C&D POWER SYSTEMS (C&D BATTERIES)

HUGUENOT, NEW YORK

SITE No. 336001

OPERABLE UNIT 2

REMEDIAL INVESTIGATION REPORT

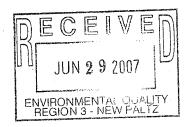
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TABLE OF CONTENTS

1.0	IN	TRODUCTION	
1.1		SUMMARY OF OU-1 LAGOON SOIL DATA	4
2.0	O	U-2 RI ACTIVITIES	5
2.1		GROUND WATER MONITORING WELL INSTALLATION	5
2.2		MONITORING WELL DEVELOPMENT	
2.3		In-Situ Hydraulic Conductivity Testing	
2.4		GROUND WATER SAMPLE COLLECTION AND ANALYSIS	
2.5		SURFACE WATER SAMPLE COLLECTION AND ANALYSIS	
2.6		SEDIMENT SAMPLE COLLECTION AND ANALYSIS	8
2.7		SOIL SAMPLES	
2.8		LAGOON SATURATED ZONE SOIL SAMPLES	
3.0	R	I RESULTS	10
3.1		SITE GEOLOGY AND HYDROLOGY	
3.2		GROUND WATER ANALYTICAL RESULTS	12
	3.2.1	PCB Data	
	3.2.1 3.2.2		
	3.2.2 3.2.3		14
3.3		SURFACE WATER ANALYTICAL RESULTS	.15
3.4		SEDIMENT ANALYTICAL RESULTS	
	3. <i>4</i> . <i>1</i>		
	3.4.2		
3.5		SOIL SAMPLE ANALYTICAL DATA	
	3.5.1		
-	3.5.2		
3.6		2005 LAGOON SOIL BORING DATA	
4.0	F	ATE AND TRANSPORT	.23
4.1		HYDRAULIC CONDUCTIVITY	
4.1		GROUND WATER GRADIENTS AND FLOW DIRECTION	23
4.3		WATER SOLUBILITY	24
4.4		ORGANIC CARBON PARTITION COEFFICIENTS (K_{∞}) AND CHEMICAL RETARDATION	25
4.4		ADVECTION, DISPERSION AND DIFFUSION	27
4.6		GROUND WATER CHEMICAL MODELING	.28
5.0	S	TEP I AND STEP IIA/IIB FISH AND WILDLIFE IMPACT ANALYSIS	
5.1		STEP I SITE DESCRIPTION	.31
	5.1.1	Regional and Site Topography and Drainage	.31
	5.1.2		e
	Site		. 32
	5.1.3		. 33
* -	5.1.4		. 34
		1.4.1 Endangered, Threatened or Special Concern Fish and Wildlife or Plant Species or Significant Habitats.	.34
		1.4.2 Fish and Wildlife Species Potentially Using Habitats Within a One-Half Mile Radius of the Site	. 33 24
E 2		1.4.3 General Habitat Quality Within One-Half Mile of the Site	.50 36
5.2			. 30 27
	5.2.1 5.2.2		30
	5.2.2	2.2.2 Tributary D-1-7 Sediment Quality	رر. 41
		2.2.3 Floodplain Samples	. 43
	 5.2.3		. 43
6.0	C	ONCLUSIONS	
	_	~^·~~~·~ ······························	

6.1	HYDROLOGY AND GEOLOGY	45
6.2	GROUND WATER, SURFACE WATER, SEDIMENT AND SOIL DATA	
6.3	FATE AND TRANSPORTFISH AND WILDLIFE	
6.4		
	List of Tables	
Table 1	Ground Water Elevation Data	
Table 2	Summary of Hydraulic Conductivity Data	
Table 3	Summary of Ground Water Analytical Data	
Table 4	Summary of Surface Water Analytical Data	
Table 5	Summary of Sediment Analytical Data	
Table 6	Summary Lagoon Outfall and Off Site Soil Data	
Table 7	Lagoon Soil Boring Sample Data	
Table 8	Model Parameters Fluoride Calibration	
Table 9	Mammals, Amphibians, Reptiles Potentially Present Within One-Half Mile of The Site	
Table 10	Fish Species Potentially Present In Aquatic Habitats Within One-Half Mile of The Site	
Table 11	Bird Species Potentially Present Within One-Half Mile of The Site	
	List of Figures	
	Dist of Figures	
Figure 1	Site Location	
Figure 2	Graph Fluoride Concentrations Model Calibration	
Figure 3	Graph Predicted Fluoride Concentration at MW-15	
Figure 4	Graph Predicted Fluoride Concentration at MW-16	
Figure 5	Graph Predicted Fluoride Concentration at MW-17	
Figure 6	Graph Predicted Fluoride Concentration at MW-17A	
Figure 7	Graph Fluoride Concentrations 1500 ft. Downgradient of Lagoon	
Figure 8	2005 Lagoon Soil Boring Locations	
Figure 9	Estimated Areal Extent of Impacted Tributary D-1-7 Sediments	
	List of Appendices	
Amnondiy	A Monitoring Well/Soil Boring Logs	
Appendix		
Appendix	·	
Appendix Appendix		
Appendix	D Laboratory Reporting Sheets	
	List of Drawings	
Drawing 1	RI Sampling Locations	
Drawing 2		
Drawing 3		
Drawing 4		
Drawing 5	· · · · · · · · · · · · · · · · · · ·	
Drawing 6	· · · · · · · · · · · · · · · · · · ·	
Drawing 7		

1.0 INTRODUCTION

Pursuant to an Order on Consent (W3-0726-97-11) between C&D Technologies, Inc. (C&D) and the New York State Department of Environmental Conservation (NYSDEC), C&D has implemented a Remedial Investigation (RI) at its facility located in the Village of Huguenot, Orange County, New York (Figure 1). Following review of the initial RI and a draft FS report, the NYSDEC separated the C&D Power Systems (C&D Batteries) Site (Site No. 3-36-001) into two operable units. Operable Unit 2 (OU-2) includes ground water, surface water, sediments and soil (near the former 12" lagoon overflow discharge pipe). The NYSDEC requested that C&D conduct additional investigation to ascertain the extent of contamination, if any, in the media associated with OU-2. This report presents the findings of the OU-2 RI.

1.1 Summary Of OU-1 Lagoon Soil Data

The lagoon surface soil (0-12") PCB aroclor 1254 concentrations ranged from 34 mg/Kg to 1,100 mg/Kg, all of which are above the NYSDEC surface soil Recommended Soil Cleanup Objectives (RSCO) of 1 mg/Kg and the sub-surface RSCO of 10 mg/Kg. Lagoon surface soil cadmium concentrations ranged from 32 mg/Kg to 46,000 mg/Kg, which exceed the RSCO of 10 mg/Kg. Lead and barium concentrations in lagoon surface soils (0-12") ranged from 291 mg/Kg to 6,640 mg/Kg and 1,100 mg/Kg to 4,980 mg/Kg, respectively, which exceed the respective RSCOs (Lead = Site Background; Barium = 300 mg/Kg or Site Background).

The test pit samples demonstrated that barium, cadmium and lead are present in lagoon soils at concentrations above the RSCO at depths up to 12 feet. Data from lagoon soil boring samples collected immediately above the ground water table confirm high cadmium levels at depth (12 feet) in lagoon soils.

Fluoride was consistently detected in each lagoon test pit at concentrations above the levels reported in the shallow (0-12") samples collected along the railroad tracks, which are considered representative of Site background fluoride concentrations (<10.19 to <10.42 mg/Kg). In most test pits elevated fluoride concentrations were detected at depth (12 feet).

The soil boring data demonstrated that PCB concentrations at depth (below 3') in lagoon borings SB-2, SB-5 and SB-6 were below the sub-surface RSCO of 10 mg/Kg. In borings SB-3 and SB-4 concentrations below 3' ranged from 1.2 mg/Kg to 15 mg/Kg (SB-3) and 2.3 mg/Kg to 31 mg/Kg (SB-4). Overall, sub-surface lagoon soil PCB concentrations are not significantly elevated with respect to the sub-surface RSCO. These data indicate that most of the PCBs in the lagoon soil are concentrated in the surface soils.

2.0 OU-2 RI ACTIVITIES

The tasks completed during the OU-2 RI are summarized below:

- Installation and surveying of ground water monitoring wells MW-14, MW-15, MW-16, MW-17 and MW-17A (2003);
- Development and hydraulic conductivity testing of monitoring wells MW-14, MW-15, MW-16, MW-17 and MW-17A (2003);
- Collection and analysis of ground water samples from monitoring wells (2003 and 2005);
- Collection and analysis of six surface water samples from the tributary of the Neversink River (Tributary D-1-7) located east of and adjacent to the Site (2001);
- Collection and analysis of sediment from ten locations from tributary D-1-7 (2001 and 2003;
- Collection and analysis of a soil sample from the former lagoon 12" CMP outfall (2001);
- Collection and analysis of four flood plain sediment samples adjacent to tributary D-1-7 (2003);
- Analysis of a soil sample collected on the west side of tributary D-1-7 (2003); and
- Collection and analysis of samples from the Swartwout Road Residence (2001 and 2003).
- Collection of sub-surface soil samples from lagoon borings within the saturated zone (2005)
- Installation of a monitoring well (MW-18) in the lagoon and collection of a ground water sample (2005)

2.1 Ground Water Monitoring Well Installation

The OU-2 Remedial Investigation included the installation of ground water monitoring wells MW-14, MW-15, MW-16, MW-17, MW-17A and MW-18. Well MW-14 was installed in 2001, wells MW-15, -16, -17 and -17A were installed in 2003 and monitoring well MW-18 was installed in the bottom of the lagoon in 2005.

The location of these ground water monitoring wells is depicted on Drawing No. 1. All monitoring well borings were drilled using nominal 4 1/4-inch inside diameter hollow stem augers. From all five monitoring wells continuous two-foot split spoon samples were collected and inspected/logged by a geologist.

The monitoring wells were constructed of 2-inch ID, No. 10 slot (i.e., 0.010 inch) Schedule-40 PVC well screen, flush-threaded into Schedule-40 PVC riser pipe of the same diameter. The well annulus was filled with Filpro #1 well gravel and a minimum two-foot thick layer of bentonite was placed above the sand pack to provide a seal and portland cement was used to grout the hole to the surface. A protective, locking casing was cemented in place over the PVC well. The boring/monitoring well installation and sub-surface statigraphic descriptions (split spoon inspection) were performed by Alpha Geoscience. Boring logs and well completion logs are provided in Appendix A and B, respectively.

Split spoon samplers and drilling equipment were cleaned prior to and following boring/monitoring well installation. The split spoon samples were cleaned between each use. Drilling equipment and split spoon samplers were cleaned by brushing off visible material and washing with potable water. For monitoring well MW-14, a decontamination pad was constructed to collect the water used during the cleaning of equipment. Water generated during the decontamination was placed in fifty-five gallon drums. Following review of the ground water analytical data, NYSDEC gave permission to discharge the water directly to the ground. For monitoring wells MW-15, MW-16, MW-17, MW-17A and MW-18, dedicated augers were used at each well and no on-site decon was necessary. Water from cleaning the split spoon samplers was discharged to the ground.

2.2 Monitoring Well Development

All monitoring wells were developed prior to in-situ hydraulic conductivity testing and sample collection. The water table was allowed to reach a static level prior to initiating well development. Well development consisted of removing approximately ten well volumes of water from the wells and allowing the wells to recharge for short intervals during bailing.

2.3 In-Situ Hydraulic Conductivity Testing

Hydraulic conductivity (K) or permeability tests were performed on the new monitoring wells to determine the in-situ hydraulic conductivity of the screened hydro-stratigraphic unit. The tests were performed after allowing the water level in the monitoring well to stabilize for two hours following the well development. A pressure transducer was placed in the well to measure the change in the water level during testing. Approximately 2.5 gallons of water was introduced into the wells and the test was run until the water level returned to at least 90% of the static water level. Data from the test was recorded using an In-Situ data logger.

2.4 Ground Water Sample Collection and Analysis

The OU-2 RI included the collection of ground water samples in July 2001, August/September

2003 and April, 2005. Ground water samples were also collected in September 1999 and in January/March 2000 during the OU-1 RI.

In July 2001 ground water samples were collected from cross gradient monitoring wells MW-12 and MW-13, and downgradient wells MW-6, MW-7, MW-8, MW-9, MW-10 and MW-14. In August/September 2003, ground water samples were collected from cross gradient monitoring wells MW-12 and MW-13, and downgradient wells MW-6, MW-7, MW-8, MW-9, MW-10, MW-14, MW-15, MW-16, MW-17 and MW-17A. All samples were analyzed for PCBs, barium, cadmium, fluoride and lead. In July 2001 a sample was also collected from the Swartwout Road residence and analyzed for fluoride and in August 2003 a sample collected from the Swartwout Road residence was analyzed for PCBs, barium, cadmium, fluoride and lead. Samples were analyzed by Adirondack Environmental Services, Inc (AES). Analytical results are summarized in Table 3.

In July 2001, two complete sets of ground water samples were collected from monitoring wells MW-6, MW-7 and MW-14. The first set of samples was collected using a low flow micropurging procedure as described in this section. The second set of samples was collected after collection of the low flow samples following the procedures in the approved work plan (Earth Tech, April 1999), which consisted of using a Waterra pump with dedicated discharge tubing or bailers. Ground water from downgradient monitoring wells MW-8, MW-9 and MW-10 was analyzed for barium, cadmium and lead on both a total matrix and a sample filtered in the field through a 0.45-micron filter. The August/September 2003 ground water samples were collected using the low flow micro-purging procedure.

Micro-purging consists of a low flow purging of the monitoring well prior to sampling, and collection of a sample at the same low flow rate immediately following purging. The micro-purging/sampling conducted in 2001 and 2003 was performed using a Grundfos Redi-Flo2 submersible pump at a flow rate of approximately 250 milliliters per minute. The micro-purging/sample collection conducted in 2005 was performed using a portable bladder pump with dedicated bladders and tubing.

The pump intake was placed in the bottom half of the screened interval of each monitoring well. Field parameters (pH, conductivity, temperature and turbidity) were monitored during the low flow purging procedure using a flow through cell. When the field parameters stabilized, a sample was collected at the same flow rate.

Dedicated discharge tubing was used for each monitoring well. The pump, wiring and safety cable were decontaminated between locations using the following procedures:

- Exterior wash of pump, wiring and safety cable with non-phosphate detergent;
- Potable water rinse; and
- Pump a minimum of two gallons of distilled/deionized water through the pump.

Micro-purging and low flow sampling minimizes disturbance of stagnant water in the well casing above the screened interval and reduces the potential for mobilization of particulate or colloidal material that could influence analytical results.

2.5 Surface Water Sample Collection and Analysis

In July 2001, surface water samples were collected from tributary D-1-7, located east of and adjacent to the Site. Six samples were collected, one upgradient (SW-1) of the lagoon former overflow discharge (12" CMP), four samples between the 12" CMP and the existing non-contact cooling water outfall and one downgradient of the railroad tracks. The samples were analyzed for PCBs, barium, cadmium, lead and fluoride. Samples were collected following the procedures presented in the approved sampling and analysis plan. Sampling locations were documented by measuring the distance of the sampling location from the existing non-contact cooling water outfall.

2.6 Sediment Sample Collection and Analysis

In July 2001, six surficial sediment samples were collected from tributary D-1-7. Two samples were collected upstream of the 12" CMP, two samples between the 12" CMP and the existing non-contact cooling water outfall and two samples downstream of the railroad tracks. Samples were collected from the surface to a depth of approximately 6" and were analyzed for PCBs, barium, cadmium, lead and fluoride. Four sediment samples were collected in August 1999 as part of the OU-1 RI.

In August/September 2003, sediment samples were collected at four additional locations from tributary D-1-7 and four flood plain sediment samples were collected adjacent to the main channel of the tributary. Two samples were collected at each location, a sample from 0-6" and a sample from 6-12". Samples were analyzed for PCBs, barium, cadmium, fluoride, lead and TOC.

Samples were collected following the procedures detailed in the approved sampling and analysis plan. Sampling locations were documented by measuring the distance of the sampling location from the existing non-contact cooling water outfall.

2.7 Soil Samples

In July 2001, a surface soil sample (top six inches) was collected at the former lagoon 12" CMP outfall. This sample was analyzed for PCBs, barium, cadmium, lead and fluoride. The sample was collected from the surface to a depth of six inches, following removal of the forest duff (leaves, pine needles, etc.). In August 2003 a soil sample was collected on the west side of tributary D-1-7 at one location at depths from 0-6" and 6-12". These two samples were analyzed for PCBs, barium, cadmium, fluoride, lead and TOC.

2.8 Lagoon Saturated Zone Soil Samples

Six soil borings were advanced in the lagoon and two soil borings were advanced adjacent to the lagoon between February 21, 2005 and February 28 2005. A monitoring well (MW-18) was constructed in boring SB-8. Soil samples from both above and below the ground water table were submitted for barium, cadmium and lead analysis. A ground water sample from MW-18

was collected and analyzed for fluoride, barium, cadmium, lead and PCBs. Soil boring logs are provided in Appendix A and the MW-18 well construction log is provided in Appendix B.

3.0 RI RESULTS

3.1 Site Geology and Hydrology

The C&D facility is located in the Neversink River Valley, about four miles northeast of the confluence of the Neversink and Delaware Rivers at the City of Port Jervis. The plant is located on a river terrace approximately 35 feet above the elevation of the Neversink River. The topography on the terrace is relatively flat and the slopes extending to the valley floor are steep.

A small tributary of the Neversink River (Tributary D-1-7) is located on the valley floor just east of the facility. The tributary most likely represents a ground water discharge point over at least a portion of its length, during a significant part of the year. During the drier months, the tributary could potentially be a ground water discharge point and an area of ground water recharge in separate reaches of the stream.

Data from previous soil borings at the Site demonstrated that the soils underlying the facility are predominantly sands and cobbles, with the cobbles becoming more abundant with depth. Coarse deposits of sand, gravel, and small cobbles were encountered at MW-6, MW-12 and MW-13, which were similar to the materials found in borings CD-2 through CD-5 (as presented in the ERM 1982 reports), near the former lagoon. The stratigraphy at well MW-14, located approximately 45 feet east of the lagoon, grades from fine to coarse sand to approximately 10 feet below grade to cobble fragments and brown fine to coarse sand with fine to coarse gravel with cobble down to approximately 14.5 feet. Between 14.5 feet and 40 feet below grade, there is a mixture of fine to coarse sand and gravel with layers of fine sand and silt. The percentage of fine gravel increases with depth.

Wells MW-7 through MW-10 are located on a flat-topped bench about 10 feet below the terrace where wells MW-14 and MW-6 are located. The material underlying wells MW-7 through MW-10 becomes finer grained in a southwesterly direction. The sands and gravels that constitute the stratigraphic column at MW-7 change horizontally into well-sorted, fine sand and silt containing thin clay horizons at MW-10.

Monitoring wells MW 15, MW-16, MW-17 and MW-17A are located east of the Site on or near the valley floor approximately 20 feet below the terrace where wells MW-7 through MW-10 are located. Soils in the vicinity of wells MW-15, MW-16, MW-17 and MW-17A are predominantly fine sands with some silt at the surface grading to medium to coarse sand and fine to coarse gravel at depths between 10 feet and the bottom of the borings at 15 to 20 feet below grade. Soils in the vicinity of well MW-17 appear to exhibit more coarse gravel and cobble than soils at wells MW-15, MW-16 and MW-17A. This most likely accounts for the higher hydraulic conductivity reported at well MW-17. Boring logs and well completion logs are provided in Appendices A and B, respectively.

Hydraulic conductivities for the on-site and off-site monitoring wells are summarized in Table 2. Hydraulic conductivities range from a low of 1.29x10⁻³ cm/sec or 3.66 ft/day (Well MW-15) to a high of 1.32x10⁻¹ cm/sec or 375 feet per day (MW-17) with an average of 2.36x10⁻² cm/sec or

66.8 ft/day. Monitoring wells MW-17 and MW-12 exhibit the highest hydraulic conductivities while wells MW-10, MW-14, MW-15 and MW-17A exhibit the lowest hydraulic conductivities.

