PM
Benzene	12000	500		ug/L	113913	100	6/2/2009 9:43 PM
Toluene	13000	500		ug/L	113913	100	6/2/2009 9:43 PM
Ethylbenzene	2900	500		ug/L	113913	100	6/2/2009 9:43 PM
Naphthalene	880	50		ug/L	113913	10	6/2/2009 4:12 PM
Xylenes, Total	12000	500		ug/L	113913	100	6/2/2009 9:43 PM
Surr: 4-Bromofluorobenzene	107	61.3-128		%REC	113913	10	6/2/2009 4:12 PM
Surr: 4-Bromofluorobenzene	109	61.3-128		%REC	113913	100	6/2/2009 9:43 PM
Surr: 4-Bromofluorobenzene	108	61.3-128		%REC	113913	1	5/30/2009 8:03 PM
Surr: Dibromofluoromethane	112	67.8-130		%REC	113913	100	6/2/2009 9:43 PM
Surr: Dibromofluoromethane	104	67.8-130		%REC	113913	1	5/30/2009 8:03 PM
Surr: Dibromofluoromethane	108	67.8-130		%REC	113913	10	6/2/2009 4:12 PM
Surr: Toluene-d8	102	70.6-121		%REC	113913	100	6/2/2009 9:43 PM
Surr: Toluene-d8	99.1	70.6-121		%REC	113913	10	6/2/2009 4:12 PM
Surr: Toluene-d8	99.2	70.6-121		%REC	113913	1	5/30/2009 8:03 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *04-Jun-09*

CLIENT: WSP Environmental Strategies Corp
Client Sample ID: TRIP BLANK
Project: NL/Atlanta
Collection Date: 5/27/2009
Lab ID: 0905J28-013
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B					(SW5030B)		Analyst: **NWH**
Methyl tert-butyl ether	BRL	5.0		ug/L	113913	1	5/30/2009 3:25 PM
Benzene	BRL	5.0		ug/L	113913	1	5/30/2009 3:25 PM
Toluene	BRL	5.0		ug/L	113913	1	5/30/2009 3:25 PM
Ethylbenzene	BRL	5.0		ug/L	113913	1	5/30/2009 3:25 PM
Naphthalene	BRL	5.0		ug/L	113913	1	5/30/2009 3:25 PM
Xylenes, Total	BRL	5.0		ug/L	113913	1	5/30/2009 3:25 PM
Surr: 4-Bromofluorobenzene	102	61.3-128		%REC	113913	1	5/30/2009 3:25 PM
Surr: Dibromofluoromethane	108	67.8-130		%REC	113913	1	5/30/2009 3:25 PM
Surr: Toluene-d8	99.8	70.6-121		%REC	113913	1	5/30/2009 3:25 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

CLIENT: WSP Environmental Strategies Corp
Work Order: 0905J28
Project: NL/Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: METALS, TOTAL SW6010C

Sample ID: **MB-113937** SampType: **MBLK** Batch ID: **113937** Units: **mg/L** Prep Date: **6/2/2009** RunNo: **149178**
Client ID: TestCode: **METALS, TOTAL SW6010C** Analysis Date: **6/3/2009** SeqNo: **3066245**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	BRL	0.00500	0	0	0	0	0	0	0		
Copper	BRL	0.0100	0	0	0	0	0	0	0		
Lead	BRL	0.0100	0	0	0	0	0	0	0		
Zinc	BRL	0.0200	0	0	0	0	0	0	0		

Sample ID: **LCS-113937** SampType: **LCS** Batch ID: **113937** Units: **mg/L** Prep Date: **6/2/2009** RunNo: **149178**
Client ID: TestCode: **METALS, TOTAL SW6010C** Analysis Date: **6/3/2009** SeqNo: **3066243**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.014	0.00500	1	0	101	85	115	0	0		
Copper	0.9846	0.0100	1	0	98.5	85	115	0	0		
Lead	1.004	0.0100	1	0	100	85	115	0	0		
Zinc	1.036	0.0200	1	0.006299	103	85	115	0	0		

Sample ID: **0905J28-001AMS** SampType: **MS** Batch ID: **113937** Units: **mg/L** Prep Date: **6/2/2009** RunNo: **149178**
Client ID: **MW-5** TestCode: **METALS, TOTAL SW6010C** Analysis Date: **6/3/2009** SeqNo: **3066250**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.008	0.00500	1	0	101	75	125	0	0		
Copper	0.9826	0.0100	1	0	98.3	75	125	0	0		
Lead	0.9948	0.0100	1	0	99.5	75	125	0	0		
Zinc	1.033	0.0200	1	0.002178	103	75	125	0	0		

Qualifiers:

<	Less than Result value	>	Greater than Result value	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

CLIENT: WSP Environmental Strategies Corp
Work Order: 0905J28
Project: NL/Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: METALS, TOTAL SW6010C

Sample ID: **0905J28-001AMSD**	SampType: **MSD**	Batch ID: **113937**	Units: **mg/L**	Prep Date: **6/2/2009**	RunNo: **149178**
Client ID: **MW-5**	TestCode: **METALS, TOTAL SW6010C**			Analysis Date: **6/3/2009**	SeqNo: **3066252**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.021	0.00500	1	0	102	75	125	1.008	1.33	20	
Copper	0.9923	0.0100	1	0	99.2	75	125	0.9826	0.979	20	
Lead	1.005	0.0100	1	0	100	75	125	0.9948	0.971	20	
Zinc	1.044	0.0200	1	0.002178	104	75	125	1.033	1.10	20	

Qualifiers:							
	<	Less than Result value	>	Greater than Result value	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

CLIENT: WSP Environmental Strategies Corp
Work Order: 0905J28
Project: NL/Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: Volatile Organic Compounds by GC/MS SW8260B

Sample ID: **MB-113913**	SampType: **MBLK**	Batch ID: **113913**	Units: **ug/L**	Prep Date: **5/30/2009**	RunNo: **148971**
Client ID:	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**			Analysis Date: **5/30/2009**	SeqNo: **3061594**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Naphthalene	BRL	5.0									
Toluene	BRL	5.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	52.13	0	50	0	104	61.3	128	0	0		
Surr: Dibromofluoromethane	53.33	0	50	0	107	67.8	130	0	0		
Surr: Toluene-d8	48.96	0	50	0	97.9	70.6	121	0	0		

Sample ID: **LCS-113913**	SampType: **LCS**	Batch ID: **113913**	Units: **ug/L**	Prep Date: **5/30/2009**	RunNo: **148971**
Client ID:	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**			Analysis Date: **5/30/2009**	SeqNo: **3061595**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	48.24	5.0	50	0	96.5	77.6	130	0	0		
Toluene	47.8	5.0	50	0	95.6	76.8	132	0	0		
Surr: 4-Bromofluorobenzene	51.09	0	50	0	102	61.3	128	0	0		
Surr: Dibromofluoromethane	52.94	0	50	0	106	67.8	130	0	0		
Surr: Toluene-d8	48.9	0	50	0	97.8	70.6	121	0	0		

Sample ID: **0905I23-003AMS**	SampType: **MS**	Batch ID: **113913**	Units: **ug/L**	Prep Date: **5/30/2009**	RunNo: **148971**
Client ID:	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**			Analysis Date: **5/30/2009**	SeqNo: **3061597**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	47.8	5.0	50	0	95.6	74.4	134	0	0		
Toluene	48.41	5.0	50	0	96.8	73.7	138	0	0		
Surr: 4-Bromofluorobenzene	51.26	0	50	0	103	61.3	128	0	0		
Surr: Dibromofluoromethane	52.72	0	50	0	105	67.8	130	0	0		

Qualifiers:

<	Less than Result value	>	Greater than Result value	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

CLIENT: WSP Environmental Strategies Corp
Work Order: 0905J28
Project: NL/Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: Volatile Organic Compounds by GC/MS SW8260B

Sample ID: **0905I23-003AMS**	SampType: **MS**	Batch ID: **113913**	Units: **ug/L**	Prep Date: **5/30/2009**	RunNo: **148971**
Client ID:	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**			Analysis Date: **5/30/2009**	SeqNo: **3061597**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	49.79	0	50	0	99.6	70.6	121	0	0		

Sample ID: **0905I23-003AMSD**	SampType: **MSD**	Batch ID: **113913**	Units: **ug/L**	Prep Date: **5/30/2009**	RunNo: **148971**
Client ID:	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**			Analysis Date: **5/30/2009**	SeqNo: **3061600**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	47.22	5.0	50	0	94.4	74.4	134	47.8	1.22	20	
Toluene	48.32	5.0	50	0	96.6	73.7	138	48.41	0.186	20	
Surr: 4-Bromofluorobenzene	53.85	0	50	0	108	61.3	128	51.26	0	0	
Surr: Dibromofluoromethane	53.07	0	50	0	106	67.8	130	52.72	0	0	
Surr: Toluene-d8	49.36	0	50	0	98.7	70.6	121	49.79	0	0	

Qualifiers:

<	Less than Result value	>	Greater than Result value	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

July 17, 2009

Gigi Beaulieu
WSP Environmental Strategies Corp
11190 Sunrise Valley Drive, Suite 300
Reston, VA 20191

TEL: (978) 635-9600
FAX: (978) 264-0537

RE: NL - Atlanta

Order No.: 0907482

Dear Gigi Beaulieu:

Analytical Environmental Services, Inc. received 5 samples on 7/8/2009 1:00:00 PM for the analyses presented in the following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/08-06/30/09.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 08/01/09.

These results relate only to the items tested. This report may only be reproduced in full and contains 13 total pages (including cover letter).

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Mirzeta Kararic
James Forrest
for Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 0907482

Date: 7/7/09 Page 1 of 1

COMPANY	ADDRESS
WSP Environment & Energy	1740 Massachusetts Ave Boxborough, MA 01719
PHONE: (978) 635-9600	FAX: (978) 264-0537
SAMPLED BY: Heather Usle	SIGNATURE: Heather Usle

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOCs (8260B)	Metals	PRESERVATION (See codes)	REMARKS	No # of Containers
1	MW-14	7/7/09	14:50	X		GW	X	X			3
2	MW-15	7/8/09	9:55	X		GW	X	X			3
3	MW-13		11:20	X		GW	X	X			3
4	MW-13D		12.00	X		GW	X	X			3
5	TB070809			X		GW	X				2
6	END										
7											
8											
9											
10											
11											
12											
13											
14											

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Heather Usle	7/8/09 13:00	1: Mark 7/8/09	1:00
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: NL-Atlanta
PROJECT #: 127502/09
SITE ADDRESS: 430 Bishop St NW Atlanta, GA
SEND REPORT TO: gigi.beaulieu@wspgroup.com
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT

Total # of Containers: 14

Turnaround Time Request
- ● Standard 5 Business Days
- ○ 2 Business Day Rush
- ○ Next Business Day Rush
- ○ Same Day Rush (auth req.)
- ○ Other

STATE PROGRAM (if any):
E-mail? (Y) / N; Fax? Y / N
DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA: SELF
IN / / VIA:
(CLIENT) FedEx UPS MAIL COURIER
GREYHOUND OTHER

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client WSP Env Energy Work Order Number 0907482

Checklist completed by [signature] 7/8/9
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.2°C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by I. P

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Analytical Environmental Services, Inc. **Date:** *17-Jul-09*

CLIENT: WSP Environmental Strategies Corp
Project: NL - Atlanta
Lab Order: 0907482

CASE NARRATIVE

Analyze VOCs for BTEX MTBE and Naphthalene per Gigi Beaulieu on 7/8/09.

Analytical Environmental Services, Inc.

Date: *17-Jul-09*

CLIENT: WSP Environmental Strategies Corp
Client Sample ID: MW-14
Project: NL - Atlanta
Collection Date: 7/7/2009 2:50:00 PM
Lab ID: 0907482-001
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					(SW3010A)		Analyst: **TAA**
Cadmium	BRL	0.0050		mg/L	115381	1	7/9/2009 3:11 PM
Copper	BRL	0.0100		mg/L	115381	1	7/9/2009 3:11 PM
Lead	BRL	0.0100		mg/L	115381	1	7/9/2009 3:11 PM
Zinc	0.0506	0.0200		mg/L	115381	1	7/9/2009 3:11 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B					(SW5030B)		Analyst: **JCT**
Methyl tert-butyl ether	BRL	5.0		ug/L	115538	1	7/13/2009 8:29 PM
Benzene	BRL	5.0		ug/L	115538	1	7/13/2009 8:29 PM
Toluene	BRL	5.0		ug/L	115538	1	7/13/2009 8:29 PM
Ethylbenzene	BRL	5.0		ug/L	115538	1	7/13/2009 8:29 PM
Naphthalene	BRL	5.0		ug/L	115538	1	7/13/2009 8:29 PM
Xylenes, Total	BRL	5.0		ug/L	115538	1	7/13/2009 8:29 PM
Surr: 4-Bromofluorobenzene	85.2	61.3-128		%REC	115538	1	7/13/2009 8:29 PM
Surr: Dibromofluoromethane	115	67.8-130		%REC	115538	1	7/13/2009 8:29 PM
Surr: Toluene-d8	95.7	70.6-121		%REC	115538	1	7/13/2009 8:29 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *17-Jul-09*

CLIENT: WSP Environmental Strategies Corp
Project: NL - Atlanta
Lab ID: 0907482-002

Client Sample ID: MW-15
Collection Date: 7/8/2009 9:55:00 AM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					(SW3010A)		Analyst: TAA
Cadmium	BRL	0.0050		mg/L	115381	1	7/9/2009 3:51 PM
Copper	BRL	0.0100		mg/L	115381	1	7/9/2009 3:51 PM
Lead	BRL	0.0100		mg/L	115381	1	7/9/2009 3:51 PM
Zinc	BRL	0.0200		mg/L	115381	1	7/9/2009 3:51 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B					(SW5030B)		Analyst: JCT
Methyl tert-butyl ether	BRL	5.0		ug/L	115538	1	7/13/2009 8:58 PM
Benzene	BRL	5.0		ug/L	115538	1	7/13/2009 8:58 PM
Toluene	BRL	5.0		ug/L	115538	1	7/13/2009 8:58 PM
Ethylbenzene	BRL	5.0		ug/L	115538	1	7/13/2009 8:58 PM
Naphthalene	BRL	5.0		ug/L	115538	1	7/13/2009 8:58 PM
Xylenes, Total	BRL	5.0		ug/L	115538	1	7/13/2009 8:58 PM
Surr: 4-Bromofluorobenzene	83.5	61.3-128		%REC	115538	1	7/13/2009 8:58 PM
Surr: Dibromofluoromethane	116	67.8-130		%REC	115538	1	7/13/2009 8:58 PM
Surr: Toluene-d8	94.6	70.6-121		%REC	115538	1	7/13/2009 8:58 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *17-Jul-09*

CLIENT: WSP Environmental Strategies Corp
Project: NL - Atlanta
Lab ID: 0907482-003

Client Sample ID: MW-13
Collection Date: 7/8/2009 11:20:00 AM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					(SW3010A)		Analyst: TAA
Cadmium	BRL	0.0050		mg/L	115381	1	7/9/2009 3:55 PM
Copper	BRL	0.0100		mg/L	115381	1	7/9/2009 3:55 PM
Lead	BRL	0.0100		mg/L	115381	1	7/9/2009 3:55 PM
Zinc	BRL	0.0200		mg/L	115381	1	7/9/2009 3:55 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B					(SW5030B)		Analyst: JCT
Methyl tert-butyl ether	BRL	5.0		ug/L	115538	1	7/13/2009 9:28 PM
Benzene	BRL	5.0		ug/L	115538	1	7/13/2009 9:28 PM
Toluene	BRL	5.0		ug/L	115538	1	7/13/2009 9:28 PM
Ethylbenzene	BRL	5.0		ug/L	115538	1	7/13/2009 9:28 PM
Naphthalene	BRL	5.0		ug/L	115538	1	7/13/2009 9:28 PM
Xylenes, Total	BRL	5.0		ug/L	115538	1	7/13/2009 9:28 PM
Surr: 4-Bromofluorobenzene	80.1	61.3-128		%REC	115538	1	7/13/2009 9:28 PM
Surr: Dibromofluoromethane	114	67.8-130		%REC	115538	1	7/13/2009 9:28 PM
Surr: Toluene-d8	96.3	70.6-121		%REC	115538	1	7/13/2009 9:28 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *17-Jul-09*

CLIENT: WSP Environmental Strategies Corp
Project: NL - Atlanta
Lab ID: 0907482-004

Client Sample ID: MW-130
Collection Date: 7/8/2009 12:00:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					(SW3010A)		Analyst: TAA
Cadmium	BRL	0.0050		mg/L	115381	1	7/9/2009 3:59 PM
Copper	BRL	0.0100		mg/L	115381	1	7/9/2009 3:59 PM
Lead	BRL	0.0100		mg/L	115381	1	7/9/2009 3:59 PM
Zinc	BRL	0.0200		mg/L	115381	1	7/9/2009 3:59 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B					(SW5030B)		Analyst: JCT
Methyl tert-butyl ether	BRL	5.0		ug/L	115538	1	7/13/2009 9:58 PM
Benzene	BRL	5.0		ug/L	115538	1	7/13/2009 9:58 PM
Toluene	BRL	5.0		ug/L	115538	1	7/13/2009 9:58 PM
Ethylbenzene	BRL	5.0		ug/L	115538	1	7/13/2009 9:58 PM
Naphthalene	BRL	5.0		ug/L	115538	1	7/13/2009 9:58 PM
Xylenes, Total	BRL	5.0		ug/L	115538	1	7/13/2009 9:58 PM
Surr: 4-Bromofluorobenzene	81.7	61.3-128		%REC	115538	1	7/13/2009 9:58 PM
Surr: Dibromofluoromethane	119	67.8-130		%REC	115538	1	7/13/2009 9:58 PM
Surr: Toluene-d8	98.0	70.6-121		%REC	115538	1	7/13/2009 9:58 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *17-Jul-09*

CLIENT: WSP Environmental Strategies Corp
Client Sample ID: TB070809
Project: NL - Atlanta
Collection Date: 7/8/2009
Lab ID: 0907482-005
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B					(SW5030B)		Analyst: JCT
Methyl tert-butyl ether	BRL	5.0		ug/L	115538	1	7/14/2009 1:51 PM
Benzene	BRL	5.0		ug/L	115538	1	7/14/2009 1:51 PM
Toluene	BRL	5.0		ug/L	115538	1	7/14/2009 1:51 PM
Ethylbenzene	BRL	5.0		ug/L	115538	1	7/14/2009 1:51 PM
Naphthalene	BRL	5.0		ug/L	115538	1	7/14/2009 1:51 PM
Xylenes, Total	BRL	5.0		ug/L	115538	1	7/14/2009 1:51 PM
Surr: 4-Bromofluorobenzene	87.4	61.3-128		%REC	115538	1	7/14/2009 1:51 PM
Surr: Dibromofluoromethane	105	67.8-130		%REC	115538	1	7/14/2009 1:51 PM
Surr: Toluene-d8	92.5	70.6-121		%REC	115538	1	7/14/2009 1:51 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

CLIENT: WSP Environmental Strategies Corp
Work Order: 0907482
Project: NL - Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: **METALS, TOTAL** **SW6010C**

Sample ID: **MB-115381**	SampType: **MBLK**	Batch ID: **115381**	Units: **mg/L**	Prep Date: **7/9/2009**	RunNo: **151529**
Client ID:	TestCode: **METALS, TOTAL** **SW6010C**			Analysis Date: **7/9/2009**	SeqNo: **3119801**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	BRL	0.00500	0	0	0	0	0	0	0		
Copper	BRL	0.0100	0	0	0	0	0	0	0		
Lead	BRL	0.0100	0	0	0	0	0	0	0		
Zinc	BRL	0.0200	0	0	0	0	0	0	0		

Sample ID: **LCS-115381**	SampType: **LCS**	Batch ID: **115381**	Units: **mg/L**	Prep Date: **7/9/2009**	RunNo: **151529**
Client ID:	TestCode: **METALS, TOTAL** **SW6010C**			Analysis Date: **7/9/2009**	SeqNo: **3119799**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.024	0.00500	1	0	102	85	115	0	0		
Copper	1.036	0.0100	1	0	104	85	115	0	0		
Lead	1.044	0.0100	1	0	104	85	115	0	0		
Zinc	1.02	0.0200	1	0.004477	102	85	115	0	0		

Sample ID: **0907482-001BMS**	SampType: **MS**	Batch ID: **115381**	Units: **mg/L**	Prep Date: **7/9/2009**	RunNo: **151529**
Client ID: **MW-14**	TestCode: **METALS, TOTAL** **SW6010C**			Analysis Date: **7/9/2009**	SeqNo: **3119803**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.003	0.00500	1	0.002917	100	75	125	0	0		
Copper	1.023	0.0100	1	0.002255	102	75	125	0	0		
Lead	1.001	0.0100	1	0	100	75	125	0	0		
Zinc	1.033	0.0200	1	0.05064	98.2	75	125	0	0		

Qualifiers:

<	Less than Result value	>	Greater than Result value	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

CLIENT: WSP Environmental Strategies Corp
Work Order: 0907482
Project: NL - Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: METALS, TOTAL SW6010C

Sample ID: **0907482-001BMSD**	SampType: **MSD**	Batch ID: **115381**	Units: **mg/L**	Prep Date: **7/9/2009**	RunNo: **151529**
Client ID: **MW-14**	TestCode: **METALS, TOTAL SW6010C**			Analysis Date: **7/9/2009**	SeqNo: **3119805**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.008	0.00500	1	0.002917	101	75	125	1.003	0.579	20	
Copper	1.029	0.0100	1	0.002255	103	75	125	1.023	0.576	20	
Lead	1.007	0.0100	1	0	101	75	125	1.001	0.594	20	
Zinc	1.046	0.0200	1	0.05064	99.5	75	125	1.033	1.24	20	

Qualifiers:

<	Less than Result value	>	Greater than Result value	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

CLIENT: WSP Environmental Strategies Corp
Work Order: 0907482
Project: NL - Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: Volatile Organic Compounds by GC/MS SW8260B

Sample ID: **MB-115538**	SampType: **MBLK**	Batch ID: **115538**	Units: **ug/L**	Prep Date: **7/11/2009**	RunNo: **151753**
Client ID:	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**			Analysis Date: **7/11/2009**	SeqNo: **3128941**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	BRL	5.0	0	0	0	0	0	0	0		
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0		
Methyl tert-butyl ether	BRL	5.0	0	0	0	0	0	0	0		
Naphthalene	BRL	5.0	0	0	0	0	0	0	0		
Toluene	BRL	5.0	0	0	0	0	0	0	0		
Xylenes, Total	BRL	5.0	0	0	0	0	0	0	0		
Surr: 4-Bromofluorobenzene	42.66	0	50	0	85.3	61.3	128	0	0		
Surr: Dibromofluoromethane	53.65	0	50	0	107	67.8	130	0	0		
Surr: Toluene-d8	46.67	0	50	0	93.3	70.6	121	0	0		

Sample ID: **LCS-115538**	SampType: **LCS**	Batch ID: **115538**	Units: **ug/L**	Prep Date: **7/11/2009**	RunNo: **151753**
Client ID:	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**			Analysis Date: **7/11/2009**	SeqNo: **3124586**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	49.14	5.0	50	0	98.3	77.6	130	0	0		
Toluene	48.41	5.0	50	0	96.8	76.8	132	0	0		
Surr: 4-Bromofluorobenzene	50.25	0	50	0	101	61.3	128	0	0		
Surr: Dibromofluoromethane	52	0	50	0	104	67.8	130	0	0		
Surr: Toluene-d8	53.62	0	50	0	107	70.6	121	0	0		

Sample ID: **0907472-002AMS**	SampType: **MS**	Batch ID: **115538**	Units: **ug/L**	Prep Date: **7/11/2009**	RunNo: **151850**
Client ID:	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**			Analysis Date: **7/14/2009**	SeqNo: **3130122**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	57.66	5.0	50	0	115	74.4	134	0	0		
Toluene	58.65	5.0	50	0	117	73.7	138	0	0		
Surr: 4-Bromofluorobenzene	52.41	0	50	0	105	61.3	128	0	0		
Surr: Dibromofluoromethane	52.8	0	50	0	106	67.8	130	0	0		

Qualifiers:

<	Less than Result value	>	Greater than Result value	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

CLIENT: WSP Environmental Strategies Corp
Work Order: 0907482
Project: NL - Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: Volatile Organic Compounds by GC/MS SW8260B

Sample ID: **0907472-002AMS**	SampType: **MS**	Batch ID: **115538**	Units: **ug/L**	Prep Date: **7/11/2009**	RunNo: **151850**
Client ID:	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**			Analysis Date: **7/14/2009**	SeqNo: **3130122**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	52.34	0	50	0	105	70.6	121	0	0		

Sample ID: **0907472-002AMSD**	SampType: **MSD**	Batch ID: **115538**	Units: **ug/L**	Prep Date: **7/11/2009**	RunNo: **151850**
Client ID:	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**			Analysis Date: **7/14/2009**	SeqNo: **3130123**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	59.42	5.0	50	0	119	74.4	134	57.66	3.01	20	
Toluene	58.92	5.0	50	0	118	73.7	138	58.65	0.459	20	
Surr: 4-Bromofluorobenzene	51.53	0	50	0	103	61.3	128	52.41	0	0	
Surr: Dibromofluoromethane	49.96	0	50	0	99.9	67.8	130	52.8	0	0	
Surr: Toluene-d8	53.05	0	50	0	106	70.6	121	52.34	0	0	

Qualifiers:

<	Less than Result value	>	Greater than Result value	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

August 17, 2009

Gigi Beaulieu
WSP Environmental Strategies Corp
11190 Sunrise Valley Drive, Suite 300
Reston, VA 20191

TEL: (978) 635-9600
FAX: (978) 264-0537

RE: NL-Atlanta

Order No.: 0908781

Dear Gigi Beaulieu:

Analytical Environmental Services, Inc. received 3 samples on 8/12/2009 1:35:00 PM for the analyses presented in the following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/09-06/30/10.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/09.

These results relate only to the items tested. This report may only be reproduced in full and contains 6 total pages (including cover letter).

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Mirzeta Kararic
James Forrest
Project Manager

for

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 0908781

Date: 8/12/09 Page 1 of 1

COMPANY:	ADDRESS:
WSP Environment & Energy	1740 Massachusetts Ave Boxborough, MA 01719
PHONE: (978) 635-9600	FAX: (978) 264-0537
SAMPLED BY: Heather Usle	SIGNATURE: Heather Usle

ANALYSIS REQUESTED: Cadmium, Copper, Lead & Zinc

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)	REMARKS	No # of Containers
							N		
1	MW-13D	8/12/09	11:40	X		GW	X		1
2	MW-13DD	8/12/09	12:30	X		GW	X		1
3	MW-130DD	8/12/09	13:00	X		GW	X		1
4	END								
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Heather Usle	8/12/09; 13:40	1:	8/12/09 1:35
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS: Metals: cadmium, copper, lead & zinc

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

(CLIENT) FedEx UPS MAIL COURIER

GREYHOUND (OTHER) SELF

PROJECT INFORMATION

PROJECT NAME: NL-Atlanta

PROJECT #: 127562/9A

SITE ADDRESS: 430 Bishop St NW Atlanta, GA

SEND REPORT TO: Brigi.beaulieu@wspgroup.com

INVOICE TO: heather.usle@wspgroup.com

(IF DIFFERENT FROM ABOVE)

QUOTE #: _____ PO#: _____

RECEIPT

Total # of Containers: 3

Turnaround Time Request

- ⊘ Standard 5 Business Days
- ○ 2 Business Day Rush
- ○ Next Business Day Rush
- ○ Same Day Rush **(auth req.)**
- ○ Other _____

STATE PROGRAM (if any): _____

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client WSP ENV Work Order Number 0908781

Checklist completed by Signature 8/12/09 Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.0C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted ✓ Yes __ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by K.T.

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Analytical Environmental Services, Inc.

Date: *17-Aug-09*

CLIENT: WSP Environmental Strategies Corp
Project: NL-Atlanta
Lab ID: 0908781-001

Client Sample ID: MW- 13D
Collection Date: 8/12/2009 11:40:00 AM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					(SW3010A)		Analyst: **MAW**
Cadmium	BRL	0.0050		mg/L	117087	1	8/14/2009 2:59 PM
Copper	BRL	0.0100		mg/L	117087	1	8/14/2009 2:59 PM
Lead	BRL	0.0100		mg/L	117087	1	8/14/2009 2:59 PM
Zinc	BRL	0.0200		mg/L	117087	1	8/14/2009 2:59 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *17-Aug-09*

CLIENT: WSP Environmental Strategies Corp
Project: NL-Atlanta
Lab ID: 0908781-002

Client Sample ID: MW-13DD
Collection Date: 8/12/2009 12:30:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					(SW3010A)		Analyst: **MAW**
Cadmium	BRL	0.0050		mg/L	117087	1	8/14/2009 3:02 PM
Copper	BRL	0.0100		mg/L	117087	1	8/14/2009 3:02 PM
Lead	BRL	0.0100		mg/L	117087	1	8/14/2009 3:02 PM
Zinc	BRL	0.0200		mg/L	117087	1	8/14/2009 3:02 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *17-Aug-09*

CLIENT: WSP Environmental Strategies Corp
Project: NL-Atlanta
Lab ID: 0908781-003

Client Sample ID: MW-13ODD
Collection Date: 8/12/2009 1:00:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
METALS, TOTAL SW6010C					(SW3010A)		Analyst: **MAW**
Cadmium	BRL	0.0050		mg/L	117087	1	8/14/2009 3:06 PM
Copper	BRL	0.0100		mg/L	117087	1	8/14/2009 3:06 PM
Lead	BRL	0.0100		mg/L	117087	1	8/14/2009 3:06 PM
Zinc	BRL	0.0200		mg/L	117087	1	8/14/2009 3:06 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

CLIENT: WSP Environmental Strategies Corp
Work Order: 0908781
Project: NL-Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: METALS, TOTAL SW6010C

Sample ID: **MB-117087**	SampType: **MBLK**	Batch ID: **117087**	Units: **mg/L**	Prep Date: **8/14/2009**	RunNo: **153819**
Client ID:	TestCode: **METALS, TOTAL SW6010C**			Analysis Date: **8/14/2009**	SeqNo: **3169058**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	BRL	0.00500	0	0	0	0	0	0	0		
Copper	BRL	0.0100	0	0	0	0	0	0	0		
Lead	BRL	0.0100	0	0	0	0	0	0	0		
Zinc	BRL	0.0200	0	0	0	0	0	0	0		

Sample ID: **LCS-117087**	SampType: **LCS**	Batch ID: **117087**	Units: **mg/L**	Prep Date: **8/14/2009**	RunNo: **153819**
Client ID:	TestCode: **METALS, TOTAL SW6010C**			Analysis Date: **8/14/2009**	SeqNo: **3169042**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.079	0.00500	1	0	108	85	115	0	0		
Copper	1.067	0.0100	1	0	107	85	115	0	0		
Lead	1.071	0.0100	1	0	107	85	115	0	0		
Zinc	1.081	0.0200	1	0	108	85	115	0	0		

Sample ID: **0908682-003AMS**	SampType: **MS**	Batch ID: **117087**	Units: **mg/L**	Prep Date: **8/14/2009**	RunNo: **153819**
Client ID:	TestCode: **METALS, TOTAL SW6010C**			Analysis Date: **8/14/2009**	SeqNo: **3169063**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.059	0.00500	1	0	106	75	125	0	0		
Copper	1.037	0.0100	1	0	104	75	125	0	0		
Lead	1.056	0.0100	1	0	106	75	125	0	0		
Zinc	1.079	0.0200	1	0.005025	107	75	125	0	0		

Qualifiers:

<	Less than Result value	>	Greater than Result value	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

CLIENT: WSP Environmental Strategies Corp
Work Order: 0908781
Project: NL-Atlanta

ANALYTICAL QC SUMMARY REPORT

TestCode: METALS, TOTAL SW6010C

Sample ID: **0908682-003AMSD** SampType: **MSD** Batch ID: **117087** Units: **mg/L** Prep Date: **8/14/2009** RunNo: **153819**
Client ID: TestCode: **METALS, TOTAL SW6010C** Analysis Date: **8/14/2009** SeqNo: **3169071**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	1.078	0.00500	1	0	108	75	125	1.059	1.77	20	
Copper	1.054	0.0100	1	0	105	75	125	1.037	1.55	20	
Lead	1.064	0.0100	1	0	106	75	125	1.056	0.763	20	
Zinc	1.088	0.0200	1	0.005025	108	75	125	1.079	0.821	20	

Qualifiers:

<	Less than Result value	>	Greater than Result value	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

May 23, 2018

Gigi Beaulieu
WSP Environmental Strategies Corp

1740 Massachusetts Ave
Boxborough MA 01719

RE: NL Atlanta

Dear Gigi Beaulieu: Order No: 1805E59

Analytical Environmental Services, Inc. received 16 samples on 5/14/2018 6:10:00 PM
for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES's accreditations are as follows:
-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/17-06/30/18.
State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective 07/01/17-06/30/18 and Total Coliforms/ E. coli, effective 04/25/17-04/24/20.
-NELAP/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/17-06/30/18.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/19.
These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Jessica Shilling

Jessica Shilling

Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1805E59

Date: 05-14-18 Page 1 of 2

COMPANY:	ADDRESS:
WSP	75 Arlington Street 4th Floor Boston, MA 02116
PHONE: 617-960-4845	EMAIL: GIGI.BEAULIEU@WSP.COM
SAMPLED BY: AMB	SIGNATURE: A Beaulieu

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	TCL VOCs	Total Metals	PRESERVATION (see codes) H+I	PRESERVATION (see codes) N	REMARKS	Number of Containers
1	MW-800	05-11-18	12:00	X		GW				X		
2	MW-2	05-11-18	15:50	X		GW				X		
3	MW-7E	05-11-18	17:15	X		GW				X		
4	MW-7D	05-11-18	18:00	X		GW	X	X	X	X		
5	MW-7	05-11-18	19:15	X		GW	X	X	X	X		
6	MW-8	05-11-18	14:25	X		GW				X		
7	MW-1	05-12-18	12:35	X		GW	X	X	X	X		
8	MW-12	05-12-18	14:55	X		GW				X		
9	MW-6	05-14-18	11:05	X		GW	X	X	X	X		
10	MW-9	05-14-18	12:10	X		GW				X		
11	MW-13D	05-14-18	15:30	X		GW	X	X	X	X		
12	MW-13	05-14-18	15:25	X		GW	X	X	X	X		
13	MW-14	05-14-18	16:30	X		GW				X		
14	MW-15	05-14-18	14:15	X		GW				X		

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1. A Beaulieu		1.	05-14-18 06:15
2.		2. Arnaud Johnson	5/14/18
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT: / / VIA:

IN: / / VIA:

(client) FedEx UPS US mail courier Greyhound

other: _____

PROJECT INFORMATION

PROJECT NAME:

PROJECT #:

SITE ADDRESS:

SEND REPORT TO:

INVOICE TO:
(IF DIFFERENT FROM ABOVE)

QUOTE #: _____ PO#: _____

RECEIPT

Total # of Containers

Turnaround Time (TAT) Request

- ☐ Standard 5 Business Days
- ☐ 2 Business Day Rush
- ☐ Next Business Day Rush
- ☐ Same-Day Rush **(auth req.)**
- ☐ Other _____

STATE PROGRAM (if any): _____

E-mail? ☐ Fax? ☐

DATA PACKAGE: I ○ II ○ III ○ IV ○

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

AES

CHAIN OF CUSTODY

Work Order: 180SE59

Date: 05-14-18 Page 2 of 2

COMPANY:	ADDRESS:
WSP	75 Arlington Street 4th Floor Boston, MA 02116
PHONE: 617-960-4845	EMAIL: Gigi.Beaulieu@WSP.com
SAMPLED BY: AMB	SIGNATURE: A. Beaukemire

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	TCL VOCs	REMARKS	Number of Containers
1	TB-051418	NA	NA	NA		NA	X		
2	MW-600	05-14-18	12:00	X		GW	X		
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									

ANALYSIS REQUESTED

PRESERVATION (see codes)

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1. A. Beaukemire		1. 05-14-18	06:15
2.		2. Ariana Johnson	5/14/18 1815
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT: / / VIA:

IN: / / VIA:

client FedEx UPS US mail courier Greyhound

other: _____

PROJECT INFORMATION

PROJECT NAME:

PROJECT #:

SITE ADDRESS:

SEND REPORT TO:

INVOICE TO:
(IF DIFFERENT FROM ABOVE)

QUOTE #:_____ PO#:_____

RECEIPT

Total # of Containers

Turnaround Time (TAT) Request

- ☐ Standard 5 Business Days
- ☐ 2 Business Day Rush
- ☐ Next Business Day Rush
- ☐ Same-Day Rush **(auth req.)**
- ☐ Other _____

STATE PROGRAM (if any): _____

E-mail? ☐ Fax? ☐

DATA PACKAGE: I ○ II ○ III ○ IV ○

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Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Client: WSP Environmental Strategies Corp
Project: NL Atlanta
Lab ID: 1805E59

Case Narrative

Sample Receiving Nonconformance:

For sample 1805E59-0010, vials were received for VOC testing but not listed on the Chain of Custody. Per Gigi Beaulieu via email on 5/16/2018 at 10:37 am, analyze sample MW-9 for volatiles analysis.

Volatiles Organic Compounds Analysis by Method 8260B:

Due to sample matrix, samples 1805E59-009A, & -016A required dilution during preparation and/or analysis resulting in elevated reporting limits.

Analytical Environmental Services, Inc **Date:** 23-May-18

Client:	WSP Environmental Strategies Corp	**Client Sample ID:**	MW-800
Project Name:	NL Atlanta	**Collection Date:**	5/11/2018 12:00:00 PM
Lab ID:	1805E59-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010D				**(SW3010A)**				
Cadmium	BRL	0.0050		mg/L	260911	1	05/18/2018 23:32	DG
Copper	BRL	0.0100		mg/L	260911	1	05/18/2018 23:32	DG
Lead	0.0476	0.0100		mg/L	260911	1	05/18/2018 23:32	DG
Zinc	BRL	0.0200		mg/L	260911	1	05/18/2018 23:32	DG

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 23-May-18

Client:	WSP Environmental Strategies Corp	**Client Sample ID:**	MW-2
Project Name:	NL Atlanta	**Collection Date:**	5/11/2018 3:50:00 PM
Lab ID:	1805E59-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010D				**(SW3010A)**				
Cadmium	0.0234	0.0050		mg/L	260911	1	05/18/2018 14:21	DG
Copper	0.0108	0.0100		mg/L	260911	1	05/18/2018 14:21	DG
Lead	BRL	0.0100		mg/L	260911	1	05/18/2018 14:21	DG
Zinc	0.692	0.0200		mg/L	260911	1	05/18/2018 14:21	DG

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 23-May-18

Client:	WSP Environmental Strategies Corp	**Client Sample ID:**	MW-7E
Project Name:	NL Atlanta	**Collection Date:**	5/11/2018 5:15:00 PM
Lab ID:	1805E59-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010D				**(SW3010A)**				
Cadmium	BRL	0.0050		mg/L	260911	1	05/18/2018 23:38	DG
Copper	BRL	0.0100		mg/L	260911	1	05/18/2018 23:38	DG
Lead	BRL	0.0100		mg/L	260911	1	05/18/2018 23:38	DG
Zinc	BRL	0.0200		mg/L	260911	1	05/18/2018 23:38	DG

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 23-May-18

Client:	WSP Environmental Strategies Corp	**Client Sample ID:**	MW-7D
Project Name:	NL Atlanta	**Collection Date:**	5/11/2018 6:00:00 PM
Lab ID:	1805E59-004	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Benzene	BRL	5.0		ug/L	260841	1	05/17/2018 19:27	CC
Ethylbenzene	BRL	5.0		ug/L	260841	1	05/17/2018 19:27	CC
Naphthalene	BRL	5.0		ug/L	260841	1	05/17/2018 19:27	CC
Methyl tert-butyl ether	BRL	5.0		ug/L	260841	1	05/17/2018 19:27	CC
m,p-Xylene	BRL	5.0		ug/L	260841	1	05/17/2018 19:27	CC
o-Xylene	BRL	5.0		ug/L	260841	1	05/17/2018 19:27	CC
Toluene	BRL	5.0		ug/L	260841	1	05/17/2018 19:27	CC
Surr: 4-Bromofluorobenzene	97.2	68-127		%REC	260841	1	05/17/2018 19:27	CC
Surr: Dibromofluoromethane	100	84.4-122		%REC	260841	1	05/17/2018 19:27	CC
Surr: Toluene-d8	80.3	80.1-116		%REC	260841	1	05/17/2018 19:27	CC
METALS, TOTAL SW6010D				**(SW3010A)**				
Cadmium	0.0197	0.0050		mg/L	260911	1	05/18/2018 22:15	DG
Copper	0.0415	0.0100		mg/L	260911	1	05/18/2018 22:15	DG
Lead	BRL	0.0100		mg/L	260911	1	05/18/2018 22:15	DG
Zinc	0.242	0.0200		mg/L	260911	1	05/23/2018 13:05	TA

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 23-May-18

Client:	WSP Environmental Strategies Corp	**Client Sample ID:**	MW-7
Project Name:	NL Atlanta	**Collection Date:**	5/11/2018 7:15:00 PM
Lab ID:	1805E59-005	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Benzene	BRL	5.0		ug/L	260841	1	05/17/2018 19:54	CC
Ethylbenzene	BRL	5.0		ug/L	260841	1	05/17/2018 19:54	CC
Naphthalene	BRL	5.0		ug/L	260841	1	05/17/2018 19:54	CC
Methyl tert-butyl ether	BRL	5.0		ug/L	260841	1	05/17/2018 19:54	CC
m,p-Xylene	BRL	5.0		ug/L	260841	1	05/17/2018 19:54	CC
o-Xylene	BRL	5.0		ug/L	260841	1	05/17/2018 19:54	CC
Toluene	BRL	5.0		ug/L	260841	1	05/17/2018 19:54	CC
Surr: 4-Bromofluorobenzene	99.9	68-127		%REC	260841	1	05/17/2018 19:54	CC
Surr: Dibromofluoromethane	97.1	84.4-122		%REC	260841	1	05/17/2018 19:54	CC
Surr: Toluene-d8	91.1	80.1-116		%REC	260841	1	05/17/2018 19:54	CC
METALS, TOTAL SW6010D				**(SW3010A)**				
Cadmium	BRL	0.0050		mg/L	260911	1	05/18/2018 22:56	DG
Copper	BRL	0.0100		mg/L	260911	1	05/18/2018 22:56	DG
Lead	0.0510	0.0100		mg/L	260911	1	05/18/2018 22:56	DG
Zinc	BRL	0.0200		mg/L	260911	1	05/18/2018 22:56	DG

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 23-May-18

Client:	WSP Environmental Strategies Corp	**Client Sample ID:**	MW-8
Project Name:	NL Atlanta	**Collection Date:**	5/11/2018 2:25:00 PM
Lab ID:	1805E59-006	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010D				**(SW3010A)**				
Cadmium	BRL	0.0050		mg/L	260911	1	05/18/2018 22:58	DG
Copper	BRL	0.0100		mg/L	260911	1	05/18/2018 22:58	DG
Lead	0.0469	0.0100		mg/L	260911	1	05/18/2018 22:58	DG
Zinc	BRL	0.0200		mg/L	260911	1	05/18/2018 22:58	DG

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 23-May-18

Client:	WSP Environmental Strategies Corp	**Client Sample ID:**	MW-1
Project Name:	NL Atlanta	**Collection Date:**	5/12/2018 12:35:00 PM
Lab ID:	1805E59-007	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Benzene	BRL	5.0		ug/L	260841	1	05/17/2018 21:42	CC
Ethylbenzene	BRL	5.0		ug/L	260841	1	05/17/2018 21:42	CC
Naphthalene	BRL	5.0		ug/L	260841	1	05/17/2018 21:42	CC
Methyl tert-butyl ether	BRL	5.0		ug/L	260841	1	05/17/2018 21:42	CC
m,p-Xylene	10	5.0		ug/L	260841	1	05/17/2018 21:42	CC
o-Xylene	BRL	5.0		ug/L	260841	1	05/17/2018 21:42	CC
Toluene	BRL	5.0		ug/L	260841	1	05/17/2018 21:42	CC
Surr: 4-Bromofluorobenzene	97.2	68-127		%REC	260841	1	05/17/2018 21:42	CC
Surr: Dibromofluoromethane	104	84.4-122		%REC	260841	1	05/17/2018 21:42	CC
Surr: Toluene-d8	92.7	80.1-116		%REC	260841	1	05/17/2018 21:42	CC
METALS, TOTAL SW6010D				**(SW3010A)**				
Cadmium	BRL	0.0050		mg/L	260911	1	05/18/2018 23:26	DG
Copper	BRL	0.0100		mg/L	260911	1	05/18/2018 23:26	DG
Lead	0.101	0.0100		mg/L	260911	1	05/18/2018 23:26	DG
Zinc	0.0312	0.0200		mg/L	260911	1	05/22/2018 21:31	TA

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 23-May-18

Client:	WSP Environmental Strategies Corp	**Client Sample ID:**	MW-12
Project Name:	NL Atlanta	**Collection Date:**	5/12/2018 2:55:00 PM
Lab ID:	1805E59-008	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010D				**(SW3010A)**				
Cadmium	BRL	0.0050		mg/L	260911	1	05/18/2018 22:13	DG
Copper	BRL	0.0100		mg/L	260911	1	05/18/2018 22:13	DG
Lead	BRL	0.0100		mg/L	260911	1	05/18/2018 22:13	DG
Zinc	BRL	0.0200		mg/L	260911	1	05/18/2018 22:13	DG

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 23-May-18

Client:	WSP Environmental Strategies Corp	**Client Sample ID:**	MW-6
Project Name:	NL Atlanta	**Collection Date:**	5/14/2018 11:05:00 AM
Lab ID:	1805E59-009	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Benzene	BRL	250		ug/L	260841	50	05/17/2018 18:33	CC
Ethylbenzene	1900	250		ug/L	260841	50	05/17/2018 18:33	CC
Naphthalene	460	250		ug/L	260841	50	05/17/2018 18:33	CC
Methyl tert-butyl ether	BRL	250		ug/L	260841	50	05/17/2018 18:33	CC
m,p-Xylene	4700	250		ug/L	260841	50	05/17/2018 18:33	CC
o-Xylene	1500	250		ug/L	260841	50	05/17/2018 18:33	CC
Toluene	4300	250		ug/L	260841	50	05/17/2018 18:33	CC
Surr: 4-Bromofluorobenzene	94.1	68-127		%REC	260841	50	05/17/2018 18:33	CC
Surr: Dibromofluoromethane	92.1	84.4-122		%REC	260841	50	05/17/2018 18:33	CC
Surr: Toluene-d8	89.5	80.1-116		%REC	260841	50	05/17/2018 18:33	CC
METALS, TOTAL SW6010D				**(SW3010A)**				
Cadmium	BRL	0.0050		mg/L	260911	1	05/18/2018 22:54	DG
Copper	BRL	0.0100		mg/L	260911	1	05/18/2018 22:54	DG
Lead	BRL	0.0100		mg/L	260911	1	05/18/2018 22:54	DG
Zinc	BRL	0.0200		mg/L	260911	1	05/18/2018 22:54	DG

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 23-May-18

Client:	WSP Environmental Strategies Corp	**Client Sample ID:**	MW-9
Project Name:	NL Atlanta	**Collection Date:**	5/14/2018 12:10:00 PM
Lab ID:	1805E59-010	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Benzene	BRL	5.0		ug/L	260841	1	05/17/2018 20:21	CC
Ethylbenzene	10	5.0		ug/L	260841	1	05/17/2018 20:21	CC
Naphthalene	5.6	5.0		ug/L	260841	1	05/17/2018 20:21	CC
Methyl tert-butyl ether	BRL	5.0		ug/L	260841	1	05/17/2018 20:21	CC
m,p-Xylene	32	5.0		ug/L	260841	1	05/17/2018 20:21	CC
o-Xylene	8.8	5.0		ug/L	260841	1	05/17/2018 20:21	CC
Toluene	8.8	5.0		ug/L	260841	1	05/17/2018 20:21	CC
Surr: 4-Bromofluorobenzene	101	68-127		%REC	260841	1	05/17/2018 20:21	CC
Surr: Dibromofluoromethane	102	84.4-122		%REC	260841	1	05/17/2018 20:21	CC
Surr: Toluene-d8	88.7	80.1-116		%REC	260841	1	05/17/2018 20:21	CC
METALS, TOTAL SW6010D				**(SW3010A)**				
Cadmium	BRL	0.0050		mg/L	260911	1	05/18/2018 23:00	DG
Copper	0.0127	0.0100		mg/L	260911	1	05/18/2018 23:00	DG
Lead	BRL	0.0100		mg/L	260911	1	05/18/2018 23:00	DG
Zinc	0.659	0.0200		mg/L	260911	1	05/22/2018 21:35	TA

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 23-May-18

Client:	WSP Environmental Strategies Corp	**Client Sample ID:**	MW-13D
Project Name:	NL Atlanta	**Collection Date:**	5/14/2018 3:30:00 PM
Lab ID:	1805E59-011	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Benzene	BRL	5.0		ug/L	260841	1	05/17/2018 20:48	CC
Ethylbenzene	BRL	5.0		ug/L	260841	1	05/17/2018 20:48	CC
Naphthalene	BRL	5.0		ug/L	260841	1	05/17/2018 20:48	CC
Methyl tert-butyl ether	BRL	5.0		ug/L	260841	1	05/17/2018 20:48	CC
m,p-Xylene	BRL	5.0		ug/L	260841	1	05/17/2018 20:48	CC
o-Xylene	BRL	5.0		ug/L	260841	1	05/17/2018 20:48	CC
Toluene	BRL	5.0		ug/L	260841	1	05/17/2018 20:48	CC
Surr: 4-Bromofluorobenzene	90	68-127		%REC	260841	1	05/17/2018 20:48	CC
Surr: Dibromofluoromethane	98.1	84.4-122		%REC	260841	1	05/17/2018 20:48	CC
Surr: Toluene-d8	90.3	80.1-116		%REC	260841	1	05/17/2018 20:48	CC
METALS, TOTAL SW6010D				**(SW3010A)**				
Cadmium	BRL	0.0050		mg/L	260911	1	05/18/2018 23:06	DG
Copper	BRL	0.0100		mg/L	260911	1	05/18/2018 23:06	DG
Lead	BRL	0.0100		mg/L	260911	1	05/18/2018 23:06	DG
Zinc	BRL	0.0200		mg/L	260911	1	05/18/2018 23:06	DG

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 23-May-18

Client:	WSP Environmental Strategies Corp	**Client Sample ID:**	MW-13
Project Name:	NL Atlanta	**Collection Date:**	5/14/2018 3:25:00 PM
Lab ID:	1805E59-012	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				**(SW5030B)**				
Benzene	BRL	5.0		ug/L	260841	1	05/17/2018 21:15	CC
Ethylbenzene	BRL	5.0		ug/L	260841	1	05/17/2018 21:15	CC
Naphthalene	BRL	5.0		ug/L	260841	1	05/17/2018 21:15	CC
Methyl tert-butyl ether	BRL	5.0		ug/L	260841	1	05/17/2018 21:15	CC
m,p-Xylene	BRL	5.0		ug/L	260841	1	05/17/2018 21:15	CC
o-Xylene	BRL	5.0		ug/L	260841	1	05/17/2018 21:15	CC
Toluene	BRL	5.0		ug/L	260841	1	05/17/2018 21:15	CC
Surr: 4-Bromofluorobenzene	96	68-127		%REC	260841	1	05/17/2018 21:15	CC
Surr: Dibromofluoromethane	98	84.4-122		%REC	260841	1	05/17/2018 21:15	CC
Surr: Toluene-d8	89.6	80.1-116		%REC	260841	1	05/17/2018 21:15	CC
METALS, TOTAL SW6010D				**(SW3010A)**				
Cadmium	BRL	0.0050		mg/L	260911	1	05/18/2018 23:08	DG
Copper	BRL	0.0100		mg/L	260911	1	05/18/2018 23:08	DG
Lead	BRL	0.0100		mg/L	260911	1	05/18/2018 23:08	DG
Zinc	BRL	0.0200		mg/L	260911	1	05/18/2018 23:08	DG

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 23-May-18

Client:	WSP Environmental Strategies Corp	**Client Sample ID:**	MW-14
Project Name:	NL Atlanta	**Collection Date:**	5/14/2018 4:30:00 PM
Lab ID:	1805E59-013	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010D (SW3010A)								
Cadmium	0.0059	0.0050		mg/L	260911	1	05/18/2018 23:22	DG
Copper	BRL	0.0100		mg/L	260911	1	05/18/2018 23:22	DG
Lead	BRL	0.0100		mg/L	260911	1	05/18/2018 23:22	DG
Zinc	0.0975	0.0200		mg/L	260911	1	05/22/2018 21:39	TA

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 23-May-18

Client:	WSP Environmental Strategies Corp	**Client Sample ID:**	MW-15
Project Name:	NL Atlanta	**Collection Date:**	5/14/2018 2:15:00 PM
Lab ID:	1805E59-014	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010D				**(SW3010A)**				
Cadmium	BRL	0.0050		mg/L	260911	1	05/18/2018 23:24	DG
Copper	BRL	0.0100		mg/L	260911	1	05/18/2018 23:24	DG
Lead	BRL	0.0100		mg/L	260911	1	05/18/2018 23:24	DG
Zinc	BRL	0.0200		mg/L	260911	1	05/18/2018 23:24	DG

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 23-May-18

Client:	WSP Environmental Strategies Corp	**Client Sample ID:**	TB-051418
Project Name:	NL Atlanta	**Collection Date:**	5/14/2018
Lab ID:	1805E59-015	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Benzene	BRL	5.0		ug/L	260841	1	05/17/2018 17:11	CC
Ethylbenzene	BRL	5.0		ug/L	260841	1	05/17/2018 17:11	CC
Naphthalene	BRL	5.0		ug/L	260841	1	05/17/2018 17:11	CC
Methyl tert-butyl ether	BRL	5.0		ug/L	260841	1	05/17/2018 17:11	CC
m,p-Xylene	BRL	5.0		ug/L	260841	1	05/17/2018 17:11	CC
o-Xylene	BRL	5.0		ug/L	260841	1	05/17/2018 17:11	CC
Toluene	BRL	5.0		ug/L	260841	1	05/17/2018 17:11	CC
Surr: 4-Bromofluorobenzene	90	68-127		%REC	260841	1	05/17/2018 17:11	CC
Surr: Dibromofluoromethane	107	84.4-122		%REC	260841	1	05/17/2018 17:11	CC
Surr: Toluene-d8	92.6	80.1-116		%REC	260841	1	05/17/2018 17:11	CC

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 23-May-18

Client:	WSP Environmental Strategies Corp	**Client Sample ID:**	MW-600
Project Name:	NL Atlanta	**Collection Date:**	5/14/2018 12:00:00 PM
Lab ID:	1805E59-016	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Benzene	BRL	250		ug/L	260841	50	05/17/2018 19:00	CC
Ethylbenzene	1900	250		ug/L	260841	50	05/17/2018 19:00	CC
Naphthalene	650	250		ug/L	260841	50	05/17/2018 19:00	CC
Methyl tert-butyl ether	BRL	250		ug/L	260841	50	05/17/2018 19:00	CC
m,p-Xylene	4700	250		ug/L	260841	50	05/17/2018 19:00	CC
o-Xylene	1400	250		ug/L	260841	50	05/17/2018 19:00	CC
Toluene	4200	250		ug/L	260841	50	05/17/2018 19:00	CC
Surr: 4-Bromofluorobenzene	92.4	68-127		%REC	260841	50	05/17/2018 19:00	CC
Surr: Dibromofluoromethane	98.1	84.4-122		%REC	260841	50	05/17/2018 19:00	CC
Surr: Toluene-d8	88.6	80.1-116		%REC	260841	50	05/17/2018 19:00	CC

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Clear Save as

ANALYTICAL ENVIRONMENTAL SERVICES, INC. AES

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: **WSP Environment & Energy** AES Work Order Number: **1805E59**

2. Carrier: FedEx ☐ UPS ☐ USPS ☐ Client ■ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	○	●	○		
5.	Custody seals intact on shipping container?	○	○	●		
6.	Temperature blanks present?	●	○	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	●	○	○		
11.	Were all samples received within holding time?	●	○	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 3.7 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). AJJ 5/14/18

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	●	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	○	●	○	samples received but not listed on COC ■ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	●	○	○		
26.	Were trip blanks submitted?	●	○	○	listed on COC ■ not listed on COC ☐	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). ES 5/15/18

This section only applies to samples where pH can be checked at Sample Receipt.