A ground water contour map created using ground water elevation data obtained in March 2005 is presented on Drawing No.2. Ground water elevation data for March 30, 2005 are provided in Table 1. The data demonstrate that the ground water flow is to the southeast. Consistent with historical ground water elevation data, the ground water elevation at MW-7 was higher than at MW-6. Historically, this condition appears to be most pronounced during high water conditions. The July 31, 2001, October 24, 2003, and March 30, 2005 MW-7 ground water elevations were higher than the respective MW-14 ground water elevations. Monitoring well MW-14 is located between the lagoon and MW-7. If the lagoon were the cause of the ground water elevations in MW-7 to be higher than in MW-6, then the water level elevations in MW-14 would have to be higher than the MW-7 ground water elevations. The data indicate that the ground water elevation at monitoring well MW-7 is not associated with mounding from the lagoon. Potential causes of the higher ground water elevations at MW-7 are its location near the stream and the springs that discharge into the stream and potential leakage from the non-contact cooling water discharge line that is located near monitoring well MW-7.

The ground water gradient across the Site to tributary D-1-7 has been estimated using the average ground water elevations (Table 1) from monitoring wells MW-13, MW-6, MW-8 and MW-16 and the average hydraulic conductivity from all on-site and off-site monitoring wells. The average ground water gradient across the Site to tributary D-1-7 is 0.0047 ft/ft based on the gradient from MW-13 to MW-6 (0.0059 ft/ft), MW-13 to MW-8 (0.0037) and MW-13 to MW-16 (0.0046). The average hydraulic conductivity (Table 2) is 2.36 x 10⁻² cm/sec (66.8 ft/day).

Horizontal ground water flow dominates within saturated zones. It is anticipated that vertical flow dominates within unsaturated and tension-saturated zones (Freeze and Cherry, 1979). A horizontal ground water flow velocity was calculated for the unconfined shallow water-bearing zone. The ground water flow velocities were calculated using a version of Darcy's law adjusted to account for effective porosity:

V = K I/n

where:

V = ground water flow velocity

 $K = hydraulic conductivity = 2.36x10^{-2} cm/sec (66.8 feet/day)$

I = hydraulic gradient (the change in head divided by distance) = 0.0047 ft./ft (average across site to the unnamed Tributary of the Neversink River)

n = effective porosity = 0.40

Using the preceding formula for ground water flow velocity, the average horizontal ground water flow velocity is 2.8×10^{-4} cm/sec or 0.785 feet/day.

3.2 Ground Water Analytical Results

3.2.1 PCB Data

Ground water analytical results are summarized in Table 3. Laboratory reporting sheets are provided in Appendix D. Data are also summarized in Drawing No.3.

Aroclor 1254 was reported in the March 2000 and July 2001 ground water samples from monitoring wells MW-6 and MW-7 at concentrations above the ground water standard. No PCBs were detected in the most recent (August 2003) ground water samples from wells MW-6 and MW-7.

In July 2001, aroclor 1254 was detected in ground water from monitoring well MW-14 in samples collected using a micro-purging procedure and using a Waterra pump, at concentrations that were above the NYSDEC ground water standard. Aroclor 1254 was reported in August 2003 ground water sample from monitoring well MW-14 at a concentration (0.088 ug/L) slightly below the ground water standard (0.09 ug/L).

In July 2001, ground water samples from wells MW-6, MW-7 and MW-14 were collected using both the micro-purging procedure and a Waterra Inertia pump. The MW-6 aroclor 1254 concentration (0.23 ug/L) in the Waterra pump sample was slightly above the ground water standard, but the micro-purging sample concentration (0.051 ug/L) was less than the ground water standard. The ground water aroclor 1254 concentrations in the micro-purging samples from all three wells (MW-6, MW-7 and MW-14) were significantly lower than the concentrations in the samples collected using the Waterra pump. The field turbidity values for the Waterra pump samples were considerably higher than the micro-purging turbidity values, indicating a higher sediment load in the samples collected with the Waterra pump. The data indicate that to a significant extent, the PCBs are sorbed to sediment material in the samples collected using the Waterra pump and that the micro-purging samples more accurately reflect the actual PCB concentration that can potentially migrate via ground water.

No PCBs were detected at or above the laboratory reporting limit in any samples collected from crossgradient monitoring well MW-13, downgradient monitoring wells MW-8, MW-9, MW-10 or the Swartwout Road residence potable well.

No PCBs were detected above the ground water standard in any sample collected from crossgradient monitoring well MW-12 or the samples collected from downgradient monitoring wells MW-15, MW-16, MW-17 and MW-17A. Aroclor 1254 was detected at an estimated concentration, below the laboratory-reporting limit but above the instrument detection limit in the July 2001 ground water sample from well MW-12. Aroclor 1242 was reported at estimated concentrations below the laboratory-reporting limit but above the instrument detection limit in the September 2003 ground water samples from monitoring wells MW-16, MW-17 and MW-17A and at a concentration above the laboratory reporting limit in the MW-15 ground water sample but below the ground water standard.

The detection of low level PCBs in the 2003 off-site ground water samples and not in the on-site downgradient wells MW-7, MW-8, MW-9 and MW-10 samples, is potentially related to residual colloidal particles from the recent drilling of the off-site wells that became entrained in the ground water samples. The identification of the PCBs in the off-site monitoring well samples as aroclor 1242 and not the aroclor 1254 that is present in the lagoon soils is most likely related to natural degradation of the aroclor 1254.

Ground water PCB results from the most recent sampling event conducted in April 2005 indicated the with the exception of the ground water samples collected from monitoring wells MW-6 and MW-14, PCBs were not detected at or above the laboratory reporting limit in any ground water sample, including the ground water sample collected from MW-18 located in the lagoon. Aroclor 1254 was detected in the MW-6 and MW-14 April 2005 ground water samples at 0.24 ug/L and 0.2 ug/L, respectively, which is above the ground water standard of 0.09 ug/L.

The ground water PCB data from the off-site monitoring wells indicates that the Site has not had an impact on off-site ground water PCB levels. On-site ground water data indicate a limited effect on ground water PCB concentrations.

3.2.2 Metals Data

The most recent ground water samples collected in April 2005 indicate that with the exception of the ground water sample from the MW-18 lagoon monitoring well, all on-site and off-site ground water barium, cadmium and lead concentrations were below the respective ground water standards. Barium and cadmium concentrations in the ground water sample collected from lagoon monitoring well MW-18 were above the respective ground water standards. Lead was not detected in the MW-18 ground water sample at a laboratory reporting limit of 2.9 ug/L.

All barium, cadmium and lead concentrations detected in samples collected in August/September 2003 from on-site and off-site ground water monitoring wells and the Swartwout Road residence potable well were below the respective ground water standards. Cadmium and lead were not detected in any of the groundwater samples collected in August/September 2003.

With the exception of lead in the September 1999 ground water sample from well MW-6 and cadmium in a July 2001 ground water sample from well MW-7, all barium, cadmium and lead ground water sample concentrations from all on-site and off-site monitoring wells and the Swartwout Road residence potable well, were less than the respective ground water standards.

The July 2001 and August/September 2003 ground water data indicate that ground water lead concentrations in monitoring wells downgradient of the lagoon were consistent with concentrations in cross gradient wells MW-12 and MW-13. Data indicate that the lagoon soils have not affected lead concentrations in ground water downgradient of the lagoon.

The cadmium (5.6 ug/L) reported in the July 2001 MW-7 ground water sample collected using the Waterra Inertia pump, was slightly above the ground water standard of 5 ug/L. However, the MW-7 Waterra pump sample had a high turbidity (619 NTUs), which indicates a high sample sediment load. The cadmium concentration in the July 2001 MW-7 ground water sample

collected using the micro-purging procedure was 0.47 ug/L, which is below the ground water standard and only slightly above the laboratory reporting limit of 0.2 ug/L. The turbidity in this sample was 23 NTU. The July 2001 MW-6 and MW-14 ground water cadmium concentrations in the micro-purging sample were also lower than cadmium concentration in the samples collected using the Waterra pump procedure, as were the respective turbidity values. Cadmium was not detected at or above the reporting limit in the July 2001 MW-6 and MW-14 ground water samples collected using the micro-purging procedure and was not detected above the laboratory reporting limit in any ground water sample collected in August/September 2003. Ground water data indicate that lagoon soils have not had a significant impact on ground water cadmium concentrations downgradient of the lagoon.

The August/September 2001 ground water barium concentrations (48.5 ug/L to 129 ug/L) reported in the samples from wells MW-10, MW-15, MW-17, MW-17A and the Swartwout Road residence were higher than the concentrations reported in cross gradient monitoring wells MW-12 and MW-13 (16.4 ug/L to 20.3 ug/L). However, barium concentrations in all ground water samples collected from the on-site and off-site ground water monitoring wells and the Swartwout Road residence were well below the ground water standard (1,000 ug/L).

In summary, the ground water data from the Site show that lagoon soils have not had a significant impact on downgradient ground water barium, cadmium and lead concentrations. The most recent ground water samples (August/September 2003) indicate that barium, cadmium and lead concentrations in all on-site and off-site ground water monitoring wells and the Swartwout Road residence potable well were below the respective ground water standards. Cadmium and lead were not detected in any of the groundwater samples collected in August/September 2003. Ground water barium, cadmium and lead data indicate that the Site has not had a significant impact on the downgradient ground water concentrations of these three metals.

3.2.3 Fluoride Data

Fluoride concentrations in all ground water samples collected from monitoring wells MW-7, MW-8, MW-9, MW-10 and MW-14 were above the NYSDEC ground water standard. The concentration of fluoride detected in the most recent (April 2005) sample collected from these wells is consistent with historical concentrations.

With the exception of the most recent (April 2005) ground water sample, all fluoride concentrations in all samples collected from monitoring well MW-6 were below the NYSDEC ground water standard. The fluoride concentration in the April 2005 ground water sample from MW-6 was higher than the NYSDEC ground water standard.

Consistent with the February 2001 (<400 ug/L Orange County Department of Health) and the July 2001 sample (410 ug/L; Delaware Engineering), the fluoride concentration (710 ug/L) in the August 2003 sample collected from the Swartwout Road residence was well below the NYSDEC ground water standard (1,500 ug/L) and the New York State Department of Health drinking water standard (2,200 ug/L). Data indicate that the fluoride concentration (3,850 ug/L) reported

in the February 2000 sample from the Swartwout Road residence potable well is not representative of current ground water conditions.

Fluoride was not been detected in the ground water samples from monitoring well MW-16 and MW-17A at a reporting limit of 100 ug/L. Fluoride was detected in the (2003) ground water sample from monitoring well MW-15 (120 ug/L) at a concentration well below the NYSDEC ground water standard and the NYSDOH drinking water standard. The MW-15 2003 fluoride concentration was consistent with fluoride levels reported in cross gradient monitoring wells MW-12 and MW-13. Fluoride was not detected in the April 2005 ground water sample from monitoring well MW-15 at a reporting limit of 100 ug/L.

Fluoride has been detected in the ground water samples from monitoring well MW-17 (2003;1,800 ug/L: 2005 2,120 ug/L) at concentrations slightly above the NYSDEC ground water standard, but below the NYSDOH drinking water standard. However, as previously noted, fluoride has not been detected in the ground water samples from monitoring well MW-17A, which is located downgradient of well MW-17 and approximately 1,200 feet downgradient of the lagoon. Fluoride was not detected (reporting limit of 200 ug/L) in a sample collected from the Harriet Space Park ladies restroom and was detected at 200 ug/L (i.e., at the reporting limit) in a sample collected from the Town of Deer Park Town Hall. The Town Hall and the Harriet Space Park are located approximately 500 and 1,000 feet, respectively, south of the lagoon. The MW-17A, the Town Hall and the Harriet Space Park samples indicate that the off-site extent of ground water with fluoride concentrations above background is limited and does not extend much beyond monitoring well MW-17.

The fluoride data indicate that the Site has had an impact on ground water fluoride concentrations. However, the off-site ground water data indicate that the downgradient impact is limited in extent. As discussed in Section 4.6, with increasing distance from the lagoon, downgradient ground water fluoride concentrations are expected to rapidly decrease via dispersion.

3.3 Surface Water Analytical Results

Surface water analytical results from tributary D-1-7 located east of the Site are summarized in Table 4 and are depicted on Drawing 4. All surface water sample results for PCBs and cadmium were non-detect at reporting limits of 0.065 ug/L and 0.2 ug/L, respectively. Data indicate that the Site has not had an impact on surface water quality with respect to PCBs and cadmium.

With the exception of sample SW-5, all surface water sample lead results were non-detect at a reporting limit of 2.8 ug/L. Lead was reported in the SW-5 sample at a concentration of 10.4 ug/L, which is below the human health source of drinking water surface water standard (50 ug/L) and the aquatic life acute toxicity standard (28.2 ug/L based on hardness of 32.7 ug/L) but above the aquatic life chronic toxicity standard (1.1 ug/L based on hardness of 32.7 ug/L). However, lead was not detected at or above the reporting limit in sample SW-6, located approximately 140 feet downstream of SW-5 or in sample SW-4 located approximately 60 feet upstream of SW-5. Data indicate that the Site has not had a significant impact on surface water quality with respect to lead.

All surface water sample barium concentrations were well below the surface water standard. All downstream barium concentrations were slightly less than the barium concentration reported in the upstream SW-1 sample. Data indicate that the Site has not had an impact on surface water quality with respect to barium.

Fluoride was not detected at or above the laboratory reporting limit (100 ug/L) in the upstream SW-1 sample or sample SW-2, which was collected approximately 195 feet upstream of the existing non-contact cooling water outfall. Fluoride was detected in samples SW-3, SW-4, SW-5 and SW-6. However, all surface water fluoride concentrations were well below the NYSDEC surface water standard. It is expected that surface water fluoride concentrations would rapidly decrease with increasing distance from the lagoon.

In summary, with the exception of fluoride, the Site has not had an impact on the surface water quality in tributary D-1-7 with respect to the Site-specific chemicals of concern. The effect the Site has had on surface water fluoride concentrations is not significant, as all concentrations were significantly less than the surface water standard. Although the highest fluoride concentration was reported in sample SW-6, which was the most downstream sample collected, surface water fluoride concentrations downstream from SW-6 are expected to rapidly decrease with increasing distance from the lagoon.

3.4 Sediment Analytical Results

The August 1999, July 2001 and September 2003 sediment analytical data from tributary D-1-7 and the September 2003 stream flood plain samples are presented in Table 5. Stream sediment data are depicted in Drawing 5. Sediment sample SED-5 is considered representative of upstream, background conditions.

3.4.1 Metals and Fluoride Data

All downgradient stream and flood plain sediment sample barium concentrations, with the exception of the SED-8 and SED-10 samples, were less than the reported upstream SED-5 barium level. The downstream SED-10 barium concentration (137 mg/kg) was only slightly higher than the upstream SED-5 concentration (97.5 mg/kg). Barium concentrations in the sediment samples (SED-11 through SED-14) collected downstream of sample SED-10 were consistent with the upstream SED-5 concentration. Data indicate that the Site has not had a significant impact on barium concentrations in the stream or flood plain sediments.

Nine of the thirteen downstream sediment samples collected from 0-6" exhibited lead concentrations that were above the Lowest Effect Level concentration. With the exception of the SED-4 and SED-9 stream sediment samples and the 0-6" samples from stream sediment samples SED-13 and SED-14, which were the furthest downstream samples, all downstream sediment sample lead concentrations were less than the NYSDEC Severe Effect Level. The SED-4 and SED-9 samples were collected at approximately the same location (SED-4 August 1999 and SED-9 July 2001). The lead concentrations in the 6-12" samples from stream sediment samples

SED-13 and SED-14 were well below both the NYSDEC Lowest Effect and the Severe Effect Levels.

The lead concentrations in the 0-6" and 6-12" samples at sediment sample locations SED-11 and SED-12 were less than both the NYSDEC Lowest Effect and Severe Effect Levels. Sample locations SED-11 and SED-12 are located between SED-9 and SED-13. Data indicate that sediments with lead concentrations above the NYSDEC Severe Effect Level are not wide spread and are limited to the top six inches of sediment.

The lead concentration in the 0-6" stream flood plain samples from locations FP-1, FP-3 and FP-4 were well below the Severe Effect Level, but were above the Lowest Effect Level. The lead concentration in the 6-12" samples from these three locations and in both the 0-6" and 6-12" samples from location FP-2 were below the Low Effect Level concentration.

The stream sediment and stream flood plain sediment sample lead data indicate that sediment lead concentrations above the NYSDEC Severe Effect Level are sporadic and limited in extent and restricted to the top 0-6". The 0-6" sediment samples from the two most downstream sample locations (SED-13 and SED-14) were above the NYSDEC Severe Effect Level. Sediment lead concentrations above the Lowest Effect Level are more widespread, but are also limited to the top 0-6". Downstream concentrations at eight of the thirteen downstream sampling locations are higher than the upstream SED-5 sediment lead concentration. The stream and flood plain sediment samples indicate that historical site activities have potentially had a limited impact on stream sediment lead concentrations.

All stream and stream flood plain sediment cadmium concentrations were less than the Severe Effects Level criterion for cadmium (9 mg/Kg). Five of the downstream (SED-8, SED-9, SED-10, SED-13 0-6" and SED-14 0-6") sediment cadmium concentrations were above the Low Effects Level criterion (0.6 mg/Kg). The SED-13 (6-12") and SED-14 (6-12") sample cadmium concentrations were below the Lowest Effect Level concentration. Cadmium was not detected in any of the stream flood plain sediment samples. The stream and flood plain sediment data indicate that stream sediments with elevated cadmium concentrations are limited in areal extent and are restricted to the top 0-6".

The NYSDEC metals sediment criteria are derived using an effect based approach. This approach is based on identifying adverse ecological effects that are attributable to metals in sediments and measuring the metal(s) concentrations that caused the adverse effect. The lowest effect level indicates a level of sediment contamination that can be tolerated by the majority of benthic organisms, but still causes toxicity in a few species. Metal concentrations above the Lowest Effects Level, but less than the Severe Effects Level are considered contaminated with moderate impacts to benthic aquatic life. Concentrations above the Severe Effect Level are expected to cause a pronounced disturbance of the sediment benthic aquatic life population. Sixty-nine percent of the downstream 0-6" sediment samples exhibited lead concentrations above the Lowest Effect Level and thirty percent of the samples were above the Severe Effect Level. Fifty-five percent of the downstream 0-6" sediment samples had cadmium concentrations above the Lowest Effect Level. The sediment metals data indicate that the combined lead and cadmium

concentrations in the tributary D-1-7 sediments have potentially caused a localized moderate impact on the benthic aquatic community.

Fluoride concentrations in the downstream samples SED-3, SED-7 and SED-8 and to a lesser extent samples SED-4, SED-6 and SED-10, were higher than the upstream SED-5 concentration. The SED-9 sediment fluoride concentration and the fluoride concentration in the sediment samples (SED-11 through SED-14) collected downstream of sample SED-10 were consistent with the upstream SED-5 value. The stream flood plain sediment fluoride concentrations were generally consistent with the upstream SED-5 sediment concentration. The sediment data indicate that the Site has not had a significant impact on stream sediment fluoride concentrations. As noted in Section 3.3, fluoride surface water concentrations were less than the NYSDEC surface water standard for aquatic life chronic toxicity. There is no NYSDEC sediment criterion for fluoride.

In summary, metals data indicate that the Site has not had an impact on stream sediment barium concentrations. The stream sediment and stream flood plain sediment sample lead data indicate that sediment lead concentrations above the NYSDEC Severe Effect Level are limited in extent and restricted to the top 0-6". Sediment lead concentrations above the Low Effect Level are present to a greater extent, but are also limited to the top 0-6". The stream and flood plain sediment samples indicate that historical site activities have potentially had an impact on stream sediment lead concentrations. The stream and flood plain sediment data indicate that stream sediments with elevated cadmium concentrations are limited in areal extent and are restricted to the top 0-6". Sixty-four percent of the sediment samples exhibited lead concentrations above the Lowest Effect Level and twenty-nine percent of the samples were above the Severe Effect Level. Thirty-five percent of the sediment samples had cadmium concentrations above the Lowest Effect Level. The sediment metals data indicate that the combined lead and cadmium concentrations in the tributary D-1-7 sediments have potentially caused a localized moderate impact on the benthic aquatic community. The sediment data indicate that the Site has not had a significant impact on stream sediment fluoride concentrations.

3.4.2 Sediment PCB Data

Sediment PCB analytical data are summarized in Table 5 and presented on Drawing No.5. PCBs were detected in all tributary D-1-7 sediment and flood plain sediment samples, including upstream sample SED-5. Stream sediment concentrations increased from upstream to downstream sample SED-10. PCB concentrations in samples SED-11 through SED-14, collected downstream of SED-10, were lower than the PCB concentration in sample SED-10.