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	●	○	○		
29.	Containers meet preservation guidelines?	●	○	○		
30.	Was pH adjusted at Sample Receipt?	○	○	●		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). ES 5/15/18

Locked

Client: WSP Environmental Strategies Corp
Project Name: NL Atlanta
Workorder: 1805E59

ANALYTICAL QC SUMMARY REPORT

BatchID: 260841

Sample ID: **MB-260841** Client ID: Units: **ug/L** Prep Date: **05/17/2018** Run No: **370509**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **260841** Analysis Date: **05/17/2018** Seq No: **8215801**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	BRL	5.0									
Ethylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Naphthalene	BRL	5.0									
o-Xylene	BRL	5.0									
Toluene	BRL	5.0									
Surr: 4-Bromofluorobenzene	48.82	0	50.00		97.6	68	127				
Surr: Dibromofluoromethane	51.82	0	50.00		104	84.4	122				
Surr: Toluene-d8	51.54	0	50.00		103	80.1	116				

Sample ID: **LCS-260841** Client ID: Units: **ug/L** Prep Date: **05/17/2018** Run No: **370509**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **260841** Analysis Date: **05/17/2018** Seq No: **8215800**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	45.51	5.0	50.00		91.0	73.7	126				
Toluene	46.59	5.0	50.00		93.2	76.8	125				
Surr: 4-Bromofluorobenzene	48.44	0	50.00		96.9	68	127				
Surr: Dibromofluoromethane	50.09	0	50.00		100	84.4	122				
Surr: Toluene-d8	50.86	0	50.00		102	80.1	116				

Sample ID: **1805E61-001AMS** Client ID: Units: **ug/L** Prep Date: **05/17/2018** Run No: **370509**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **260841** Analysis Date: **05/17/2018** Seq No: **8215803**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	48.12	5.0	50.00		96.2	66.1	137				
Toluene	50.91	5.0	50.00		102	63.8	141				
Surr: 4-Bromofluorobenzene	47.07	0	50.00		94.1	68	127				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: WSP Environmental Strategies Corp
Project Name: NL Atlanta
Workorder: 1805E59

ANALYTICAL QC SUMMARY REPORT

BatchID: 260841

Sample ID: **1805E61-001AMS**	Client ID:				Units: **ug/L**		Prep Date: **05/17/2018**		Run No: **370509**	
SampleType: **MS**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**				BatchID: **260841**		Analysis Date: **05/17/2018**		Seq No: **8215803**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Dibromofluoromethane	52.70	0	50.00		105	84.4	122				
Surr: Toluene-d8	50.70	0	50.00		101	80.1	116				

Sample ID: **1805E61-001AMSD**	Client ID:				Units: **ug/L**		Prep Date: **05/17/2018**		Run No: **370509**	
SampleType: **MSD**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**				BatchID: **260841**		Analysis Date: **05/17/2018**		Seq No: **8215804**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	47.95	5.0	50.00		95.9	66.1	137	48.12	0.354	20	
Toluene	50.66	5.0	50.00		101	63.8	141	50.91	0.492	20	
Surr: 4-Bromofluorobenzene	47.35	0	50.00		94.7	68	127	47.07	0	0	
Surr: Dibromofluoromethane	53.31	0	50.00		107	84.4	122	52.70	0	0	
Surr: Toluene-d8	52.50	0	50.00		105	80.1	116	50.70	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: WSP Environmental Strategies Corp
Project Name: NL Atlanta
Workorder: 1805E59

ANALYTICAL QC SUMMARY REPORT

BatchID: 260911

Sample ID: **MB-260911**	Client ID:			Units: **mg/L**	Prep Date: **05/17/2018**	Run No: **370720**
SampleType: **MBLK**	TestCode: **METALS, TOTAL** **SW6010D**			BatchID: **260911**	Analysis Date: **05/18/2018**	Seq No: **8220430**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Cadmium	BRL	0.0050									
Copper	BRL	0.0100									
Lead	BRL	0.0100									
Zinc	BRL	0.0200									

Sample ID: **LCS-260911**	Client ID:			Units: **mg/L**	Prep Date: **05/17/2018**	Run No: **370720**
SampleType: **LCS**	TestCode: **METALS, TOTAL** **SW6010D**			BatchID: **260911**	Analysis Date: **05/18/2018**	Seq No: **8220172**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Cadmium	1.084	0.0050	1.000		108	80	120				
Copper	1.090	0.0100	1.000		109	80	120				
Lead	1.102	0.0100	1.000		110	80	120				
Zinc	1.078	0.0200	1.000		108	80	120				

Sample ID: **1805E59-002AMS**	Client ID: **MW-2**			Units: **mg/L**	Prep Date: **05/17/2018**	Run No: **370720**
SampleType: **MS**	TestCode: **METALS, TOTAL** **SW6010D**			BatchID: **260911**	Analysis Date: **05/18/2018**	Seq No: **8220181**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Cadmium	1.060	0.0050	1.000	0.02345	104	75	125				
Copper	1.045	0.0100	1.000	0.01082	103	75	125				
Lead	1.018	0.0100	1.000		102	75	125				
Zinc	1.706	0.0200	1.000	0.6916	101	75	125				

Sample ID: **1805E59-002AMSD**	Client ID: **MW-2**			Units: **mg/L**	Prep Date: **05/17/2018**	Run No: **370720**
SampleType: **MSD**	TestCode: **METALS, TOTAL** **SW6010D**			BatchID: **260911**	Analysis Date: **05/18/2018**	Seq No: **8220183**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Cadmium	1.022	0.0050	1.000	0.02345	99.9	75	125	1.060	3.62	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: WSP Environmental Strategies Corp
Project Name: NL Atlanta
Workorder: 1805E59

ANALYTICAL QC SUMMARY REPORT

BatchID: 260911

Sample ID: **1805E59-002AMSD** Client ID: **MW-2** Units: **mg/L** Prep Date: **05/17/2018** Run No: **370720**
SampleType: **MSD** TestCode: **METALS, TOTAL SW6010D** BatchID: **260911** Analysis Date: **05/18/2018** Seq No: **8220183**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Copper	1.004	0.0100	1.000	0.01082	99.3	75	125	1.045	4.04	20	
Lead	0.9795	0.0100	1.000		98.0	75	125	1.018	3.86	20	
Zinc	1.650	0.0200	1.000	0.6916	95.9	75	125	1.706	3.33	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

APPENDIX

F SLUG TEST DATA

ENVIRONMENTAL STRATEGIES CONSULTING LLC
300 Corporate Center Drive, Suite 200
Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-1**	**Slug test:**	**MW-1 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-1
Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0.9	7.22	-2.58
2	1.2	7.30	-2.50
3	2.1	7.68	-2.12
4	2.7	8.01	-1.79
5	3	7.91	-1.89
6	3.3	7.70	-2.10
7	3.6	7.81	-1.99
8	4.2	8.22	-1.58
9	4.5	8.42	-1.38
10	4.8	8.55	-1.25
11	5.1	8.46	-1.34
12	5.4	8.52	-1.28
13	5.7	8.53	-1.27
14	6	8.55	-1.25
15	6.4	8.58	-1.22
16	6.7	8.60	-1.20
17	7.1	8.63	-1.17
18	7.5	8.66	-1.15
19	8	8.68	-1.12
20	8.4	8.71	-1.09
21	8.9	8.73	-1.07
22	9.5	8.76	-1.04
23	10	8.79	-1.01
24	10.6	8.82	-0.98
25	11.3	8.85	-0.95
26	11.9	8.88	-0.92
27	12.6	8.91	-0.89
28	13.4	8.94	-0.86
29	14.2	8.97	-0.83
30	15	9.00	-0.80
31	15.9	9.03	-0.77

ENVIRONMENTAL STRATEGIES CONSULTING LLC
300 Corporate Center Drive, Suite 200
Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-1**	**Slug test:**	**MW-1 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-1
Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	16.8	9.06	-0.74
33	17.8	9.08	-0.72
34	18.9	9.12	-0.69
35	20	9.14	-0.66
36	21.2	9.24	-0.56
37	22.4	9.20	-0.60
38	23.8	9.22	-0.58
39	25.2	9.24	-0.56
40	26.7	9.27	-0.53
41	28.2	9.29	-0.51
42	29.8	9.33	-0.47
43	31.5	9.35	-0.45
44	33.3	9.37	-0.43
45	35.2	9.38	-0.42
46	37.3	9.41	-0.39
47	39.5	9.42	-0.38
48	41.8	9.44	-0.36
49	44.3	9.46	-0.34
50	46.9	9.47	-0.33
51	49.7	9.49	-0.31
52	52.6	9.50	-0.30
53	55.7	9.52	-0.28
54	59	9.53	-0.27
55	62.5	9.54	-0.26
56	66.2	9.55	-0.25
57	70.1	9.57	-0.24
58	74.3	9.58	-0.22
59	78.7	9.59	-0.21
60	83.4	9.59	-0.21
61	88.4	9.60	-0.20
62	93.7	9.61	-0.19

ENVIRONMENTAL STRATEGIES CONSULTING LLC
300 Corporate Center Drive, Suite 200
Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-1**	**Slug test:**	**MW-1 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-1
Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	99.3	9.62	-0.18
64	105.2	9.63	-0.17
65	111.5	9.64	-0.16
66	118.1	9.65	-0.16
67	125.1	9.65	-0.15
68	132.6	9.66	-0.14
69	140.5	9.66	-0.14
70	148.9	9.67	-0.13
71	157.8	9.68	-0.12
72	167.2	9.68	-0.12
73	177.2	9.68	-0.12
74	187.2	9.69	-0.11
75	197.2	9.70	-0.10
76	207.2	9.70	-0.10
77	217.2	9.71	-0.09
78	227.2	9.72	-0.09
79	237.2	9.72	-0.08
80	247.2	9.72	-0.08
81	257.2	9.73	-0.07
82	267.2	9.73	-0.07
83	277.2	9.74	-0.07
84	287.2	9.74	-0.06
85	297.2	9.74	-0.06
86	307.2	9.74	-0.06
87	317.2	9.75	-0.05
88	327.2	9.75	-0.05
89	337.2	9.75	-0.05
90	347.2	9.76	-0.04
91	357.2	9.74	-0.06
92	367.2	9.76	-0.04
93	377.2	9.76	-0.04

ENVIRONMENTAL STRATEGIES CONSULTING LLC
300 Corporate Center Drive, Suite 200
Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-1**	**Slug test:**	**MW-1 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-1
Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
94	387.2	9.76	-0.04
95	397.2	9.76	-0.04
96	407.2	9.77	-0.03
97	417.2	9.77	-0.03
98	427.2	9.77	-0.03
99	437.2	9.77	-0.03
100	447.2	9.78	-0.03
101	457.2	9.78	-0.03
102	467.2	9.77	-0.03
103	477.2	9.78	-0.03
104	487.2	9.78	-0.02
105	497.2	9.78	-0.02
106	507.2	9.78	-0.02
107	517.2	9.78	-0.02
108	527.2	9.78	-0.02
109	537.2	9.78	-0.02
110	547.2	9.79	-0.01
111	557.2	9.79	-0.01
112	567.2	9.79	-0.01
113	577.2	9.79	-0.01
114	587.2	9.79	-0.01
115	597.2	9.79	-0.01
116	607.2	9.79	-0.01
117	617.2	9.79	-0.01
118	627.2	9.79	-0.01
119	637.2	9.79	-0.01
120	647.2	9.79	-0.01
121	657.2	9.80	-0.01
122	667.2	9.79	-0.01
123	677.2	9.80	-0.01
124	687.2	9.80	-0.01

ENVIRONMENTAL STRATEGIES CONSULTING LLC
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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-1**	**Slug test:**	**MW-1 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-1
Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
125	697.2	9.80	-0.01
126	707.2	9.80	-0.01
127	717.2	9.80	-0.01
128	727.2	9.80	0.00
129	737.2	9.80	0.00
130	747.2	9.80	0.00

ENVIRONMENTAL STRATEGIES CONSULTING LLC
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Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-1**	**Slug test:**	**MW-1 Falling Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-1
Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	2.1	7.82	-1.98
2	2.4	8.40	-1.40
3	2.7	8.29	-1.52
4	3	8.40	-1.40
5	3.3	8.29	-1.51
6	3.6	8.37	-1.43
7	3.9	8.43	-1.37
8	4.2	8.48	-1.32
9	4.5	8.16	-1.64
10	5.1	8.25	-1.55
11	5.4	8.66	-1.14
12	5.7	8.52	-1.28
13	6	8.59	-1.21
14	6.4	8.62	-1.18
15	6.7	8.64	-1.16
16	7.1	8.66	-1.14
17	7.5	8.69	-1.11
18	8	8.71	-1.09
19	8.4	8.74	-1.06
20	8.9	8.76	-1.04
21	9.5	8.79	-1.01
22	10	8.82	-0.98
23	10.6	8.85	-0.95
24	11.3	8.88	-0.92
25	11.9	8.91	-0.89
26	12.6	8.94	-0.86
27	13.4	8.96	-0.84
28	14.2	8.99	-0.81
29	15	9.02	-0.78
30	15.9	9.05	-0.75
31	16.8	9.08	-0.72

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-1**	**Slug test:**	**MW-1 Falling Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-1
Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	17.8	9.11	-0.69
33	18.9	9.09	-0.71
34	20	9.15	-0.65
35	21.2	9.20	-0.60
36	22.4	9.22	-0.58
37	23.8	9.24	-0.56
38	25.2	9.28	-0.53
39	26.7	9.30	-0.50
40	28.2	9.32	-0.48
41	29.8	9.35	-0.45
42	31.5	9.37	-0.43
43	33.3	9.39	-0.41
44	35.2	9.41	-0.39
45	37.3	9.43	-0.37
46	39.5	9.45	-0.36
47	41.8	9.46	-0.34
48	44.3	9.48	-0.32
49	46.9	9.49	-0.31
50	49.7	9.51	-0.29
51	52.6	9.53	-0.28
52	55.7	9.54	-0.26
53	59	9.55	-0.25
54	62.5	9.57	-0.24
55	66.2	9.58	-0.22
56	70.1	9.59	-0.21
57	74.3	9.60	-0.20
58	78.7	9.61	-0.19
59	83.4	9.62	-0.18
60	88.4	9.63	-0.17
61	93.7	9.64	-0.16
62	99.3	9.64	-0.16

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-1**	**Slug test:**	**MW-1 Falling Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-1
Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	105.2	9.65	-0.15
64	111.5	9.67	-0.13
65	118.1	9.67	-0.13
66	125.1	9.68	-0.12
67	132.6	9.68	-0.12
68	140.5	9.69	-0.11
69	148.9	9.70	-0.11
70	157.8	9.71	-0.09
71	167.2	9.71	-0.09
72	177.2	9.71	-0.09
73	187.2	9.72	-0.08
74	197.2	9.72	-0.08
75	207.2	9.73	-0.07
76	217.2	9.74	-0.07
77	227.2	9.74	-0.06
78	237.2	9.74	-0.06
79	247.2	9.75	-0.05
80	257.2	9.75	-0.05
81	267.2	9.76	-0.04
82	277.2	9.76	-0.04
83	287.2	9.77	-0.03
84	297.2	9.77	-0.03
85	307.2	9.77	-0.03
86	317.2	9.77	-0.03
87	327.2	9.78	-0.02
88	337.2	9.78	-0.02
89	347.2	9.78	-0.02
90	357.2	9.78	-0.02
91	367.2	9.79	-0.01
92	377.2	9.79	-0.01
93	387.2	9.79	-0.01

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-1**	**Slug test:**	**MW-1 Falling Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-1
Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
94	397.2	9.80	0.00
95	407.2	9.79	-0.01
96	417.2	9.80	0.00
97	427.2	9.80	0.00

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Slug Test Data Report

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Client: NL Industries

Data observed at:	**MW-1**	**Slug test:**	**MW-1 Rising Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-1
Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0.6	12.12	2.32
2	0.9	11.94	2.14
3	1.2	11.86	2.06
4	1.5	11.80	2.00
5	1.8	11.74	1.94
6	2.1	11.68	1.88
7	2.4	11.62	1.82
8	2.7	11.57	1.77
9	3	11.52	1.72
10	3.3	11.47	1.67
11	3.6	11.42	1.62
12	3.9	11.38	1.57
13	4.2	11.33	1.53
14	4.5	11.29	1.49
15	4.8	11.24	1.44
16	5.1	11.20	1.40
17	5.4	11.16	1.36
18	5.7	11.12	1.32
19	6	11.09	1.29
20	6.4	11.04	1.24
21	6.7	11.00	1.20
22	7.1	10.96	1.16
23	7.5	10.92	1.12
24	8	10.87	1.07
25	8.4	10.83	1.03
26	8.9	10.79	0.99
27	9.5	10.74	0.94
28	10	10.71	0.91
29	10.6	10.67	0.87
30	11.3	10.63	0.83
31	11.9	10.60	0.80

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Slug Test Data Report

Project: National Smelting CSR

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Client: NL Industries

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Distance from PW:	0 [ft]	Test well:	MW-1
Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	12.6	10.57	0.77
33	13.4	10.53	0.73
34	14.2	10.51	0.71
35	15	10.48	0.68
36	15.9	10.46	0.66
37	16.8	10.43	0.63
38	17.8	10.41	0.61
39	18.9	10.39	0.59
40	20	10.37	0.57
41	21.2	10.35	0.55
42	22.4	10.34	0.54
43	23.8	10.33	0.53
44	25.2	10.31	0.51
45	26.7	10.30	0.49
46	28.2	10.28	0.48
47	29.8	10.26	0.46
48	31.5	10.25	0.45
49	33.3	10.25	0.45
50	35.2	10.24	0.44
51	37.3	10.22	0.42
52	39.5	10.21	0.41
53	41.8	10.20	0.40
54	44.3	10.19	0.39
55	46.9	10.18	0.38
56	49.7	10.17	0.37
57	52.6	10.16	0.36
58	55.7	10.14	0.34
59	59	10.14	0.33
60	62.5	10.12	0.32
61	66.2	10.12	0.31
62	70.1	10.10	0.30

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Slug Test Data Report

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Data observed at:	**MW-1**	**Slug test:**	**MW-1 Rising Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-1
Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	74.3	10.10	0.29
64	78.7	10.08	0.28
65	83.4	10.07	0.27
66	88.4	10.06	0.26
67	93.7	10.05	0.25
68	99.3	10.04	0.24
69	105.2	10.03	0.23
70	111.5	10.02	0.22
71	118.1	10.01	0.21
72	125.1	10.00	0.20
73	132.6	9.99	0.19
74	140.5	9.98	0.18
75	148.9	9.97	0.17
76	157.8	9.96	0.16
77	167.2	9.95	0.15
78	177.2	9.94	0.14
79	187.2	9.93	0.13
80	197.2	9.92	0.12
81	207.2	9.92	0.12
82	217.2	9.91	0.11
83	227.2	9.90	0.10
84	237.2	9.90	0.10
85	247.2	9.89	0.09
86	257.2	9.89	0.08
87	267.2	9.88	0.08
88	277.2	9.87	0.07
89	287.2	9.87	0.07
90	297.2	9.86	0.06
91	307.2	9.86	0.06
92	317.2	9.85	0.05
93	327.2	9.85	0.05

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Slug Test Data Report

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Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
94	337.2	9.85	0.05
95	347.2	9.85	0.04
96	357.2	9.84	0.04
97	367.2	9.84	0.04
98	377.2	9.84	0.04
99	387.2	9.83	0.03
100	397.2	9.83	0.03
101	407.2	9.83	0.03
102	417.2	9.82	0.02
103	427.2	9.82	0.02
104	437.2	9.82	0.02
105	447.2	9.82	0.02
106	457.2	9.82	0.02
107	467.2	9.82	0.02
108	477.2	9.81	0.01
109	487.2	9.81	0.01
110	497.2	9.81	0.01
111	507.2	9.81	0.01
112	517.2	9.81	0.01
113	527.2	9.81	0.01
114	537.2	9.81	0.00
115	547.2	9.81	0.00
116	557.2	9.81	0.00
117	567.2	9.81	0.00
118	577.2	9.80	0.00
119	587.2	9.80	0.00
120	597.2	9.80	0.00
121	607.2	9.80	0.00
122	617.2	9.80	0.00
123	627.2	9.80	0.00
124	637.2	9.80	0.00

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Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
125	647.2	9.80	0.00
126	657.2	9.80	0.00
127	667.2	9.80	0.00
128	677.2	9.80	0.00
129	687.2	9.80	0.00

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Distance from PW:	0 [ft]	Test well:	MW-1
Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	1.5	11.95	2.14
2	1.8	11.86	2.06
3	2.1	11.80	2.00
4	2.4	11.74	1.94
5	2.7	11.69	1.89
6	3	11.63	1.83
7	3.3	11.58	1.78
8	3.6	11.53	1.73
9	3.9	11.48	1.68
10	4.2	11.44	1.63
11	4.5	11.39	1.59
12	4.8	11.34	1.54
13	5.1	11.30	1.50
14	5.4	11.25	1.45
15	5.7	11.21	1.41
16	6	11.17	1.37
17	6.4	11.13	1.33
18	6.7	11.08	1.28
19	7.1	11.03	1.23
20	7.5	10.99	1.19
21	8	10.94	1.14
22	8.4	10.90	1.09
23	8.9	10.85	1.05
24	9.5	10.80	1.00
25	10	10.76	0.96
26	10.6	10.72	0.91
27	11.3	10.67	0.87
28	11.9	10.63	0.83
29	12.6	10.59	0.79
30	13.4	10.56	0.76
31	14.2	10.53	0.72

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Distance from PW:	0 [ft]	Test well:	MW-1
Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	15	10.50	0.70
33	15.9	10.47	0.66
34	16.8	10.44	0.64
35	17.8	10.42	0.62
36	18.9	10.39	0.59
37	20	10.37	0.57
38	21.2	10.35	0.55
39	22.4	10.34	0.54
40	23.8	10.32	0.52
41	25.2	10.31	0.51
42	26.7	10.29	0.49
43	28.2	10.28	0.48
44	29.8	10.26	0.46
45	31.5	10.25	0.45
46	33.3	10.24	0.44
47	35.2	10.23	0.43
48	37.3	10.21	0.41
49	39.5	10.20	0.40
50	41.8	10.19	0.39
51	44.3	10.18	0.38
52	46.9	10.17	0.37
53	49.7	10.16	0.36
54	52.6	10.15	0.35
55	55.7	10.13	0.33
56	59	10.13	0.33
57	62.5	10.12	0.32
58	66.2	10.11	0.31
59	70.1	10.10	0.30
60	74.3	10.09	0.29
61	78.7	10.08	0.28
62	83.4	10.07	0.27

ENVIRONMENTAL STRATEGIES CONSULTING LLC
300 Corporate Center Drive, Suite 200
Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-1**	**Slug test:**	**MW-1 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-1
Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	88.4	10.06	0.26
64	93.7	10.05	0.25
65	99.3	10.04	0.24
66	105.2	10.03	0.23
67	111.5	10.02	0.22
68	118.1	10.01	0.21
69	125.1	10.00	0.20
70	132.6	9.99	0.19
71	140.5	9.98	0.18
72	148.9	9.97	0.17
73	157.8	9.96	0.16
74	167.2	9.95	0.15
75	177.2	9.94	0.14
76	187.2	9.93	0.13
77	197.2	9.93	0.13
78	207.2	9.92	0.12
79	217.2	9.91	0.11
80	227.2	9.91	0.11
81	237.2	9.90	0.10
82	247.2	9.89	0.09
83	257.2	9.89	0.09
84	267.2	9.88	0.08
85	277.2	9.87	0.07
86	287.2	9.87	0.07
87	297.2	9.87	0.07
88	307.2	9.86	0.06
89	317.2	9.86	0.06
90	327.2	9.85	0.05
91	337.2	9.85	0.05
92	347.2	9.84	0.04
93	357.2	9.84	0.04

ENVIRONMENTAL STRATEGIES CONSULTING LLC
300 Corporate Center Drive, Suite 200
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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-1**	**Slug test:**	**MW-1 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-1
Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
94	367.2	9.84	0.04
95	377.2	9.84	0.04
96	387.2	9.83	0.03
97	397.2	9.83	0.03
98	407.2	9.83	0.03
99	417.2	9.83	0.03
100	427.2	9.82	0.02
101	437.2	9.82	0.02
102	447.2	9.82	0.02
103	457.2	9.82	0.02
104	467.2	9.82	0.02
105	477.2	9.82	0.02
106	487.2	9.82	0.02
107	497.2	9.82	0.01
108	507.2	9.82	0.01
109	517.2	9.81	0.01
110	527.2	9.81	0.01
111	537.2	9.81	0.01
112	547.2	9.81	0.01
113	557.2	9.81	0.01
114	567.2	9.81	0.01
115	577.2	9.81	0.01
116	587.2	9.81	0.01
117	597.2	9.81	0.01
118	607.2	9.81	0.01
119	617.2	9.81	0.01
120	627.2	9.80	0.00
121	637.2	9.80	0.00
122	647.2	9.80	0.00
123	657.2	9.80	0.00
124	667.2	9.80	0.00

ENVIRONMENTAL STRATEGIES CONSULTING LLC
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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-1**	**Slug test:**	**MW-1 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-1
Depth to static WL:	9.8 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
125	677.2	9.80	0.00
126	687.2	9.80	0.00
127	697.2	9.80	0.00
128	707.2	9.80	-0.01
129	717.2	9.80	0.00
130	727.2	9.80	0.00
131	737.2	9.80	0.00
132	747.2	9.80	0.00
133	757.2	9.80	0.00
134	767.2	9.80	0.00

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-2**	**Slug test:**	**MW-2 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-2
Depth to static WL:	12.62 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0.3	9.61	-3.01
2	0.6	10.06	-2.56
3	0.9	10.22	-2.40
4	1.8	10.81	-1.81
5	2.1	10.93	-1.69
6	2.4	10.95	-1.67
7	2.7	10.98	-1.64
8	3	11.00	-1.62
9	3.3	11.03	-1.59
10	3.6	11.05	-1.57
11	3.9	11.07	-1.55
12	4.2	11.09	-1.53
13	4.5	11.11	-1.51
14	4.8	11.13	-1.49
15	5.1	11.15	-1.47
16	5.4	11.17	-1.45
17	5.7	11.19	-1.43
18	6	11.20	-1.42
19	6.4	11.22	-1.40
20	6.7	11.24	-1.38
21	7.1	11.27	-1.35
22	7.5	11.29	-1.33
23	8	11.31	-1.31
24	8.4	11.34	-1.28
25	8.9	11.36	-1.26
26	9.5	11.39	-1.23
27	10	11.42	-1.20
28	10.6	11.45	-1.17
29	11.3	11.48	-1.14
30	11.9	11.51	-1.11
31	12.6	11.54	-1.08

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-2**	**Slug test:**	**MW-2 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-2
Depth to static WL:	12.62 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	13.4	11.57	-1.05
33	14.2	11.60	-1.02
34	15	11.63	-0.99
35	15.9	11.67	-0.96
36	16.8	11.70	-0.92
37	17.8	11.73	-0.89
38	18.9	11.76	-0.86
39	20	11.79	-0.83
40	21.2	11.82	-0.80
41	22.4	11.87	-0.75
42	23.8	11.89	-0.73
43	25.2	11.92	-0.70
44	26.7	11.96	-0.66
45	28.2	12.01	-0.61
46	29.8	12.04	-0.58
47	31.5	12.07	-0.55
48	33.3	12.10	-0.52
49	35.2	12.13	-0.49
50	37.3	12.17	-0.45
51	39.5	12.20	-0.42
52	41.8	12.23	-0.39
53	44.3	12.26	-0.36
54	46.9	12.29	-0.33
55	49.7	12.31	-0.31
56	52.6	12.34	-0.28
57	55.7	12.36	-0.26
58	59	12.39	-0.23
59	62.5	12.41	-0.21
60	66.2	12.44	-0.18
61	70.1	12.46	-0.16
62	74.3	12.48	-0.14

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-2**	**Slug test:**	**MW-2 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-2
Depth to static WL:	12.62 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	78.7	12.49	-0.13
64	83.4	12.51	-0.11
65	88.4	12.52	-0.10
66	93.7	12.53	-0.09
67	99.3	12.54	-0.08
68	105.2	12.55	-0.07
69	111.5	12.56	-0.06
70	118.1	12.57	-0.05
71	125.1	12.58	-0.04
72	132.6	12.59	-0.03
73	140.5	12.59	-0.03
74	148.9	12.60	-0.02
75	157.8	12.60	-0.02
76	167.2	12.60	-0.02
77	177.2	12.61	-0.01
78	187.2	12.61	-0.01
79	197.2	12.61	-0.01
80	207.2	12.61	-0.01
81	217.2	12.61	-0.01
82	227.2	12.62	0.00
83	237.2	12.62	0.00
84	247.2	12.62	0.00
85	257.2	12.62	0.00
86	267.2	12.62	0.00
87	277.2	12.62	0.00
88	287.2	12.61	-0.01
89	297.2	12.62	0.00
90	307.2	12.63	0.01
91	317.2	12.63	0.01
92	327.2	12.63	0.01
93	337.2	12.63	0.01

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-2**	**Slug test:**	**MW-2 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-2
Depth to static WL:	12.62 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
94	347.2	12.63	0.01
95	357.2	12.63	0.01
96	367.2	12.63	0.01
97	377.2	12.63	0.01

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-2**	**Slug test:**	**MW-2 Falling Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-2
Depth to static WL:	12.62 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0.6	7.71	-4.91
2	0.9	10.09	-2.53
3	1.2	10.12	-2.50
4	1.8	10.72	-1.90
5	2.1	10.78	-1.84
6	2.4	10.84	-1.78
7	2.7	10.86	-1.76
8	3	10.89	-1.73
9	3.3	10.91	-1.71
10	3.6	10.93	-1.69
11	3.9	10.93	-1.69
12	4.2	10.99	-1.63
13	4.5	11.00	-1.62
14	4.8	11.02	-1.60
15	5.1	11.04	-1.58
16	5.4	11.06	-1.56
17	5.7	11.07	-1.55
18	6	11.09	-1.53
19	6.4	11.11	-1.51
20	6.7	11.13	-1.49
21	7.1	11.16	-1.46
22	7.5	11.18	-1.44
23	8	11.20	-1.42
24	8.4	11.23	-1.39
25	8.9	11.26	-1.36
26	9.5	11.28	-1.34
27	10	11.31	-1.31
28	10.6	11.34	-1.28
29	11.3	11.37	-1.25
30	11.9	11.40	-1.22
31	12.6	11.44	-1.18

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-2**	**Slug test:**	**MW-2 Falling Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-2
Depth to static WL:	12.62 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	13.4	11.47	-1.15
33	14.2	11.50	-1.12
34	15	11.53	-1.09
35	15.9	11.57	-1.05
36	16.8	11.60	-1.02
37	17.8	11.64	-0.98
38	18.9	11.67	-0.95
39	20	11.71	-0.91
40	21.2	11.75	-0.87
41	22.4	11.78	-0.84
42	23.8	11.82	-0.80
43	25.2	11.86	-0.76
44	26.7	11.89	-0.73
45	28.2	11.93	-0.69
46	29.8	11.91	-0.71
47	31.5	11.99	-0.63
48	33.3	12.04	-0.58
49	35.2	12.07	-0.55
50	37.3	12.11	-0.51
51	39.5	12.14	-0.48
52	41.8	12.17	-0.45
53	44.3	12.20	-0.42
54	46.9	12.23	-0.39
55	49.7	12.26	-0.36
56	52.6	12.29	-0.33
57	55.7	12.32	-0.30
58	59	12.34	-0.28
59	62.5	12.37	-0.25
60	66.2	12.39	-0.23
61	70.1	12.41	-0.21
62	74.3	12.43	-0.19

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-2**	**Slug test:**	**MW-2 Falling Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-2
Depth to static WL:	12.62 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	GMB	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	78.7	12.45	-0.17
64	83.4	12.47	-0.15
65	88.4	12.48	-0.14
66	93.7	12.50	-0.12
67	99.3	12.51	-0.11
68	105.2	12.53	-0.09
69	111.5	12.54	-0.08
70	118.1	12.55	-0.07
71	125.1	12.56	-0.06
72	132.6	12.55	-0.07
73	140.5	12.57	-0.05
74	148.9	12.58	-0.04
75	157.8	12.58	-0.04
76	167.2	12.59	-0.03
77	177.2	12.60	-0.02
78	187.2	12.60	-0.02
79	197.2	12.60	-0.02
80	207.2	12.60	-0.02
81	217.2	12.61	-0.01
82	227.2	12.61	-0.01
83	237.2	12.61	-0.01
84	247.2	12.61	-0.01
85	257.2	12.61	-0.01
86	267.2	12.61	-0.01
87	277.2	12.62	0.00
88	287.2	12.62	0.00
89	297.2	12.62	0.00
90	307.2	12.62	0.00
91	317.2	12.62	0.00
92	327.2	12.62	0.00

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-2**	**Slug test:**	**MW-2 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-2
Depth to static WL:	12.62 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0.3	16.89	4.27
2	0.9	14.80	2.18
3	1.2	14.67	2.05
4	1.5	14.59	1.97
5	1.8	14.54	1.92
6	2.1	14.48	1.86
7	2.4	14.44	1.82
8	2.7	14.40	1.78
9	3	14.37	1.75
10	3.3	14.34	1.72
11	3.6	14.31	1.69
12	3.9	14.28	1.66
13	4.2	14.25	1.63
14	4.5	14.22	1.60
15	4.8	14.19	1.57
16	5.1	14.17	1.55
17	5.4	14.15	1.53
18	5.7	14.12	1.50
19	6	14.10	1.48
20	6.4	14.07	1.45
21	6.7	14.05	1.43
22	7.1	14.02	1.40
23	7.5	13.99	1.37
24	8	13.96	1.34
25	8.4	13.93	1.31
26	8.9	13.89	1.27
27	9.5	13.86	1.24
28	10	13.83	1.21
29	10.6	13.80	1.18
30	11.3	13.76	1.14
31	11.9	13.73	1.11

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-2**	**Slug test:**	**MW-2 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-2
Depth to static WL:	12.62 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	12.6	13.69	1.07
33	13.4	13.65	1.03
34	14.2	13.61	0.99
35	15	13.58	0.96
36	15.9	13.54	0.92
37	16.8	13.50	0.88
38	17.8	13.46	0.84
39	18.9	13.42	0.80
40	20	13.39	0.77
41	21.2	13.35	0.73
42	22.4	13.31	0.69
43	23.8	13.28	0.66
44	25.2	13.24	0.62
45	26.7	13.21	0.59
46	28.2	13.18	0.56
47	29.8	13.14	0.52
48	31.5	13.11	0.49
49	33.3	13.03	0.41
50	35.2	13.06	0.44
51	37.3	13.01	0.39
52	39.5	12.99	0.37
53	41.8	12.97	0.35
54	44.3	12.95	0.33
55	46.9	12.94	0.32
56	49.7	12.91	0.29
57	52.6	12.90	0.28
58	55.7	12.88	0.26
59	59	12.86	0.24
60	62.5	12.84	0.22
61	66.2	12.83	0.21
62	70.1	12.81	0.19

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-2**	**Slug test:**	**MW-2 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-2
Depth to static WL:	12.62 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	74.3	12.80	0.18
64	78.7	12.79	0.17
65	83.4	12.78	0.16
66	88.4	12.77	0.15
67	93.7	12.76	0.14
68	99.3	12.75	0.13
69	105.2	12.75	0.13
70	111.5	12.73	0.11
71	118.1	12.73	0.11
72	125.1	12.72	0.10
73	132.6	12.72	0.10
74	140.5	12.72	0.10
75	148.9	12.72	0.10
76	157.8	12.71	0.09
77	167.2	12.71	0.09
78	177.2	12.70	0.08
79	187.2	12.70	0.08
80	197.2	12.69	0.07
81	207.2	12.69	0.07
82	217.2	12.68	0.06
83	227.2	12.68	0.06
84	237.2	12.67	0.05
85	247.2	12.67	0.05
86	257.2	12.67	0.05
87	267.2	12.67	0.05
88	277.2	12.67	0.05
89	287.2	12.66	0.04
90	297.2	12.66	0.04
91	307.2	12.66	0.04
92	317.2	12.66	0.04
93	327.2	12.66	0.04

ENVIRONMENTAL STRATEGIES CONSULTING LLC
300 Corporate Center Drive, Suite 200
Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-2**	**Slug test:**	**MW-2 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-2
Depth to static WL:	12.62 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
94	337.2	12.65	0.03
95	347.2	12.65	0.03
96	357.2	12.65	0.03
97	367.2	12.66	0.04
98	377.2	12.65	0.03
99	387.2	12.65	0.03
100	397.2	12.65	0.03
101	407.2	12.65	0.03
102	417.2	12.65	0.03
103	427.2	12.65	0.03
104	437.2	12.65	0.03
105	447.2	12.65	0.03
106	457.2	12.65	0.03
107	467.2	12.65	0.03
108	477.2	12.65	0.03

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300 Corporate Center Drive, Suite 200
Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-2**	**Slug test:**	**MW-2 Rising Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-2
Depth to static WL:	12.62 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0.9	14.73	2.11
2	1.2	14.69	2.07
3	1.5	14.61	1.99
4	1.8	14.56	1.94
5	2.1	14.50	1.88
6	2.4	14.46	1.84
7	2.7	14.42	1.80
8	3	14.38	1.76
9	3.3	14.34	1.72
10	3.6	14.31	1.69
11	3.9	14.29	1.67
12	4.2	14.26	1.64
13	4.5	14.23	1.61
14	4.8	14.20	1.58
15	5.1	14.18	1.56
16	5.4	14.15	1.53
17	5.7	14.13	1.51
18	6	14.10	1.48
19	6.4	14.07	1.45
20	6.7	14.05	1.43
21	7.1	14.02	1.40
22	7.5	13.99	1.37
23	8	13.96	1.34
24	8.4	13.93	1.31
25	8.9	13.89	1.27
26	9.5	13.86	1.24
27	10	13.83	1.21
28	10.6	13.79	1.17
29	11.3	13.76	1.14
30	11.9	13.72	1.10
31	12.6	13.68	1.06

ENVIRONMENTAL STRATEGIES CONSULTING LLC
300 Corporate Center Drive, Suite 200
Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-2**	**Slug test:**	**MW-2 Rising Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-2
Depth to static WL:	12.62 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	13.4	13.65	1.03
33	14.2	13.61	0.99
34	15	13.57	0.95
35	15.9	13.53	0.91
36	16.8	13.49	0.87
37	17.8	13.45	0.83
38	18.9	13.41	0.79
39	20	13.37	0.75
40	21.2	13.33	0.71
41	22.4	13.29	0.67
42	23.8	13.26	0.64
43	25.2	13.22	0.60
44	26.7	13.18	0.56
45	28.2	13.15	0.53
46	29.8	13.11	0.49
47	31.5	13.08	0.46
48	33.3	13.05	0.43
49	35.2	12.97	0.35
50	37.3	12.98	0.36
51	39.5	12.96	0.34
52	41.8	12.95	0.33
53	44.3	12.92	0.30
54	46.9	12.90	0.28
55	49.7	12.88	0.26
56	52.6	12.85	0.23
57	55.7	12.83	0.21
58	59	12.82	0.20
59	62.5	12.80	0.18
60	66.2	12.79	0.17
61	70.1	12.77	0.15
62	74.3	12.76	0.14

ENVIRONMENTAL STRATEGIES CONSULTING LLC
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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-2**	**Slug test:**	**MW-2 Rising Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-2
Depth to static WL:	12.62 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	78.7	12.75	0.13
64	83.4	12.74	0.12
65	88.4	12.73	0.11
66	93.7	12.72	0.10
67	99.3	12.71	0.09
68	105.2	12.70	0.08
69	111.5	12.69	0.07
70	118.1	12.69	0.07
71	125.1	12.68	0.06
72	132.6	12.68	0.06
73	140.5	12.67	0.05
74	148.9	12.67	0.05
75	157.8	12.67	0.04
76	167.2	12.66	0.04
77	177.2	12.65	0.03
78	187.2	12.65	0.03
79	197.2	12.65	0.03
80	207.2	12.63	0.01
81	217.2	12.65	0.03
82	227.2	12.64	0.02
83	237.2	12.64	0.02
84	247.2	12.64	0.02
85	257.2	12.64	0.02
86	267.2	12.64	0.02
87	277.2	12.63	0.01
88	287.2	12.63	0.01
89	297.2	12.63	0.01
90	307.2	12.63	0.01
91	317.2	12.63	0.01
92	327.2	12.63	0.01
93	337.2	12.63	0.01

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-2**	**Slug test:**	**MW-2 Rising Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-2
Depth to static WL:	12.62 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
94	347.2	12.63	0.01
95	357.2	12.63	0.01
96	367.2	12.62	0.00
97	377.2	12.63	0.01
98	387.2	12.62	0.00
99	397.2	12.62	0.00
100	407.2	12.62	0.00
101	417.2	12.63	0.01
102	427.2	12.62	0.00
103	437.2	12.62	0.00
104	447.2	12.62	0.00

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Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.9 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0.6	10.03	-1.87
2	0.9	10.35	-1.55
3	1.2	10.33	-1.57
4	1.5	10.34	-1.56
5	1.8	10.52	-1.38
6	2.1	10.49	-1.41
7	2.4	10.47	-1.43
8	2.7	10.57	-1.33
9	3	10.57	-1.33
10	3.3	10.62	-1.28
11	3.6	10.65	-1.25
12	3.9	10.68	-1.22
13	4.2	10.71	-1.20
14	4.5	10.73	-1.17
15	4.8	10.75	-1.15
16	5.1	10.77	-1.13
17	5.4	10.78	-1.12
18	5.7	10.80	-1.10
19	6	10.82	-1.09
20	6.4	10.83	-1.07
21	6.7	10.85	-1.05
22	7.1	10.87	-1.03
23	7.5	10.90	-1.00
24	8	10.92	-0.98
25	8.4	10.94	-0.96
26	8.9	10.97	-0.94
27	9.5	10.99	-0.91
28	10	11.02	-0.88
29	10.6	11.04	-0.86
30	11.3	11.06	-0.84
31	11.9	11.08	-0.82

ENVIRONMENTAL STRATEGIES CONSULTING LLC
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Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.9 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	12.6	11.11	-0.79
33	13.4	11.13	-0.77
34	14.2	11.15	-0.76
35	15	11.17	-0.73
36	15.9	11.18	-0.72
37	16.8	11.20	-0.70
38	17.8	11.22	-0.68
39	18.9	11.23	-0.67
40	20	11.25	-0.65
41	21.2	11.26	-0.64
42	22.4	11.27	-0.63
43	23.8	11.29	-0.62
44	25.2	11.30	-0.60
45	26.7	11.31	-0.59
46	28.2	11.32	-0.58
47	29.8	11.32	-0.58
48	31.5	11.34	-0.56
49	33.3	11.34	-0.56
50	35.2	11.36	-0.54
51	37.3	11.37	-0.54
52	39.5	11.38	-0.53
53	41.8	11.39	-0.51
54	44.3	11.40	-0.51
55	46.9	11.40	-0.51
56	49.7	11.41	-0.49
57	52.6	11.43	-0.47
58	55.7	11.44	-0.46
59	59	11.46	-0.44
60	62.5	11.47	-0.43
61	66.2	11.48	-0.42
62	70.1	11.49	-0.41

ENVIRONMENTAL STRATEGIES CONSULTING LLC
300 Corporate Center Drive, Suite 200
Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.9 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	74.3	11.50	-0.40
64	78.7	11.51	-0.39
65	83.4	11.52	-0.38
66	88.4	11.53	-0.37
67	93.7	11.53	-0.37
68	99.3	11.54	-0.36
69	105.2	11.55	-0.35
70	111.5	11.55	-0.35
71	118.1	11.56	-0.34
72	125.1	11.56	-0.34
73	132.6	11.57	-0.33
74	140.5	11.57	-0.33
75	148.9	11.57	-0.33
76	157.8	11.58	-0.32
77	167.2	11.58	-0.32
78	177.2	11.59	-0.31
79	187.2	11.59	-0.31
80	197.2	11.60	-0.30
81	207.2	11.59	-0.31
82	217.2	11.60	-0.30
83	227.2	11.61	-0.29
84	237.2	11.61	-0.29
85	247.2	11.62	-0.29
86	257.2	11.62	-0.28
87	267.2	11.62	-0.28
88	277.2	11.63	-0.28
89	287.2	11.63	-0.27
90	297.2	11.63	-0.27
91	307.2	11.63	-0.27
92	317.2	11.64	-0.27
93	327.2	11.64	-0.26

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300 Corporate Center Drive, Suite 200
Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.9 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
94	337.2	11.64	-0.26
95	347.2	11.64	-0.26
96	357.2	11.65	-0.25
97	367.2	11.65	-0.25
98	377.2	11.65	-0.25
99	387.2	11.65	-0.25
100	397.2	11.66	-0.24
101	407.2	11.66	-0.24
102	417.2	11.66	-0.24
103	427.2	11.66	-0.24
104	437.2	11.66	-0.24
105	447.2	11.67	-0.23
106	457.2	11.67	-0.23
107	467.2	11.67	-0.23
108	477.2	11.67	-0.23
109	487.2	11.68	-0.22
110	497.2	11.68	-0.22
111	507.2	11.68	-0.22
112	517.2	11.68	-0.22
113	527.2	11.68	-0.22
114	537.2	11.68	-0.22
115	547.2	11.68	-0.22
116	557.2	11.69	-0.21
117	567.2	11.69	-0.21
118	577.2	11.69	-0.21
119	587.2	11.69	-0.21
120	597.2	11.69	-0.21
121	607.2	11.69	-0.21
122	617.2	11.68	-0.22
123	627.2	11.70	-0.20
124	637.2	11.70	-0.21

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.9 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
125	647.2	11.70	-0.20

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Falling Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.9 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	3	10.66	-1.24
2	6	10.94	-0.96
3	9	11.12	-0.78
4	12	11.24	-0.66
5	15	11.32	-0.58
6	18	11.38	-0.52
7	21	11.42	-0.48
8	24	11.46	-0.44
9	27	11.48	-0.42
10	30	11.50	-0.40
11	33	11.52	-0.38
12	36	11.52	-0.38
13	39	11.53	-0.37
14	42	11.55	-0.35
15	45	11.57	-0.33
16	48	11.58	-0.32
17	51	11.59	-0.31
18	54	11.61	-0.29
19	57	11.61	-0.29
20	60	11.62	-0.28
21	63	11.63	-0.27
22	66	11.64	-0.26
23	69	11.65	-0.25
24	72	11.65	-0.25
25	75	11.66	-0.24
26	78	11.67	-0.23
27	81	11.67	-0.23
28	84	11.68	-0.22
29	87	11.69	-0.21
30	90	11.69	-0.21
31	93	11.69	-0.21

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Falling Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.9 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	96	11.70	-0.20
33	99	11.70	-0.20
34	102	11.71	-0.19
35	105	11.71	-0.19
36	108	11.71	-0.19
37	111	11.72	-0.18
38	114	11.72	-0.18
39	117	11.72	-0.18
40	120	11.73	-0.17
41	123	11.73	-0.17
42	126	11.73	-0.17
43	129	11.73	-0.17
44	132	11.73	-0.17
45	135	11.74	-0.17
46	138	11.74	-0.16
47	141	11.74	-0.16
48	144	11.74	-0.16
49	147	11.74	-0.16
50	150	11.74	-0.16
51	153	11.75	-0.16
52	156	11.75	-0.15
53	159	11.75	-0.15
54	162	11.74	-0.17
55	165	11.74	-0.16
56	168	11.76	-0.14
57	171	11.76	-0.14
58	174	11.76	-0.14
59	177	11.76	-0.14
60	180	11.76	-0.14
61	183	11.76	-0.14
62	186	11.76	-0.14

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Falling Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.9 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	189	11.76	-0.14
64	192	11.76	-0.14
65	195	11.76	-0.14
66	198	11.76	-0.14
67	201	11.76	-0.14
68	204	11.76	-0.14
69	207	11.76	-0.14
70	210	11.77	-0.13
71	213	11.77	-0.13
72	216	11.77	-0.13
73	219	11.77	-0.13
74	222	11.77	-0.13
75	225	11.77	-0.13
76	228	11.77	-0.13
77	231	11.77	-0.13
78	234	11.77	-0.13
79	237	11.77	-0.13
80	240	11.77	-0.13
81	243	11.77	-0.13
82	246	11.78	-0.12
83	249	11.77	-0.13
84	252	11.78	-0.12
85	255	11.77	-0.13
86	258	11.78	-0.12
87	261	11.78	-0.12
88	264	11.78	-0.12
89	267	11.78	-0.12
90	270	11.78	-0.12
91	273	11.78	-0.12
92	276	11.78	-0.12
93	279	11.78	-0.12

ENVIRONMENTAL STRATEGIES CONSULTING LLC
300 Corporate Center Drive, Suite 200
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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Falling Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.9 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
94	282	11.78	-0.12
95	285	11.78	-0.12
96	288	11.78	-0.12
97	291	11.78	-0.12
98	294	11.78	-0.12
99	297	11.78	-0.12
100	300	11.79	-0.11
101	303	11.79	-0.11
102	306	11.79	-0.11
103	309	11.79	-0.11
104	312	11.79	-0.11
105	315	11.79	-0.11
106	318	11.79	-0.11
107	321	11.79	-0.11
108	324	11.79	-0.11
109	327	11.79	-0.11
110	330	11.79	-0.11
111	333	11.79	-0.11
112	336	11.79	-0.11
113	339	11.79	-0.11
114	342	11.79	-0.11
115	345	11.79	-0.11
116	348	11.80	-0.10
117	351	11.80	-0.10
118	354	11.80	-0.10
119	357	11.80	-0.10
120	360	11.80	-0.10
121	363	11.80	-0.10
122	366	11.80	-0.10
123	369	11.80	-0.10
124	372	11.80	-0.10

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Falling Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.9 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
125	375	11.80	-0.10
126	378	11.80	-0.10
127	381	11.80	-0.10
128	384	11.80	-0.10
129	387	11.79	-0.11
130	390	11.79	-0.11
131	393	11.79	-0.11
132	396	11.81	-0.09
133	399	11.81	-0.09
134	402	11.80	-0.10
135	405	11.80	-0.10
136	408	11.80	-0.10
137	411	11.80	-0.10
138	414	11.80	-0.10
139	417	11.80	-0.10
140	420	11.80	-0.10
141	423	11.80	-0.10
142	426	11.81	-0.09
143	429	11.81	-0.09
144	432	11.81	-0.09
145	435	11.81	-0.09
146	438	11.81	-0.09
147	441	11.81	-0.09
148	444	11.81	-0.09
149	447	11.81	-0.09
150	450	11.81	-0.09
151	453	11.81	-0.09
152	456	11.81	-0.09
153	459	11.81	-0.09
154	462	11.81	-0.09
155	465	11.81	-0.09

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Falling Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.9 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
156	468	11.81	-0.09
157	471	11.81	-0.09
158	474	11.81	-0.09

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.7 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0.3	14.89	3.19
2	0.6	13.56	1.86
3	0.9	13.47	1.77
4	1.2	13.47	1.77
5	1.5	13.40	1.70
6	1.8	13.34	1.64
7	2.1	13.27	1.57
8	2.4	13.20	1.50
9	2.7	13.15	1.45
10	3	13.09	1.39
11	3.3	13.03	1.33
12	3.6	12.98	1.28
13	3.9	12.93	1.23
14	4.2	12.88	1.18
15	4.5	12.83	1.13
16	4.8	12.79	1.09
17	5.1	12.75	1.05
18	5.4	12.71	1.01
19	5.7	12.68	0.98
20	6	12.64	0.94
21	6.4	12.61	0.91
22	6.7	12.57	0.87
23	7.1	12.54	0.84
24	7.5	12.51	0.81
25	8	12.48	0.78
26	8.4	12.44	0.74
27	8.9	12.42	0.71
28	9.5	12.39	0.69
29	10	12.36	0.66
30	10.6	12.34	0.64
31	11.3	12.32	0.62

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.7 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	11.9	12.30	0.60
33	12.6	12.28	0.58
34	13.4	12.26	0.56
35	14.2	12.24	0.54
36	15	12.23	0.53
37	15.9	12.21	0.51
38	16.8	12.20	0.50
39	17.8	12.18	0.48
40	18.9	12.17	0.46
41	20	12.15	0.45
42	21.2	12.14	0.44
43	22.4	12.13	0.43
44	23.8	12.12	0.42
45	25.2	12.11	0.41
46	26.7	12.10	0.40
47	28.2	12.09	0.39
48	29.8	12.08	0.38
49	31.5	12.07	0.37
50	33.3	12.06	0.36
51	35.2	12.05	0.35
52	37.3	12.05	0.35
53	39.5	12.04	0.34
54	41.8	12.03	0.33
55	44.3	12.03	0.33
56	46.9	12.02	0.32
57	49.7	12.01	0.31
58	52.6	12.01	0.31
59	55.7	12.00	0.30
60	59	12.00	0.30
61	62.5	11.99	0.29
62	66.2	11.99	0.29

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.7 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	70.1	11.98	0.28
64	74.3	11.98	0.28
65	78.7	11.97	0.27
66	83.4	11.96	0.26
67	88.4	11.96	0.26
68	93.7	11.95	0.25
69	99.3	11.95	0.25
70	105.2	11.94	0.24
71	111.5	11.94	0.24
72	118.1	11.93	0.23
73	125.1	11.92	0.22
74	132.6	11.91	0.21
75	140.5	11.91	0.21
76	148.9	11.91	0.21
77	157.8	11.90	0.20
78	167.2	11.89	0.19
79	177.2	11.89	0.19
80	187.2	11.88	0.18
81	197.2	11.88	0.18
82	207.2	11.87	0.17
83	217.2	11.87	0.17
84	227.2	11.86	0.16
85	237.2	11.86	0.16
86	247.2	11.85	0.15
87	257.2	11.85	0.15
88	267.2	11.85	0.15
89	277.2	11.84	0.14
90	287.2	11.84	0.14
91	297.2	11.84	0.14
92	307.2	11.83	0.13
93	317.2	11.83	0.13

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Slug Test Data Report

Project: National Smelting CSR

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Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.7 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
94	327.2	11.83	0.13
95	337.2	11.82	0.12
96	347.2	11.82	0.12
97	357.2	11.82	0.12
98	367.2	11.82	0.12
99	377.2	11.82	0.12
100	387.2	11.81	0.11
101	397.2	11.81	0.11
102	407.2	11.81	0.11
103	417.2	11.81	0.11
104	427.2	11.80	0.10
105	437.2	11.81	0.11
106	447.2	11.80	0.10
107	457.2	11.80	0.10
108	467.2	11.80	0.10
109	477.2	11.80	0.10
110	487.2	11.80	0.10
111	497.2	11.80	0.10
112	507.2	11.79	0.09
113	517.2	11.79	0.09
114	527.2	11.79	0.09
115	537.2	11.79	0.09
116	547.2	11.79	0.09
117	557.2	11.79	0.09
118	567.2	11.79	0.09
119	577.2	11.79	0.09
120	587.2	11.78	0.08
121	597.2	11.78	0.08
122	607.2	11.78	0.08
123	617.2	11.78	0.08
124	627.2	11.78	0.08

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.7 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
125	637.2	11.78	0.08
126	647.2	11.78	0.08
127	657.2	11.78	0.08
128	667.2	11.78	0.08
129	677.2	11.78	0.08
130	687.2	11.78	0.08
131	697.2	11.78	0.08
132	707.2	11.78	0.08
133	717.2	11.77	0.07
134	727.2	11.77	0.07
135	737.2	11.77	0.07
136	747.2	11.77	0.07
137	757.2	11.77	0.07
138	767.2	11.77	0.07
139	777.2	11.77	0.07
140	787.2	11.77	0.07
141	797.2	11.77	0.07
142	807.2	11.77	0.07
143	817.2	11.77	0.07
144	827.2	11.77	0.07
145	837.2	11.77	0.07
146	847.2	11.77	0.07
147	857.2	11.77	0.07
148	867.2	11.77	0.07
149	877.2	11.77	0.07
150	887.2	11.77	0.07
151	897.2	11.77	0.07
152	907.2	11.77	0.07
153	917.2	11.77	0.07
154	927.2	11.77	0.07
155	937.2	11.77	0.07

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Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.7 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
156	947.2	11.76	0.06
157	957.2	11.76	0.06
158	967.2	11.76	0.06
159	977.2	11.76	0.06
160	987.2	11.76	0.06
161	997.2	11.76	0.06
162	1007.2	11.76	0.06
163	1017.2	11.76	0.06
164	1027.2	11.76	0.06
165	1037.2	11.76	0.06
166	1047.2	11.77	0.07
167	1057.2	11.76	0.06
168	1067.2	11.76	0.06
169	1077.2	11.76	0.06
170	1087.2	11.76	0.06
171	1097.2	11.76	0.06
172	1107.2	11.76	0.06
173	1117.2	11.76	0.06
174	1127.2	11.76	0.06
175	1137.2	11.76	0.06
176	1147.2	11.76	0.06
177	1157.2	11.76	0.06
178	1167.2	11.76	0.06
179	1177.2	11.76	0.06
180	1187.2	11.76	0.06
181	1197.2	11.76	0.06
182	1207.2	11.76	0.06
183	1217.2	11.76	0.06
184	1227.2	11.76	0.06
185	1237.2	11.75	0.05
186	1247.2	11.75	0.05

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Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.7 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
187	1257.2	11.75	0.05
188	1267.2	11.75	0.05
189	1277.2	11.75	0.05
190	1287.2	11.75	0.05
191	1297.2	11.75	0.05
192	1307.2	11.76	0.06
193	1317.2	11.75	0.05
194	1327.2	11.75	0.05
195	1337.2	11.75	0.05
196	1347.2	11.76	0.06
197	1357.2	11.75	0.05
198	1367.2	11.75	0.05
199	1377.2	11.75	0.05
200	1387.2	11.75	0.05
201	1397.2	11.75	0.05
202	1407.2	11.75	0.05
203	1417.2	11.75	0.05
204	1427.2	11.75	0.05
205	1437.2	11.75	0.05
206	1447.2	11.75	0.05
207	1457.2	11.75	0.05
208	1467.2	11.75	0.05
209	1477.2	11.75	0.05
210	1487.2	11.75	0.05
211	1497.2	11.75	0.05
212	1507.2	11.75	0.05
213	1517.2	11.75	0.05
214	1527.2	11.75	0.05
215	1537.2	11.75	0.05
216	1547.2	11.75	0.05
217	1557.2	11.75	0.05

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Slug Test Data Report

Project: National Smelting CSR

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Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.7 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
218	1567.2	11.75	0.05
219	1577.2	11.75	0.05
220	1587.2	11.75	0.05
221	1597.2	11.75	0.05
222	1607.2	11.75	0.05
223	1617.2	11.75	0.05
224	1627.2	11.75	0.05
225	1637.2	11.74	0.04
226	1647.2	11.76	0.06
227	1657.2	11.75	0.05

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Slug Test Data Report

Project: National Smelting CSR

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Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Rising Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.7 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	3	13.16	1.46
2	6	12.76	1.06
3	9	12.51	0.81
4	12	12.36	0.66
5	15	12.27	0.57
6	18	12.21	0.51
7	21	12.17	0.47
8	24	12.14	0.44
9	27	12.12	0.42
10	30	12.10	0.40
11	33	12.09	0.39
12	36	12.07	0.37
13	39	12.07	0.37
14	42	12.06	0.36
15	45	12.05	0.35
16	48	12.04	0.34
17	51	12.03	0.33
18	54	12.03	0.33
19	57	12.02	0.32
20	60	12.01	0.31
21	63	12.00	0.30
22	66	12.00	0.30
23	69	11.99	0.29
24	72	11.99	0.29
25	75	11.99	0.29
26	78	11.98	0.28
27	81	11.98	0.28
28	84	11.98	0.28
29	87	11.98	0.28
30	90	11.98	0.28
31	93	11.97	0.27

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Slug Test Data Report

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Data observed at:	**MW-5**	**Slug test:**	**MW-5 Rising Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.7 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	96	11.97	0.27
33	99	11.97	0.27
34	102	11.97	0.27
35	105	11.97	0.27
36	108	11.96	0.26
37	111	11.96	0.26
38	114	11.96	0.26
39	117	11.96	0.26
40	120	11.96	0.26
41	123	11.96	0.26
42	126	11.96	0.26
43	129	11.95	0.25
44	132	11.95	0.25
45	135	11.95	0.25
46	138	11.95	0.25
47	141	11.95	0.25
48	144	11.95	0.25
49	147	11.95	0.25
50	150	11.95	0.25
51	153	11.94	0.24
52	156	11.94	0.24
53	159	11.94	0.24
54	162	11.94	0.24
55	165	11.94	0.24
56	168	11.94	0.24
57	171	11.94	0.24
58	174	11.94	0.24
59	177	11.93	0.23
60	180	11.93	0.23
61	183	11.93	0.23
62	186	11.93	0.23

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300 Corporate Center Drive, Suite 200
Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Rising Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.7 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	189	11.93	0.23
64	192	11.93	0.23
65	195	11.93	0.23
66	198	11.93	0.23
67	201	11.93	0.23
68	204	11.93	0.23
69	207	11.93	0.23
70	210	11.92	0.22
71	213	11.92	0.22
72	216	11.92	0.22
73	219	11.91	0.21
74	222	11.92	0.22
75	225	11.92	0.22
76	228	11.92	0.22
77	231	11.92	0.22
78	234	11.91	0.21
79	237	11.91	0.21
80	240	11.91	0.21
81	243	11.91	0.21
82	246	11.91	0.21
83	249	11.91	0.21
84	252	11.90	0.20
85	255	11.89	0.19
86	258	11.88	0.18
87	261	11.89	0.19
88	264	11.89	0.19
89	267	11.89	0.19
90	270	11.90	0.20
91	273	11.89	0.19
92	276	11.89	0.19
93	279	11.89	0.19