Aroclor 1260 was detected in the upstream SED-5 sediment sample. Aroclor 1260 concentrations in sediment samples SED-7, SED-8, SED-9, SED-10 and SED-13(0-6") were higher than the upstream SED-5 concentration. Data indicate that to some extent, the aroclor 1260 reported in the downstream sediment samples is potentially related to an upstream source.

The NYSDEC sediment criteria define four levels of protection associated with PCB sediment concentrations. These are: human health bioaccumulation, benthic aquatic life acute toxicity, benthic aquatic life chronic toxicity and wildlife bioaccumulation. The human health

bioaccumulation is derived to protect humans from the toxic effects of bioaccumulation via consumption of aquatic life from areas with high sediment PCB concentrations. The wildlife bioaccumulation criterion is derived to protect wildlife that prey on aquatic life from the toxic effects of bioaccumulation associated with the consumption of aquatic life from areas with high sediment PCB concentrations.

Human consumption of aquatic life from the stream in the vicinity of the Site, although not considered a significant exposure pathway, does represent a potential exposure pathway. The stream in the vicinity of the Site is generally shallow and vegetated with a dense mat of vegetation, which would make fishing difficult. Most people would concentrate on fishing the nearby Neversink River. However, the tributary D-1-7 is a Class C (T) stream and will support trout. It is possible that fish caught in the Neversink River could utilize the habitat in the stream adjacent to the Site. Therefore, although the stream most likely does not represent a significant sport fishery, the human health bioaccumulation sediment criterion is a potentially valid criterion for this Site. The remaining three criteria are valid. The stream does represent a viable habitat for aquatic life and also is a viable foraging habitat for predators that prey on aquatic species.

The PCB sediment criterion is based on the equilibrium partitioning (EP) methodology. The basis of the EP procedure for deriving sediment criteria assumes the toxicity of sediment is attributable to the fraction of the contaminant that dissolves in the interstitial pore water. The concentration of a contaminant that will dissolve in the interstitial pore water is calculated based on the concentration of the contaminant in the sediment, the concentration of organic carbon in the sediment and the affinity of the contaminant for organic carbon. For the stream sediment and floodplain samples, the PCB sediment criteria values presented in Table 5 were calculated assuming the average total organic carbon from samples SED-11 through SED-14 and FP-1 through FP-4. An example calculation for PCBs is provided below:

- 1. Average Organic Carbon (OC) Concentration: 2.248 % or 22.48 gOC/Kg (foc)
- 2. Sediment PCB Benthic Aquatic Life Chronic Toxicity Criteria (SCoc) 19.3 ug/g OC (from NYSDEC "Technical Guidance For Screening Contaminated Sediments")
- 3. Site Specific Criterion (SC) =

 $SC = SCoc \times foc$

 $SC = 19.3 \text{ ug/gOC} \times 22.48 \text{ gOC/Kg}$

SC = 433.86 ug/Kg = 434 ug/Kg

All downstream sediment sample (0-6" samples) total PCB concentrations were above the human health (0.018 ug/Kg) and wildlife bioaccumulation sediment criterion value (31.5 ug/Kg). The aroclor 1260 concentration in upstream sample SED-5 was above the human health bioaccumulation criteria. Sediment samples SED-9 and SED-10 exhibited total PCB concentrations that were above the aquatic life chronic toxicity criterion. However, all PCB sediment sample results were less than the aquatic life acute toxicity criterion.

Two samples, 0-6" and 6-12" were collected at sediment sample locations SED-11 through SED-14. PCBs were not detected in the 6-12" samples at locations SED-11, SED-12 and SED-13. At location SED-14, aroclor 1254 and aroclor 1260 were reported in the 0-6" and 6-12" samples, respectively. The SED-14 (6-12") aroclor 1254 concentration was higher than the aroclor 1260 concentration reported in the 0-6" sample.

Aroclor 1260 was reported in the FP-1: 0-6" and 6-12" samples, the FP-2: 0-6" sample and the FP-3: 6-12" sample. Aroclor 1254 was reported in the FP-4 0-6" sample. No PCBs were detected in the 6-12" samples at the FP-2 and FP-4 locations or in the 0-6" sample at the FP-3 location. All flood plain sediment sample PCB concentrations were above the human health bioaccumulation criteria. Only sample FP-4 exhibited a PCB concentration that was above the wildlife bioaccumulation value. All flood plain concentrations were below the aquatic life chronic and acute toxicity criteria values.

The PCB aroclor identified in the lagoon soil samples was aroclor 1254. A significant percentage of the PCBs identified in the tributary D-1-7 stream and flood plain sediment samples was aroclor 1260. Aroclor 1260 was detected in the upstream SED-5 sediment sample and aroclor 1254 would not naturally degrade to aroclor 1260. Data indicate that the aroclor 1260 reported in the stream sediment and flood plain samples is potentially related to an upstream source and not lagoon soils.

Only nine percent (two of twenty-two) of the sediment samples (stream and flood plain) exhibited PCB concentrations above the Site-specific aquatic life chronic toxicity value. All sediment samples were below the aquatic life acute toxicity value. Data indicate that sediment PCB concentrations have most likely only had a minor effect on sediment benthic populations. The highest sediment sample total PCB concentrations reported in the stream (SED-9; 1,070 ug/Kg, SED-10; 1,470 ug/Kg) were only slightly above 1,000 ug/Kg, which has been used as a cleanup guideline for PCB sediment cleanup projects in New York State. All other stream sediment and flood plain sediment concentrations were well below 1,000 ug/Kg.

3.5 Soil Sample Analytical Data

3.5.1 Former Lagoon Overflow Discharge Pipe Soil Sample

Analytical data for the surface soil sample (SSCMP) collected at the end of the 12" corrugated metal pipe (CMP) that was the overflow for the former lagoon are summarized in Table 6. Cadmium was not detected at or above the laboratory-reporting limit of 0.042 mg/Kg. Barium was detected at a concentration (33.7 mg/Kg) that was above the site-specific background concentration (15.2 mg/Kg) but was well below the NYSDEC Recommended Soil Cleanup Objective (RSCO) of 300 mg/Kg and well below the natural background range of barium in typical eastern United States soils (15 mg/Kg to 600 mg/Kg). Lead was reported at a concentration (20.8 mg/Kg) that was above the site-specific background concentration (10.9 mg/Kg). However, the reported concentration was well below the USEPA (Identification of Dangerous Levels of Lead; 40 CFR Part 745) exposure hazard concentration in bare soil in children's play areas of 400 mg/Kg. Data indicate that the Site has not had an impact on soils in the vicinity of the former lagoon overflow with respect to barium, cadmium or lead.

Fluoride was not detected at or above the laboratory reporting limit (2.1 mg/kg) in the CMP overflow soil sample. Data indicate that the Site has not had an impact on soils in the vicinity of the former lagoon overflow with respect to fluoride.

PCB aroclor 1260 was detected in the overflow soil sample at a concentration of 130 ug/Kg, which is well below the NYSDEC surface soil RSCO of 1,000 ug/Kg. Data indicate that soils in the vicinity of the former lagoon overflow have not been significantly impacted with respect to PCBs.

Analytical data from the surface soil sample collected at the end of the overflow CMP from the former lagoon indicate that the Site has not had a significant impact on soil quality in the vicinity of the overflow CMP.

3.5.2 Off-Site Swartwout Property Soil Sample

Analytical results for the soil sample (FS-1) collected on the west side of tributary D-1-7 on the Swartwout property are provided in Table 6. Cadmium and fluoride were not detected in either the 0-6" or 6-12" sample.

Barium concentrations in both the 0-6" (100 mg/Kg) and 6-12" (99.5 mg/Kg) sample were above the site background (15.2 mg/Kg), but were well within the typical range for eastern U.S. soils (15 mg/Kg to 600 mg/Kg) and below the upper NYSDEC RSCO (300 mg/Kg). Soil barium concentrations in the vicinity of sample FS-1 do not represent a threat to public health or the environment. Lead concentrations in both the 0-6" (39.2 mg/Kg) and 6-12" (14.4 mg/Kg) soil sample were consistent with typical lead concentrations in rural soils (4-61 mg/Kg). PCB aroclor 1260 was detected at low estimated concentrations in both the 0-6" (26 ug/Kg) and the 6-12" (10 ug/kg) samples at location FS-1. Concentrations were well below the NYSDEC RSCO for surface soils (1,000 ug/Kg). Data from sample FS-1 indicate that soils adjacent to the stream have not been significantly affected by Site related chemicals.

3.6 2005 Lagoon Soil Boring Data

Analytical results for the lagoon sub-surface soil samples collected from the borings advanced in February 2005 are summarized in Table 7. Soil boring locations are depicted in Figure 8.

Analytical results from the two soil borings (SB-6-05, SB-4-05) advanced outside the lagoon indicate that soils in the saturated zone downgradient and outside the lagoon do not exhibit significant barium, cadmium or lead contamination. Soil sample results from boring SB-6-05 indicate that barium, cadmium and lead soil concentrations from approximately 1.2' above the ground water table to approximately 8.8' below the ground water table were less than the respective NYSDEC Recommended Soil Cleanup Objectives (RSCOs). The data from boring SB-4-05 reveal that barium and cadmium concentrations between approximately 2' below the ground water table and 6' below the ground water table were slightly above the respective RSCOs. The lead concentration in the SB-4-05 sample between approximately 2' to 4' below the ground water table was slightly above the site background lead level.

Soil sample results from the borings within the lagoon indicate that barium, cadmium and lead concentrations in the SB-1-05, SB-2-05, SB-3-05, SB-5-05 and SB-7-05 borings were higher than the respective RSCOs in the deepest samples from each boring and were generally above the respective RSCOs in all samples from each of these borings. Cadmium concentrations in the three deepest samples from boring SB-8-05 were above the RSCO.

The cadmium results from boring SB-5-05 (two samples below the ground water table and two above the ground water table), the SB-1-05 (0'-0.6' BGW) sample and the SB-2-05 (+2'-0' BGW) sample were above the TCLP regulatory limit. All other soil boring sample barium, cadmium and lead concentrations were below the respective TCLP regulatory limits.

Although the soil boring samples exhibit barium, cadmium and lead concentrations above the NYSDEC RSCO and a limited number of samples exhibit cadmium concentrations above the TCLP regulatory limit, ground water data indicates that lagoon soils have not had a significant impact on barium, cadmium and lead concentrations in ground water downgradient of the lagoon.

4.0 FATE AND TRANSPORT

The site-specific parameters of concern are barium, cadmium, lead, PCBs and fluoride. However, the data presented in the preceding sections indicate that fluoride was the only analyte consistently detected above the ground water standard in the downgradient monitoring wells. Fluoride was detected in six (MW-7, MW-8, MW-9, MW-10, MW-14, MW-17) of the ten downgradient monitoring wells at concentrations exceeding the NYSDEC ground water standard (1.5 mg/L). In July 2001, ground water from downgradient monitoring wells MW-7 and MW-14 exhibited PCB concentrations that were above the ground water standard. However, PCBs were not detected above the ground water standard in any ground water sample collected during the most recent monitoring event (August/September 2003).

In surface water, only one downstream sample contained lead at a concentration above the aquatic life chronic toxicity surface water standard. Fluoride concentrations were below the surface water standard.

Sediment sample data indicate that any impact the Site may potentially have had on sediment metals and fluoride concentrations is limited. Sediment PCB data indicate that downstream sediment PCB concentrations were above the human health and wildlife bioaccumulation criterion and at two of nine downstream sampling locations (total 13 samples) sediment sample PCB levels were above the aquatic life chronic toxicity value.

This section discusses the fate and transport characteristics of the compounds of concern in the various Site media. Fate and transport is controlled by the physical/chemical characteristics of the compounds (i.e., water solubility, oxidation state, etc.), by advection, dispersion, chemical diffusion, retardation and the physical characteristics of the Site, including but not limited to ground water flow rates and direction, sub-surface soil types, soil permeability, organic carbon content, and cultural features (drainage patterns, etc.).

4.1 Hydraulic Conductivity

Hydraulic conductivities for the on-site and off-site monitoring wells are presented in Table 2. Hydraulic conductivities range from a low of 1.29x10⁻³ cm/sec or 3.66 ft/day (Well MW-15) to a high of 1.32x10⁻¹ cm/sec or 375 feet per day (MW-17) with an average of 2.36x10⁻² cm/sec or 66.8 ft/day. Monitoring wells MW-17 and MW-12 exhibit the highest hydraulic conductivities while wells MW-10, MW-14, MW-15 and MW-17A exhibit the lowest hydraulic conductivities.

4.2 Ground water Gradients and Flow Direction

Based on the findings of the Hydrogeologic Assessments performed by ERM (1982), it was determined that both the former lagoon and the stream east of the Site have had an influence on the hydraulics of the Site. Currently, however, the primary influence is from the stream, which flows east of the lagoon. Consequently, ground water flow at the Site is toward the stream, with the water table sloping toward the stream and the ground water gradient increasing as the stream is approached. The stream most likely represents a ground water discharge point during a significant part of the year. During the drier months, the stream could potentially be a ground

water discharge point and a ground water recharge area in separate reaches of the stream. The average ground water gradient across the Site to tributary D-1-7 is 0.0047 ft/ft based on the gradient from MW-13 to MW-6 (0.0059 ft/ft), MW-13 to MW-8 (0.0037) and MW-13 to MW-16 (0.0046).

During the period when discharges were made to the lagoon a ground water mound formed immediately adjacent to and beneath the lagoon. This mounding resulted in steepened ground water gradients in the downgradient directions from the lagoon, producing a limited radial pattern of flow from the lagoon. This flow pattern may account for the detection of lead above the ground water standard in one of the MW-6 ground water samples and PCBs in two of the MW-6 ground water samples.

The detection of lead and aroclor 1254 in ground water from monitoring well MW-6, but not high fluoride concentrations is enigmatic. Fluoride is considerably more mobile in the environment than either lead or aroclor 1254, and fluoride has been detected at elevated concentrations in ground water from monitoring wells MW-7, MW-8, MW-9, MW-10, MW-14 and MW-17. Lead has not been detected above the ground water standard in these wells and PCBs have not been detected above the ground water standard in monitoring wells MW-8, MW-9 or MW-10.

The historical mounding from the lagoon created a direct flow path from the lagoon to monitoring well MW-6. Lead and aroclor 1254 may have migrated along the ground water table via sorption to colloids and soil particles, which remain within the influence of monitoring well MW-6. Currently, monitoring well MW-6 appears to be primarily located cross gradient of the lagoon, without a direct flow path and therefore MW-6 ground water fluoride concentrations are below the ground water standard.

4.3 Water Solubility

Water solubility is the degree to which a compound dissolves in water. Water solubility is useful in estimating contaminant fate and transport and is directly related to sorption, which is discussed in the following section. Highly water-soluble compounds tend to weakly sorb to soils and sediments, and subsequently leach from the soils/sediments rapidly. Highly water-soluble compounds also tend to be less volatile and more readily biodegradable than less water-soluble constituents. Water solubility is influenced by several environmental parameters, including temperature and pH.

The water solubility of the PCB Aroclor 1254 is 3.1×10^{-2} mg/l, indicating that it is a relatively insoluble compound. Fluoride salts are generally highly soluble. The water solubility of barium, cadmium and lead depend on the oxidation states of the metals. The low solubility of PCBs would tend to minimize the migration of PCBs from impacted soils to ground water and surface water. Conversely, the high solubility of fluoride could potentially result in the migration of fluoride to ground water and surface water from contaminated soils.

4.4 Organic Carbon Partition Coefficients (Koc) and Chemical Retardation

The organic carbon partition coefficient (K_{oc}) provides a measure of how an organic compound will partition between the organic carbon fraction of a soil or sediment and the water surrounding the soil/sediment. Typically, almost all of the adsorption of organic chemicals by a soil or sediment is due to the organic carbon content of the soil. Chemicals with high values of K_{oc} tend to sorb strongly to the organic carbon fraction of the soil, and consequently, have less of a tendency to migrate into the surrounding ground or surface water. Chemicals with low values of K_{oc} tend to sorb weakly to the organic carbon fraction of the soil, and consequently, have the potential to migrate into the ground or surface water. K_{oc} is chemical-specific, largely independent of soil properties, and ranges in value from 1 to 10^7 . K_{oc} can be related to water solubility (S) by the following relationship:

$$Log K_{oc} = -0.54 log S + 0.44$$

PCBs are the only organic compound of concern at the Site, and were found at the highest concentrations in the top one to two feet of soil in the former lagoon. The top six to twelve inches of soil in the lagoon is a highly organic black loam. The K_{oc} of PCB compounds is approximately $5.3 \times 10^{+5}$ ml/g, which indicates that it will tend to sorb strongly to the organic carbon fraction of the soil, and subsequently, have less of a tendency to migrate into the surrounding ground or surface water. The ground water and surface water PCB data confirm this generally non-migratory behavior. Ground water PCB concentrations above the ground water standard were limited to three monitoring wells (MW-6, MW-7, MW-14) and all ground water PCB concentrations were below the New York State Department of Health drinking water standard (0.5 ug/L). PCBs were not detected in any of the surface water samples collected from the stream located east of the Site.

Although the data indicate that PCBs are relatively insoluble and strongly sorb to organic matter any insignificant quantity that would dissolve in ground water would migrate along the ground water table. However, sorption of chemicals to soil organic matter will retard the movement of dissolved phase chemicals (Vs) relative to the rate of ground water flow (V) and the ratio is defined as the retardation factor. The retardation factor can be calculated via the following formula:

 $R = V/V_s = 1 + K_d (d_b/n)$ and $K_d = Koc \times Organic Carbon Content (OC milligrams organic carbon/milligram of soil)$

Where K_d is the partition coefficient (cm³/g), d_b is the bulk density (g/cm³) and n is the porosity.

Barium, cadmium, lead, and fluoride are not organic compounds and are not discussed in terms of K_{oc} . Metals sorbtion is typically discussed in terms of the adsorption (or distribution) coefficient (K_d). Inorganic anion (fluoride) mobility in soils is generally related to solubility and charged particle interactions.

The adsorption coefficient is defined as the ratio of the concentration of the compound adsorbed on the soil surface to the equilibrium concentration of the compound in the surrounding water. Adsorption coefficients for the Site-specific metals of concern are presented below.

Weakly-to-Moderately Sorbed	
oderately Sorbed	
_	

^{*} Weakly-to-Moderately sorbed based on data from Dragun (1988).

Cadmium has a K_d in the range of 1.3 - 27 ml/g, which suggests it sorbs weakly to soil organic matter. Barium and lead sorb weakly-to-moderately to soil organic matter.

Cadmium was only detected above the ground water standard in one total matrix ground water sample and was not detected in any surface water sample. Therefore, since cadmium tends to sorb weakly to soil, the cadmium in the lagoon soils is most likely present in an insoluble form.

The lead and barium detected in the lagoon soils are most likely present in either an insoluble form or sorbed to the soil, since these metals tend to sorb to soils weakly-to-moderately. Lead was detected above the ground water standard only in the September 1999 total matrix ground water sample from monitoring well (MW-6). Lead was not detected in the MW-6 September 1999 field-filtered ground water sample, or in the July 2001 and August 2003 MW-6 ground water samples. The September 1999 total matrix ground water sample was collected using a Waterra Inertia pump by purging three well volumes prior to sample collection. This high volume purging/sampling method can result in the inclusion of otherwise immobile soil particles, which can produce analytical results that over estimate the concentration of metals and hydrophobic organic compounds. The low flow micropurging procedure used to collect the July 2001 and August 2003 MW-6 ground water samples minimizes disturbance of stagnant water in the well casing above the screened interval and reduces the potential for entrainment of particulate or colloidal material into the sample that could result in an overestimate of the concentration of metals and hydrophobic organic compounds.

Barium was not detected above the ground water standard in any ground water sample. Lead was detected above the laboratory reporting limit in only one surface water sample collected from the stream east of the Site and the downstream barium concentrations were consistent with the upstream concentration.

Fluoride is an anion and in general anions are not strongly sorbed to soil particles. Most soils in the northeast contain a significantly greater number of negative surface charges than positive surface charges. Since fluoride is an anion with a net negative charge, repulsion between the soil particles and fluoride will occur. This results in fluoride being mobile in ground water. Results of ground water sampling confirm this assumption, since fluoride was detected at elevated concentrations in both the filtered and unfiltered samples.