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Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
94	282	11.88	0.18
95	285	11.88	0.18
96	288	11.88	0.18
97	291	11.88	0.18
98	294	11.88	0.18
99	297	11.88	0.18
100	300	11.88	0.18
101	303	11.88	0.18
102	306	11.88	0.18
103	309	11.88	0.18
104	312	11.88	0.18
105	315	11.88	0.18
106	318	11.88	0.18
107	321	11.88	0.18
108	324	11.88	0.18
109	327	11.88	0.18
110	330	11.88	0.18
111	333	11.87	0.17
112	336	11.87	0.17
113	339	11.87	0.17
114	342	11.87	0.17
115	345	11.87	0.17
116	348	11.87	0.17
117	351	11.87	0.17
118	354	11.87	0.17
119	357	11.87	0.17
120	360	11.87	0.17
121	363	11.87	0.17
122	366	11.87	0.17
123	369	11.87	0.17
124	372	11.87	0.17

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Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
125	375	11.87	0.17
126	378	11.87	0.17
127	381	11.87	0.17
128	384	11.86	0.16
129	387	11.85	0.15
130	390	11.85	0.15
131	393	11.86	0.16
132	396	11.87	0.17
133	399	11.86	0.16
134	402	11.86	0.16
135	405	11.86	0.16
136	408	11.86	0.16
137	411	11.86	0.16
138	414	11.84	0.14
139	417	11.85	0.15
140	420	11.85	0.15
141	423	11.85	0.15
142	426	11.85	0.15
143	429	11.85	0.15
144	432	11.85	0.15
145	435	11.85	0.15
146	438	11.85	0.15
147	441	11.85	0.15
148	444	11.85	0.15
149	447	11.85	0.15
150	450	11.85	0.15
151	453	11.85	0.15
152	456	11.85	0.15
153	459	11.85	0.15
154	462	11.85	0.15
155	465	11.85	0.15

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Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
156	468	11.85	0.15
157	471	11.85	0.15
158	474	11.85	0.15
159	477	11.85	0.15
160	480	11.85	0.15
161	483	11.85	0.15
162	486	11.85	0.15
163	489	11.85	0.15
164	492	11.84	0.14
165	495	11.85	0.15
166	498	11.85	0.15
167	501	11.85	0.15
168	504	11.85	0.15
169	507	11.85	0.15
170	510	11.85	0.15
171	513	11.84	0.14
172	516	11.84	0.14
173	519	11.84	0.14
174	522	11.84	0.14
175	525	11.84	0.14
176	528	11.84	0.14
177	531	11.84	0.14
178	534	11.84	0.14
179	537	11.84	0.14
180	540	11.84	0.14
181	543	11.84	0.14
182	546	11.84	0.14
183	549	11.84	0.14
184	552	11.84	0.14
185	555	11.84	0.14
186	558	11.84	0.14

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Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
187	561	11.84	0.14
188	564	11.84	0.14
189	567	11.84	0.14
190	570	11.84	0.14
191	573	11.84	0.14
192	576	11.84	0.14
193	579	11.84	0.14
194	582	11.84	0.14
195	585	11.84	0.14
196	588	11.84	0.14
197	591	11.84	0.14
198	594	11.84	0.14
199	597	11.84	0.14
200	600	11.84	0.14
201	603	11.84	0.14
202	606	11.84	0.14
203	609	11.84	0.14
204	612	11.84	0.14
205	615	11.84	0.14
206	618	11.84	0.14
207	621	11.84	0.14
208	624	11.84	0.14
209	627	11.84	0.14
210	630	11.84	0.14
211	633	11.84	0.14
212	636	11.84	0.14
213	639	11.84	0.14
214	642	11.84	0.14
215	645	11.84	0.14
216	648	11.83	0.13
217	651	11.84	0.14

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Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
218	654	11.84	0.14
219	657	11.83	0.13
220	660	11.83	0.13
221	663	11.83	0.13
222	666	11.83	0.13
223	669	11.83	0.13
224	672	11.83	0.13
225	675	11.83	0.13
226	678	11.83	0.13
227	681	11.83	0.13
228	684	11.83	0.13
229	687	11.83	0.13
230	690	11.83	0.13
231	693	11.83	0.13
232	696	11.83	0.13
233	699	11.83	0.13
234	702	11.83	0.13
235	705	11.83	0.13
236	708	11.83	0.13
237	711	11.83	0.13
238	714	11.83	0.13
239	717	11.83	0.13
240	720	11.83	0.13
241	723	11.83	0.13
242	726	11.83	0.13
243	729	11.83	0.13
244	732	11.83	0.13
245	735	11.83	0.13
246	738	11.82	0.12
247	741	11.82	0.12
248	744	11.83	0.13

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Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
249	747	11.83	0.13
250	750	11.83	0.13
251	753	11.82	0.12
252	756	11.82	0.12
253	759	11.82	0.12
254	762	11.82	0.12
255	765	11.82	0.12
256	768	11.82	0.12
257	771	11.82	0.12
258	774	11.82	0.12
259	777	11.82	0.12
260	780	11.82	0.12
261	783	11.82	0.12
262	786	11.82	0.12
263	789	11.82	0.12
264	792	11.82	0.12
265	795	11.82	0.12
266	798	11.82	0.12
267	801	11.82	0.12
268	804	11.82	0.12
269	807	11.82	0.12
270	810	11.82	0.12
271	813	11.82	0.12
272	816	11.82	0.12
273	819	11.82	0.12
274	822	11.82	0.12
275	825	11.82	0.12
276	828	11.82	0.12
277	831	11.82	0.12
278	834	11.82	0.12
279	837	11.81	0.11

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Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
280	840	11.81	0.11
281	843	11.81	0.11
282	846	11.81	0.11
283	849	11.81	0.11
284	852	11.81	0.11
285	855	11.82	0.12
286	858	11.81	0.11
287	861	11.81	0.11
288	864	11.81	0.11
289	867	11.81	0.11
290	870	11.81	0.11
291	873	11.81	0.11
292	876	11.81	0.11
293	879	11.81	0.11
294	882	11.81	0.11
295	885	11.81	0.11
296	888	11.81	0.11
297	891	11.81	0.11
298	894	11.81	0.11
299	897	11.81	0.11
300	900	11.81	0.11
301	903	11.81	0.11
302	906	11.81	0.11
303	909	11.81	0.11
304	912	11.81	0.11
305	915	11.81	0.11
306	918	11.81	0.11
307	921	11.81	0.11
308	924	11.81	0.11
309	927	11.81	0.11
310	930	11.81	0.11

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Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
311	933	11.81	0.11
312	936	11.81	0.11
313	939	11.81	0.11
314	942	11.81	0.11
315	945	11.81	0.11
316	948	11.81	0.11
317	951	11.81	0.11
318	954	11.81	0.11
319	957	11.81	0.11
320	960	11.81	0.11
321	963	11.81	0.11
322	966	11.81	0.11
323	969	11.81	0.11
324	972	11.81	0.11
325	975	11.81	0.11
326	978	11.81	0.11
327	981	11.81	0.11
328	984	11.81	0.11
329	987	11.81	0.11
330	990	11.81	0.11
331	993	11.81	0.11
332	996	11.81	0.11
333	999	11.81	0.11
334	1002	11.81	0.11
335	1005	11.81	0.11
336	1008	11.81	0.11
337	1011	11.81	0.11
338	1014	11.81	0.11
339	1017	11.81	0.11
340	1020	11.81	0.11
341	1023	11.81	0.11

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Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
342	1026	11.81	0.11
343	1029	11.81	0.11
344	1032	11.81	0.11
345	1035	11.81	0.11
346	1038	11.81	0.11
347	1041	11.81	0.11
348	1044	11.81	0.11
349	1047	11.81	0.11
350	1050	11.81	0.11
351	1053	11.81	0.11
352	1056	11.81	0.11
353	1059	11.81	0.11
354	1062	11.81	0.11
355	1065	11.81	0.11
356	1068	11.81	0.11
357	1071	11.81	0.11
358	1074	11.81	0.11
359	1077	11.81	0.11
360	1080	11.81	0.11
361	1083	11.81	0.11
362	1086	11.81	0.11
363	1089	11.81	0.11
364	1092	11.81	0.11
365	1095	11.81	0.11
366	1098	11.81	0.11
367	1101	11.81	0.11
368	1104	11.81	0.11
369	1107	11.81	0.11
370	1110	11.81	0.11
371	1113	11.81	0.11
372	1116	11.81	0.11

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Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
373	1119	11.81	0.11
374	1122	11.81	0.11
375	1125	11.81	0.11
376	1128	11.81	0.11
377	1131	11.81	0.11
378	1134	11.81	0.11
379	1137	11.81	0.11
380	1140	11.81	0.11
381	1143	11.81	0.11
382	1146	11.81	0.11
383	1149	11.81	0.11
384	1152	11.81	0.11
385	1155	11.81	0.11
386	1158	11.81	0.11
387	1161	11.81	0.11
388	1164	11.80	0.10
389	1167	11.80	0.10
390	1170	11.80	0.10
391	1173	11.80	0.10
392	1176	11.80	0.10
393	1179	11.80	0.10
394	1182	11.80	0.10
395	1185	11.81	0.11
396	1188	11.81	0.11
397	1191	11.81	0.11
398	1194	11.81	0.11
399	1197	11.81	0.11
400	1200	11.81	0.11
401	1203	11.81	0.11
402	1206	11.81	0.11
403	1209	11.80	0.10

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Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
404	1212	11.80	0.10
405	1215	11.80	0.10
406	1218	11.80	0.10
407	1221	11.80	0.10
408	1224	11.80	0.10
409	1227	11.80	0.10
410	1230	11.80	0.10
411	1233	11.80	0.10
412	1236	11.80	0.10
413	1239	11.80	0.10
414	1242	11.80	0.10
415	1245	11.80	0.10
416	1248	11.80	0.10
417	1251	11.80	0.10
418	1254	11.80	0.10
419	1257	11.80	0.10
420	1260	11.80	0.10
421	1263	11.80	0.10
422	1266	11.80	0.10
423	1269	11.80	0.10
424	1272	11.80	0.10
425	1275	11.80	0.10
426	1278	11.80	0.10
427	1281	11.80	0.10
428	1284	11.80	0.10
429	1287	11.80	0.10
430	1290	11.80	0.10
431	1293	11.80	0.10
432	1296	11.80	0.10
433	1299	11.80	0.10
434	1302	11.80	0.10

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Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
435	1305	11.80	0.10
436	1308	11.80	0.10
437	1311	11.80	0.10
438	1314	11.80	0.10
439	1317	11.80	0.10
440	1320	11.80	0.10
441	1323	11.80	0.10
442	1326	11.80	0.10
443	1329	11.80	0.10
444	1332	11.80	0.10
445	1335	11.80	0.10
446	1338	11.80	0.10
447	1341	11.80	0.10
448	1344	11.80	0.10
449	1347	11.80	0.10
450	1350	11.80	0.10
451	1353	11.80	0.10
452	1356	11.80	0.10
453	1359	11.80	0.10
454	1362	11.80	0.10
455	1365	11.80	0.10
456	1368	11.80	0.10
457	1371	11.80	0.10
458	1374	11.80	0.10
459	1377	11.80	0.10
460	1380	11.80	0.10
461	1383	11.80	0.10
462	1386	11.80	0.10
463	1389	11.80	0.10
464	1392	11.80	0.10
465	1395	11.80	0.10

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300 Corporate Center Drive, Suite 200
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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Rising Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.7 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
466	1398	11.80	0.10
467	1401	11.80	0.10
468	1404	11.80	0.10
469	1407	11.80	0.10
470	1410	11.80	0.10
471	1413	11.80	0.10
472	1416	11.80	0.10
473	1419	11.80	0.10
474	1422	11.80	0.10
475	1425	11.80	0.10
476	1428	11.80	0.10
477	1431	11.80	0.10
478	1434	11.80	0.10
479	1437	11.80	0.10
480	1440	11.80	0.10
481	1443	11.80	0.10
482	1446	11.80	0.10
483	1449	11.80	0.10
484	1452	11.80	0.10
485	1455	11.80	0.10
486	1458	11.80	0.10
487	1461	11.80	0.10
488	1464	11.80	0.10
489	1467	11.80	0.10
490	1470	11.80	0.10
491	1473	11.80	0.10
492	1476	11.80	0.10
493	1479	11.80	0.10
494	1482	11.80	0.10
495	1485	11.80	0.10
496	1488	11.80	0.10

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Rising Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.7 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
497	1491	11.80	0.10
498	1494	11.80	0.10
499	1497	11.80	0.10
500	1500	11.80	0.10
501	1503	11.80	0.10
502	1506	11.80	0.10
503	1509	11.80	0.10
504	1512	11.80	0.10
505	1515	11.80	0.10
506	1518	11.80	0.10
507	1521	11.80	0.10
508	1524	11.80	0.10
509	1527	11.80	0.10
510	1530	11.80	0.10
511	1533	11.80	0.10
512	1536	11.80	0.10
513	1539	11.80	0.10
514	1542	11.80	0.10
515	1545	11.80	0.10
516	1548	11.80	0.10
517	1551	11.80	0.10
518	1554	11.80	0.10
519	1557	11.80	0.10
520	1560	11.80	0.10
521	1563	11.80	0.10
522	1566	11.80	0.10
523	1569	11.80	0.10
524	1572	11.80	0.10
525	1575	11.80	0.10
526	1578	11.80	0.10
527	1581	11.80	0.10

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-5**	**Slug test:**	**MW-5 Rising Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-5
Depth to static WL:	11.7 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	10 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/29/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
528	1584	11.80	0.10
529	1587	11.80	0.10
530	1590	11.80	0.10
531	1593	11.80	0.10
532	1596	11.80	0.10
533	1599	11.80	0.10
534	1602	11.80	0.10
535	1605	11.80	0.10
536	1608	11.80	0.10
537	1611	11.80	0.10
538	1614	11.80	0.10
539	1617	11.79	0.09
540	1620	11.80	0.10
541	1626	11.79	0.09
542	1629	11.79	0.09
543	1632	11.79	0.09
544	1635	11.80	0.10
545	1638	11.79	0.09
546	1641	11.79	0.09
547	1644	11.79	0.09
548	1647	11.79	0.09

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-7**	**Slug test:**	**MW-7 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-7
Depth to static WL:	9.14 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	5 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0.3	5.67	-3.47
2	0.6	5.97	-3.17
3	0.9	5.97	-3.17
4	1.8	6.78	-2.36
5	2.1	7.04	-2.10
6	2.4	7.05	-2.09
7	2.7	7.13	-2.01
8	3	7.12	-2.02
9	3.3	7.09	-2.05
10	3.6	7.13	-2.01
11	3.9	7.09	-2.05
12	4.2	7.30	-1.85
13	4.5	7.14	-2.00
14	4.8	7.29	-1.85
15	5.1	7.20	-1.94
16	5.4	7.28	-1.86
17	5.7	7.25	-1.89
18	6	7.34	-1.80
19	6.4	7.31	-1.83
20	6.7	7.22	-1.92
21	7.1	7.35	-1.79
22	7.5	7.38	-1.76
23	8	7.40	-1.74
24	8.4	7.43	-1.71
25	8.9	7.46	-1.69
26	9.5	7.48	-1.66
27	10	7.52	-1.62
28	10.6	7.55	-1.59
29	11.3	7.59	-1.55
30	11.9	7.62	-1.52
31	12.6	7.66	-1.49

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-7**	**Slug test:**	**MW-7 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-7
Depth to static WL:	9.14 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	5 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	13.4	7.69	-1.45
33	14.2	7.73	-1.41
34	15	7.76	-1.38
35	15.9	7.80	-1.34
36	16.8	7.84	-1.30
37	17.8	7.87	-1.27
38	18.9	7.92	-1.23
39	20	7.88	-1.26
40	21.2	7.97	-1.17
41	22.4	8.03	-1.11
42	23.8	8.07	-1.07
43	25.2	8.11	-1.03
44	26.7	8.16	-0.98
45	28.2	8.21	-0.93
46	29.8	8.25	-0.89
47	31.5	8.29	-0.85
48	33.3	8.33	-0.81
49	35.2	8.37	-0.77
50	37.3	8.41	-0.73
51	39.5	8.45	-0.69
52	41.8	8.50	-0.64
53	44.3	8.54	-0.60
54	46.9	8.58	-0.56
55	49.7	8.62	-0.52
56	52.6	8.65	-0.49
57	55.7	8.69	-0.45
58	59	8.72	-0.42
59	62.5	8.76	-0.38
60	66.2	8.79	-0.35
61	70.1	8.82	-0.32
62	74.3	8.85	-0.29

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-7**	**Slug test:**	**MW-7 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-7
Depth to static WL:	9.14 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	5 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	78.7	8.88	-0.26
64	83.4	8.90	-0.24
65	88.4	8.93	-0.21
66	93.7	8.95	-0.19
67	99.3	8.97	-0.17
68	105.2	8.99	-0.15
69	111.5	9.01	-0.13
70	118.1	9.02	-0.12
71	125.1	9.04	-0.10
72	132.6	9.05	-0.09
73	140.5	9.06	-0.08
74	148.9	9.07	-0.07
75	157.8	9.08	-0.06
76	167.2	9.09	-0.05
77	177.2	9.09	-0.05
78	187.2	9.10	-0.04
79	197.2	9.10	-0.04
80	207.2	9.11	-0.03
81	217.2	9.11	-0.03
82	227.2	9.11	-0.03
83	237.2	9.12	-0.02
84	247.2	9.12	-0.02
85	257.2	9.12	-0.02
86	267.2	9.12	-0.02
87	277.2	9.12	-0.02
88	287.2	9.13	-0.02
89	297.2	9.13	-0.01
90	307.2	9.13	-0.01
91	317.2	9.12	-0.02
92	327.2	9.13	-0.01
93	337.2	9.13	-0.01

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-7**	**Slug test:**	**MW-7 Falling Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-7
Depth to static WL:	9.14 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	5 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
94	347.2	9.13	-0.01
95	357.2	9.13	-0.01
96	367.2	9.13	-0.01
97	377.2	9.13	-0.01
98	387.2	9.14	-0.01
99	397.2	9.14	-0.01
100	407.2	9.13	-0.01
101	417.2	9.14	-0.01
102	427.2	9.14	-0.01
103	437.2	9.14	-0.01
104	447.2	9.14	-0.01
105	457.2	9.14	-0.01
106	467.2	9.14	-0.01
107	477.2	9.14	0.00
108	487.2	9.13	-0.01
109	497.2	9.14	0.00
110	507.2	9.14	0.00
111	517.2	9.14	0.00
112	527.2	9.14	0.00
113	537.2	9.14	0.00
114	547.2	9.14	0.00
115	557.2	9.14	0.00
116	567.2	9.14	0.00
117	577.2	9.14	0.00
118	587.2	9.14	0.00

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-7**	**Slug test:**	**MW-7 Falling Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-7
Depth to static WL:	9.14 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	5 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	3	6.97	-2.17
2	3.3	7.03	-2.11
3	3.6	7.07	-2.07
4	3.9	7.07	-2.07
5	4.2	7.10	-2.04
6	4.5	7.12	-2.02
7	4.8	7.15	-1.99
8	5.1	7.26	-1.89
9	5.4	7.04	-2.10
10	5.7	7.22	-1.92
11	6	7.33	-1.81
12	6.4	7.26	-1.88
13	6.7	7.10	-2.04
14	7.1	7.29	-1.85
15	7.5	7.31	-1.83
16	8	7.34	-1.80
17	8.4	7.37	-1.78
18	8.9	7.34	-1.80
19	9.5	7.39	-1.75
20	10	7.73	-1.41
21	10.6	7.35	-1.79
22	11.3	7.74	-1.40
23	11.9	7.58	-1.56
24	12.6	7.60	-1.54
25	13.4	7.64	-1.50
26	14.2	7.68	-1.47
27	15	7.71	-1.43
28	15.9	7.75	-1.39
29	16.8	7.79	-1.35
30	17.8	7.83	-1.31
31	18.9	7.87	-1.27

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Client: NL Industries

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Distance from PW:	0 [ft]	Test well:	MW-7
Depth to static WL:	9.14 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	5 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	20	7.92	-1.23
33	21.2	7.96	-1.18
34	22.4	8.00	-1.14
35	23.8	8.05	-1.10
36	25.2	8.09	-1.05
37	26.7	8.13	-1.01
38	28.2	8.18	-0.96
39	29.8	8.22	-0.92
40	31.5	8.26	-0.88
41	33.3	8.30	-0.84
42	35.2	8.35	-0.79
43	37.3	8.39	-0.75
44	39.5	8.43	-0.71
45	41.8	8.47	-0.68
46	44.3	8.51	-0.63
47	46.9	8.56	-0.58
48	49.7	8.60	-0.54
49	52.6	8.64	-0.50
50	55.7	8.68	-0.46
51	59	8.71	-0.43
52	62.5	8.75	-0.39
53	66.2	8.78	-0.36
54	70.1	8.82	-0.33
55	74.3	8.85	-0.29
56	78.7	8.87	-0.27
57	83.4	8.90	-0.24
58	88.4	8.92	-0.22
59	93.7	8.95	-0.19
60	99.3	8.97	-0.17
61	105.2	8.99	-0.15
62	111.5	9.01	-0.13

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Slug Test Data Report

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Client: NL Industries

Data observed at:	**MW-7**	**Slug test:**	**MW-7 Falling Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-7
Depth to static WL:	9.14 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	5 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	118.1	9.02	-0.12
64	125.1	9.04	-0.10
65	132.6	9.05	-0.09
66	140.5	9.06	-0.08
67	148.9	9.07	-0.07
68	157.8	9.08	-0.06
69	167.2	9.09	-0.05
70	177.2	9.09	-0.05
71	187.2	9.10	-0.04
72	197.2	9.10	-0.04
73	207.2	9.10	-0.04
74	217.2	9.11	-0.03
75	227.2	9.11	-0.03
76	237.2	9.11	-0.03
77	247.2	9.12	-0.02
78	257.2	9.12	-0.02
79	267.2	9.12	-0.02
80	277.2	9.12	-0.02
81	287.2	9.12	-0.02
82	297.2	9.12	-0.02
83	307.2	9.12	-0.02
84	317.2	9.13	-0.01
85	327.2	9.13	-0.01
86	337.2	9.13	-0.01
87	347.2	9.13	-0.01
88	357.2	9.13	-0.01
89	367.2	9.13	-0.01
90	377.2	9.13	-0.01
91	387.2	9.13	-0.01
92	397.2	9.13	-0.01
93	407.2	9.13	-0.01

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Distance from PW:	0 [ft]	Test well:	MW-7
Depth to static WL:	9.14 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	5 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
94	417.2	9.13	-0.01
95	427.2	9.13	-0.01
96	437.2	9.13	-0.01
97	447.2	9.13	-0.01
98	457.2	9.13	-0.01
99	467.2	9.13	-0.01
100	477.2	9.13	-0.01
101	487.2	9.14	0.00
102	497.2	9.14	0.00
103	507.2	9.13	-0.01
104	517.2	9.14	0.00
105	527.2	9.13	-0.01
106	537.2	9.14	0.00
107	547.2	9.14	0.00
108	557.2	9.14	0.00
109	567.2	9.14	0.00
110	577.2	9.14	0.00
111	587.2	9.14	0.00
112	597.2	9.14	0.00
113	607.2	9.14	0.00
114	617.2	9.14	0.00
115	627.2	9.14	0.00
116	637.2	9.14	0.00
117	647.2	9.14	0.00
118	657.2	9.14	0.00
119	667.2	9.14	0.00
120	677.2	9.14	0.00
121	687.2	9.14	0.00
122	697.2	9.14	0.00
123	707.2	9.14	0.00
124	717.2	9.14	0.00

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Data observed at:	**MW-7**	**Slug test:**	**MW-7 Falling Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-7
Depth to static WL:	9.14 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	5 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
125	727.2	9.14	0.00
126	737.2	9.14	0.00
127	747.2	9.14	0.00
128	757.2	9.14	0.00
129	767.2	9.14	0.00
130	777.2	9.14	0.00
131	787.2	9.14	0.00

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Slug Test Data Report

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Data observed at:	**MW-7**	**Slug test:**	**MW-7 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-7
Depth to static WL:	9.14 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	5 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	1.5	11.71	2.57
2	1.8	11.43	2.29
3	2.1	11.39	2.25
4	2.4	11.36	2.22
5	2.7	11.33	2.19
6	3	11.30	2.16
7	3.3	11.28	2.14
8	3.6	11.26	2.12
9	3.9	11.23	2.09
10	4.2	11.21	2.07
11	4.5	11.19	2.05
12	4.8	11.17	2.03
13	5.1	11.15	2.01
14	5.4	11.13	1.99
15	5.7	11.11	1.97
16	6	11.09	1.95
17	6.4	11.07	1.93
18	6.7	11.05	1.91
19	7.1	11.03	1.89
20	7.5	11.01	1.87
21	8	10.98	1.84
22	8.4	10.96	1.82
23	8.9	10.94	1.80
24	9.5	10.91	1.77
25	10	10.89	1.75
26	10.6	10.87	1.72
27	11.3	10.84	1.70
28	11.9	10.81	1.67
29	12.6	10.78	1.64
30	13.4	10.75	1.61
31	14.2	10.72	1.58

ENVIRONMENTAL STRATEGIES CONSULTING LLC
300 Corporate Center Drive, Suite 200
Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-7**	**Slug test:**	**MW-7 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-7
Depth to static WL:	9.14 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	5 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	15	10.69	1.55
33	15.9	10.65	1.51
34	16.8	10.62	1.48
35	17.8	10.58	1.44
36	18.9	10.55	1.40
37	20	10.51	1.37
38	21.2	10.47	1.33
39	22.4	10.43	1.29
40	23.8	10.39	1.24
41	25.2	10.34	1.20
42	26.7	10.30	1.16
43	28.2	10.26	1.12
44	29.8	10.22	1.07
45	31.5	10.14	1.00
46	33.3	10.13	0.99
47	35.2	10.07	0.93
48	37.3	10.04	0.90
49	39.5	9.99	0.85
50	41.8	9.95	0.81
51	44.3	9.90	0.76
52	46.9	9.86	0.72
53	49.7	9.81	0.67
54	52.6	9.77	0.63
55	55.7	9.72	0.58
56	59	9.68	0.54
57	62.5	9.64	0.50
58	66.2	9.60	0.46
59	70.1	9.56	0.42
60	74.3	9.52	0.38
61	78.7	9.48	0.34
62	83.4	9.45	0.31

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Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-7**	**Slug test:**	**MW-7 Rising Head (a)**
Distance from PW:	0 [ft]	Test well:	MW-7
Depth to static WL:	9.14 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	5 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	88.4	9.42	0.28
64	93.7	9.39	0.25
65	99.3	9.36	0.22
66	105.2	9.33	0.19
67	111.5	9.31	0.17
68	118.1	9.29	0.15
69	125.1	9.27	0.13
70	132.6	9.25	0.11
71	140.5	9.23	0.09
72	148.9	9.21	0.07
73	157.8	9.21	0.07
74	167.2	9.20	0.06
75	177.2	9.19	0.05
76	187.2	9.18	0.04
77	197.2	9.18	0.04
78	207.2	9.17	0.03
79	217.2	9.17	0.03
80	227.2	9.16	0.02
81	237.2	9.16	0.02
82	247.2	9.16	0.02
83	257.2	9.15	0.01
84	267.2	9.15	0.01
85	277.2	9.15	0.01
86	287.2	9.15	0.01
87	297.2	9.15	0.01
88	307.2	9.15	0.01
89	317.2	9.14	0.00
90	327.2	9.13	-0.01
91	337.2	9.14	0.00
92	347.2	9.14	0.00

ENVIRONMENTAL STRATEGIES CONSULTING LLC
300 Corporate Center Drive, Suite 200
Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-7**	**Slug test:**	**MW-7 Rising Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-7
Depth to static WL:	9.14 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	5 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0.9	11.64	2.50
2	1.2	11.49	2.35
3	1.5	11.44	2.30
4	1.8	11.41	2.27
5	2.1	11.36	2.22
6	2.4	11.34	2.20
7	2.7	11.31	2.17
8	3	11.29	2.15
9	3.3	11.25	2.11
10	3.6	11.23	2.09
11	3.9	11.20	2.06
12	4.2	11.18	2.04
13	4.5	11.16	2.02
14	4.8	11.14	1.99
15	5.1	11.11	1.97
16	5.4	11.09	1.95
17	5.7	11.07	1.93
18	6	11.05	1.91
19	6.4	11.03	1.89
20	6.7	11.01	1.87
21	7.1	10.98	1.84
22	7.5	10.95	1.81
23	8	10.93	1.79
24	8.4	10.90	1.76
25	8.9	10.87	1.73
26	9.5	10.85	1.71
27	10	10.82	1.68
28	10.6	10.80	1.66
29	11.3	10.77	1.63
30	11.9	10.74	1.60
31	12.6	10.71	1.57