4.5 Advection, Dispersion and Diffusion

Advection is the term used to describe movement of a chemical via ground water flow due to flowing ground water. Via advection, non-reactive solutes are carried at an average rate equal to the average linear velocity of water. Based on the mean horizontal hydraulic conductivity of 2.36×10^{-2} cm/sec (66.8 feet/day) and an estimated effective porosity of forty (40) percent, a net horizontal ground water flow velocity of 2.8×10^{-4} cm/sec (0.785 feet/day) was estimated. Based on a ground water flow velocity of 0.785 feet/day, it would take approximately 1 year for ground water from the lagoon to reach monitoring well MW-7.

However, as discussed in Section 4.4, other factors such as chemical retardation will affect the movement of a solute or chemical in ground water. Hydrodynamic dispersion is the process whereby a solute or chemical spreads in directions that are longitudinal and transverse to the direction of plume migration. Longitudinal dispersion is generally considered an order of magnitude larger than transverse dispersion. Dispersion causes dilution of the chemical. With dispersion some chemicals travel faster and some slower than the mean ground water velocity. As a result of dispersion, the solute front travels at a rate that is faster than would be predicted based solely on the average linear velocity of the ground water. The overall result of dispersion is the spreading and mixing of the contaminant plume with uncontaminated ground water.

Hydrodynamic dispersion is a function of mechanical and molecular diffusion. Mechanical dispersion is the dominant mechanism of dispersion at normal ground water velocities. Generally, molecular diffusion is only important at very low velocities. Mechanical dispersion is mixing that occurs as a result of local variations in velocity around some mean flow rate. The main cause of variations of both rate and direction of transport velocities is the heterogeneity of the porous aquifer medium. Mechanical dispersion is defined by the following relationship

Mechanical Dispersion (D) = $a_x v_x$

 a_x = dispersivity (Length) v_x = average linear ground water velocity (length/time)

Mechanical dispersion has two components of flow, longitudinal dispersion and transverse dispersion (both horizontal and vertical). Longitudinal dispersion is the spreading of a solute in a direction parallel to the direction of ground water flow. On a microscopic scale longitudinal dispersion is caused by velocity changes due to variations in pore size, friction in the pore throat and tortuosity. Transverse dispersion at the microscopic scale is associated with the tortuosity of the porous medium. At the macroscopic scale dispersion is caused by stratification characteristics, including changes in unit geometry and discontinuous units, and permeability characteristics such as non-uniform permeability.

Dispersion is considered related to the scale. As the scale of the plume or the system being studied increases, the dispersivity will also increase. One approach to estimating longitudinal dispersivity is to assume that the longitudinal dispersivity is 0.1 times the plume length and that transverse dispersivity is 0.1 times the longitudinal dispersivity.

In the following section, a three dimensional ground water solute transport model is used to predict ground water fluoride concentrations downgradient of the Site. This model incorporates the parameters discussed in the preceding sections, retardation, advection and dispersion.

4.6 Ground Water Chemical Modeling

The relatively low concentrations of PCBs, barium, cadmium and lead near the lagoon and the tendency for PCBs to sorb to organic matter would be expected to result in a rapid decrease in the downgradient ground water concentrations of these parameters as the distance from the lagoon increases. This is supported by the ground water results from the Swartwout Road residence well samples and data from the off-site ground water monitoring well. Cadmium and lead were not detected at or above the laboratory-reporting limit in the Swartwout Road residence well or the off-site ground water monitoring wells. Barium and PCB concentrations in the off-site wells were well below the ground water standard.

However, fluoride is a non-reactive anion and the high concentrations downgradient of the lagoon indicate a potential for migration of fluoride away from the lagoon.

SOLUTRANS has been used to predict ground water fluoride concentrations downgradient of the lagoon. SOLUTRANS is a three dimensional equilibrium and non-equilibrium ground water solute transport model that uses analytic solutions. The solutions in SOLUTRANS assume a uniform one-dimensional flow field and allow three dimensional dispersion, retardation and first-order decay.

The model was calibrated to the existing ground water fluoride concentrations at the Site by adjusting model parameters until predicted concentrations reflected actual ground water fluoride concentrations reported in ground water samples from monitoring wells MW-7, MW-8, MW-9 and MW-10. These wells are located approximately 260 feet downgradient of the lagoon on a line drawn perpendicular to the ground water flow direction. For the calibration longitudinal dispersivity was estimated at 0.1 times the plume length (260 feet x 0.1 =26 feet) and transverse dispersivity was estimated at 0.1 times the longitudinal dispersivity. The longitudinal dispersion coefficient was calculated by multiplying the longitudinal dispersivity (26 feet) by the average linear ground water flow rate (0.785 feet/day) and the transverse dispersion coefficient is 2.6 feet times 0.785 feet/day. The model was conservatively calibrated to assume a steady state source or a source with a constant concentration of contaminant over time.

The size of the source and the source concentration were manipulated to calibrate the model to measured fluoride concentrations in monitoring wells MW-7 through MW-10. A graph of the fluoride calibration is provided in Figure 2 and the model input parameters are presented in Table 8. The graph presents ground water fluoride concentrations at a point 260 feet downgradient of the center of the lagoon and at varying distances from the center of the plume. Concentration is provided on the Y-axis and the X-axis (Y coordinate) represents distances from the center of the plume 260 feet downgradient of the lagoon. Approximate locations of the MW-7, MW-8, MW-9 and MW-10 monitoring wells are shown on the graph.

The measured ground water monitoring well sample fluoride concentrations and the calibrated model predicted concentrations are summarized below:

Monitoring Well	Measured Concentration Range mg/L	Calibrated Model Predicted Fluoride Concentration mg/L
MW-7	7.87 – 10.9	7.5
MW-8	5.35 – 6.56	7.5
MW-9	6.2 - 6.52	7.5
MW-10	3.16 – 5.53	7.5

The data provided in Figure 2 and the preceding table indicates that the calibrated model slightly overestimates the ground water fluoride concentrations at monitoring wells MW-8, MW-9 and MW-10 and slightly underestimates the fluoride concentration at MW-7. The model is considered sufficient to provide an indication of approximate downgradient ground water fluoride concentrations.

Graphs of predicted downgradient fluoride concentrations at monitoring wells MW-15, MW-16, MW-17 and MW-17A are provided in Figures 3 through 6, respectively. The graphs predict concentrations at the specific distance the monitoring well is located downgradient of the lagoon with distance from the centerline of the plume as a variable (Y-axis of graph). With the exception of the dispersion coefficients, the model parameters were the same as for the calibration. The dispersion coefficients varied with the distance downgradient from the center of the lagoon (plume length).

The model-predicted fluoride concentration (2.9 mg/L) at monitoring well MW-16 significantly over estimates the actual measured concentration (<0.1 mg/L). At monitoring well MW-15, the model slightly under estimates the fluoride concentration: estimated concentration 0.05 mg/L, actual measured concentration was 0.12 mg/L. The model-predicted fluoride concentration (0.45 mg/L) at monitoring well MW-17 is below the actual measured concentration (1.8 mg/L). However, at monitoring well MW-17A, which is located downgradient of MW-17, the model-predicted fluoride concentration (0.6mg/L) is higher than the actual measured concentration (<0.1 mg/L). Comparison of the model data to the actual fluoride concentrations in wells MW-16, MW-17 and MW-17A indicates that actual centerline of the ground water fluoride plume may be closer to monitoring well MW-17 than MW-16. The model centerline of the plume was estimated based on the October 2003 ground water contour map. This estimation indicated that monitoring well MW-16 is located at a point approximately 100 feet northeast of the centerline and that monitoring well MW-17 is located approximately 410 feet southwest of the centerline.

Although the predicted fluoride concentrations at monitoring wells MW-15, MW-16, MW-17 and MW-17A vary from the actual concentrations, the data indicate that the model can be used to provide an approximate estimation of ground water fluoride concentrations downgradient of the lagoon. Figure 7 depicts estimated fluoride concentrations at a distance of 1,500 feet downgradient of the lagoon. The model suggests that fluoride concentrations are below the ground water standard at a distance of 1,500 feet downgradient of the lagoon.

The model conservatively assumes a constant steady state concentration of fluoride in the source area. Since part of the selected remedy for the lagoon soils (OU-1) includes soil removal there

would not be a steady state source of fluoride. Additionally, capping of the lagoon, which is included in several of the proposed remedial alternatives for the lagoon, would reduce infiltration of water and decrease the hydraulic gradient in the vicinity of the lagoon. This would result in a significant decrease in the potential for fluoride migration from the lagoon soils. Therefore, over time, downgradient fluoride concentrations are anticipated to decrease below the concentrations predicted by the model.

Fluoride concentrations in the off-site monitoring wells and predicted fluoride concentrations 1,500 feet downgradient of the lagoon indicate that the area where off-site ground water fluoride concentrations are above the ground water standard is limited. Ground water fluoride concentrations downgradient of monitoring well MW-17 will continue to decrease by means of the process of dispersion. In addition, once the selected remedy for the lagoon soils is implemented, it is anticipated that there will be an increase in the rate at which downgradient concentrations are reduced. The data strongly indicate that no active treatment of ground water is necessary to control ground water fluoride concentrations.

5.0 STEP I AND STEP IIA/IIB FISH AND WILDLIFE IMPACT ANALYSIS

This section presents the findings of the Step I Fish and Wildlife Impact Analysis (FWIA) performed pursuant to the request from NYSDEC (June 10, 2002 letter from Ms. Alicia Thorne), for this inactive hazardous waste site (Site No. 3-36-027) and the Step IIA/IIB FWIA conducted at the request of the NYSDEC (December 10, 2004 letter from James Candiloro). The FWIA was performed following the NYSDEC FWIA procedures presented in the NYSDEC, Division of Fish and Wildlife, "Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites" (October 1994).

5.1 Step I Site Description

The objectives of the Step I analysis are to identify the fish and wildlife resources, land-use and habitat types that exist in the vicinity of the Site. In addition, fish and wildlife species that may utilize habitats associated with OU2 that could potentially be impacted by site-related contaminants are identified. Topography and drainage within a two-mile radius of the Site are depicted on Drawing No. 6. Topography and drainage at the Site are depicted on Drawing No. 2 (Ground Water Contour Map). A cover type map documenting land use and the terrestrial, palustrine and lacustrine communities located within a one-half mile radius of the Site is provided on Drawing No. 7. The location of New York State regulated wetlands and classified streams within a two-mile radius of the Site are depicted on Drawing No. 6.

5.1.1 Regional and Site Topography and Drainage

The C&D facility is located in the Neversink River Valley, about four miles northeast of the confluence of the Neversink and Delaware Rivers at the City of Port Jervis. The plant is located on a terrace approximately 35 feet above the elevation of the Neversink River. The topography on the terrace is relatively flat and the slopes extending to the valley floor are steep. The topography where the plant and former lagoon are located is relatively flat. Approximately 100 feet east of the lagoon, there is a topographic bench where the elevation drops between thirty and ten feet to the valley floor.

A small tributary (D-1-7) of the Neversink River is located on the valley floor just east of the facility. The tributary most likely represents a ground water discharge point over at least a portion of its length, during a significant part of the year. During the drier months, the tributary could potentially be a ground water discharge point and an area of ground water recharge in separate reaches of the stream.

Drainage from the east end of the plant near the lagoon flows into the lagoon and to tributary D-1-7. The area of the plant south of the lagoon flows east toward the former railroad bed, which is located on a narrow bench approximately ten feet below the plant elevation. Stormwater runoff from southern end of the plant would infiltrate along the slope, the railroad bed and the valley floor before reaching the stream.

The topography rises to the east and west of the facility. The drainage from the higher terrain is to the Neversink River thorough a number of small tributaries. There are several wetland areas located along the valley floor between the ridges that border the valley to the east and west.

5.1.2 Streams, Wetlands and Surface Water Located Within a One-Half Mile and Two Mile Radius of the Site

There are no NYS Article 24 regulated wetlands located within a one-half mile radius of the Site. The nearest NYS regulated wetland (PN-30 Class 2) is located approximately 3,000 feet southwest of the Site. Runoff from the Site would not reach wetland PN-30 and ground water movement from the site is to the southeast, away from wetland PN-30. The locations of NYS Article 24 regulated wetlands within a two-mile radius of the Site are depicted on Drawing No.6.

An emergent marsh area is located approximately 500 feet north of the Site. Drainage and ground water from the Site would not affect this wetland area. There is also a narrow fringe of wetland habitat present along the tributary D-1-7. Drainage from the northeast area of the facility could reach this stream, however, most runoff would infiltrate into the ground before reaching the stream. Ground water from the Site would be expected to discharge to the stream at least during periods of high ground water table conditions.

Tributary D-1-7 is one of three New York State classified streams located within approximately one half-mile radius of the Site. Tributary D-1-8 is located approximately one-half mile northeast of the Site and Tributary D-1-6 is located approximately 1,500 feet west of the Site. Both these streams are Class C (t). Runoff from the Site would not reach either of these streams and ground water moving away from the Site would not be expected to discharge to either stream. The Site would not have any effect on water quality in either stream. Other classified streams located within a two-mile radius of the Site are shown on Drawing No.6.

The stream located approximately 300 feet east of the lagoon is designated tributary D-1-7 of the Neversink River. This stream is a Class C (t) stream. NYSDEC Water Quality Regulations, Title 6, Chapter X, Parts 700- 705 defines the best usage of Class C waters as fishing. These waters shall be suitable for fish propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes. The (t) designation indicates that the waters are suitable for the survival of trout.

In the vicinity of the site, tributary D-1-7 is a small, low gradient stream with the width varying from approximately 15 up to 70 feet in areas adjacent to low floodplain and wetland habitat. Depths vary from three feet up to 8 feet in a few pool areas. The width and depth are variable along the stream between the Site and where the stream discharges to the Neversink River. Along most of the stream length both above and below the Site, the entire stream channel is heavily vegetated. The dominant species is canary reed grass (Phalaris arundinacea). The stream bottom in the vicinity of the site is composed of a silty muck. The stream is apparently fed by surface water runoff from adjacent uplands and ground water discharge through localized springs and non-localized ground water discharge through the streambed.

5.1.3 Land Use/Major Plant Communities Within One-Half mile of The Site

A cover type map detailing the major land use/plant communities within approximately a one-half mile radius of the Site is presented on Drawing No.7. The cover type map was prepared based on interpretation and evaluation of aerial photographs, topographic maps and NYSDEC wetland maps. Field checking was performed to verify the accuracy of the cover type map. The base map for the cover type map was prepared from orthoimagery obtained from the New York State GIS Clearinghouse Orthoimagery Application Program. The cover types within a half-mile of the Site were classified using the New York Heritage Program Classification System (NHPCS, Reschke, 1990).

Where access was possible during the verification of the cover type map, the dominant vegetation in each cover type was identified for areas classified as terrestrial natural (TN), palustrine (P) and lacustrine (L). The cover type boundary lines are approximate and have not been surveyed. The determination of dominance was qualitative, based on visual estimates. Vegetative plots and transects were not used in determining dominance. These methods are beyond the scope of a Step I analysis.

The predominant land use within a half-mile east of the Site is agricultural. In 2003, most of the fields were planted with corn. Narrow hedgerows separate many of the fields. The hedgerows contain a mixture of shrubs and trees. Predominant vegetation in the hedgerows included locust (Robinia psuedoacacia), elm (Ulmus americana), red maple (Acer rubrum) and arrowood (Viburnum dentatum). An area of wet meadow approximately 2000 feet long by 100 feet wide bisects several of the fields. Dominant vegetation in the wet meadow includes sedges (Carex species), purple loosestrife (Lythrum salicaria), canary reed grass (Phalaris arundinacea) and grass-leaved goldenrod (Euthamia graminifolia). The fields are bordered on the east by the Neversink River and on the west by tributary D-1-7.

Immediately adjacent to and north of the Site is an area of successional northern hardwood with an area of planted red pines (Pinus resinosa). Dominant species include red maple, elm, white pine (Pinus strobes), white ash (Fraxinus americana) aspen (Populus tremuloides) and poplar (Populus deltoids).

An emergent marsh area is located approximately 500 feet north of the Site. This marsh drains into tributary D-1-7. The predominant vegetation in the emergent marsh is purple loosestrife, canary reed grass and common cattail (Typhus lattifolia).

The area west of the Site is a mixture of residential homes and some commercial/industrial properties interspersed with successional shrub fields, successional northern hardwoods and deciduous forest. The predominant species in the successional shrub fields include goldenrod (Solidago species) queen-anne's-lace (Daucus carota), raspberries (Rubus species) arrowood, gray dogwood (Cornus racemosa) and sumac (Rhus typhina). The predominant species in the deciduous forest areas include red oak (Quercus rubra), red maple, sugar maple (Acer saccharum) and white ash.

5.1.4 Resource Characterization Within One-Half and Two Miles of The Site

Resource characterization consists of determining the wildlife species that may potentially utilize, or have been determined to utilize, the plant communities or habitats identified in the previous sections as existing within one-half mile of the Site. Also, any known species of concern (i.e., endangered, threatened, etc.) or significant habitats that may exist within two miles of the Site are identified. Additionally, the general quality of the habitats that are located within one-half mile of the Site and their ability to provide for the needs of the species that may utilize the habitats is discussed. Areas of observed vegetative stress, leachate seeps, documented evidence of fish and/or wildlife mortality and any known population impacts related to site-related contaminants are presented.

5.1.4.1 Endangered, Threatened or Special Concern Fish and Wildlife or Plant Species or Significant Habitats

The United States Fish and Wildlife Service (USFWS) and the NYSDEC Wildlife Resources Center were contacted regarding the known occurrence of endangered, threatened, or special concern species or habitats located within a one-half mile radius of the Site. One Federal and New York State endangered species, one Federal and New York State threatened species, one New York State endangered species and two New York State threatened species were identified as potentially occurring within a two-mile radius of the Site. The threatened and endangered species are listed below:

- Dwarf Wedge mussel (Alasmindonta heterodon): Federal and State endangered
- Bald Eagle (Haliaeetus leucocephalus): Federal and State threatened
- Allegheny Woodrat (Neotoma magister) State endangered
- Brook Floater (Alasmindonta varicose): State threatened
- Timber Rattlesnake (Crotalus horridus): State threatened

The preferred habitats of the timber rattlesnake and the Allegheny woodrat indicate that neither of these species would be found on or in the immediate vicinity of the Site, and therefore the chemicals related to the Site will not affect either species. The habitat of the Allegheny woodrat is large talus boulders, where the boulders have accumulated in layers sufficiently deep enough to form complex systems of passageways. The Site and the area within a one-half mile radius of the Site do not exhibit this type of habitat. The timber rattlesnake is typically found in deciduous forest in rugged terrain. Although there is some deciduous forest located adjacent to and north of the Site, this area is relatively flat and is a successional forest. The area immediately east, south and west of the Site is primarily agricultural, successional old field or successional shrub field,

and residential, respectively. It is not anticipated that the Site or the areas immediately adjacent to the Site would represent timber rattlesnake habitat.

The eagle prefers undisturbed areas near large lakes, reservoirs, marshes and swamps and stretches along rivers. Although the bald eagle does use habitat along the Neversink River valley it would most likely represent only a transient species in the vicinity of the Site. Site-related contaminants would not represent a direct threat to eagles. The bald eagle's primary food is fish. Cadmium, lead and PCBs are bioaccumulative chemicals and could potentially biomagnify in the food chain, where eagles could potentially be exposed to higher concentrations of these chemicals. However, considering the transient use of the riverine and palustrine habitats in the immediate vicinity of the Site, eagle exposure to Site-related chemicals would be minimal.

The dwarf wedge mussel is a Federal and New York State endangered species. Habitat includes running waters of all sizes, from small brooks to large rivers, at locations where the water velocity is usually slow to moderate. Bottom substrates include silt, sand and gravel, which may be distributed in relatively small patches behind larger cobbles and boulders. A large population of this species is found in the Neversink River in Orange County. It is possible that dwarf wedge mussels are present within a one-half mile radius of the Site. They could potentially utilize the aquatic habitat of tributary D-1-7 as well as the nearby Neversink River.

The brook floater is a mussel considered threatened in New York State by the NYSDEC. Typical habitat is small to medium sized rivers, usually in gravel and cobble substrates in swift current. Tributary D-1-7 is not representative of typical brook floater habitat, and this species most likely is not present in this stream. The brook floater has been found in the Neversink River.

5.1.4.2 Fish and Wildlife Species Potentially Using Habitats Within a One-Half Mile Radius of the Site

Mammals, amphibians and reptiles; fish; and bird species that could potentially utilize the habitats within a one-half mile radius of the Site, for at least a portion of their life cycle, are listed in Tables 9, 10 and 11, respectively. All species that could potentially utilize the habitats within a one-half mile radius of the Site are not included on these lists. Also, these lists are not meant to indicate that these species can always be found, or that all will be present at one time within one-half mile of the Site. These lists were prepared following a limited field evaluation of the habitats and review of available literature. These lists are not the result of a site-specific population survey. Actual population surveys are complex and time intensive and are beyond the scope of a Step I baseline evaluation.

Many wildlife species are mobile and generally require a range of habitat types to meet their life cycle requirements. In addition, many species will only use the area within one-half mile of the Site for a portion of their life requisites. Thus, all the species identified on these lists were not actually observed within a one-half mile radius of the Site.

During sample collection activities in August/September 2003 and the field checking of the cover type map, the species listed below or sign of these species were observed on or within one-half mile of the Site.

- Black-capped Chickadee
- Cardinal
- Common Crow
- Red-tailed Hawk
- Mallards

- Blue-jay
- White-tailed Deer
- Beaver
- Cottontail Rabbit

5.1.4.3 General Habitat Quality Within One-Half Mile of the Site

The successional northern hardwood habitat and emergent marsh located north of the Site and the successional shrub fields located to the south are of limited acreage, which limits the overall habitat quality. However, the mixture of successional northern hardwood, successional shrub field and the emergent wetland plant communities along with the adjacent agricultural fields provides a diversity of habitat types available to wildlife and therefore these areas represent quality habitat.

The deciduous forest, successional shrub field and successional northern hardwood plant communities located west of the Site beyond the primarily residential areas, represent a variety of habitat types. This area is currently of sufficient size to represent a good quality habitat and is located adjacent to a larger area of currently undeveloped forest. It is a common ecological tenant that large blocks of undisturbed areas can support a greater number of species than smaller areas. This is partially related to the fact that larger areas will typically contain a wider variety of habitat types. Areas with diverse habitat types are more likely to contain the range of resources necessary to support a given species life cycle requirements. The greater number of habitat types the wider the diversity of plant communities. Animal species are ultimately dependent upon plants for survival, either directly in the case of herbivores, or indirectly with respect to animal species that use plants for shelter or feed on herbivores. However, with increasing development of this area, the quality of the habitats will decrease.

The Neversink River represents a high quality riverine habitat. The Neversink contains the greatest diversity of freshwater mussels in the Delaware River basin. There are more than 40 fish species in the Neversink, including migratory fish such as American shad, alewife, striped bass, sea lamprey, and American eel. The quality of the aquatic habitat in tributary D-1-7 is negatively affected by the dense stands of canary reed grass and purple loosestrife that have colonized the stream channel.

5.2 Contaminant-Specific Impact Analysis

The objective of the Step II, contaminant-specific impact analysis is to determine the impacts, if any, of site-related contaminants on fish and wildlife resources. The pathway analysis (Step IIA) evaluates and identifies potential contaminants of concern, sources of contaminants, potential pathways of contaminant migration and potential for fish and wildlife resources to be impacted by site-related contaminants. If the pathway analysis indicates that site contaminants have not

migrated to a resource along a potential pathway, then there is no significant impact and additional analysis (Steps II B and C) is not required. The criteria-specific analysis (Step IIB) determines if reported concentrations represent a potential threat to aquatic life and wildlife. Site specific contaminant levels are compared to numerical criteria (either published or derived) to evaluate the extent of any impact.

In order for fish and wildlife to be affected by chemical constituents from a site, two conditions must exist. There first must be an avenue by which fish and wildlife can be exposed to chemical constituents, referred to as a completed exposure pathway. In addition, the chemical concentrations within the completed exposure pathway must be of sufficient magnitude (criteria-specific analysis) to cause an impact. The analysis of exposure pathways is presented in Section 5.2.1 and the criteria-specific analysis is provided in Section 5.2.2.

Based on the environmental sampling conducted during both the OU-1 and OU-2 investigations, the constituents of concern (COC) have been identified as PCBs, barium, cadmium, lead and fluoride. These parameters were identified at concentrations above NYSDEC RSCOs in the lagoon surface and sub-surface soils. The lagoon soils are the source area for the site COC.

5.2.1 Step IIA Exposure Pathway Analysis

OU-1 includes lagoon surface and sub-surface soils and OU-2 includes off-site surface water and sediments, on-site and off-site ground water and off-site floodplain soils. Fish and wildlife resources located in the vicinity of the site that could potentially be affected by the site-specific COC (fluoride, barium, cadmium, lead and PCBs) identified in the Step I analysis presented in Section 5.1.

Potential fish and wildlife exposure pathways with respect to the site COC include the following:

- Direct Contact: surface water, soils and sediments
- Ingestion: surface water, sediments and food (plants and animals) that utilize the tributary D-1-7 habitats for all or part of their life cycle and therefore could be exposed to the site COC.

The fish and wildlife resources that could potentially be affected by site-related COC consist of species that would utilize the aquatic habitats associated with tributary D-1-7 and the Neversink River and the terrestrial habitat located in the vicinity of these resources.

The lagoon soils represent the current source area for the site COC. The lagoon is an approximately 14-foot deep circular depression with a diameter at the rim of the lagoon of approximately 160 feet east/west and 180 feet north/south. Side slopes are approximately 2:1. The lagoon is sparsely vegetated. The sparse vegetation and small size of the lagoon function to limit use of the area by terrestrial wildlife species. The lagoon does not represent a significant terrestrial habitat. Wildlife present in the lagoon would most likely be limited to infrequent resting areas for small birds. Although elevated levels of COC are present in lagoon surface and

sub-surface soils, the very limited use of this area by wildlife indicate that direct contact and ingestion of lagoon soils is not a significant exposure pathway.

COC present in lagoon soils could have migrated from the site to the adjacent aquatic habitat (Tributary D-1-7) via direct discharge and percolation into ground water. Historically, process wastewater was discharged to the lagoon and there was a historical discharge pipe from the lagoon to tributary D-1-7, which could have discharged site COC to tributary D-1-7. This discharge pipe is no longer active and there has not been any discharge from this pipe for several decades. The lagoon floor and sub-surface soils beneath the lagoon are primarily permeable coarse sand and gravel and wastewater would have infiltrated through these permeable soils. Fluoride and barium have been detected in surface water and fluoride, barium, cadmium, lead and PCBs have been detected in sediment samples collected from tributary D-1-7, which is a tributary of the Neversink River and is located approximately 300 feet east of the Lagoon.

Tributary D-1-7 is a significant aquatic habitat. Terrestrial wildlife could be exposed to site COC through direct contact and ingestion of surface water (fluoride and barium), sediment (fluoride, barium, cadmium, lead and PCBs) and adjacent floodplain soils (fluoride, barium, lead and PCBs) and through ingestion of food. Aquatic life are exposed to surface water and sediments in tributary D-1-7 through direct contact and ingestion and through ingestion of food.

Review of analytical data from surface water samples collected from tributary D-1-7 indicate that barium and fluoride were consistently detected in tributary D-1-7 surface water samples. These two parameters will be included in the surface water criteria specific analysis. Lead was detected in one of six tributary D-1-7 surface water samples and therefore due to the low frequency of detection will not be included in the surface water criteria specific analysis.

Barium, cadmium, lead, PCBs and fluoride were consistently detected in the sediment and barium, lead, PCBs and fluoride were detected in the floodplain soil samples collected adjacent to tributary D-1-7. These parameters will be included in the sediment/floodplain soil criteria specific analysis.

Site related COC could potentially migrate to the Neversink River via ground water discharge to the river and through surface water discharge from tributary D-1-7. However, analysis of these potential pathways indicates it is unlikely that site COC would reach the river at concentrations that would have an impact on surface water and sediment concentrations in the Neversink River.

The Neversink River is located approximately 2,500 feet downgradient of the site lagoon with respect to the direction of ground water flow. With the exception of fluoride the concentrations of site COC in ground water from off-site monitoring wells located between the site and the Neversink River have not been significantly higher than background concentrations. One of four off-site monitoring wells exhibited fluoride at concentrations above the ground water standard. However, ground water modeling has indicated that ground water fluoride concentrations would significantly decrease with increasing distance from the site and would be below the ground water standard at a distance of approximately 1,500 feet downgradient of the lagoon. Ground water discharge to the Neversink River does not represent a completed pathway for site related COC to affect Neversink River surface water and sediment concentrations.

Tributary D-1-7 flows into the Neversink River. Although barium and fluoride were detected in tributary D-1-7 surface samples at concentrations above background, the tributary D-1-7 stream volume is significantly less than the Neversink River volume and mixing of tributary D-1-7 flow with the Neversink River flow would reduce the concentration of barium and fluoride in the Neversink River surface waters to background levels. The migration of site-related COC to the Neversink River through surface water discharge from tributary D-1-7 is not considered a significant migration pathway.

Lead, cadmium and PCBs have been detected at concentrations above background in sediment collected from the most downstream sampling location (SED-14) in tributary D-1-7. The SED-14 cadmium, lead and PCB concentrations were 2 mg/Kg, 112 mg/Kg and 170 ug/Kg, respectively. The cadmium concentration was higher than the NYSDEC sediment low effect level but well below the severe effect level, the lead concentration was slightly higher than the severe effect level and the total PCB concentration was well below the 1,000 ug/Kg sediment cleanup level that has typically been used throughout New York State. The SED-14 sampling location is located approximately 1,000 feet downstream from where the highest tributary D-1-7 sediment lead, cadmium and PCB concentrations were reported. From SED-14 to the tributary D-1-7 discharge location to the Neversink River is another 2,675 feet. As discussed in Section 5.1, tributary D-1-7 is a slow, low gradient, highly vegetated stream, which would significantly minimize the movement of stream sediments. It is unlikely that the concentration of site COC in Neversink River sediments would be influenced by sediments in tributary D-1-7 and this is not considered a significant migration pathway.

The pathway analysis indicates that the principal completed exposure pathways are surface water and sediment in tributary D-1-7 and the adjacent floodplain soils.

5.2.2 Criteria-Specific Analysis

The pathway analysis indicated that there are potential pathways for site COC to migrate to tributary D-1-7 and analysis of tributary D-1-7 surface water, sediments and adjacent flood plain soils indicate that site COC have been found in these media, indicating a completed pathway. This section compares the concentration of the site COC in tributary D-1-7 surface water, sediments and the floodplain soils to published numerical criteria to enable an assessment of the potential impact on the fish and wildlife. Tables 12 through 16 summarize surface water and sediment data and numerical criteria for fluoride, barium, cadmium, lead and PCBs, respectively. Floodplain soil data and numerical criteria for fluoride, barium, cadmium, lead and PCBs are presented in Table 17.

5.2.2.1 Tributary D-1-7 Surface Water

Fluoride

Fluoride surface water concentrations and numerical comparison criteria are summarized in Table 12. Eighty percent of the downstream surface water sample fluoride concentrations were

greater than the upstream background concentration. The average downstream surface water concentration was 208 ug/L and fluoride was not detected in the upstream sample at a reporting limit of 100 ug/L. However, all downstream surface water concentrations were less than the NYSDEC surface water standard of 767 ug/L (calculated using average site-specific surface water hardness). This standard is based on protection of water quality to ensure fish propagation and survival. The surface water fluoride concentrations were three orders of magnitude below the LC50 concentration for two species of mussels, indicating that the reported surface water fluoride concentrations would not have an impact on freshwater mussel populations. Data indicate that although the site has affected surface water fluoride concentrations downstream of the site, the reported concentrations are not significant and do not represent a threat to the aquatic ecosystem.

Barium

All downstream barium concentrations were less than the concentration reported in the upstream sample. Data indicate that the site has not impacted downstream surface water quality with respect to barium.

Cadmium

Cadmium was not detected at or above the laboratory reporting limit in any downstream surface water sample. Data indicate that the site has not affected downstream surface water quality with respect to cadmium.

Lead

All downstream surface water lead samples were non-detect at a reporting limit of 2.8 ug/L with the exception of one sample in which lead was detected at 10.4 ug/L. This concentration is below both the NYSDEC fish survival criteria (28.2 ug/L based on site specific hardness data) and the USEPA criteria maximum concentration (CMC) value of 19.6 ug/L but is higher than the NYSDEC standard for fish propagation and the USEPA criteria continuous concentration (CCC). Considering the low frequency of lead reported in the downstream surface water samples, the site has not had a significant impact on downstream surface water quality with respect to lead. Therefore, surface water lead concentrations do not represent a threat to the tributary D-1-7 aquatic ecosystem.

PCBs

PCBs were not detected at or above the laboratory reporting limit in any downstream surface water sample. Data indicate that the site has not impacted downstream surface water quality with respect to PCBs.

To summarize, surface water sample results for samples collected downstream of the site, indicate that surface water quality has not been significantly affected by site COC and that surface water concentrations of the site COC do not represent a threat to the tributary D-1-7 aquatic ecosystem.

5.2.2.2 Tributary D-1-7 Sediment Quality

Sediment samples were collected from tributary D-1-7 at two depth intervals; 0-6" and 6-12". At sample locations SED-1 through SED-10 samples were collected at only the 0-6" interval. At sample locations SED-11 through SED-14 samples were collected at both the 0-6" and the 6-12" intervals.

Fluoride

Nine of thirteen (69%) sediment samples in the 0-6"interval exhibited fluoride concentrations that were above the concentration reported in the upstream background sample. Fluoride was not detected in four of the thirteen downstream sediment samples. All concentrations (range <3.52 mg/Kg to 53.9 mg/Kg) were well below the concentration (290.2 mg/Kg) reported by Metcalfe-Smith (2003) that caused no mortality with an observable effect limited to growth (25% inhibitory concentration) on the amphipod Hyalella azteca, which was the most sensitive of several species tested (Fathead minnow, a mayfly, a midge and a water flea).

Fluoride was not detected in three of the four samples collected from the 6-12" interval, which were collected at the four farthest downstream sampling locations. The reported concentration in the furthest downstream sample (SED-14) was equivalent with the upstream 0-6" background concentration. The 0-6" fluoride concentrations in these four samples were generally consistent with the upstream background concentration. Therefore, the downstream concentrations do not represent a threat to benthic aquatic life in the tributary D-1-7 aquatic ecosystem.

Barium

Two of the thirteen (15.4%) downstream sediment 0-6" interval samples barium concentrations were higher than the upstream background value (97.5 mg/Kg). The average downstream 0-6" interval sediment concentration is 73.3 mg/Kg, which is below the upstream concentration. Barium concentrations in the four 6-12" interval sediment samples were less than the upstream 0-6" concentration. Considering the low frequency of samples exhibiting barium concentrations above the upstream background value, data indicate that the site has not had a significant impact on downstream sediment barium concentrations and that the reported downstream barium sediment concentrations do not represent a threat to benthic aquatic life in the tributary D-1-7 aquatic ecosystem.

Cadmium

All the downstream sediment 0-6" and 6-12" interval sample cadmium concentrations were well below the NYSDEC sediment criteria severe effect level (SEL) concentration, indicating that downstream sediment cadmium concentrations have not had a severe impact on benthic aquatic life. All of the 6-12" sample cadmium results were less than the NYSDEC lowest effect level (LEL) concentration. Approximately 56 percent (5 of 9) of the sediment samples collected from the 0-6" interval exhibited cadmium concentrations that were higher than the LEL. The LEL

concentration represents a sediment cadmium concentration that can be tolerated by the majority of benthic organisms, but may cause toxicity to a few species. Sediment concentrations above the LEL but below the SEL could potentially be indicative of a moderate impact on benthic aquatic life.

Lead

Nine of the thirteen (69.2%) downstream sediment samples collected from the 0-6" interval exhibited lead concentrations that were above the NYSDEC LEL concentration. The lead concentration in four (SED-4, SED-9, SED-13 and SED-14) of the thirteen 0-6" interval sediment samples (30.8%) were higher than NYSDEC SEL. The SED-4 and SED-9 samples were collected at approximately the same location (SED-4 August 1999 and SED-9 July 2001) and the SED-13 and SED-14 were the farthest downstream sample locations. The lead concentrations in the 0-6" samples at sediment sample locations SED-11 and SED-12 were less than both the NYSDEC Lowest Effect and Severe Effect Levels. Sample locations SED-11 and SED-12 are located between SED-9 and SED-13. Data indicate that sediments with lead concentrations above the NYSDEC Severe Effect Level are not wide spread and are limited to the top six inches of sediment.

The lead concentrations in all four 6-12" interval samples (SED-11, SED-12 and SED-13) were well below both the NYSDEC Lowest Effect and the Severe Effect Levels.

PCBs

The total PCB concentration in two of the nine (22%) 0-6" interval sediment samples were above the NYSDEC benthic aquatic life chronic toxicity value (434 ug/Kg). The average sediment concentration (398 ug/Kg) was less than the chronic toxicity value. All sediment sample total PCB concentrations in the 6-12" interval were below the chronic toxicity value. The downstream sediment PCB data indicate that sediment PCB concentrations would have a minimal impact on the benthic aquatic community in tributary D-1-7. The two sediment samples (SED-9 and SED-10) with concentrations above the chronic toxicity criterion were collected within 100 feet of each other indicating an affected area of limited extent.

All 0-6" interval sediment sample total PCB concentrations were higher than the NYSDEC wildlife bioaccumulation criterion (31.5 ug/Kg). However, only two samples (SED-9 and SED-10) were above the 1,000 ug/Kg total PCB sediment cleanup level that has typically been applied throughout New York State. The wildlife bioaccumulation criterion is derived to protect wildlife that prey on aquatic life from the toxic effects of bioaccumulation associated with the consumption of aquatic life from areas with high sediment PCB concentrations. The total PCB concentration in the upstream SED-5 sample (31 ug/Kg) was only slightly below the wildlife bioaccumulation criterion. The total PCB concentration in only one of the four 6-12" interval sediment samples was above the wildlife bioaccumulation criterion.

5.2.2.3 Floodplain Samples

Floodplain sample data are summarized and compared to applicable numerical criteria in Table 17. Data indicate that floodplain soils do not exhibit fluoride, barium, cadmium or PCB concentrations that would affect benthic aquatic life or terrestrial wildlife. All floodplain sample fluoride concentrations (<2.65 to 14.3 mg/Kg) were well below the concentration (290.2 mg/Kg) reported by Metcalfe-Smith (2003) that caused no mortality with an observable effect limited to growth (25% inhibitory concentration) on the amphipod Hyalella azteca, which was the most sensitive of several species tested (Fathead minnow, a mayfly, a midge and a water flea). All barium concentrations (54.1 to 122 mg/Kg) were below the USEPA ecological soil screening criteria value (300 mg/Kg) and were below or only slightly above the site sediment background concentration (97.5 mg/Kg). Cadmium was not detected in any of the floodplain soil samples at a reporting limit between 0.17 mg/Kg and 0.27 mg/Kg. All PCB concentrations (17 to 90 ug/Kg) were well below the NYSDEC benthic aquatic life chronic toxicity criteria value (434 ug/Kg). Only one sample (0-6" interval) exhibited a concentration above the site sediment background total PCB concentration (31 ug/Kg).

Floodplain sample lead concentrations from both the 0-6" and 6-12" intervals were less than the NYSDEC SEL concentration. All 6-12" interval floodplain samples were less than the NYSDEC LEL. Three of the four 0-6" interval floodplain sample lead values were above the NYSDEC LEL concentration. All four 0-6" interval floodplain soil sample concentrations were higher than the site sediment and site soil background concentrations. All four 0-6" interval floodplain soil sample concentrations were above the USEPA ecological soil screening criteria value (11 mg/Kg), however, this screening value is consistent with the site background soil lead concentrations (0-6" 9.5 mg/Kg 6-12" 12.3 mg/Kg). Data indicate that floodplain soils would not have a significant impact on tributary D-1-7 benthic aquatic life or terrestrial wildlife.

5.2.3 Evaluation of Degree and Extent of Impacted Tributary D-1-7 Sediments

The NYSDEC metals sediment criteria are derived using an effect-based approach. This approach is based on identifying adverse ecological effects that are attributable to metals in sediments and measuring the metal(s) concentrations that caused the adverse effect. The lowest effect level indicates a level of sediment contamination that can be tolerated by the majority of benthic organisms, but still causes toxicity in a few species. Metal concentrations above the Lowest Effect Level (LEL), but less than the Severe Effect Level (SEL) are considered contaminated with moderate impacts to benthic aquatic life. Concentrations above the SEL are expected to cause a pronounced disturbance of the sediment benthic aquatic life population.