ENVIRONMENTAL STRATEGIES CONSULTING LLC
300 Corporate Center Drive, Suite 200
Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-7**	**Slug test:**	**MW-7 Rising Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-7
Depth to static WL:	9.14 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	5 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	13.4	10.68	1.54
33	14.2	10.65	1.50
34	15	10.61	1.47
35	15.9	10.57	1.43
36	16.8	10.54	1.40
37	17.8	10.50	1.36
38	18.9	10.46	1.32
39	20	10.42	1.28
40	21.2	10.38	1.24
41	22.4	10.31	1.17
42	23.8	10.29	1.15
43	25.2	10.25	1.11
44	26.7	10.20	1.06
45	28.2	10.16	1.02
46	29.8	10.13	0.99
47	31.5	10.09	0.95
48	33.3	10.05	0.91
49	35.2	10.01	0.87
50	37.3	9.96	0.82
51	39.5	9.92	0.78
52	41.8	9.87	0.73
53	44.3	9.83	0.69
54	46.9	9.79	0.65
55	49.7	9.74	0.60
56	52.6	9.71	0.56
57	55.7	9.66	0.52
58	59	9.63	0.48
59	62.5	9.59	0.45
60	66.2	9.55	0.41
61	70.1	9.52	0.38
62	74.3	9.49	0.34

ENVIRONMENTAL STRATEGIES CONSULTING LLC
300 Corporate Center Drive, Suite 200
Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-7**	**Slug test:**	**MW-7 Rising Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-7
Depth to static WL:	9.14 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	5 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	78.7	9.45	0.31
64	83.4	9.43	0.29
65	88.4	9.40	0.26
66	93.7	9.37	0.23
67	99.3	9.35	0.21
68	105.2	9.33	0.19
69	111.5	9.31	0.17
70	118.1	9.29	0.15
71	125.1	9.28	0.14
72	132.6	9.26	0.12
73	140.5	9.25	0.11
74	148.9	9.24	0.10
75	157.8	9.23	0.09
76	167.2	9.22	0.08
77	177.2	9.21	0.07
78	187.2	9.19	0.05
79	197.2	9.20	0.06
80	207.2	9.20	0.06
81	217.2	9.19	0.05
82	227.2	9.19	0.05
83	237.2	9.19	0.05
84	247.2	9.19	0.04
85	257.2	9.18	0.04
86	267.2	9.18	0.04
87	277.2	9.18	0.04
88	287.2	9.18	0.04
89	297.2	9.18	0.04
90	307.2	9.17	0.03
91	317.2	9.17	0.03
92	327.2	9.17	0.03
93	337.2	9.17	0.03

ENVIRONMENTAL STRATEGIES CONSULTING LLC
300 Corporate Center Drive, Suite 200
Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-7**	**Slug test:**	**MW-7 Rising Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-7
Depth to static WL:	9.14 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	5 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
94	347.2	9.17	0.03
95	357.2	9.17	0.03
96	367.2	9.17	0.03
97	377.2	9.17	0.03
98	387.2	9.17	0.03
99	397.2	9.17	0.03
100	407.2	9.17	0.03
101	417.2	9.17	0.03
102	427.2	9.17	0.03
103	437.2	9.17	0.03
104	447.2	9.16	0.02
105	457.2	9.16	0.02
106	467.2	9.15	0.01
107	477.2	9.16	0.02
108	487.2	9.16	0.02
109	497.2	9.16	0.02
110	507.2	9.16	0.02
111	517.2	9.16	0.02
112	527.2	9.16	0.02
113	537.2	9.16	0.02
114	547.2	9.16	0.02
115	557.2	9.16	0.02
116	567.2	9.16	0.02
117	577.2	9.16	0.02
118	587.2	9.16	0.02
119	597.2	9.16	0.02
120	607.2	9.16	0.02
121	617.2	9.16	0.02
122	627.2	9.16	0.02
123	637.2	9.16	0.02
124	647.2	9.16	0.02

ENVIRONMENTAL STRATEGIES CONSULTING LLC
300 Corporate Center Drive, Suite 200
Moon Township, Pennsylvania 15108

Slug Test Data Report

Project: National Smelting CSR

No: 127541-05

Client: NL Industries

Data observed at:	**MW-7**	**Slug test:**	**MW-7 Rising Head (b)**
Distance from PW:	0 [ft]	Test well:	MW-7
Depth to static WL:	9.14 [ft]	Screen radius:	0.3333 [ft]
Location:	Atlanta, Georgia	Screen length:	5 [ft]
Test performed by:	gmb	Casing radius:	0.0833 [ft]
Date:	6/19/2005	Aquifer thickness:	24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
125	657.2	9.16	0.02
126	667.2	9.16	0.02
127	677.2	9.16	0.02
128	687.2	9.16	0.02
129	697.2	9.16	0.02
130	707.2	9.16	0.02
131	717.2	9.16	0.02
132	727.2	9.16	0.02
133	737.2	9.16	0.02
134	747.2	9.16	0.02
135	757.2	9.16	0.02
136	767.2	9.16	0.02
137	777.2	9.16	0.02
138	787.2	9.16	0.02
139	797.2	9.16	0.02
140	807.2	9.16	0.02
141	817.2	9.16	0.02
142	827.2	9.16	0.02

Appendix F

Slug Test Data Summary
Former National Smelting & Refining Site
Atlanta, Georgia

Well	Test	S1 (cm/s)	S2 (cm/s)	S3 (cm/s)	S4 (cm/s)	Geomean Conductivity (cm/s) (a)
MW-1	Falling Head (a)	1.01E-03	3.29E-04	1.26E-04		5.95E-04 r(eff)
MW-1	Falling Head (b)	1.03E-03	4.12E-04	1.84E-04		
MW-1	Rising Head (a) r(eff)	1.13E-02	2.11E-03	9.96E-04		
MW-1	Rising Head (b) r(eff)	1.28E-02	2.34E-03	1.01E-03		
MW-1	Rising Head (a)	1.81E-03	3.37E-04	1.59E-04		2.38E-04
MW-1	Rising Head (b)	2.04E-03	3.74E-04	1.62E-04		
MW-2	Falling Head (a)	9.37E-04	6.78E-04			4.23E-04
MW-2	Falling Head (b)	8.74E-04	6.47E-04			
MW-2	Rising Head (a)	1.29E-03	4.73E-04	1.24E-04		
MW-2	Rising Head (b)	1.30E-03	7.62E-04	2.91E-04		
MW-5	Falling Head (a)	9.33E-04	1.84E-04	2.69E-05		1.22E-04 r(eff)
MW-5	Falling Head (b)	9.81E-04	2.24E-04	4.68E-05		
MW-5	Rising Head (a) r(eff)	9.54E-03	4.77E-04	2.11E-04	7.42E-05	
MW-5	Rising Head (b) r(eff)	3.53E-03	2.52E-04	6.14E-05		
MW-5	Rising Head (a)	1.52E-03	7.63E-05	3.38E-05	1.19E-05	4.41E-05
MW-5	Rising Head (b)	5.64E-04	4.04E-05	9.82E-06		
MW-7	Falling Head (a)	1.51E-03	7.04E-04	9.57E-04	2.99E-04	5.43E-04
MW-7	Falling Head (b)	1.42E-03	6.56E-04	3.23E-04		
MW-7	Rising Head (a)	1.45E-03	1.21E-03			
MW-7	Rising Head (b)	1.82E-03	1.31E-03	4.94E-04	1.23E-04	

a/ Excludes S1, which reflects conductivity of the filter pack, all other slopes used to calculate conductivity.

APPENDIX

G GEOLOGIC CROSS SECTIONS

LEGEND
- MONITORING WELL
- SOIL BORING (1999 TO 2004)
- SOIL BORING (LAW 2001)
- SOIL BORING (2009)
- SURFACE SOIL SAMPLE (1999)
- CHAIN LINK FENCE
- FORMER STRUCTURE
- SMELTING POT (CLOSED IN PLACE)

LIGHT INDUSTRIAL
BISHOP STREET
1" CTF
HOOPTIE FENCE
GATE
CELLULAR TOWER
GRAVEL
ASPHALT PARKING LOT
MW-11
SF-101
ASPHALT DRIVE
GATE
CONCRETE APRON
B'
CB4X4
TH
20' GATE
CONCRETE
MW-5
G-1
G-8
G-9
G-9A
G-10
G-11
G-12
MW-4
G-66
G-65
G-64
WM
MW-3
AXS-12
G-62
AXS-15
A'
C'
G-67
AXS-4
AXS-10
GP-1
GP-2
G-13
AXS-11
G-14
G-15
G-16
SB-303
G-17
G-78
G-18
G-19
G-20
G-21
G-22
G-23
G-24
AXS-1
G-72
G-2
G-36
AXS-2
SF-103
G-42
G-46
G-46A
AXS-13
AXS-13B
SF-102
G-50
G-53
G-55
G-61
G-71
MW-10
D'
AXS-5
G-37
OLD BUILDING FOUNDATION
SF-105
SF-104
G-43
AXS-19
G-47
FORMER STEEL CANOPY
G-51
FORMER MILL/WAREHOUSE BUILDING FOUNDATION
G-54
FORMER STEEL TANK
G-56
MW-8
AXS-14
G-3
G-4
AXS-16
AXS-6
G-38
G-44
G-48
AXS-9
G-52
AXS-3
SB-304
G-60
G-59
MW-2
G-58
G-57
G-35
G-34
AXS-18
G-33
SD-204
G-32
GRAVEL
MECASLIN STREET
CSW
450 BISHOP STREET 1 STORY METAL BUILDING
6' CMP/3R BW
GP-6
G-68
G-5
G-39
GP-7
GP-12A
GP-12
GP-11
GP-3
GP-10
SB-302
FORMER OFFICE
G-45
FORMER GARAGE
G-49
SF-106
GP-4
G-6
G-40
SF-107
MW-6
CONCRETE
GP-9
AXS-8
G-31
G-30
GATE
SD-203
GRAVEL
RAILROAD MILE MARKER POST NO.634
GATE
MW-15
MW-14
G-7
MW-9
GP-8
G-29
MW-1
G-28
GP-5
G-69
SB-301
G-41
G-27
EDGE OF CONCRETE
MW-7D
MW-7E
SD-202
MW-7
D
K-2
K-3
K-4
AXS-7
G-26
AXS-17
G-25
SD-201
B
K-1
LOADING DOCK
CONCRETE
K-5
K-6
MW-12
A
MW-13D
MW-13DD
MW-13
C
G-70
NORFOLK SOUTHERN (REMAINDER TRACT 1)
TARGET – ATLANTIC STATION
G-12
PAVED PARKING
ATLANTIC STATION DEVELOPMENT
B
0 80 160
SCALE IN FEET

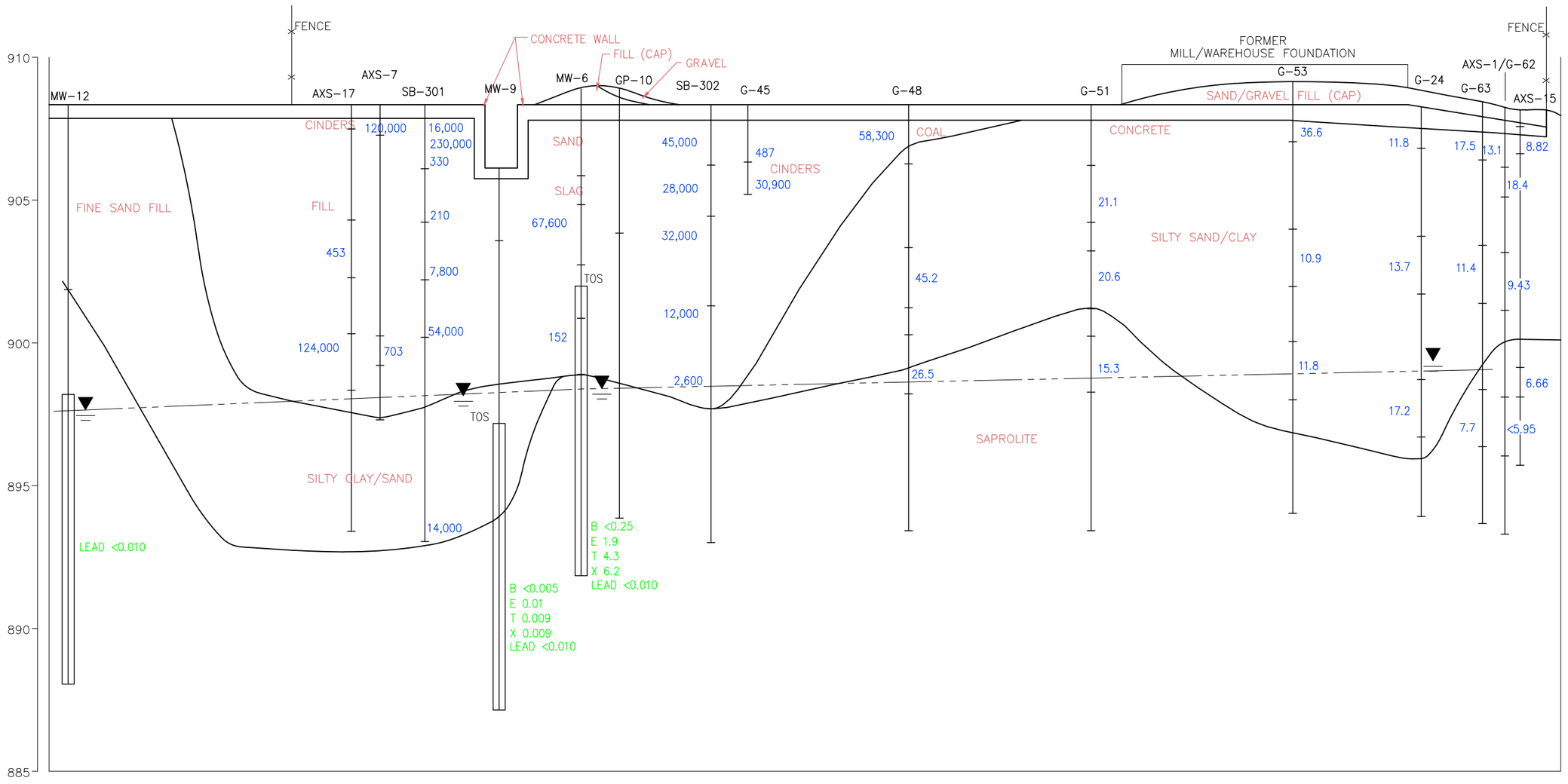
R:\ACAD\CADD_CLIENT\NL Industries\31401065\CAD\314V1065-005.dwg 5/23/2018 3:51 PM USEC01012

Drawn By: EGC
Checked:
Approved: SMB 5/22/2018
DWG Name: 314V1065-005

FORMER NATIONAL SMELTING & REFINING SITE
ATLANTA, GEORGIA
PREPARED FOR
NL INDUSTRIES

Figure G-1
GEOLOGIC CROSS SECTION LOCATIONS

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330



LEGEND

	CONTACT
	WATER TABLE 2018
TOS	TOP OF SCREENED INTERVAL
230,000	LEAD CONCENTRATION IN SOIL (mg/kg)
0.094	CONCENTRATION IN GROUNDWATER MAY 2018 (mg/kg)
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENE

NOTES:

1. THE ORIGINAL VERSION OF THIS DRAWING IS IN COLOR. BLACK AND WHITE COPIES MAY NOT ACCURATELY DEPICT CERTAIN INFORMATION.
2. SEE FIGURE G-1 FOR CROSS SECTION LOCATIONS.

4 FT. VE = 20X 80 FT.

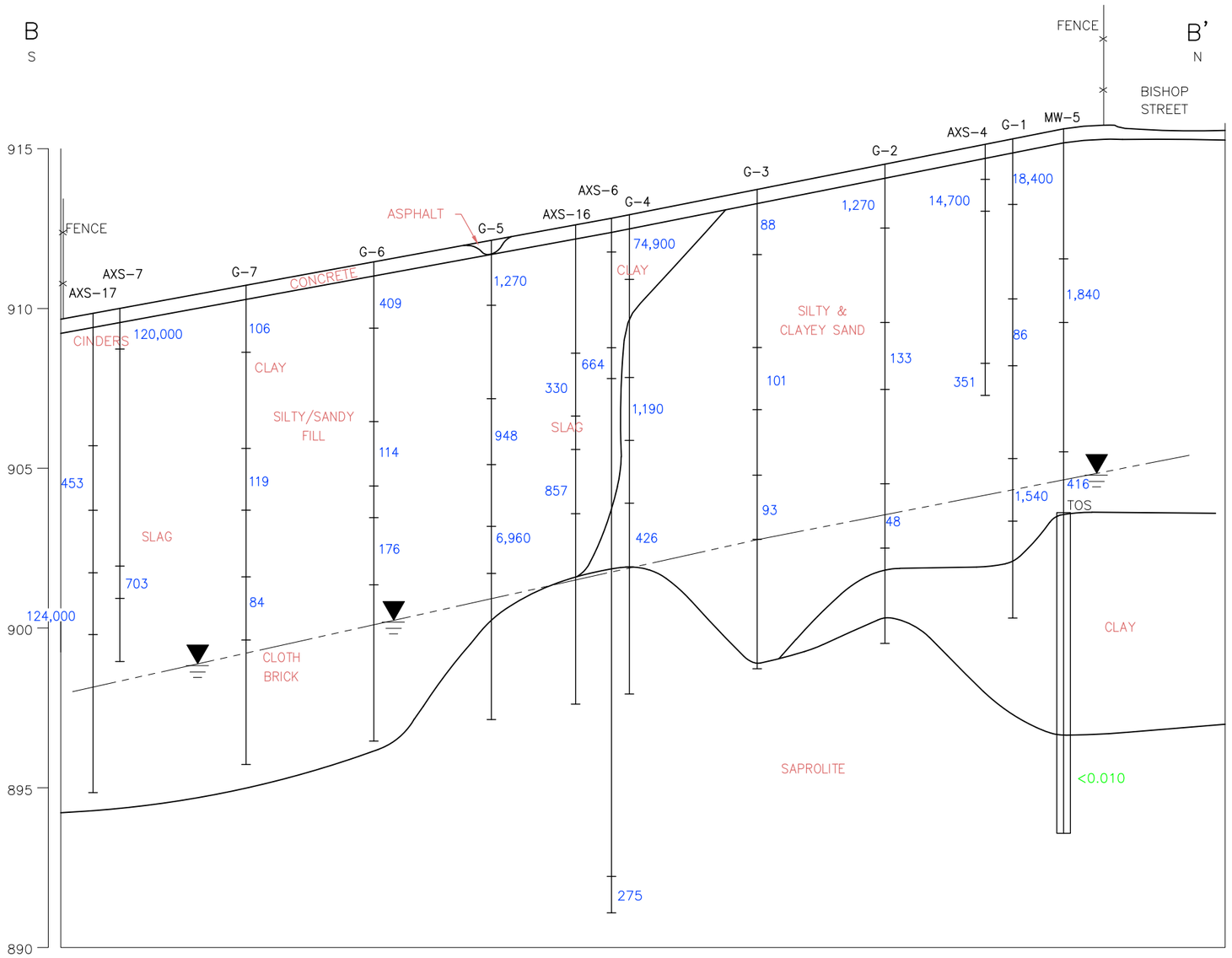
Drawn By: EGC
Checked:
Approved: SMB 5/22/2018
DWG Name: 314V1065-005

FORMER NATIONAL SMELTING & REFINING SITE
ATLANTA, GEORGIA
PREPARED FOR
NL INDUSTRIES

Figure G-2
GEOLOGIC CROSS SECTION A-A'

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

B



NOTES:

1. THE ORIGINAL VERSION OF THIS DRAWING IS IN COLOR. BLACK AND WHITE COPIES MAY NOT ACCURATELY DEPICT CERTAIN INFORMATION.
2. SEE FIGURE G-1 FOR CROSS SECTION LOCATIONS.

LEGEND

	CONTACT
	WATER TABLE 2018
TOS	TOP OF SCREENED INTERVAL
124,000	LEAD CONCENTRATION IN SOIL (mg/kg)
<0.010	LEAD CONCENTRATION IN GROUNDWATER MAY 2018 (mg/kg)

4 FT. — VE = 10X — 40 FT.

Drawn By: EGC
Checked:
Approved: SMS 5/22/2018
DWG Name: 314V1065-005

FORMER NATIONAL SMELTING & REFINING SITE
ATLANTA, GEORGIA
PREPARED FOR
NL INDUSTRIES

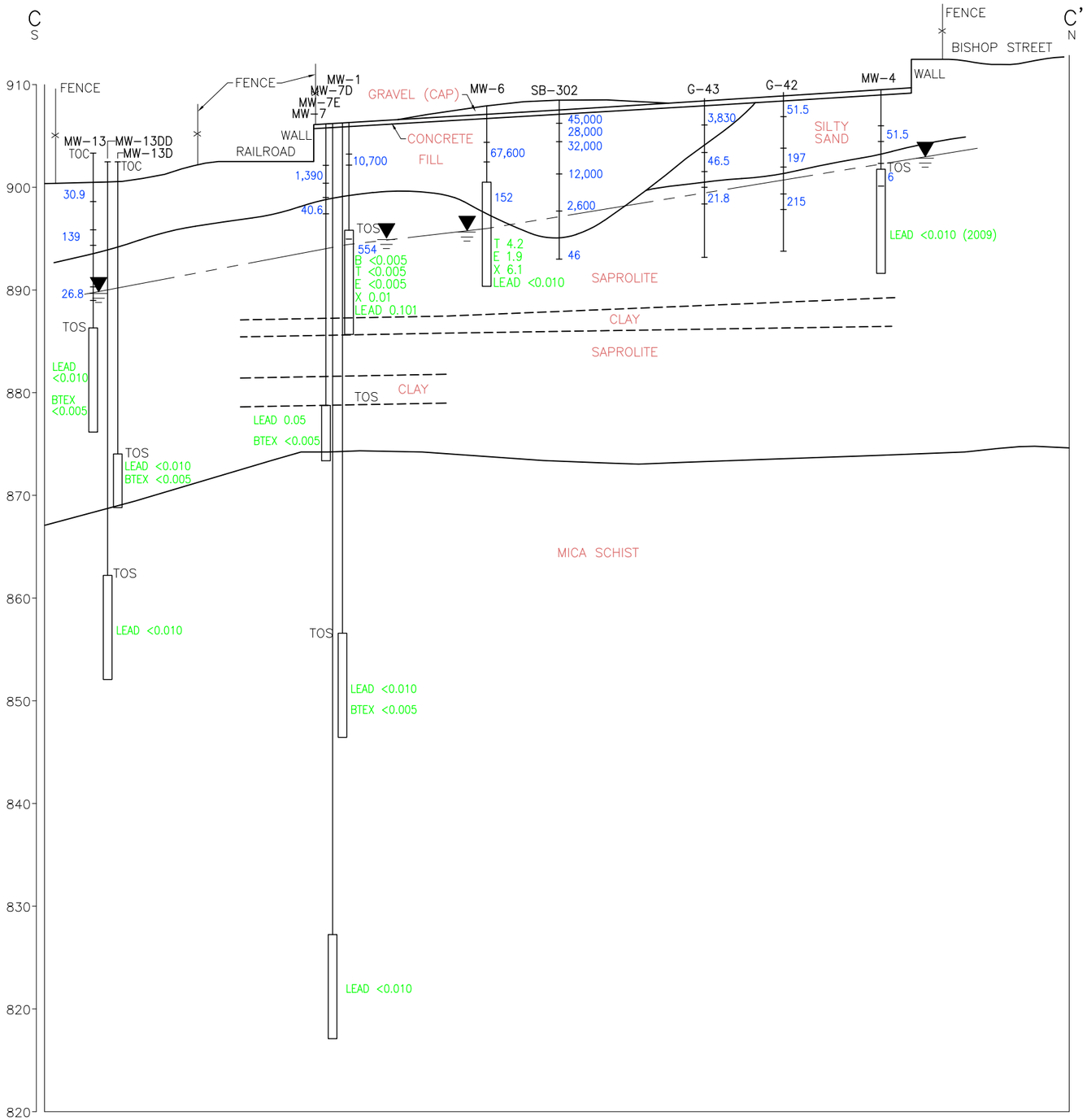
Figure G-3

GEOLOGIC CROSS SECTION B-B'

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

R:\ACAD\CADD_CLIENT\NL Industries\31401065\CAD\314V1065-005.dwg 5/23/2018 2:41 PM USEC01012

B



LEGEND

	CONTACT
	WATER TABLE
TOC	TOP OF CASING
TOS	TOP OF SCREENED INTERVAL
10,700	LEAD CONCENTRATION IN SOIL (mg/kg)
0.023	CONCENTRATION IN GROUNDWATER MAY 2018 (mg/kg)
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENE

NOTES:

1. THE ORIGINAL VERSION OF THIS DRAWING IS IN COLOR. BLACK AND WHITE COPIES MAY NOT ACCURATELY DEPICT CERTAIN INFORMATION.
2. SEE FIGURE G-1 FOR CROSS SECTION LOCATIONS.

12 FT. / 60 FT. — VE = 5X

FORMER NATIONAL SMELTING & REFINING SITE
ATLANTA, GEORGIA
PREPARED FOR
NL INDUSTRIES

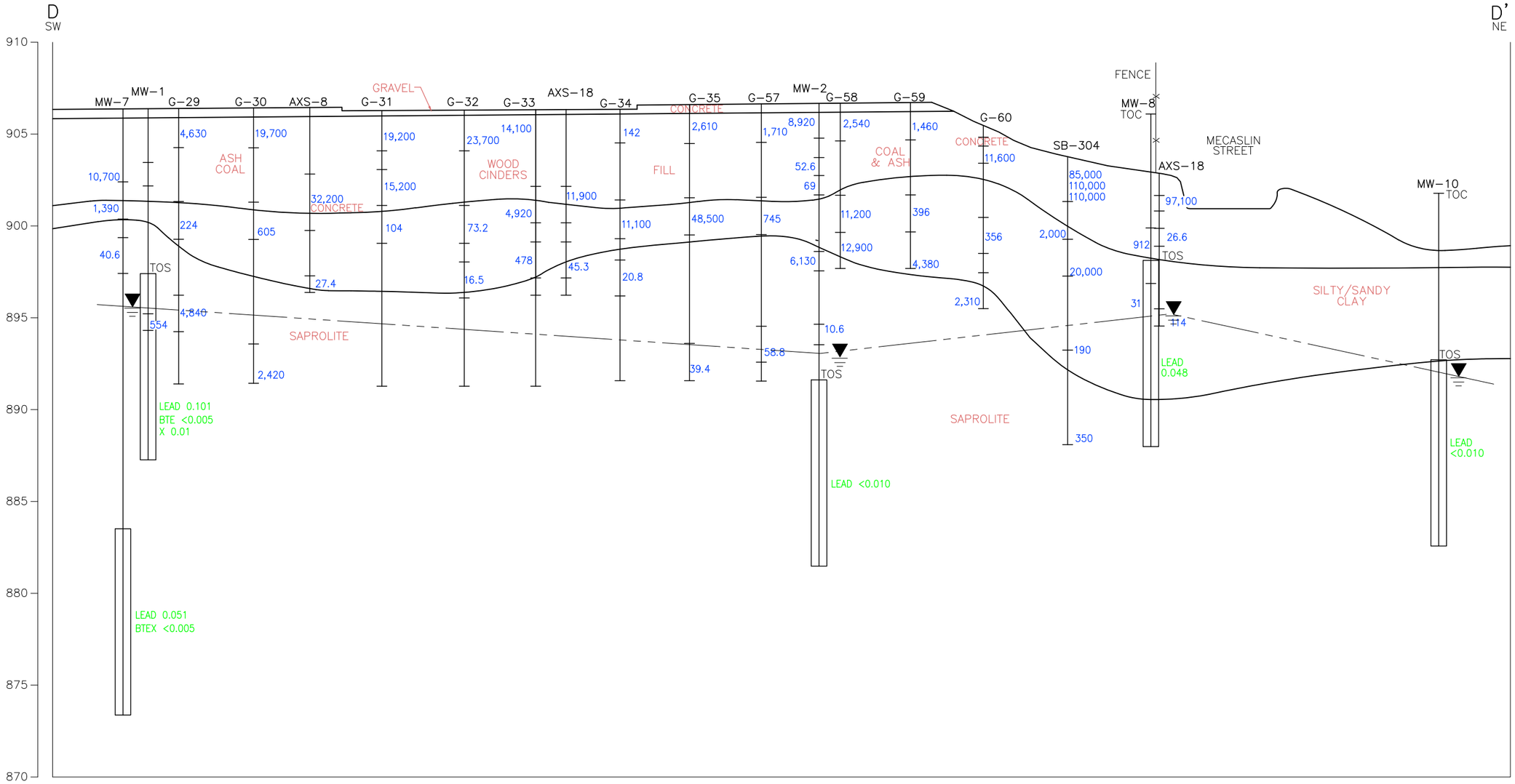
Drawn By: EGC
Checked:
Approved: SMB 5/22/2018
DWG Name: 314V1065-005

Figure G-4

GEOLOGIC CROSS SECTION C-C'

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

B

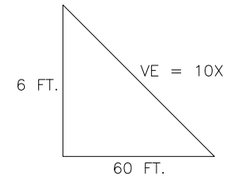


LEGEND

	CONTACT
	WATER TABLE
TOC	TOP OF CASING
TOS	TOP OF SCREENED INTERVAL
110,000	LEAD CONCENTRATION IN SOIL (mg/kg)
0.975	CONCENTRATION IN GROUNDWATER MAY 2018 (mg/kg)
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENE

NOTES:

1. THE ORIGINAL VERSION OF THIS DRAWING IS IN COLOR. BLACK AND WHITE COPIES MAY NOT ACCURATELY DEPICT CERTAIN INFORMATION.
2. SEE FIGURE G-1 FOR CROSS SECTION LOCATIONS.