USEPA has reported an uncertainty factor of approximately 5 related to the calculated toxicity values based on the equilibrium partition based sediment criteria for organic compounds. The range of concentration between 1/5 to 5 times an EP-derived sediment criteria value may or may not cause an observable impact on benthic aquatic life. Concentrations below 1/5 an EP-derived sediment criteria value can with a high degree of confidence be assumed to pose no risk to benthic aquatic life. Conversely, concentrations greater than 5 times an EP-derived sediment criteria value can be expected to have an adverse impact on benthic aquatic life.

The sediment metals criteria have limited applicability to mixtures of metals and other potentially toxic organic chemicals. The presence of one metal or toxic organic chemical may affect the impact another metal may have on an organism. The effect could reduce the impact of either metal (antagonistic affect), the individual effects of each chemical could be independent of each other and therefore the individual impact of each chemical/metal could proportionately increase the overall all impact on an organism and the impacts would be considered additive, or the presence of one metal/chemical could increase the toxicity of another chemical/metal (synergistic effect).

Sixty-nine percent of the downstream 0-6" sediment samples exhibited lead concentrations above the Lowest Effect Level and thirty percent of the samples were above the Severe Effect Level. Fifty-five percent of the downstream 0-6" sediment samples had cadmium concentrations above the Lowest Effect Level. Two sediment samples exhibited PCB concentrations above the NYSDEC PCB chronic toxicity value.

Figure 9 depicts the estimated areal extent of impacted sediments based on the existing sediment data. The extent of impacted soils was estimated by splitting the distance between sediment locations that were below a criteria level and locations that were above the specified criteria level. A summary of the areas of impacted sediments follows, refer to Figure 9 for locations:

- Only Lead > Lowest Effect Level: 17,200 ft²
- Only Cadmium > Lowest Effect Level: 4,626 ft²
- Only Cadmium & Lead > Lowest Effect Level 5,060 ft²
- Only Cadmium & Lead > LEL and PCBs > Chronic Toxicity Criteria: 12,358 ft²
- Only Cadmium > LEL, Lead > SEL, PCBS > Chronic Toxicity Criteria: 7,651 ft²
- Only Lead > Severe Effect Level & Cadmium > Lowest Effect Level: 20, 651 ft²

The sediment data indicate that the sediments in two areas could reasonably be expected to have an impact on benthic aquatic organisms:

- 1. The sediments in the vicinity of SED-9 where sediment lead concentrations were above the SEL, cadmium concentrations exceeded the LEL and PCB concentrations were higher than the chronic toxicity criteria.
- 2. The sediments in the area of SED-13 and SED-14, where lead concentrations were above the SEL and cadmium concentrations were above the LEL. The extent of impacts beyond the SED-14 location are unknown, although with increasing distance from the site, the concentration of site related COC in tributary D-1-7 sediments would be expected to decrease.

6.0 CONCLUSIONS

6.1 Hydrology and Geology

- Both the former lagoon and the Neversink tributary have had an influence on the hydraulics of the Site. Currently, the primary influence is the tributary, which flows east of the lagoon. Ground water flows toward the tributary with a gradient of approximately 0.0047 ft/ft.
- In the past, discharges to the lagoon created mounding of and limited radial flow from, the lagoon. While this flow pattern is no longer occurring, it may explain some of the sampling results.
- Hydraulic conductivities range from a low of 1.29x10⁻³ cm/sec or 3.66 ft/day (Well MW-15) to a high of 1.32x10⁻¹ cm/sec or 375 feet per day (MW-17) with an average of 2.36x10⁻² cm/sec or 66.8 ft/day. Monitoring wells MW-17 and MW-12 exhibit the highest hydraulic conductivities while wells MW-10, MW-14, MW-15 and MW-17A exhibit the lowest hydraulic conductivities.
- Ground water flow direction at the Site is to the east-southeast towards the tributary of the Neversink River. The tributary most likely represents a ground water discharge point during a significant part of the year. During the drier months, the tributary could potentially be a ground water discharge point and a ground water recharge area in separate reaches of the stream.

6.2 Ground Water, Surface Water, Sediment and Soil Data

- The detection of low level PCBs in the 2003 off-site ground water samples and not in the onsite downgradient wells MW-7, MW-8, MW-9 and MW-10 samples is potentially related to residual colloidal particles from the recent drilling of the off-site wells that became entrained in the ground water samples. PCBs were not detected in the April 2005 ground water samples collected from these monitoring wells. The identification of the PCBs in the 2003 off-site monitoring well samples as aroclor 1242 and not the aroclor 1254 that is present in the lagoon soils is most likely related to natural degradation of the aroclor 1254.
 - The ground water PCB data indicates that the Site has not had a significant impact on downgradient ground water PCB levels. Although the July 2001 ground water samples from monitoring MW-7 and MW-14, collected using the low flow micropurging procedure exhibited PCB concentrations above the ground water standard, the PCB concentrations in all ground water monitoring well samples collected in August/September 2003 were below the ground water standard. PCBs were detected in the April 2005 ground water samples from onsite monitoring wells MW-6 and MW-14 at concentrations above the ground water standard.
 - The most recent ground water samples (April 2005 and August/September 2003) indicate
 that barium, cadmium and lead concentrations in all on-site and off-site ground water
 monitoring wells and the Swartwout Road residence potable well (2003) were below the

respective ground water standards. Cadmium and lead were not detected in any of the offsite monitoring well groundwater samples collected in August/September 2003 and April 2005. Ground water barium, cadmium and lead data indicate that the Site has not had a significant impact on the downgradient ground water concentrations of these three metals.

- The fluoride data indicate that the Site has had an impact on ground water fluoride concentrations. However, the off-site ground water data indicate that the downgradient impact is limited in extent. Although fluoride was detected in the ground water samples from monitoring well MW-17 (2003; 1,800 ug/L: 2005; 2,120 ug/L) at concentrations slightly above the NYSDEC ground water standard, the concentration was below the NYSDOH drinking water standard. Also, as previously noted, fluoride was not detected in the ground water sample from monitoring well MW-17A, which is located downgradient of well MW-17 and 1200 feet downgradient of the lagoon center. Fluoride also was not detected (reporting limit of 200 ug/L) in a sample collected from the Harriet Space Park ladies restroom and was detected just at the reporting limit (200 ug/L) in a sample collected from the Town of Deer Park Town Hall. The Town Hall and the Harriet Space Park are located approximately 500 and 1,000 feet, respectively, south of the lagoon. The MW-17A, the Town Hall and the Harriet Space Park samples indicate that the off-site extent of ground water with elevated concentrations of fluoride is limited and does not extend much beyond monitoring well MW-17.
- With the exception of fluoride, the Site has not had an impact on surface water quality with respect to the Site-specific chemicals of concern. The effect the Site has had on surface water fluoride concentrations is not significant, as all concentrations were less than the surface water standard. Although the highest fluoride concentration was reported in sample SW-6, which was the most downstream sample collected, surface water fluoride concentrations downstream from SW-6 are expected to rapidly decrease with increasing distance from the lagoon.
- Metals data indicate that the Site has not had an impact on stream sediment barium concentrations. The stream sediment and stream flood plain sediment sample lead data indicate that sediment lead concentrations above the NYSDEC Severe Effect Level are limited in extent and restricted to the top 0-6". Sediment lead concentrations above the Low Effect Level are more widespread, but are also limited to the top 0-6". The stream and flood plain sediment samples indicate that historical site activities have potentially had an impact on stream sediment lead concentrations. The stream and flood plain sediment data indicate that stream sediments with elevated cadmium concentrations are limited in areal extent and are restricted to the top 0-6". Sixty-nine percent of the downstream 0-6" sediment samples exhibited lead concentrations above the Lowest Effect Level and thirty percent of the samples were above the Severe Effect Level. Fifty-five percent of the downstream 0-6" sediment samples had cadmium concentrations above the Lowest Effect Level. The sediment metals data indicate that the combined lead and cadmium concentrations in the tributary D-1-7 sediments have potentially caused a localized moderate impact on the benthic aquatic community.

- The sediment data indicate that the Site has not had a significant impact on stream sediment fluoride concentrations.
- All downstream sediment sample total PCB concentrations were above the human health (0.018 ug/Kg) and wildlife bioaccumulation sediment criterion value (31.5 ug/Kg). The aroclor 1260 concentration in upstream sample SED-5 was above the human health bioaccumulation criteria. Sediment samples SED-9 and SED-10 exhibited total PCB concentrations that were above the aquatic life chronic toxicity criterion. However, all PCB sediment sample results were less than the aquatic life acute toxicity criterion. Only nine percent (two of twenty-two) sediment samples (stream and flood plain) exhibited PCB concentrations above the Site-specific aquatic life chronic toxicity value. All sediment samples were below the aquatic life acute toxicity value. The data indicate that sediment PCB concentrations have most likely had only a minor effect on sediment benthic populations. The highest sediment sample total PCB concentrations reported in the stream (SED-9; 1,070 ug/Kg, SED-10; 1,470 ug/Kg) were only slightly above 1,000/µg/Kg, which has been used as a cleanup guideline for PCB sediment cleanup projects in New York State. All other stream sediment and flood plain sediment concentrations were well below 1,000 ug/Kg.

The PCB aroclor identified in the lagoon soil samples was aroclor 1254. A significant percentage of the PCBs identified in the tributary D-1-7 stream and flood plain sediment samples was aroclor 1260. Aroclor 1260 was detected in the upstream SED-5 sediment sample and aroclor 1254 would not naturally degrade to aroclor 1260. Data indicate that the aroclor 1260 reported in the stream sediment and flood plain samples is potentially related to an upstream source and not lagoon soils.

- All flood plain sediment sample PCB concentrations were above the human health bioaccumulation criteria. Only sample FP-4 exhibited a PCB concentration that was above the wildlife bioaccumulation value. All flood plain concentrations were below the aquatic life chronic and acute toxicity criteria values.
- The analytical data from the surface soil sample collected at the end of the overflow CMP from the former lagoon indicate that the Site has not had a significant impact on soil quality in the vicinity of the overflow CMP. Cadmium and fluoride were not detected at or above the laboratory-reporting limit. Although barium and lead concentrations were slightly above background surface soil concentrations, the barium value was well below the NYSDEC RSCO and the lead concentration was well below the USEPA (Identification of Dangerous Levels of Lead; 40 CFR Part 745) exposure hazard concentration in bare soil in children's play areas of 400 mg/Kg. The reported PCB aroclor 1260 concentration was well below the NYSDEC surface soil RSCO. Data from sample FS-1 indicate that soils adjacent to the stream have not been significantly affected by Site-related chemicals.
- Saturated zone soil boring samples collected from the lagoon indicated cadmium and lead concentrations above RSCOs and cadmium concentrations above the TCLP limit in two saturated zone samples collected from boring SB-5-05 and one from SB-01-05. However,

ground water data indicates that lagoon soils have not had a significant impact on barium, cadmium and lead concentrations in ground water downgradient of the lagoon.

6.3 Fate and Transport

- The K_{oc} of PCBs is relatively high, indicating that it will tend to sorb strongly to the organic carbon fraction of the soil. Therefore, it is logical that PCBs were detected at relatively higher concentrations in the highly organic surface soils of the former lagoon soils and sparingly detected in the ground water.
- Since barium, cadmium and lead have generally not been detected in the ground water at elevated concentrations, it is evident that they are present at the Site in an insoluble form or are sorbed to the soils. The aroclor 1254 detected in ground water from monitoring wells MW-6, MW-7 and MW-14 may to some extent be associated with the movement of colloidal material, with sorbed aroclor 1254, along the ground water table.
- Based on the estimated downgradient ground water fluoride concentrations, and because implementation of the remedy for the lagoon soils will result in lower downgradient fluoride concentrations than predicted by the model, no active treatment of ground water is considered necessary. The model data show that downgradient fluoride concentrations are below the groundwater standard at a distance of 1,500 feet downgradient of the lagoon.

6.4 Fish and Wildlife

- One Federal and New York State endangered species (Dwarf Wedge mussel), one Federal
 and New York State threatened species (Bald Eagle), one New York State endangered
 species (Allegheny Woodrat) and two New York State threatened species (Brook Floater and
 Timber Rattlesnake) were identified as potentially occurring within a two-mile radius of the
 Site.
- With the exception of the dwarf wedge mussel, none of the threatened or endangered species that have been identified as potentially present within a two-mile radius of the Site are expected to be found in habitats near the Site that could be affected by Site related contaminants. The dwarf wedge mussel utilizes habitats that include running waters of all sizes, from small brooks to large rivers, at locations where the water velocity is usually slow to moderate. Bottom substrates include silt, sand and gravel, which may be distributed in relatively small patches behind larger cobbles and boulders. A large population of this species is found in the Neversink River in Orange County. It is possible that dwarf wedge mussels are present within a one-half mile radius of the Site. They could potentially utilize the aquatic habitat of tributary D-1-7 as well as the nearby Neversink River.
- The sediment data indicate that the sediments in two areas could reasonably be expected to have an impact on benthic aquatic organisms:

- 1. The sediments in the vicinity of SED-9 where sediment lead concentrations were above the SEL, cadmium concentrations exceeded the LEL and PCB concentrations were higher than the chronic toxicity criteria.
- 2. The sediments in the area of SED-13 and SED-14, where lead concentrations were above the SEL and cadmium concentrations were above the LEL. The extent of impacts beyond the SED-14 location are unknown, although with increasing distance from the site, the concentration of site related COC in tributary D-1-7 sediments would be expected to decrease.

TABLES

Ground Water Elevation Data
C & D Technologies, Inc. Facility
Huguenot, New York

Ground Water	August 27, 1999	7, 1999	September 9, 1	6, 1999	January 14, 2000	4, 2000	March 27, 2001	7, 2001	July 31, 2001	2001	October 24, 2003	4, 2003	March 30, 2005		Average
Monitoring Well Measuring Point Elevation	Water Level	Elevation	Elevation Water Level	Elevation	Water Level	Elevation	Elevation Water Level Elevation Water Level Elevation Water Level Elevation Water Level	Elevation \	Vater Level	Elevation V	Vater Level	Elevation	Nater Level	Elevation	Ground Water Elevation
	32.24	440.15	32.78	439.61	29.14	443.25	28.79	443.60	29.20	443.19	29.15	443.24	28.95	443.44	442.17
	21.03	440.14	21.11	440.06	17.28	443.89	16.63	444.54	17.84	443.33	17.17	444.00	16.84	444.33	442.66
	23.71	439.69	23.72	439.68	20.35	443.05	18.61	443.59	20.85	442.55	20.22	443.18	19.68	443.72	441.96
	25.01	439.70	25.18	439.53	21.77	442.94	21.28	443.43	22.33	442.38	21.71	443.00	21.19	443.52	441.83
	25.11	439.64	25.31	439.44	21.96	442.79	21.40	443.35	22.55	442.20	21.9	442.85	21.44	443.31	441.71
	33.3	440.67	33.54	440.43	29.11	444.86	28.44	445.53	30.00	443.97	29.37	444.60	29.18	444.79	443.34
	31.82	441.07	32.1	440.79	27.66	445.23	27.04	445,85	28.65	444.24	28.07	444.82	27.67	445.22	443.67
									31.93	443,31	31.39	443.85	31.02	444.22	443.58
											9	440.41	3.81	442.60	440.41
											3.77	439.62	2.46	440.93	439.62
											14.49	438.94	12.70	440.73	438.94
											7.45	438.29	5.46	440.28	438.29
													17.11	444.65	

Measuring Point Elevations based on Survey by Wakin Land Surveying November 2001. (Elevation is mean sea level in feet using National Geodetic Data of 1929). All elevations based on assumed ground elevation at MW-1 of 472.46

Table 2
Monitoring Well Hydraulic Conductivity Data
C & D Technologies, Inc. Facility
Huguenot, New York

Monitoring Well	Hydraulic	Hydraulic	Screened Interval	Elevation	Elevation	
	Conductivity(cm/s)	Con	ft. Below Grade	Top of Screen	Bottom of Screen	
MW-6	7.71E-03	2.18E+01	32.5-42.5	437.77	427.77	
MW-7	1.27E-02	3.61E+01	19-29	441.65	431.65	
MW-8	4.11E-03	1.17E+01	23-33	438.25	428.35	
WW-9	1.74E-02	4.93E+01	23-33	439.15	429.15	
MW-10	2.77E-03	7.84E+00	25-35	437.21	427.21	
MW-12	8.30E-02	2.35E+02	50-55	426.3	421.3	
MW-13	2.16E-03	6.13E+00	27-37	443	433	
MW-14	1.60E-03	4.54E+00	20-40	452.52	432.52	
MW-15	1.29E-03	3.66E+00	5-15	438.5	428.5	
MW-16	1.53E-02	4.33E+01	5-15	435.5	425.5	
MW-17	1.32E-01	3.75E+02	10-20	440.7	430.7	
MW-17A	2.64E-03	7.48E+00	5-15	437.7	427.7	
Average	2.36E-02	6.68E+01				

Table 3 C D Technologies, Inc. Facility Huguenot, New York Site ID 336001 Ground Water Analytical Data

Arocior 1254	<1.0 <1	<1.0/0.24	0.23			<1.0	0.067/0.084/0.09*	0.31				<1.0 / <0.05	<0.065				<1.0 / <0.05	<0.065		:		<1.0/<0.05
Aroclor 1254 (MP)			0.051J	<0.065	0.24			0.14	<0.065	<0.065				<0.065	<0.065				<0.065	<0.065		
ple ID		- 1					MW-14		00	Swartwout Road Residence	ad Residence	76 4 03	T Com O3	MW-15	NW.	MW-16	3-Sen-03	MW-17	MW-17A 3-Sen-03 30-Mar-05	30-Mar-05	MW-18	NYSDEC GW Standard
Analyte	y-sep-yy Janwaa-00	- 1	210-00-12	20-SnV-03	O TRIAL	70-me-10	and Garage Con			- 1												
Metals												;										1 000
Barium	24.7		13.7			117			120 / 120			129										1,000
Barium (Diss)	19.9			20.3	II.8	13.7	26.4	27.3					80.6	132	16.1	42.7	51.8	110	72.5	49	1,420	
	,																					,
Cadmium		<0.33	<0.2			0.99			6/6			<0.6										·
Cadmium (Diss)				<0.6	<u>6</u> 0.3	<0.2	<0.6	<0.3		,			<0.6	<0.3	<0.6	6.3	<0.6	∆0.3	0.6	<0.3	42.2	
																					-	2
Lead	5.2		2.8			18.5			۵/۵			2.1										ŧ
Lead (Diss)	<3.0			<u>8</u>	29	22	<u>۵</u> .1	<2.9					21	2.9	2	6.3	42.1	<2.9	21	2.9	<2.9	
Anion .									ĺ													
Fluoride Fluoride (MP)	642		220	<100	^100	4,100 4,300	6,540	6,590	3,850***		450	710	120	^100	<100	<100	1,800	2,120	<100	<100	10,400	1,500
Fluonde (Diss)	636																					
PCBs		l																				0.09****
Aroclor 1242 (MP)													0.078	<0.065	0.035J	<0.065	0.063J	<0.065	0.032J	<0.065	<0.065	
Aroclor 1254	Δ	<1.4/<0.05	<0.065	∆0.065	A0.065	0.25 0.15	0.088	0.2	<1.5/<1.4	<1.5/<1.4 <0.05/<0.05		<0.065	<0.065	<0.065	<0.067	<0.065	<0.065	<0.065	<0.065	<0.065	<0.065	
Arocior 1234 (MIP)				40.000	20.000	91.10	0.000															

Anion
Fluoride
Fluoride (MP)
Fluoride (Diss)

1,100

140

2,360

8,700 8,600

7,870

6,440

5,350

6,300

6,560

5,320

6,200

6,520

5,180

6,160

521 501

290

3,320 3,340 ∆.7 2.8

<u>\$</u>

2.9

۵.0 3.1

6.8

∆0.2 20.2

6.3

0.88

0.75 40.2

6,390 6,490

5,120

10,800

2

6.8

2.8 2 0.47

229

17.5 <3.0

22

∆0.2 0.2

0.67

15.4 3.0

<1.0 / <0.05

0.0411

Cadmium (Diss)
Cadmium (MP)

0.99

0.2

60.6

0.35

22.8

Lead Lead (Diss) Lead (MP)

∆.0 4

Barium (Diss) Barium (MP)

13 10.7

Analyte

9-Sep-99

Jan/Mar-00

9-Sep-99

Jan/Mar-00

MW-7 31-Jul-01

27-Aug-03

31-Mar-05

Jan/Mar-00

27-Aug-03

31-Mar-05

Jan/Mar-00

27-Aug-03

31-Mar-05

9-Sep-99

Jan/Mar-00

<u>2</u> ≩

V-10 MW-12 NYSDEC 1-Jul-01 27-Aug-03 31-Mar-05 9-Sep-99 Jan/Mar-00 31-Jul-01 26-Aug-03 1-Apr-05 GW Standard

17.9 6.2

25.4

26.7 14.0

21.6 14.2

28.5 19.1

34.1 16.6

124 51.8

56.8 18.4

18.7

Table 4
OU-2 Remedial Investigation
Analytical Data Summary - Surface Water Samples
C & D Technologies, Inc. Facility
Huguenot, New York
Sample Date: July 23, 2001

	SW-1	SW-2	SW-3	SW-4	SW-5	SW-6	NYSDEC Surface Water Standard
Metals ug/L Barium	16.7	8.2	10.5	7.6	12.4	12.3	1,000
Cadmium *	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	5/0.87/1.09
Lead *	<2.8	<2.8	<2.8	<2.8	10.4	<2.8	50 / 1.1 / 28.2
Anion/Indicator Parameters	neters						
Fluoride, ug/L **	<100	<100	170	240	220	360	1,500 / 767
Hardness, mg/L***	35.1	29.8	33.8	31.6	33.8	32.4	NA
PCBs ug/L Total PCBs	<0.065	<0.065	<0.065	<0.065	<0.065	<0.065	0.09 / 1x10 ⁻⁶ / 0.00012****

Results expressed in milligrams per kilogram (mg/Kg).

NA-Not Available

^{*} Human health source of drinking water / Aquatic life chronic toxicity / Aquatic life acute toxicity

^{**} Human health source of drinking water / Aquatic life chronic toxicity

^{***} Hardness calculated using calcium and magnesium data obtained from laboratory ICP data

^{*****} Cadmium, fluoride, lead aquatic standards calculated using average hardness value calculated using all surface **** Human health source of drinking water / Human consumption of fish / Protection of wildlife

water hardness values (32.7 mg/L).

Table 5
OU-2 Remedial Investigation
Analytical Data Summary - Sediment Samples
C & D Technologies, Inc. Facility
Huguenot, New York

Sample ID/Date Sampled/	SED-5 Jul-01		SED-1 Aug-99 SED-6 Jul-01 SED-3 Aug-99 SED-7 Jul-01 SED-8 Jul-01 SE	SED-3 Aug-99	SED-7 Jul-01	SED-8 Jul-01	SED-2 Aug-99	D-2 Aug-99 SED-4 Aug-99	SED-9 Jul-01	SED-10 Jul-01	SED-11 Sept 03	Sept 03 6-12"	SED-12 Sept 03	èept 03 6-12"	SED-13 Sept 03	ept 03	SED-14 S	NYSDEC Sediment Criteria SED-14 Sept 03 Low Effect Level Severe Effect Level 0.6" 6.12"
Metals mg/Kg											Ş	412	9	7170	ş	912	g.	9
Barium	97.5	90.1	84.6	67.7	97.4	206	37.3	156	30 1	137	1 2 1	2	5 0 1	3)	})) 1	•
Cadmium	<0.076		0.47		0.58	1.4	i		27.1	3 7	\$. ·	Ç.12)) (1	20.6	50.2	27.8	32.7	<u>u</u>
Lead	24.6	88.4	27.0	£8.3	30 0	71.4	2	}	2.3	3.7	<0.16	<0.15	< 0.17	<0.16	3.3	<0.13	2	0
	1		21.3	30.5	36,3	71.9	24.9	195	396	48.6	6.4	<0.52	5.8	1.3	208	7.2	112	13.2
Anion mg/kg Fluoride	4.5	<32.27	11	53.9	3 8	51	<16.56	17 74	۸ پ	17	A 000	, ,	S))	3	} }) 	
										!	;		į	i		4.40	2.5	4.30
PCBs ug/Kg																		
Aroclor 1254 Aroclor 1260	313		15J 37J		170 150	210 140	•		350 720	1100 370	& & & &	<u>2</u> <u>2</u>	52 648	43	<79	Δ Δ <u>1</u>	\$ £	170
TOO ST	314		52,1		320	350			1,070	1,470	68	41	52	43	130	<37	72) made
TOC mg/Kg % Solids	52.9	26.8	35.8	21.7	38.3	30.8	60.4	64.9	53	39.8	17,600 73.5	6,590 80.1	16,200 70.4	9,750 76.4	40,200 42.4	11,100	25,400 56.8	15,400

									NYSDEC Se	NYSDEC Sediment Criteria
Date Sampled	FP-1 Sept 03	pt 03	FP-2 Sept 03	kept 03	FP-3 Sept 03	ept 03	FP-4 Sept 03	ept 03	Low Effect Level	Severe Effect Level
Sample ID	0-6"	6-12"	0-6"	6-12"	0-6"	6-12"	0-6"	6-12"		
Metals mg/Kg										
Barium	122	106	73.5	57	94.2	103	116	54.1	N A	N A
Cadmium	<0.21	<0.16	<0.18	<0.17	<0.19	<0.16	<0.27	<0.16	0.6	9 ;
Lead	67.5	13.4	26.2	3.1	46.8	18.8	89.2	4.1	31	110
Anion mg/kg		·								
Fluoride	3.44	<2.75	14.3	<2.87	<3.11	<2.65	9.61	5.96	NA	NA
									NYS	NYSDEC
PCBs ug/Kg			,						Segimen	Sediment Criteria
Aroclor 1254	<\$8	<45	<49	<47	<52	<43	90	<45		
Aroclor 1260	18 J	10 J	24 J	<47	<\$2	17 J	<76	<45		
10tal PCBS	18	10 J	24 J	<47	\S2	17 J	98	4 5	0.018/62,06	0.018/62,063/434/31.5*
TOC mg/Kg	39,800	15,400	24,300	13,500	26,600	9,820	78,700	9.340		***
% Solids	58.1	72.8	68.3	69.8	64.2	75.5	43.7	73.8		

NA-Not Available

*Human health bioaccumulation / Aquatic life acute toxicity / Aquatic life chronic toxicity / Wildlife bioaccumulation criteria based on average sediment organic carbon (SED-11 through SED-14 and FP-1 through FP-4) of 2.248 %

Values in bold exceed NYSDEC sediment criteria and values in bold and italics exceed metals sewere effect criteria

Analytical Data - CMP Soil Sample and Orange County Property Soil Sample C & D Technologies, Inc. Facility OU-2 Remedial Investigation Huguenot, New York Table 6

				Site Specific	NYSDEC	Eastern USA
	SSCMP July 01 0-6"	FS-1 Sept 03 0-6" 6-12'	Sept 03 6-12"	Background Concentration*	TAGM 4046 RSCO	Background Concentration
Metals mg/Kg						
Barium	33.7	100	99.5	15.2	300 or SB	15 - 600
Cadmium	<0.042	<0.18	<0.17	<0.1	. 10	0.1 - 1
Lead	20.8	39.2	14.4	10.9	SB	200 - 300
Anion mg/kg Fluoride	2.1	<3.06	2.81	<10.3	NA	N
PCBs ug/Kg Aroclor 1260	130	26 J	10 J	<u> </u>	1,000 / 10,000**	NA
TOC mg/Kg % Solids	95.9	22,100 65.4	11,000			

^{*} Average of background soil samples SS-UP-01/SS-UP-02. Fluoride background average of the two Railroad Bed soil samples SS-RR-01 and SS-RR-02
** Surface soil RSCO / Sub-surface soil RSCO

C D Technologies, Inc. Facility Huguenot, New York Site ID 336001 Lagoon March 2005 Soil Boring Data Table 7

	Lead	Cadmium	TCLP mg/L Barium	Barium Cadmium Lead	Total Results mg/Kg	Water Level in Augers	Barium Cadmium Lead	Barium Cadmium Lead TCLP mg/L	Total Results	Water Level in
	5	50	1 00	300 or SB 1 or SB 10.9/ SB/400**			100	300 or SB 1 or SB 10.9/ SB/400**		Kegulatory Limit*
	0.86	5.63	» 1	600 2,310 1,020	8	+5 - +3' BGW (8-10' BGS)	6.98 1.26 0.13 SB-5-05	930 175 92.2	11.9' BGS	SB-1-05 0-0.6' BGW (12-12.5'BGS)
0.10	0.73	5.34 :	1 /	775 369 240		+3 - +1' BGW (10-12' BGS)	8.57 0.9 0.14 SB-5-05	991 112 72.4		SB-1-05 2-4' BGW (14-16' BGS)
ć: t	0.15	1.94	500	909 286 169		0.8 -2.8' BGW (14-16' BGS)	5.86 0.83 0.09 SB-5-05****	711 74.9 56.2		SB-1-05 8-10' BGW (20-22' BGS)
0.23	0.35	1.94	5	914 402 168		2.8 - 4.8' BGW 16-18' BGS)	3.53 0.39 0.08	440 80.8 94.5		SB-1-05 10-11.4' BGW (22-23.4' BGS)
\$0.05	2 6	\$ 8.16 95.16	.	18.5 <0.25 <0.25	31.2 BGS	+1.2' - 0.8' BGW (30-32' BGS)	4.18 1.13 0.66	1030 316 780	11.9' BGS	SB-2-05 +2 - 0' BGW (10-12' BGS)
<0.05	6.6	∆ 0.10		20.7 <0.25 <0.25		a 2	11.8 0.15 0.32	1370 57.2 143		SB-2-05 *** 2-4' BGW (14-16' BGS)
<0.05	6.00	0.11		24.6 <0.25 <0.25		2.8' 4.8" BGW (34'36" BGS)	5.61 0.32 0.14	739 42.6 73.6		SB-2-05 4-6' BGW (16-18' BGS)
<0.05	S0.03	&0.10		25.9 <0.25 <0.25		38-40' BGS)	6.52 0.24 0.15	673 21.3 55.4		SB-2-05 6-8' BGW (18-20' BGS)
<0.05	0.1	3.13		334 5.24 5.81	13.7' BGS	55-7-05 +7.7-+5.7' BGW (6-8' BGS)	4.51 0.11 0.08	590 11.8 26	13.5' BGS	SB-3-05 0.5-0.7' GBW (14-14.2' BGS)
0.08	0.1	2.91		259 8.75 35.8		SB-7-05 +5.7-+3.7'BGW (8-10' BGS)	3.76 0.09 0.06	359 4.14 9.39		SB-3-05 2.5-3.1' BGW (16-16.6' BGS)
<0.05	0.07	2.27		236 13.2 30.1	•	SB-7-05*** +3.7-+1.7' BGW (10-12' BGS)	5.5 0.06 <0.05	666 7.42 53.3		SB-3-05*** 6.5-8.5' BGW (20-22' BGS)
0.06	0.4	5.42		567 30.5 32.9		SB-7-05 6.3-6.8' BGW (20-20.5' BGS)	4.17 <0.05 <0.05	429 3.87 18		SB-3-05 8.5-10.5' BGW (22-24' BGS)
<0.05	<0.05	0.31		53.6 0.26 <0.25	14.9' BGS	SB-8-05 1.1-3.1' BGW (16-18' BGS)	0.65 <0.05 <0.05	47.4 <0.25 <0.25	27.8'BGS	SB-4-05 0-2' BGW (28-30' BGS)
<0.05	0.1	1.75		139 7.68 <0.25		SB-8-05 3.1 -5.1' BGW (18-20' BGS)	2.82 <0.05 <0.05	377 2.16 17.3		SB-4-05 2-4' BGW (30-32' BGS)
<0.05	\$0 0 5	2.14		167 2.71 0.84		SB-8-05 5.1 - 7.1' BGW (20-22' BGS)	3.47 <0.05 <0.05	429 6.25 10		SB-4-05 4-6' BGW (32-34' BGS)
<0.05	80.0	3.49		229 3.07 1.26		SB-8-05 10.1-11.2' BGW (25-26.2' BGS)	1.74 <0.05 <0.05	53 0.29 <0.25		SB 4-05 8-10' BGW (36-38' BGS)

NOTES
BGW - indicates depth below ground water
BGS - indicates depth below surface of lagoon

^{*} NYSDEC TAGM 4046 for Soils and USEPA Toxicity Characteristic Regulatory Limit

^{**}SB indicates Site Background. Typical Eastern USA background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61 ppm. Average background levels in metropolitan or suburban areas or near highways are much higher and typically range from 200-500 ppm. USEPA Soil Screening Guidance Value is 400 mg/Kg

^{***} No recovery in split spoon:
SB-1 No recovery from 16' to 20'
SB-2 No recovery from 12 to 14' BGS.
SB-3 No recovery from 16.6 to 20' BGS.
SB-7 No recovery from 12' to 20' BGS

TABLE 8

C&D Technologies, Inc. Facility Huguenot, New York Site ID 336001

FLUORIDE MODEL CALIBRATION PARAMETERS

Solutrans model summary for file D:\Program Files\Solutrans\cdcalfl.sti Date: 12/18/03 Time: 9:04:18 AM

Global Model Parameters:

Average linear velocity in x direction: 0.785

Retardation Factor: 1

Dispersion coefficient Dx: 20.41 Dispersion coefficient Dy: 2.04 Dispersion coefficient Dz: 2.04

Number of intervals in numerical integrations: 50

Equilibrium Model Parameter:

First order decay coefficient: 0

Non-Equilibrium Model Parameters:

Characteristic Length: 200 Beta (partion coefficient): 0.1

Omega (mass transfer coefficent): 1

First order decay coefficent in equilibrium phase: 1 First order decay coefficent in non-equilibrium phase: 1

Type of concentration to calculate: 1

The data for each solution in the model is listed below.

Solution 2, equilibrium transport, steady-state rectangular inlet:

X coordinate of inlet: 0

Minimum Y coordinate of inlet: -300 Maximum Y coordinate of inlet: 300 Minimum Z coordinate of inlet: -32.5 Maximum Y coordinate of inlet: -15

Concentration at inlet: 40

Table 9

C&D Technologies, Inc. Facility Mammal/Amphibian/Reptile/Mollusc Species That Could Potentially Utilize Habitats Within One-Half Mile Of The Site

COMMON NAME GENUS AND SPECIES

Mammals

Big Brown Bat | Eptesicus fuscus | Custor canadensis

Bobcat | Lynx rufus

Eastern Cottontail | Sylvilagus floridanus

White-tailed Deer | Odocoileus virginiana

Ermine | Mustella erminea

Red Fox | Vulpes vulpes

Mink | Mustella vison

Hairy-tailed Mole | Parascalops brewri Star-nosed Mole | Condylura cristata

Deer Mouse | Peromyscus maniculatus

House Mouse | Mus musculus

Meadow Jumping Mouse | Zapus hudsonius

Woodland Jumping Mouse | Napaeozapus insignis

Muskrat | Ondatra zibethica

Keen's Myotis | Myotis keenii

Little Brown Myotis | Myotis lucifugus

Virginia Opossum Didelphis virginiana

Raccoon | Procyon lotor

Norway Rat | Rattus norvegicus

Northern Short-tailed Shrew | Blarina brevicauda

Striped Skunk | Mephitis mephitis

Gray Squirrel | Sciurus carolinensis

Meadow Vole | Microtus pennsylvanicus

Southern Red-backed Vole | Clethrionomys gapperi

Titod backed vote | Cicimionomys gappe

Woodland Vole | Microtus pinetroum

Long-tailed Weasel | Mustella frenata

Woodchuck | Marmota monax

Amphibians/Reptiles/Mollusc

Bull Frog Rana catesbeiana
Green Frog Rana clamitans
Pickerel Frog Rana palustris
Wood Frog Rana sylvatica

Eastern Newt | Notophthalmus viridescens

Spring Peeper | Hyla crucifer

Table 9 **C&D** Technologies, Inc. Facility Mammal/Amphibian/Reptile/Mollusc Species That Could Potentially Utilize **Habitats Within One-Half Mile Of The Site**

COMMON NAME GENUS AND SPECIES

Four-Toed Salamander Brown Snake Eastern Ribbon Snake Northern Water Snake Redbelly Snake Timber Rattlesnake Bog Turtle Painted Turtle Snapping Turtle Spotted Turtle Dwarf Wedgemussel Brook Floater Alewife Floater | Anodonta implicata

Ambystoma mulculatum Storeria dekayi Thammophis sauritus Nerodia sipedon Storeria occipitmaculata Crotalus horridus Clemmys muhlenbergi Chrysemys picta Chetydra serapentina Clemmys guttata Alasmidonta heterodon Alasmidonta varicosa

Table 10 C&D Technologies, Inc. Facility Fish Species That Could Potentially Utilize Habitats Within One-Half Mile Of The Site

COMMON NAME GENUS AND SPECIES

American Eel Anguilla rostrata American Shad Alosa sapidissima Banded Killfish Fundulus diaphanous Rhinichthys atratulus Blacknose Dace Notropis heterolepis Blacknose Shiner Bluegill Lepomis macrochirus Bluntnose Minnow Pimephales notatus Brook Stickleback Culaea inconstans Brook Trout Salvelinus fontinalis Ictalurus nebulosus Brown Bullhead Brown Trout Salmo trutta Chain Pickerel Esox niger Common Shiner Notropis cornutus Semotilus astromaculatus Creek Chub Fall Fish Semotilus corporalis Etheostoma flabellare Fantail Darter Golden Shiner Notemigonus crysoleucas Micropterus salmoides Largemouth Bass Longnose Dace Rhinichtys cataractae Longnose Sucker Catostomus catostomus Nothern Hogsucker Hypentelium nigricans Pearl Dace Semotilus margarita Pumpkinseed Lepomis gibbosus Rainbow Trout Salmo gairdnieri Rock Bass Ambloplites rupestris Slimy Sculpin Cottus cognatus Micropterus dolomieui Smallmouth Bass Spottail Shiner Notropis hudsonius Swallowtail Shiner Notropis procne Tessellated Darter Etheostoma olmstedi White Sucker Catostomus commersoni Yellow Perch Perca flavescens

Table 11 **C&D** Technologies, Inc. Facility **Bird Species** That Could Potentially Utilize Habitats Within One-Half Mile Of The Site

COMMON NAME GENUS AND SPECIES

American Black Duck American Crow American Goldfinch American Kestrel American Robin Bald Eagle Barn Swallow Black-capped Chickadee Blue Jay Blue-winged Teal Brown-headed Cowbird Canada Goose Cedar Waxwing Chimney Swift Common Barn Owl Common Grackle Common Nighthawk Common Yellowthroat Copper's Hawk Downy Woodpecker Eastern Phoebe European Starling Great-horned Owl House Sparrow House Wren Killdeer Mallard Mourning Dove Northern Cardinal Red-tailed Hawk Red-winged Blackbird Rock Dove Rough-winged Swallow Ruby-throated Hummingbird Ruffed Grouse Screech Owl Song Sparrow Spotted Sandpiper White-breasted Nuthatch | Sitta carolinensis

Anas rubripes Corvus brachyrhynchos Carduelis trustis Falco sparverius Turdus migratorius Haliaeetus leucocephalus Hirudo rustica Parus atricapillus Cyanocitta cristata Anas discors Molothrus ater Branta canadensis Bronbycila cedrorum Chaetura pelagica Tyto alba Quiscalus guiscula Chordeiles minor Geothypis trichas Accipiter cooperii Picoides pubescens Sayonis phoebe Stumus vulgaris Dubo virginianus Passer domesticus Troglodytes aedon Charadrius vociferus Anas platyrhynchos Zenaida macroura Cardinalis cardinalis Buteo jamaicensis Agelaius phoneniceus Columba livia Stelgidoptery ruficollis Archilochus colubris Bonasa umbellus Otus asio Melospiza melodia Actitis macularia

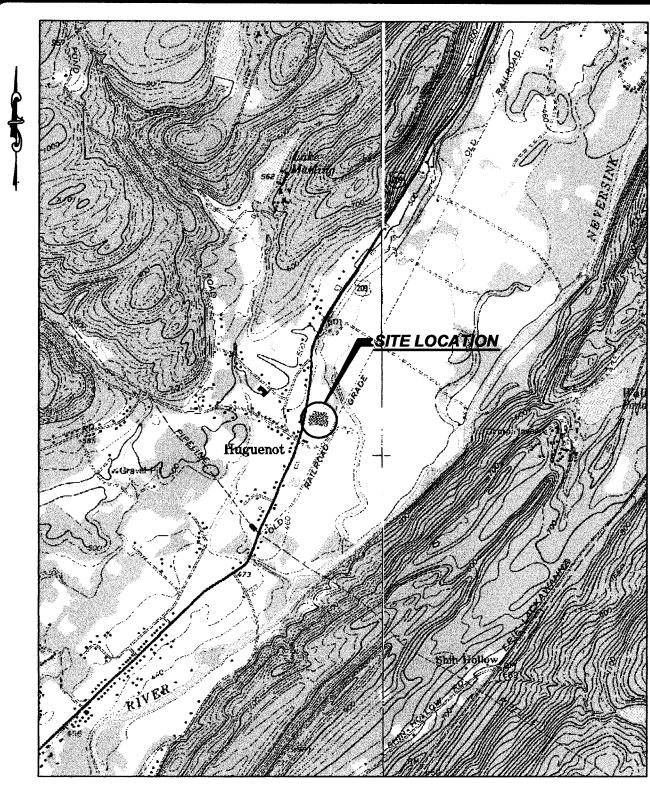
Table 11 **C&D** Technologies, Inc. Facility Bird Species That Could Potentially Utilize Habitats Within One-Half Mile Of The Site

COMMON NAME GENUS AND SPECIES

Wood Duck | Aix sponsa Yellow Warbler | Dendroica petechia

Wild Turkey | Meleagris gallopavo

FIGURES



MAP REFERENCE: PORT JERVIS NORTH & OTISVILLE USGS QUAD MAPPING

1000' 2000'



DELAWARE ENGINEERING, P.C.