Drawn By: EGC
Checked:
Approved: SMB 5/22/2018
DWG Name: 314V1065-005

FORMER NATIONAL SMELTING & REFINING SITE
ATLANTA, GEORGIA
PREPARED FOR
NL INDUSTRIES

Figure G-5

GEOLOGIC CROSS SECTION D-D'

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

B

APPENDIX

H

WATER WELL SURVEY

Local Water Resource Survey

Address: **450 Bishop Street, Atlanta, Fulton County, Georgia**
One Group Project #**A9042**

Longitude: **84° 24' 3.81"**
Latitude: **33° 47' 35.84"**

Groundwater Pollution Susceptibility
(Ground-Water Pollution Susceptibility Map of Georgia, 1992)

☐ High/Average (1/2 mile private, 2 mile public)

☒ Lower (1/4 mile private, 1 mile public)

Surface Waters

Nearest surface water body is: **un-named pond at McCaslin Street NW**
Nearest down-gradient surface water: **un-named pond at McCaslin Street NW**
Distance to the nearest down-gradient surface water body is: **600** feet to the south.

Drinking Water Receptors

☒ No drinking water supplies resources were discovered within the specified radii.

OR

☐ Drinking water supplies were discovered within specified radii:

Methodology

The possible presence of local water resources on the Site and surrounding area was investigated by any or all of the following means:

- Review of USGS topographic map (**NW Atlanta, Georgia dated 2014)**;
- Drive-by reconnaissance of the surrounding area for the specified radii;
- Conversations with county and/or city officials;
- Conversations with local residents;
- A USGS well survey for the specified radii;
- Review of Georgia Environmental Protection Division project files;
- State water resources lists of public water supplies;
- Communications with local health department and review of water well files
- Communications with local water department and review of water well files

P.O. Box 54382 | Atlanta, GA 30308
phone 404.815.8005 | fax 404.815.8002

National Lead
400 Bishop Street
Atlanta, GA 30318

Inquiry Number: 5294320.1s
May 18, 2018

The EDR GeoCheck® Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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SECTION **PAGE**

GEOCHECK ADDENDUM

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

GEOCHECK® - PHYSICAL SETTING SOURCE REPORT

TARGET PROPERTY ADDRESS

NATIONAL LEAD
400 BISHOP STREET
ATLANTA, GA 30318

TARGET PROPERTY COORDINATES

Latitude (North):	33.79339 - 33° 47' 36.20''
Longitude (West):	84.400915 - 84° 24' 3.29''
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	740636.5
UTM Y (Meters):	3742091.0
Elevation:	908 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	33084-G4 NORTHWEST ATLANTA, GA
Version Date:	1997

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

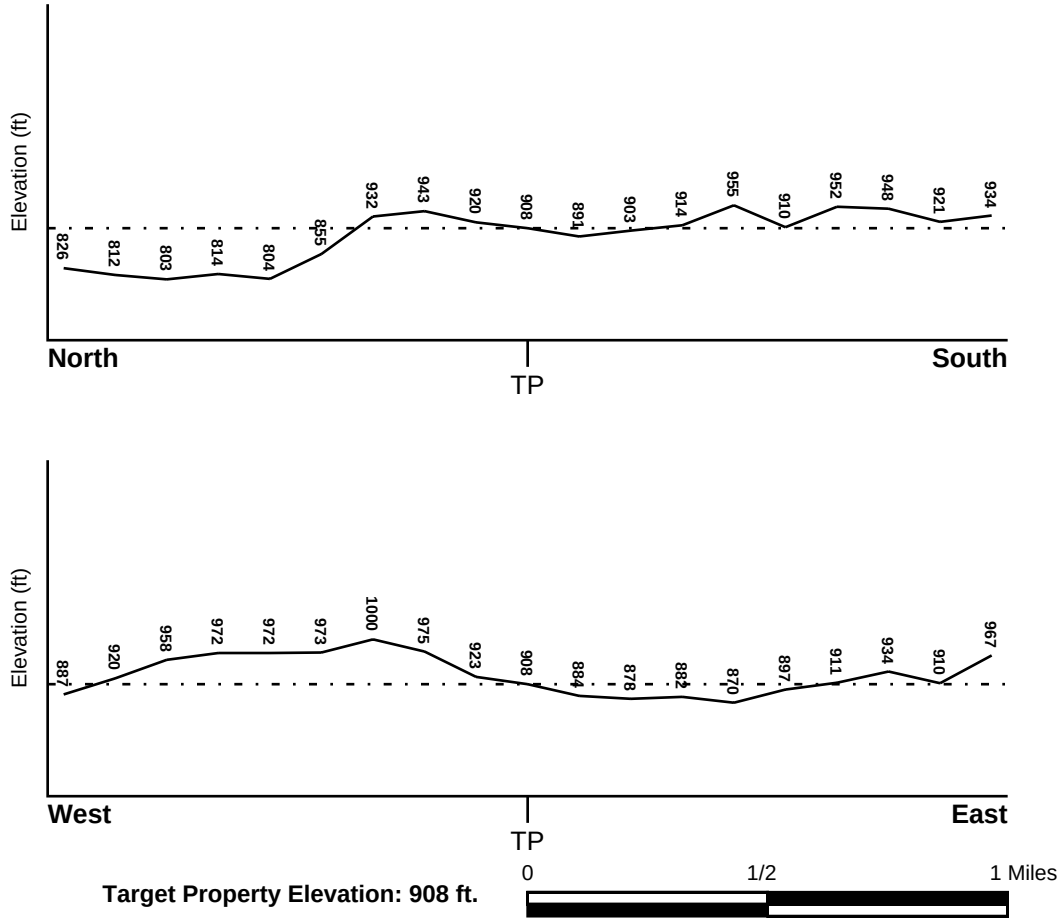
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General ESE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
13121C0242F	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
13121C0241F	FEMA FIRM Flood data
13121C0243F	FEMA FIRM Flood data
13121C0244F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NORTHWEST ATLANTA	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
1	1/8 - 1/4 Mile NE	Not Reported
2	1/8 - 1/4 Mile SE	Not Reported
3	1/4 - 1/2 Mile West	NNW
4	1/4 - 1/2 Mile WNW	NNW
D18	1/2 - 1 Mile SSW	NNW
23	1/2 - 1 Mile SW	SE
24	1/2 - 1 Mile SE	NW
25	1/2 - 1 Mile ESE	WNW
26	1/2 - 1 Mile NNE	W
27	1/2 - 1 Mile SSW	NW

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Paleozoic
System:	Mississippian
Series:	migmatite
Code:	mm3 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Metamorphic Rocks

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: URBAN LAND

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class: Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 10 inches

Depth to Bedrock Max: > 10 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	6 inches	variable	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: No Other Soil Types

Surficial Soil Types: No Other Soil Types

Shallow Soil Types: sandy clay

Deeper Soil Types: No Other Soil Types

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	1.000
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
B8	USGS40000265012	1/4 - 1/2 Mile NW
C11	USGS40000264988	1/4 - 1/2 Mile SW
C12	USGS40000264985	1/4 - 1/2 Mile SW
C15	USGS40000264983	1/2 - 1 Mile SW
D16	USGS40000264973	1/2 - 1 Mile SSW
E19	USGS40000264982	1/2 - 1 Mile SW
E22	USGS40000264976	1/2 - 1 Mile SW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

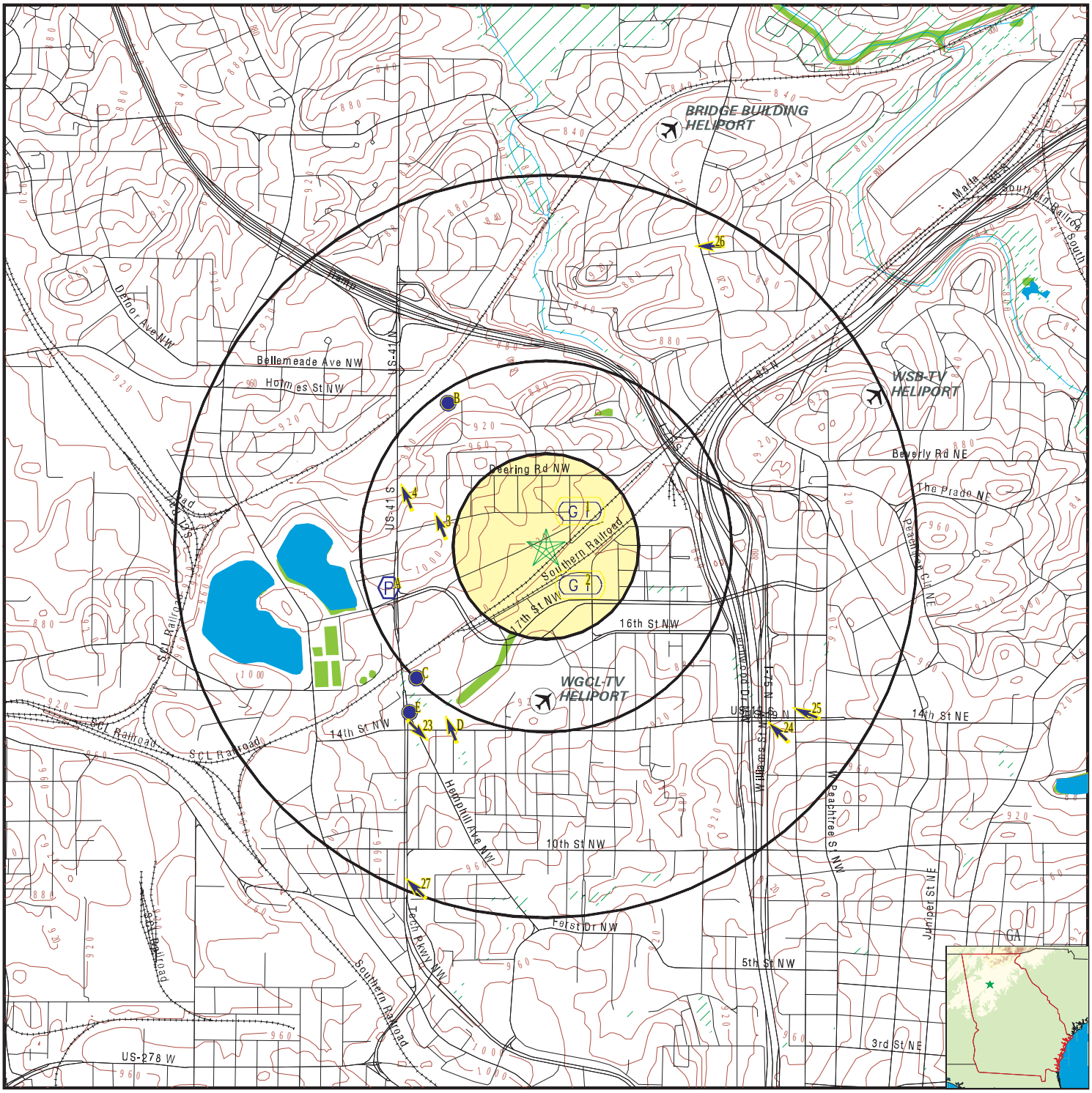
MAP ID	WELL ID	LOCATION FROM TP
A5	GA0450084	1/4 - 1/2 Mile WSW
A6	GA1570032	1/4 - 1/2 Mile WSW
A7	GA1570036	1/4 - 1/2 Mile WSW

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
B9	0000004651	1/4 - 1/2 Mile NW
C10	0000004649	1/4 - 1/2 Mile SW
C13	0000004647	1/4 - 1/2 Mile SW
C14	0000004646	1/2 - 1 Mile SW
D17	0000004643	1/2 - 1 Mile SSW
E20	0000004645	1/2 - 1 Mile SW
E21	0000004644	1/2 - 1 Mile SW

PHYSICAL SETTING SOURCE MAP - 5294320.1s



- County Boundary
- Major Roads
- Contour Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Wildlife Areas

SITE NAME:	National Lead	CLIENT:	One Consulting Group, Inc.
ADDRESS:	400 Bishop Street Atlanta GA 30318	CONTACT:	Brawner
LAT/LONG:	33.79339 / 84.400915	INQUIRY #:	5294320.1s
		DATE:	May 18, 2018 7:10 am

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

			Database	EDR ID Number
1 **NE** **1/8 - 1/4 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0-601378 Not Reported 10 Not Reported Not Reported 01/03/1997	**AQUIFLOW**	**18908**
2 **SE** **1/8 - 1/4 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0600289 Not Reported 15.49 25 Not Reported 07/1996	**AQUIFLOW**	**18891**
3 **West** **1/4 - 1/2 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	0-600190 NNW 3.25 53.95 Not Reported 8/26/1997	**AQUIFLOW**	**26297**
4 **WNW** **1/4 - 1/2 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	9-060134 NNW 15 35 Not Reported 03/22/1995	**AQUIFLOW**	**18927**

A5
WSW
1/4 - 1/2 Mile
Higher

FRDS PWS **GA0450084**

Epa region:	04	State:	GA
Pwsid:	GA0450084		
Pwsname:	WOLF CREEK RESORT		
City served:	Not Reported	State served:	GA
Zip served:	Not Reported	Fips county:	13045
Status:	Closed	Pop srvd:	102
Pwssvcconn:	75	Source:	Groundwater
Pws type:	TNCWS	Owner:	Private
Contact:	POWERS, BILLY		
Contactor gname:	Not Reported		
Contact phone:	402-426-9485	Contact address1:	1349 WASHINGTON STREET
Contact address2:	Not Reported	Contact city:	BLAIRE
Contact state:	NE	Contact zip:	68008
Activity code:	I		

Facid:	373		
Facname:	WELL #1 PLANT		
Facility type:	Treatment_plant	Activity code:	I
Treatment obj:	disinfection	Treatment process:	hypochlorination, post

Location Information:

Name:	WOLF CREEK RESORT		
Pwstypcd:	TNCWS	Primsrccd:	GW
Popserved:	102		
Add1:	1349 WASHINGTON STREET		
Add2:	Not Reported		
City:	BLAIRE	State:	NE
Zip:	68008	Phone:	402-426-9485
Cityserv:	WHITESBURG	Cntyserv:	Not Reported
Stateserv:	GA	Zipserv:	Not Reported

PWS ID:	GA0450084		
Date Initiated:	Not Reported	Date Deactivated:	Not Reported
PWS Name:	WOLF CREEK RESORT WOLF CREEK RESORT 1105 BANNING ROAD WHITESBURG, GA 30185		

Addressee / Facility:	Not Reported		
Facility Latitude:	33 36 52	Facility Longitude:	085 05 14
Facility Latitude:	33 47 30	Facility Longitude:	084 24 30
City Served:	Not Reported		
Treatment Class:	Untreated	Population:	00000047

Violations information not reported.

ENFORCEMENT INFORMATION:

System Name:	WOLF CREEK RESORT		
Violation Type:	Monitoring, Routine Major (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1994-01-01 - 1994-03-31		
Violation ID:	9400200		
Enforcement Date:	1994-05-12	Enf. Action:	State Public Notif Requested
System Name:	WOLF CREEK RESORT		
Violation Type:	Monitoring, Routine Major (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1994-04-01 - 1994-06-30		
Violation ID:	9400300		
Enforcement Date:	1994-08-02	Enf. Action:	State Public Notif Requested
System Name:	WOLF CREEK RESORT		
Violation Type:	Monitoring, Routine Major (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1995-04-01 - 1995-06-30		
Violation ID:	9500100		
Enforcement Date:	1995-07-28	Enf. Action:	State Public Notif Requested

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A6
WSW
1/4 - 1/2 Mile
Higher

FRDS PWS **GA1570032**

Epa region:	04	State:	GA
Pwsid:	GA1570032		
Pwsname:	RANCHO NORTH S/D		
City served:	Not Reported	State served:	GA
Zip served:	Not Reported	Fips county:	13121
Status:	Closed	Pop srvd:	135
Pwssvcconn:	50	Source:	Groundwater
Pws type:	CWS	Owner:	unknown
Contact:	RANCHO NORTH S/D		
Contactor gname:	Not Reported		
Contact phone:	404-875-9412	Contact address1:	Not Reported
Contact address2:	P.O. BOX 77108	Contact city:	ATLANTA
Contact state:	GA	Contact zip:	30309
Activity code:	I		

Facid:	1T		
Facname:	06DW00000000000		
Facility type:	Treatment_plant	Activity code:	I
Treatment obj:	disinfection	Treatment process:	chlorination (frds-1.5)

Location Information:

Name:	RANCHO NORTH S/D		
Pwstypcd:	CWS	Primsrccd:	GW
Popserved:	135		
Add1:	Not Reported		
Add2:	P.O. BOX 77108		
City:	ATLANTA	State:	GA
Zip:	30309	Phone:	404-875-9412
Cityserv:	Not Reported	Cntyserv:	Not Reported
Stateserv:	GA	Zipserv:	Not Reported

PWS ID: GA1570032
Date Initiated: 7706 Date Deactivated: Not Reported
PWS Name: RANCHO NORTH S/D
P.O. BOX 77108
ATLANTA, GA 30309

Addressee / Facility: Not Reported

Facility Latitude: 33 47 30 Facility Longitude: 084 24 30
City Served: JEFFERSON, GEOR
Treatment Class: Treated Population: 00000135

Violations information not reported.

A7
WSW
1/4 - 1/2 Mile
Higher

FRDS PWS **GA1570036**

Epa region:	04	State:	GA
Pwsid:	GA1570036		
Pwsname:	53 TRUCK STOP		
City served:	Not Reported	State served:	GA
Zip served:	Not Reported	Fips county:	13121
Status:	Closed	Pop srvd:	75
Pwssvcconn:	4	Source:	Groundwater
Pws type:	TNCWS	Owner:	unknown
Contact:	53 TRUCK STOP		
Contactor gname:	Not Reported		
Contact phone:	Not Reported	Contact address1:	Not Reported
Contact address2:	POST OFFICE BOX 6	Contact city:	HOSCHTON
Contact state:	GA	Contact zip:	Not Reported
Activity code:	I		

Location Information:

Name:	53 TRUCK STOP		
Pwstypcd:	TNCWS	Primsrccd:	GW
Popserved:	75		
Add1:	Not Reported		
Add2:	POST OFFICE BOX 6		
City:	HOSCHTON	State:	GA
Zip:	Not Reported	Phone:	Not Reported
Cityserv:	Not Reported	Cntyserv:	Not Reported
Stateserv:	GA	Zipserv:	Not Reported

PWS ID: GA1570036
Date Initiated: 7706 Date Deactivated: Not Reported
PWS Name: 53 TRUCK STOP
POST OFFICE BOX 6
HOSCHTON, GA

Addressee / Facility: Not Reported

Facility Latitude:	33 47 30	Facility Longitude:	084 24 30
Facility Latitude:	34 02 00	Facility Longitude:	083 36 00
City Served:	HOSCHTON, GA.		
Treatment Class:	Untreated	Population:	00000075

Violations information not reported.

B8
NW
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000265012**

Org. Identifier:	USGS-GA		
Formal name:	USGS Georgia Water Science Center		
Monloc Identifier:	USGS-334756084242001		
Monloc name:	10EE23		
Monloc type:	Well		
Monloc desc:	MACDOUGALD-WARREN		
Huc code:	03130001	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.7989942
Longitude:	-84.4054832	Sourcemap scale:	24000

Horiz Acc measure:	1	Horiz Acc measure units:	minutes
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	830.00
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19570501	Welldepth:	395
Welldepth units:	ft	Wellholedepth:	395
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

B9
NW
1/4 - 1/2 Mile
Lower

GA WELLS **0000004651**

Well #:	10EE23	County FIPS:	121
Remarks:	MACDOUGALD-WARREN		
Latitude:	334756	Longitude:	0842420
Altitude:	830.00	Depth:	395
Depth to bottom of Casing:	44.00	Diameter of Casing:	6.00
Casing Material:	Steel	Discharge:	130.00
Type of Openings:	Open hole	Date Built:	195705
Depth to top of this open interval:		44.00	
Depth to bottom of this open interval:		395.00	
Primary Use:	Unused		
Aquifer:	Not Reported		

C10
SW
1/4 - 1/2 Mile
Higher

GA WELLS **0000004649**

Well #:	10EE47	County FIPS:	121
Remarks:	ATLANTA STEEL		
Latitude:	334719	Longitude:	0842425
Altitude:	915.20	Depth:	21.50
Depth to bottom of Casing:	Not Reported	Diameter of Casing:	4
Casing Material:	PVC, fiberglass, other plastic	Discharge:	Not Reported
Type of Openings:	Not Reported	Date Built:	19880128
Depth to top of this open interval:		Not Reported	
Depth to bottom of this open interval:		Not Reported	
Primary Use:	Not Reported		
Aquifer:	Not Reported		

C11
SW
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000264988**

Org. Identifier:	USGS-GA		
Formal name:	USGS Georgia Water Science Center		
Monloc Identifier:	USGS-334719084242501		
Monloc name:	10EE47		
Monloc type:	Well		
Monloc desc:	ATLANTA STEEL		
Huc code:	03130001	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.7887167
Longitude:	-84.406872	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	915.20
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19880128	Welldepth:	21.5
Welldepth units:	ft	Wellholedepth:	21.5
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1988-06-01	11.29	

C12
SW
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000264985**

Org. Identifier:	USGS-GA		
Formal name:	USGS Georgia Water Science Center		
Monloc Identifier:	USGS-334718084242601		
Monloc name:	10EE42		
Monloc type:	Well		
Monloc desc:	INSTITUTE OF PAPER SCIENC		
Huc code:	03130001	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.788439
Longitude:	-84.4071499	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	915
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	19
Welldepth units:	ft	Wellholedepth:	19
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1995-05-16	8.75	

C13
SW
1/4 - 1/2 Mile
Higher

GA WELLS **0000004647**

Well #:	10EE42	County FIPS:	121
Remarks:	INSTITUTE OF PAPER SCIENC		
Latitude:	334718	Longitude:	0842426
Altitude:	915	Depth:	19
Depth to bottom of Casing:	Not Reported	Diameter of Casing:	2
Casing Material:	PVC, fiberglass, other plastic	Discharge:	Not Reported
Type of Openings:	Not Reported	Date Built:	Not Reported
Depth to top of this open interval:		Not Reported	
Depth to bottom of this open interval:		Not Reported	
Primary Use:	Unused		
Aquifer:	Not Reported		

C14
SW
1/2 - 1 Mile
Higher

GA WELLS **0000004646**

Well #:	10EE43	County FIPS:	121
Remarks:	INSTITUTE OF PAPER SCIENC		
Latitude:	334715	Longitude:	0842425
Altitude:	910	Depth:	14.8
Depth to bottom of Casing:	Not Reported	Diameter of Casing:	2
Casing Material:	PVC, fiberglass, other plastic	Discharge:	Not Reported
Type of Openings:	Not Reported	Date Built:	Not Reported
Depth to top of this open interval:		Not Reported	
Depth to bottom of this open interval:		Not Reported	
Primary Use:	Unused		
Aquifer:	Not Reported		

C15
SW
1/2 - 1 Mile
Higher

FED USGS **USGS40000264983**

Org. Identifier:	USGS-GA		
Formal name:	USGS Georgia Water Science Center		
Monloc Identifier:	USGS-334715084242501		
Monloc name:	10EE43		
Monloc type:	Well		
Monloc desc:	INSTITUTE OF PAPER SCIENC		
Huc code:	03130001	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.7876056
Longitude:	-84.406872	Sourcemap scale:	24000

Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	910
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	14.8
Welldepth units:	ft	Wellholedepth:	14.8
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1995-05-16	8.41	

D16
SSW
1/2 - 1 Mile
Higher

FED USGS **USGS40000264973**

Org. Identifier:	USGS-GA		
Formal name:	USGS Georgia Water Science Center		
Monloc Identifier:	USGS-334710084241901		
Monloc name:	10EE38		
Monloc type:	Well		
Monloc desc:	INSTITUTE OF PAPER SCIENC		
Huc code:	03130001	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.7862168
Longitude:	-84.4052053	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	910
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Piedmont and Blue Ridge crystalline-rock aquifers		
Formation type:	Saprolite		
Aquifer type:	Unconfined single aquifer		
Construction date:	Not Reported	Welldepth:	24
Welldepth units:	ft	Wellholedepth:	24
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 2

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1995-07-13	18.91		1995-05-16	14.64	

D17
SSW
1/2 - 1 Mile
Higher

GA WELLS **0000004643**

Well #:	10EE38	County FIPS:	121
Remarks:	INSTITUTE OF PAPER SCIENC		
Latitude:	334710	Longitude:	0842419
Altitude:	910	Depth:	24
Depth to bottom of Casing:	Not Reported	Diameter of Casing:	2
Casing Material:	PVC, fiberglass, other plastic	Discharge:	Not Reported
Type of Openings:	Not Reported	Date Built:	Not Reported
Depth to top of this open interval:		Not Reported	
Depth to bottom of this open interval:		Not Reported	
Primary Use:	Unused		
Aquifer:	ENOZOIC QUARTERNARY - QUATERNARY SAPROLITE		

D18
SSW
1/2 - 1 Mile
Higher

Site ID:	0-601179
Groundwater Flow:	NNW
Shallow Water Depth:	6.67
Deep Water Depth:	9.39
Average Water Depth:	Not Reported
Date:	9/1992

AQUIFLOW **26316**

E19
SW
1/2 - 1 Mile
Higher

FED USGS **USGS40000264982**

Org. Identifier:	USGS-GA		
Formal name:	USGS Georgia Water Science Center		
Monloc Identifier:	USGS-334714084242701		
Monloc name:	10EE44		
Monloc type:	Well		
Monloc desc:	INSTITUTE OF PAPER SCIENC		
Huc code:	03130001	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.7873279
Longitude:	-84.4074276	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	915
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	18.2
Welldepth units:	ft	Wellholedepth:	18.2
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1995-05-16	5.65	

E20
SW
1/2 - 1 Mile
Higher

GA WELLS **0000004645**

Well #:	10EE44	County FIPS:	121
Remarks:	INSTITUTE OF PAPER SCIENC		
Latitude:	334714	Longitude:	0842427
Altitude:	915	Depth:	18.2
Depth to bottom of Casing:	Not Reported	Diameter of Casing:	2
Casing Material:	PVC, fiberglass, other plastic	Discharge:	Not Reported
Type of Openings:	Not Reported	Date Built:	Not Reported
Depth to top of this open interval:		Not Reported	
Depth to bottom of this open interval:		Not Reported	
Primary Use:	Unused		
Aquifer:	Not Reported		

E21
SW
1/2 - 1 Mile
Lower

GA WELLS **0000004644**

Well #:	10EE41	County FIPS:	121
Remarks:	INSTITUTE OF PAPER SCIENC		
Latitude:	334711	Longitude:	0842426
Altitude:	905	Depth:	14.2
Depth to bottom of Casing:	Not Reported	Diameter of Casing:	2
Casing Material:	PVC, fiberglass, other plastic	Discharge:	Not Reported
Type of Openings:	Not Reported	Date Built:	Not Reported
Depth to top of this open interval:		Not Reported	
Depth to bottom of this open interval:		Not Reported	
Primary Use:	Unused		
Aquifer:	Not Reported		

E22
SW
1/2 - 1 Mile
Lower

FED USGS **USGS40000264976**

Org. Identifier:	USGS-GA		
Formal name:	USGS Georgia Water Science Center		
Monloc Identifier:	USGS-334711084242601		
Monloc name:	10EE41		
Monloc type:	Well		
Monloc desc:	INSTITUTE OF PAPER SCIENC		
Huc code:	03130001	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.7864946
Longitude:	-84.4071499	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	905
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Not Reported		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	14.2
Welldepth units:	ft	Wellholedepth:	14.2
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1995-05-16	7.35	

23
SW
1/2 - 1 Mile
Lower

Site ID:	9-000633
Groundwater Flow:	SE
Shallow Water Depth:	4.2
Deep Water Depth:	Not Reported
Average Water Depth:	Not Reported
Date:	9/1998

AQUIFLOW **26267**

24
SE
1/2 - 1 Mile
Higher

Site ID:	9-000377
Groundwater Flow:	NW
Shallow Water Depth:	27.30
Deep Water Depth:	34.50
Average Water Depth:	Not Reported
Date:	06/30/1995

AQUIFLOW **18947**

25
ESE
1/2 - 1 Mile
Higher

Site ID:	0-600821
Groundwater Flow:	WNW
Shallow Water Depth:	23.88
Deep Water Depth:	34.41
Average Water Depth:	Not Reported
Date:	05/26/1995

AQUIFLOW **18945**

26
NNE
1/2 - 1 Mile
Lower

Site ID:	0670426
Groundwater Flow:	W
Shallow Water Depth:	4.98
Deep Water Depth:	21
Average Water Depth:	Not Reported
Date:	07/31/1996

AQUIFLOW **18860**

27
SSW
1/2 - 1 Mile
Higher

Site ID:	0-601139
Groundwater Flow:	NW
Shallow Water Depth:	20.00
Deep Water Depth:	22.45
Average Water Depth:	Not Reported
Date:	09/26/1994

AQUIFLOW **19020**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for FULTON County: 1

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 30318

Number of sites tested: 4

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.075 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	1.600 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Georgia GIS Clearinghouse
Telephone: 706-542-1581

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Georgia Public Supply Wells
Source: Georgia Department of Community Affairs
Telephone: 404-894-0127

USGS Georgia Water Wells
Source: USGS, Georgia District Office
Telephone: 770-903-9100

DNR Managed Lands
Source: Department of Natural Resources
Telephone: 706-557-3032
This dataset provides 1:24,000-scale data depicting boundaries of land parcels making up the public lands managed by the Georgia Department of Natural Resources (GDNR). It includes polygon representations of State Parks, State Historic Parks, State Conservation Parks, State Historic Sites, Wildlife Management Areas, Public Fishing Areas, Fish Hatcheries, Natural Areas and other specially-designated areas. The data were collected and located by the Georgia Department of Natural Resources. Boundaries were digitized from survey plats or other information.

OTHER STATE DATABASE INFORMATION

RADON

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

USGS Well Search - 400 Bishop Street

Site Latitude 334736
Site Longitude 842404

County Code	Local Well #	Well Identifier	Latitude	Longitude	Horizontal Datum	Altitude	Vertical Datum	Depth of Well	Depth of Casing	Diameter	Casing Material	Top of open Interval	Bottom of open interval	Type of Opening	Date of Construction	Discharge	Well Type	Approx. Distance from site (feet)	
121	10EE23	MACDOUGALD-WARREN	334756	842420	NAD27	830	NGVD29	395	44	6	S	44	395	X	1957	130	U	1453	
121	10EE47	ATLANTA STEEL	334719	842425	NAD27	915.2	NGVD29	21.5		4	P				1988			1482	
121	10EE42	INSTITUTE OF PAPER SCIENC	334718	842426	NAD27	915	NGVD29	19		2	P						U	1561	
121	10EE43	INSTITUTE OF PAPER SCIENC	334715	842425	NAD27	910	NGVD29	14.8		2	P						U	1656	
121	10EE38	INSTITUTE OF PAPER SCIENC	334710	842419	NAD27	910	NGVD29	24		2	P						U	1739	110SPRL
121	10EE44	INSTITUTE OF PAPER SCIENC	334714	842427	NAD27	915	NGVD29	18.2		2	P						U	1769	
121	10EE41	INSTITUTE OF PAPER SCIENC	334711	842426	NAD27	905	NGVD29	14.2		2	P						U	1876	
121	10EE34	SONOCO PRODUCTS	334651	842436	NAD27	780	NGVD29	800	41	6	S	41	800	X	1966	16	C	5357	
121	10EE17	SOUTHERN ALUMINUM, 2	334756	842523	NAD27	905	NGVD29	118										6210	400GNSS
121	10EE46	MACYS	334750	842532	NAD27	880	NGVD29											6607	
121	10EE06	SEYDEL-WOOLEY & CO	334633	842539	NAD27	900	NGVD29	550	12	8	S	12	550	X	1967	351	C	9272	320CRSL
121	10EE05	SEYDEL-WOOLEY & CO	334629	842538	NAD27	910	NGVD29	450	27	8	S	28	450	X	1943	110	C	9396	
121	10EE15	WOLF PHOTO LAB	334624	842239	NAD27	940	NGVD29	477	37	6	S	37	477	X	1957	66	C	10795	
121	10EE35	FEDERAL BLDG DWATRNG WELL	334513	842338	NAD27	1019.87	NGVD29	81	80	4.5	P	80	81	P	1994	5	D	13800	110SPRL
121	10EE36	TREMONT TMPL BPTST CH SPG	334827	842659	NAD27	925	NGVD29									5	U	14152	320CRSL
121	10EE52	BP GAS STN SIMPSON S MW-4	334550	842627	NAD27	940	NGVD29	31.05		4	P				1994		U	15966	110SPRL
121	10EE49	BP GAS STN SIMPSON S MW-1	334550	842627	NAD27	940	NGVD29	30.65		4	P				1994		U	15966	
121	10EE50	BP GAS STN SIMPSON S MW-2	334550	842627	NAD27	940	NGVD29			4	P				1994		U	15966	
121	10EE51	BP GAS STN SIMPSON S MW-3	334550	842627	NAD27	940	NGVD29	28.8		4	P				1994		U	15966	
121	10DD58	STATE OF GA BLD AUTH	334459	842320	NAD27	970	NGVD29	507	86		S	86	507	X	1978	80	I	17167	
121	11EE17	BP GAS STN CHESHIRE BRDG	334905	842107	NAD27	855	NGVD29	19	9	4	P	9	19	P	1994		U	18277	110SPRL
89	11EE02	ASA CANDLER ESTATE	334655	842045	NAD27	1000	NGVD29	680	40	6	S	40	680	X	1935	79	U	19012	
121	10DD57	JOHNSON-FLOKER CO.	334416	842424	NAD27	1000	NGVD29	580	56	6	S	56	580	X	1971	55	U	19227	
89	11EE03	ASA CANDLER ESTATE	334657	842037	NAD27	1000	NGVD29	980	40	10	S	40	980	X	1932	225	U	19379	
89	11EE01	CENTRAL PAVING INC	334618	842051	NAD27	970	NGVD29	470	8	6	S	8	470	X	1961	26	U	19411	
121	10EE27	SONOCO PRODUCTS	334926	842745	NAD27	900	NGVD29	500	23		S	23	500	X	1966	32	C	20851	
121	10EE25	SONOCO PRODUCTS	334930	842742	NAD27	900	NGVD29	400	33	10	S	33	400	X	1958	144	C	20856	

APPENDIX

I MANN-KENDALL ANALYSIS

GROUNDWATER QUALITY TREND ANALYSIS

The nonparametric Mann-Kendall test for trend was applied to determine whether trends have occurred in the concentrations of chemicals of concern (COC) in monitoring wells. The statistical method is described in Section 16.4 of Gilbert (1987), and calculations were made using a publicly available Microsoft Excel spreadsheet program (GSI 2012). The program implements the following procedure:

- List the concentration data in order of time: $x_1, x_2, \ldots x_n$ where x_i is the concentration at time i.
- Calculate each of the n(n-1)/2 possible differences $x_k - x_j$ where k>j (i.e., later concentration minus earlier concentration).
- Define the sign function $sgn(x_k - x_j)$ as 1 if the difference is positive, 0 if the difference is 0, and -1 if the difference is negative.
- Calculate the Mann-Kendall statistic (S), which is the sum of all sign function values (number of positive differences minus the number of negative differences).

A hypothesis test is then conducted, with a null hypothesis of no trend. For a given value of S and sample size (n), the probability (p) can be identified that S is greater than a calculated positive value (or less than a calculated negative value) under the null hypothesis. The corresponding confidence factor is defined as CF = 1-p. A positive or negative value of S suggests a possible positive or negative trend, while the confidence in the trend is stronger with higher values of CF.

A decision matrix for interpreting Mann-Kendall statistics was developed as part of the Monitoring and Remediation Optimization System (MAROS) software (Air Force Center for Environmental Excellence 2006). The matrix describes concentration trends as a function of the Mann-Kendall statistic (S), the confidence factor (CF), and the coefficient of variation of the data (CV = mean/standard deviation):

S>0, CF>95%:	Increasing
S>0, 90% < CF < 95%:	Probably Increasing
S>0, CF<90%:	No Trend
S <0, CF<90%, CV>1:	No Trend
S <0, CF<90%, CV<1:	Stable
S<0, 90% < CF < 95%:	Probably Decreasing
S<0, CF > 95%:	Decreasing

WSP applied the Mann-Kendall test and decision matrix to the Main Site COCs (cadmium, copper, lead, zinc, benzene, ethylbenzene, toluene, and xylenes) in samples from monitoring wells where the COCs were detected in at least four events. The trend analysis for each COC is enclosed, and the results are summarized in the table. Decreasing trends were identified for benzene in MW-1 and MW-6, lead in MW-7D, and zinc in MW-7D and MW-8. In most cases, the data sets with Stable and No Trend findings show decreasing concentrations (i.e., S<0) but with low confidence. In no case was an Increasing or Probably Increasing trend identified.

Summary Table
Mann-Kendall Trend Analysis (a)
Former National Smelting & Refining Site, Atlanta, Georgia

	Cadmium	Copper	Lead	Zinc	Benzene	Ethylbenzene	Toluene	Xylenes
MW-1	(b)	(b)	Stable	No Trend	(Decreasing)	No Trend	No Trend	No Trend
MW-2	No Trend	Stable	Stable	No Trend	(b)	(b)	(b)	(b)
MW-6	(b)	(b)	(b)	No Trend	(Decreasing)	No Trend	Stable	Stable
MW-7	Stable	Stable	Stable	Stable	(b)	(b)	(b)	(b)
MW-7D	Stable	Stable	Decreasing	(Decreasing)	(b)	(b)	(b)	(b)
MW-8	(b)	(b)	No Trend	Decreasing	(b)	(b)	(b)	(b)

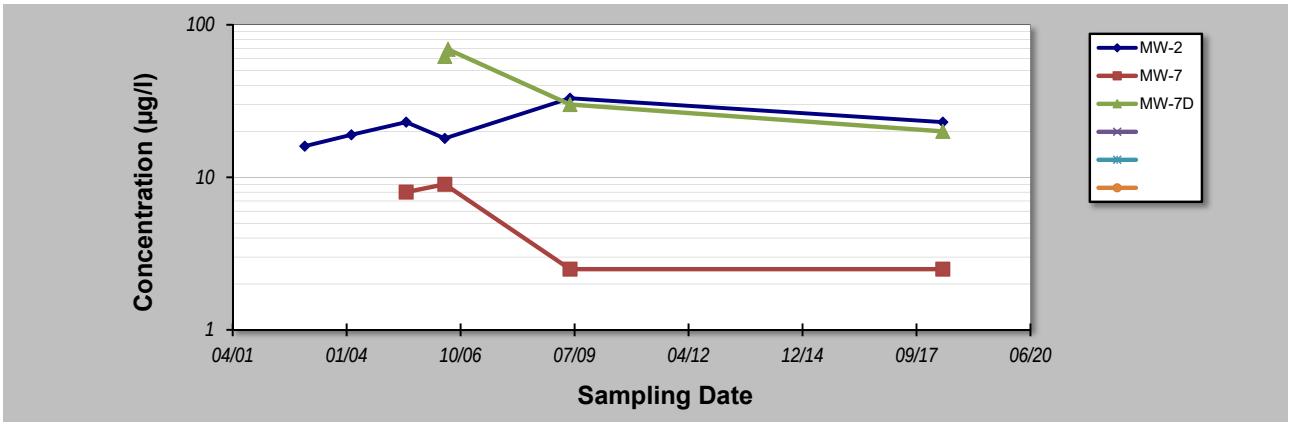
a/ References for statistical method: Gilbert (1987); Air Force Center for Environmental Excellence (2006). Calculations made with spreadsheet program (Connor et al. 2012). For results below reporting limit, value is assumed to be half the limit.
b/ Analysis was not conducted.

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 9-Jul-18
Facility Name: NSRC, Atlanta, GA
Conducted By: GMB

Job ID: 31401065
Constituent: Cadmium
Concentration Units: µg/l

Sampling Point ID:	MW-2	MW-7	MW-7D				
Sampling Event	Sampling Date	CADMIUM CONCENTRATION (µg/l)						
1	11-Jan-03	16						
2	24-Feb-04	19						
3	19-Jun-05	23	8					
4	24-May-06	18	9	62				
5	22-Jun-06			69				
6	27-May-09	33	2.5	30				
7	11-May-18	23	2.5	20				
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.28	0.63	0.53				
Mann-Kendall Statistic (S):		8	-3	-4				
Confidence Factor:		89.8%	72.9%	83.3%				
Concentration Trend:		No Trend	Stable	Stable				



Notes:

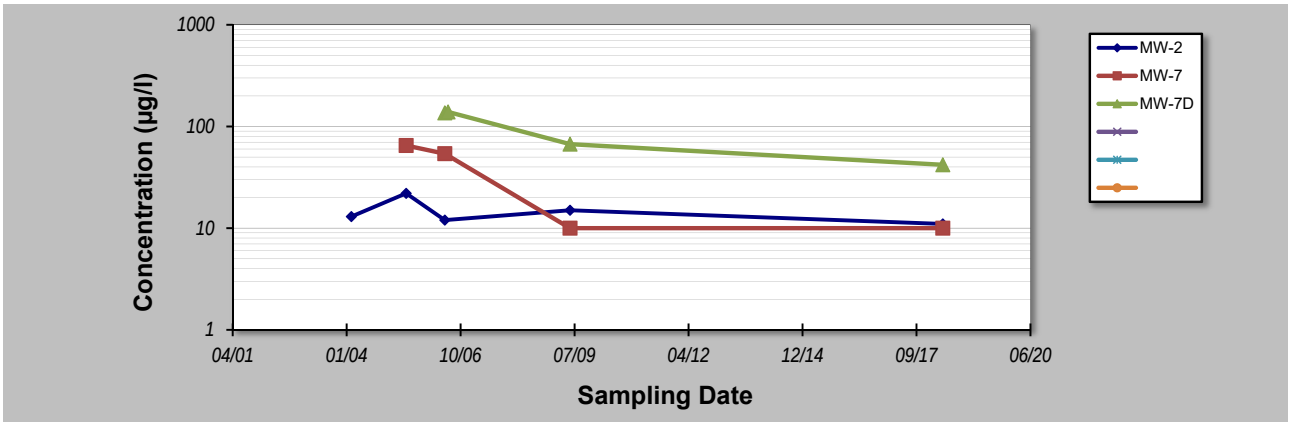
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 9-Jul-18
Facility Name: NSRC, Atlanta, GA
Conducted By: GMB

Job ID: 31401065
Constituent: Copper
Concentration Units: µg/l

Sampling Point ID:	MW-2	MW-7	MW-7D				
Sampling Event	Sampling Date	COPPER CONCENTRATION (µg/l)						
1	11-Jan-03							
2	24-Feb-04	13						
3	19-Jun-05	22	65					
4	24-May-06	12	54	136				
5	22-Jun-06			139				
6	27-May-09	15	10	67				
7	11-May-18	11	10	42				
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.30	0.83	0.51				
Mann-Kendall Statistic (S):		-4	-5	-4				
Confidence Factor:		75.8%	89.6%	83.3%				
Concentration Trend:		Stable	Stable	Stable				



Notes:

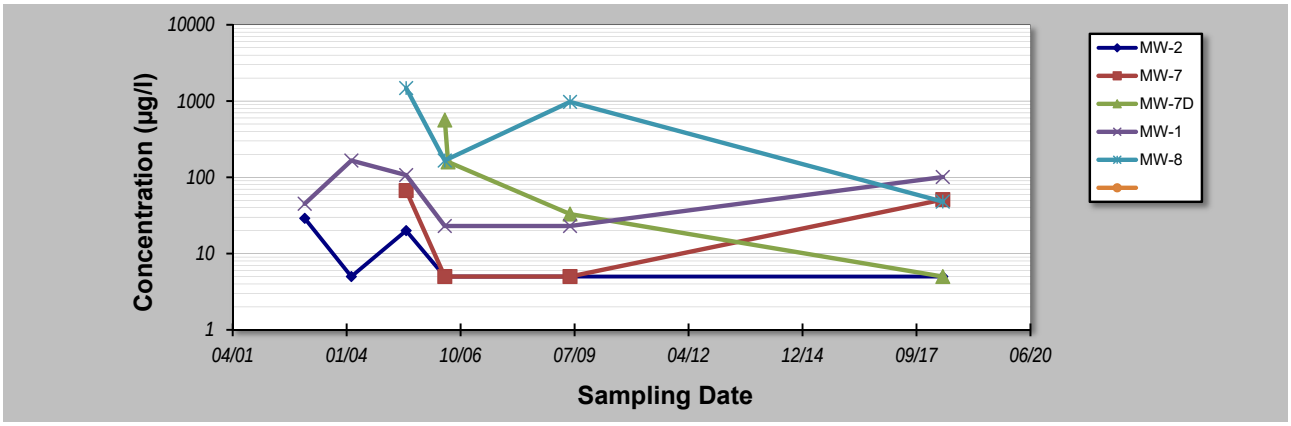
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 9-Jul-18
Facility Name: NSRC, Atlanta, GA
Conducted By: GMB

Job ID: 31401065
Constituent: Lead
Concentration Units: µg/l

Sampling Point ID:	MW-2	MW-7	MW-7D	MW-1	MW-8		
Sampling Event	Sampling Date	LEAD CONCENTRATION (µg/l)						
1	11-Jan-03	29			45			
2	24-Feb-04	5			166			
3	19-Jun-05	20	67		107	1480		
4	24-May-06	5	5	563	23	166		
5	22-Jun-06			159				
6	27-May-09	5	5	33	23	975		
7	11-May-18	5	51	5	101	48		
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.91	1.00	1.36	0.74	1.02		
Mann-Kendall Statistic (S):		-7	-1	-6	-4	-4		
Confidence Factor:		86.4%	50.0%	95.8%	70.3%	83.3%		
Concentration Trend:		Stable	Stable	Decreasing	Stable	No Trend		



Notes:

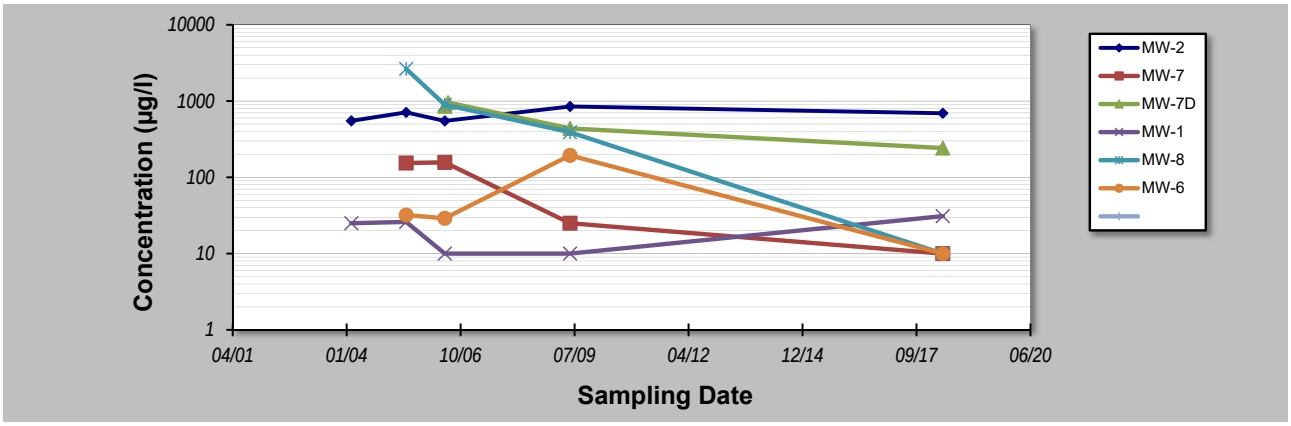
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 9-Jul-18
Facility Name: NSRC, Atlanta, GA
Conducted By: GMB

Job ID: 31401065
Constituent: Zinc
Concentration Units: µg/l

Sampling Point ID:	MW-2	MW-7	MW-7D	MW-1	MW-8	MW-6	
Sampling Event	Sampling Date	ZINC CONCENTRATION (µg/l)						
1	11-Jan-03							
2	24-Feb-04	550			25			
3	19-Jun-05	710	154		26	2640	32	
4	24-May-06	549	157	853	10	895	29	
5	22-Jun-06			955				
6	27-May-09	849	25	438	10	390	194	
7	11-May-18	692	10	242	31	10	10	
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.19	0.92	0.54	0.48	1.18	1.29	
Mann-Kendall Statistic (S):		2	-4	-4	1	-6	-2	
Confidence Factor:		59.2%	83.3%	83.3%	50.0%	95.8%	62.5%	
Concentration Trend:		No Trend	Stable	Stable	No Trend	Decreasing	No Trend	



Notes:

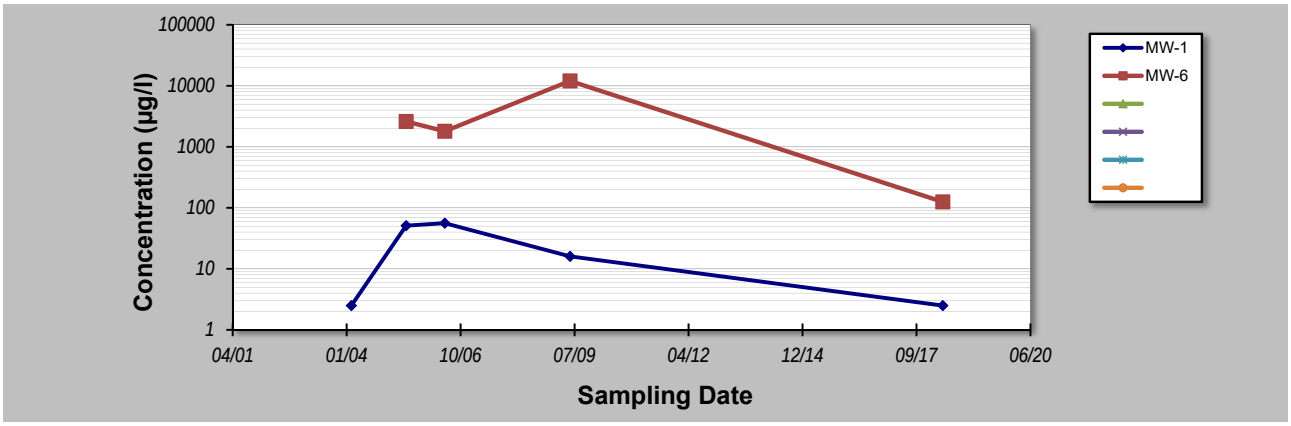
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 9-Jul-18
Facility Name: NSRC, Atlanta, GA
Conducted By: GMB

Job ID: 31401065
Constituent: Benzene
Concentration Units: µg/l

Sampling Point ID:	MW-1	MW-6					
Sampling Event	Sampling Date	BENZENE CONCENTRATION (µg/l)						
1	11-Jan-03							
2	24-Feb-04	2.5						
3	19-Jun-05	51	2600					
4	24-May-06	56	1800					
5	22-Jun-06							
6	27-May-09	16	12000					
7	11-May-18	2.5	125					
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.02	1.29					
Mann-Kendall Statistic (S):		-1	-2					
Confidence Factor:		50.0%	62.5%					
Concentration Trend:		No Trend	No Trend					



Notes:

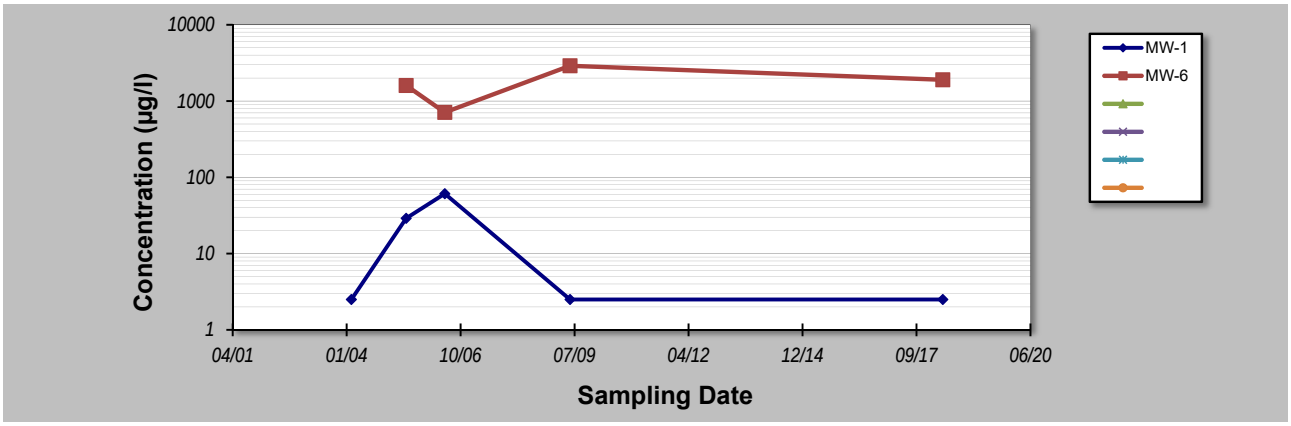
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 9-Jul-18
Facility Name: NSRC, Atlanta, GA
Conducted By: GMB

Job ID: 31401065
Constituent: Ethylbenzene
Concentration Units: µg/l

Sampling Point ID:	MW-1	MW-6					
Sampling Event	Sampling Date	ETHYLBENZENE CONCENTRATION (µg/l)						
1	11-Jan-03							
2	24-Feb-04	2.5						
3	19-Jun-05	29	1600					
4	24-May-06	61	710					
5	22-Jun-06							
6	27-May-09	2.5	2900					
7	11-May-18	2.5	1900					
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.33	0.51					
Mann-Kendall Statistic (S):		-1	2					
Confidence Factor:		50.0%	62.5%					
Concentration Trend:		No Trend	No Trend					



Notes:

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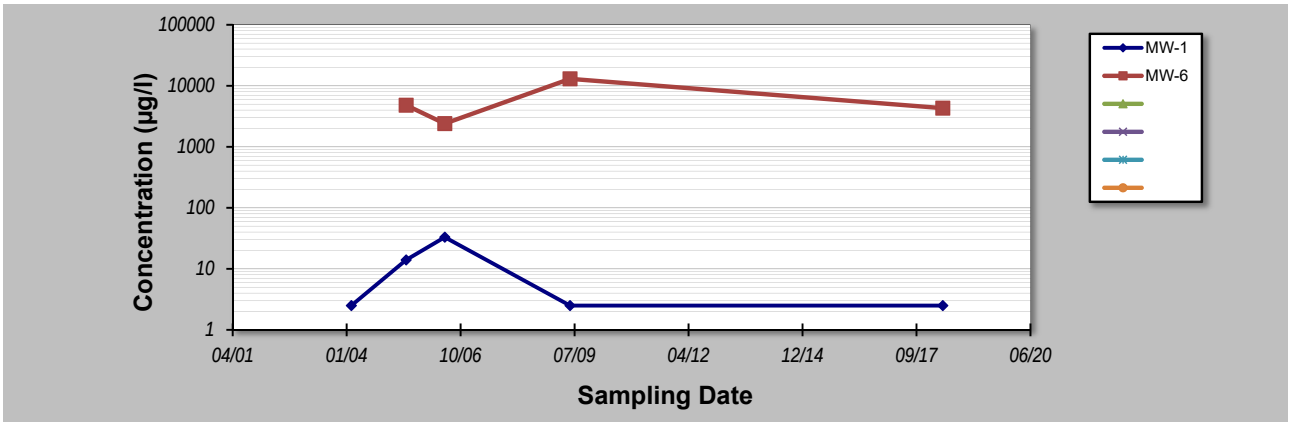
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 9-Jul-18
Facility Name: NSRC, Atlanta, GA
Conducted By: GMB

Job ID: 31401065
Constituent: Toluene
Concentration Units: µg/l

Sampling Point ID:	MW-1	MW-6					
Sampling Event	Sampling Date	TOLUENE CONCENTRATION (µg/l)						
1	11-Jan-03							
2	24-Feb-04	2.5						
3	19-Jun-05	14	4800					
4	24-May-06	33	2400					
5	22-Jun-06							
6	27-May-09	2.5	13000					
7	11-May-18	2.5	4300					
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.22	0.77					
Mann-Kendall Statistic (S):		-1	0					
Confidence Factor:		50.0%	37.5%					
Concentration Trend:		No Trend	Stable					



Notes:

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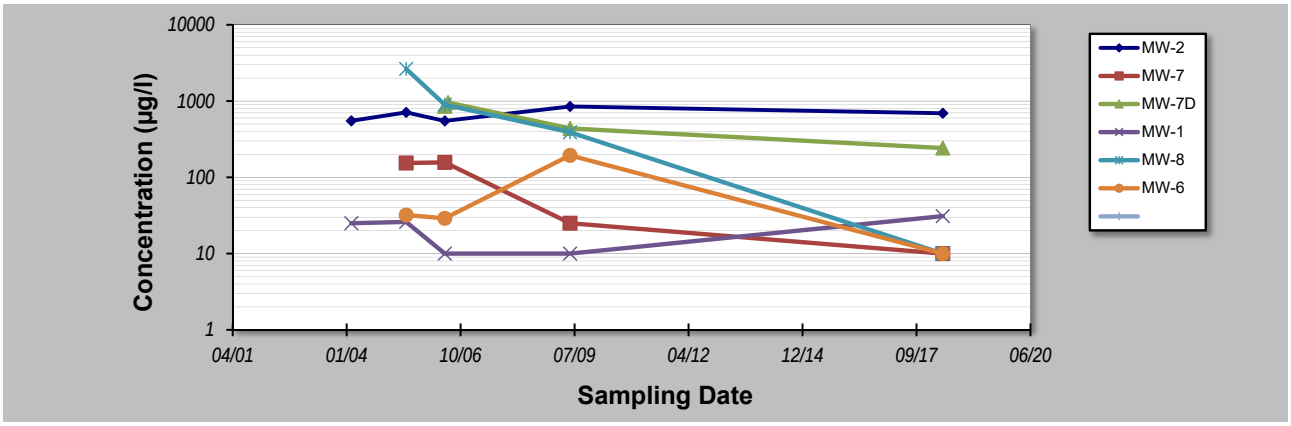
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 9-Jul-18
Facility Name: NSRC, Atlanta, GA
Conducted By: GMB

Job ID: 31401065
Constituent: Zinc
Concentration Units: µg/l

Sampling Point ID:	MW-2	MW-7	MW-7D	MW-1	MW-8	MW-6	
Sampling Event	Sampling Date	ZINC CONCENTRATION (µg/l)						
1	11-Jan-03							
2	24-Feb-04	550			25			
3	19-Jun-05	710	154		26	2640	32	
4	24-May-06	549	157	853	10	895	29	
5	22-Jun-06			955				
6	27-May-09	849	25	438	10	390	194	
7	11-May-18	692	10	242	31	10	10	
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.19	0.92	0.54	0.48	1.18	1.29	
Mann-Kendall Statistic (S):		2	-4	-4	1	-6	-2	
Confidence Factor:		59.2%	83.3%	83.3%	50.0%	95.8%	62.5%	
Concentration Trend:		No Trend	Stable	Stable	No Trend	Decreasing	No Trend	



Notes:

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