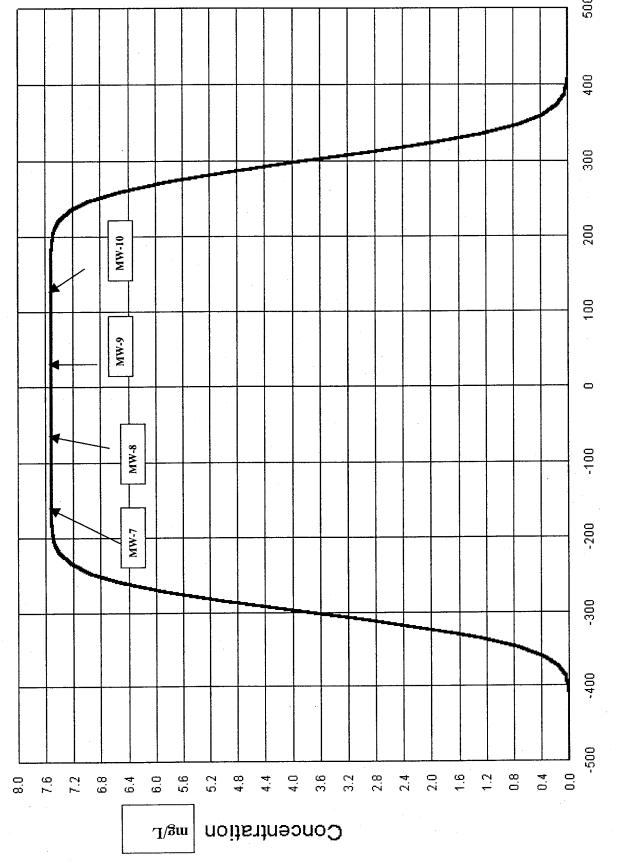
28 Madison Avenue Extension Albany, New York 12203

Phone 518-452-1290 FAX 518-452-1335

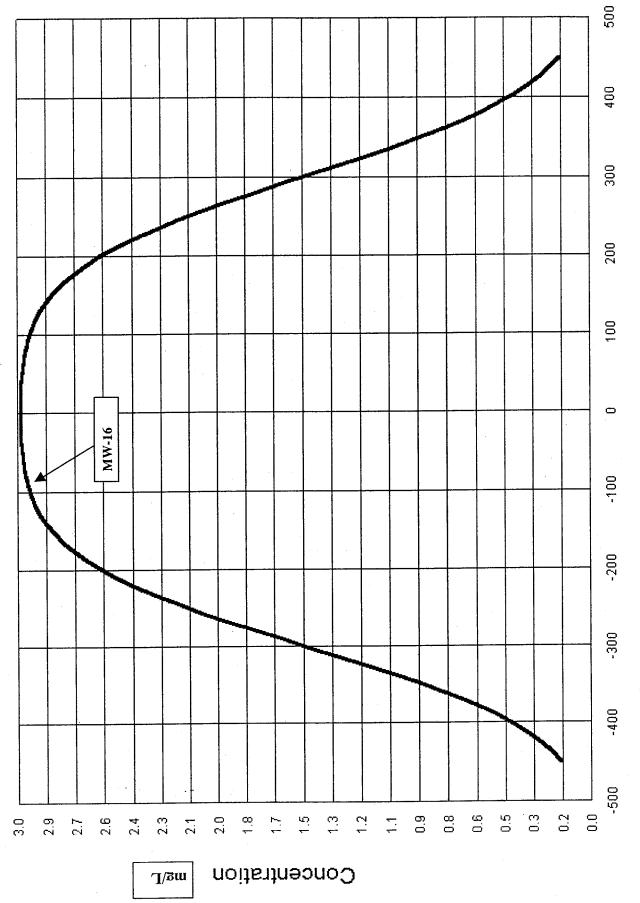
MAY 26, 00

SITE LOCATION MAP

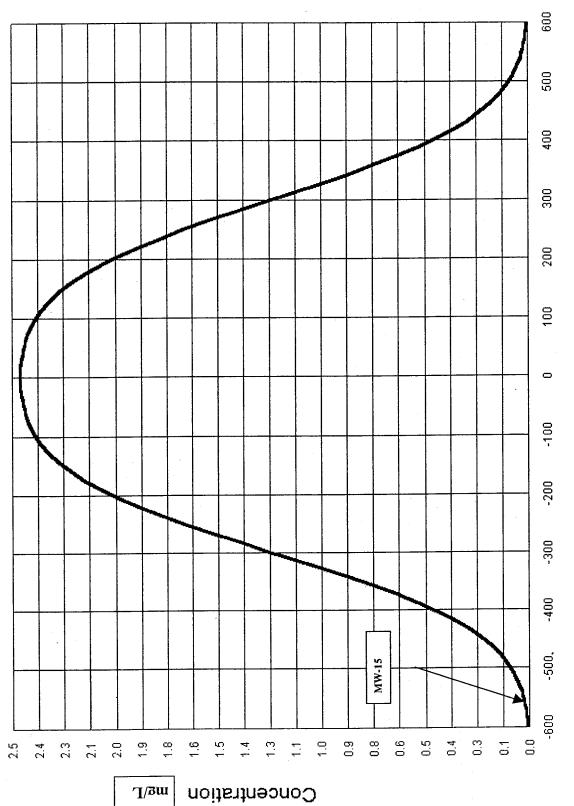
C & D TECHNOLOGIES NYS ROUTE 209 HUGUENOT, NEW YORK



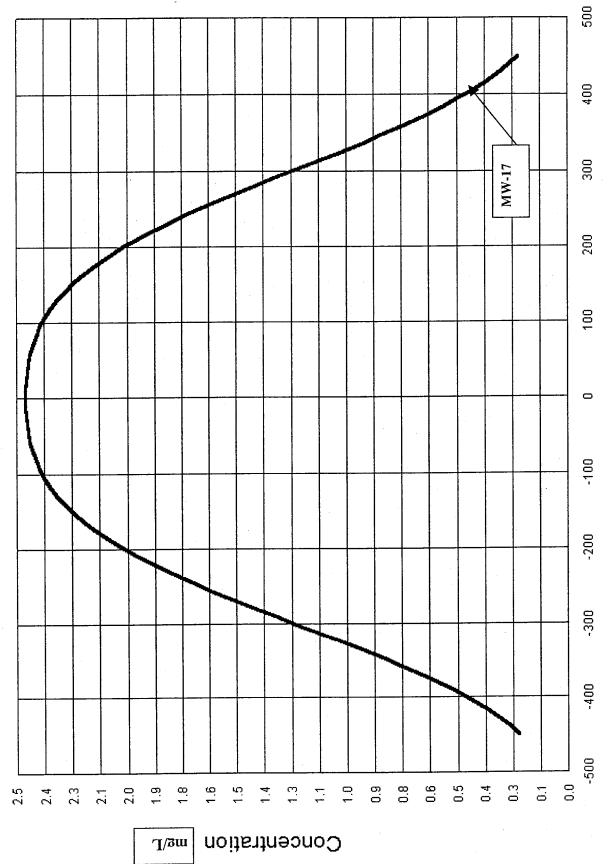
Y Distance From Centerline of Plume



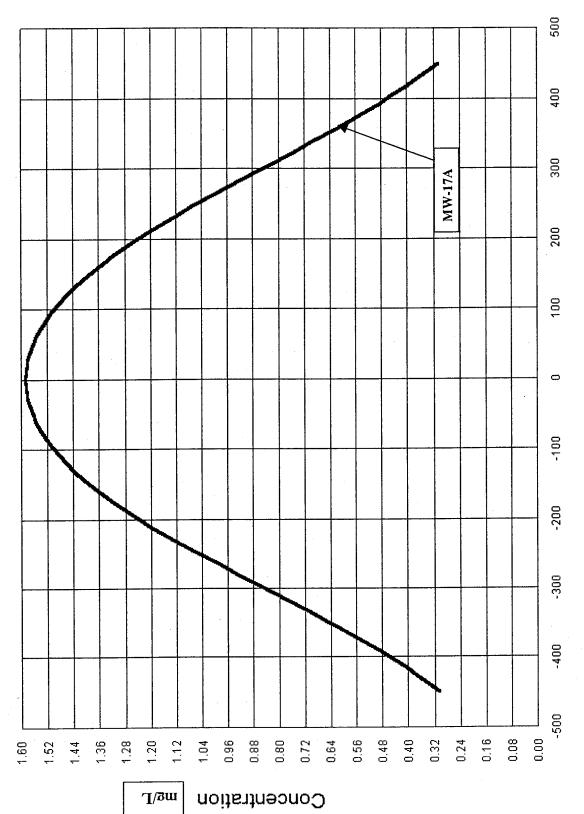
Y Distance From Centerline of Plume



Y Distance From Centerline of Plume

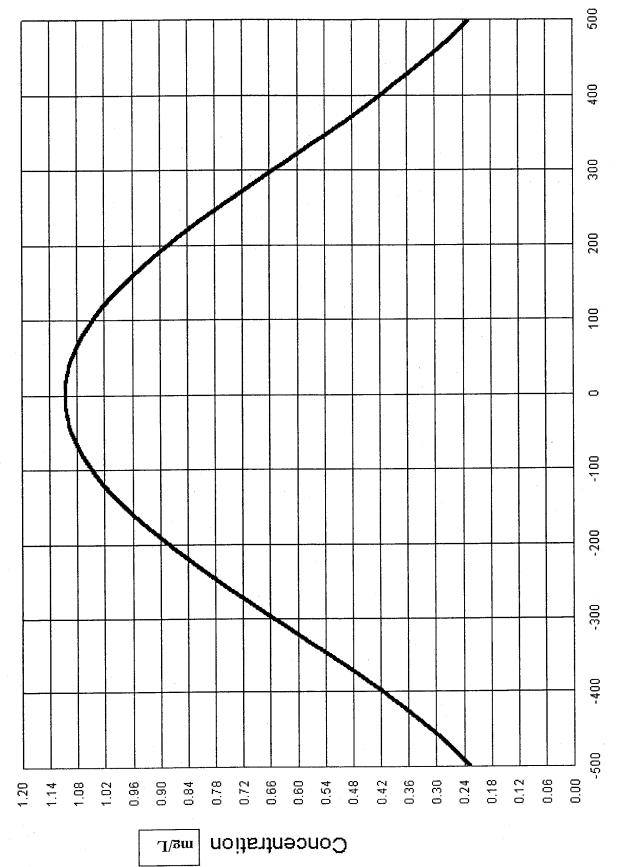


Y Distance From Centerline of Plume



Y Distance From Centerline of Plume

FIGURE 7 PREDICTED FLUORIDE CONCENTRATIONS 1,500 FEET DOWNGRADIENT OF LAGOON



Y Distance From Centerline of Plume

PINE TREE GROVE AREA SB-7-04 SB-2-04 LOADING RAMP **LEGEND**

SB-2-04 BORING LOCATION

FIGURE 8

LAGOON SATURATED **ZONE BORING LOCATIONS**

> C & D TECHNOLOGIES, INC. **HUGUENOT, NEW YORK**

DATE: 11/11/04 DRAWN BY: SCALE: AS SHOWN

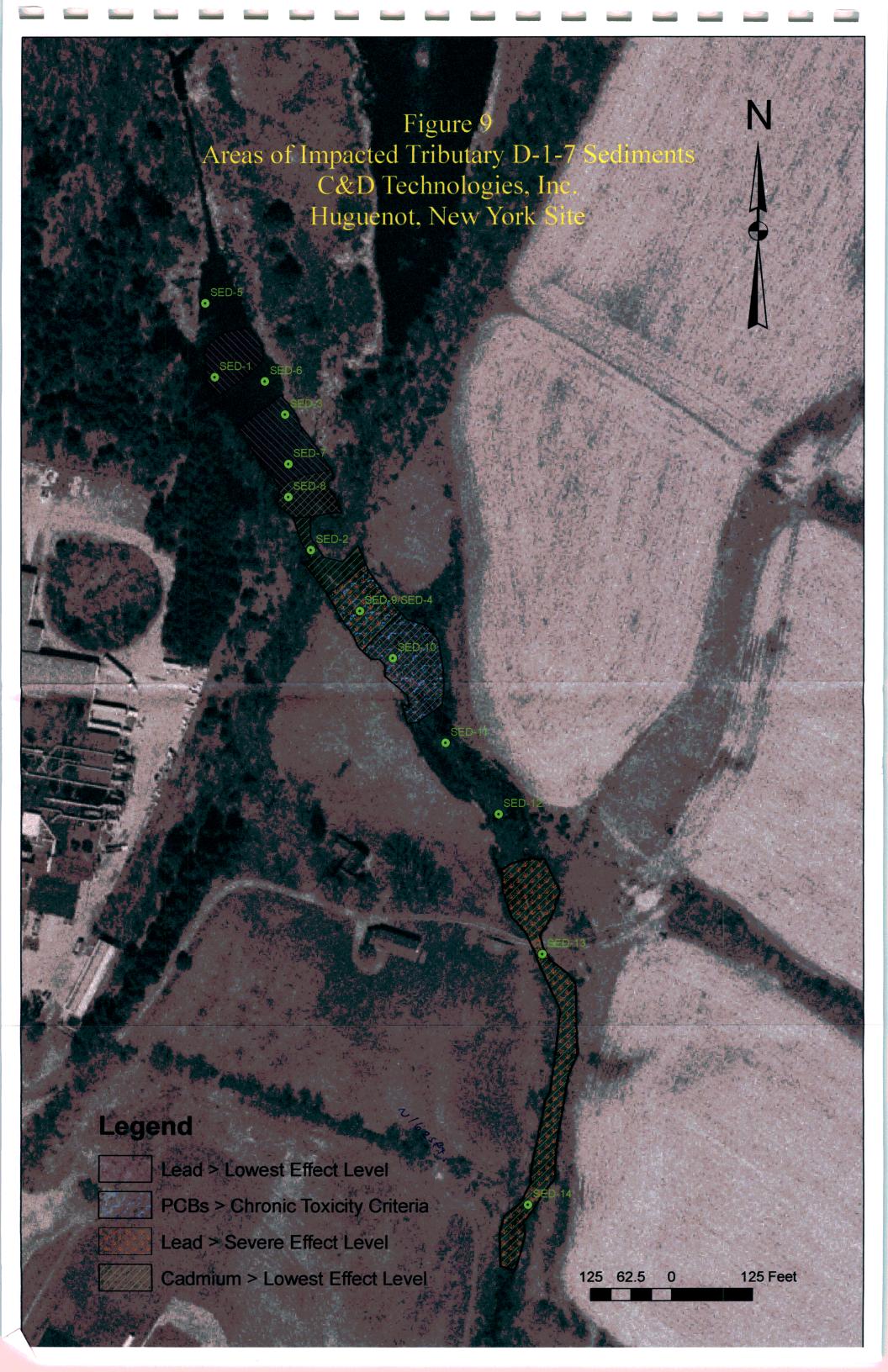
EF REVIEWED BY:_ DATE REVISED: 01/05/05

DELAWARE ENGINEERING, P.C. CIVIL AND ENVIRONMENTAL ALBANYENGINEERING 28 Madison Avenue Extension - Albany, NY 1220



zo madison Avenue Extension - Albany, NY 12203 Phone: (518) 452-1290 - Fax: (518) 452-1335 ONEONTA:

ONECONTA: 8-12 Dietz Street, Suite 303 - Oneonta, NY 13820 Phone: (607) 432-8073 - Fax: (607) 432-0432

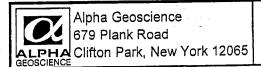


APPENDIX A

MONITORNG WELL

AND SOIL BORING

LOGS



Boring ID: MW-15A

Page 1 of 1

Project Number/Name: 03124 /C&D Battery

Location: Huguenot, NY

Drilling Contractor/Personnel: Aquifer Drilling & Testing, Victor Champagne, Remy

Start/

Geologist/Inspector: John M. Nadeau

Finish Date: 8/27/03

Drilling Equip/Method: CME 550 Track Rig/HSA

Size/Type of Bit: 4 1/4" I.D. HSA

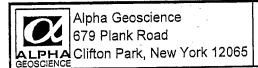
Sampling Method: 2 foot continuous split spoon

Well Installed? Yes

Elevation/Ground Surface:

Depth to Ground Water from Ground Surface (Date):

Depth (Ft)	Sample No.	Blows Per 6 In,	Recovery (ft)	DESCRIPTION	REMARKS
1 -	SS-1	2 - 2	2.0	Brown very fine to fine sand, some silt, trace fine gravel; moist	3-inch root zone
3 -	SS-2	wt 1 - 2	2.0	Mottled brown to orange-brown very fine to fine sand, and silt, trace(-) clay; wet	
5 -	SS-3	1 - 1 1	2.0	5.9 Grey silt, little very fine sand, trace clay; wet	
7 -	SS-4	wt 1 - 1	2.0	Grey Silt, little very little Sand, trace clay, wet	
	SS-5	wt 4 - 7	1.75	9.0 Grey coarse sand, little very fine to medium sand, trace silt; very wet	
	SS-6	10-15 14-21	1.1	Brown coarse sand, and fine to coarse gravel, cobble, little fine to medium sand; very wet	
12 – 13 – 14 –	-SS-7	25-37 32-10	1.0		
15 -				D. II. of D. ii. a. et 451	
16 ₋				Bottom of Boring at 15'	
18-				wt = sampler advanced 6-inches by weight of drill rods	
19 - 20-				sed: Trace=0-10% Little=10-20% Some=20-35% And-35-50%	



Boring ID: MW-16

Page 1 of 1

Project Number/Name: 03124 /C&D Battery

Location: Huguenot, NY

Drilling Contractor/Personnel: Aquifer Drilling & Testing, Victor Champagne, Remy

Geologist/Inspector: John M. Nadeau

Finish Date: 8/27/03

Drilling Equip/Method: CME 550 Track Rig/HSA

Size/Type of Bit: 4 1/4" I.D. HSA

Start/

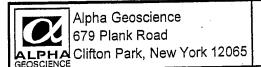
Sampling Method: 2 foot continuous split spoon

Well Installed? Yes

Elevation/Ground Surface:

Depth to Ground Water from Ground Surface (Date):

Depth (Ft)	Sample No.	ws r 6 r,	Recovery	DESCRIPTION	REMARKS						
Deg (F)	Sar	Blows Per 6 In,		Mottled Grey-brown to brown silt, some very fine sand,	3-inch root zone						
1 -	SS-1	1 - 2	0.67	little clay; moist							
2 -	SS-2	2 - 2	1.9		3.0-3.25' wet zone						
4 -		3 - 3			3.75-3.9' wet zone						
5 -	SS-3	2 - 2 3 -4	1.75	5.9	very moist 5-5.9'						
6 -		44-16		Grey very fine to coarse sand, some very fine to coarse gravel, little silt; wet							
7 -	SS-4	22-12	1.2	8.0							
8 -	00.5	wt - 3	4.75	Grey medium to coarse sand, some fine gravel, little (+) fine sand, trace silt; wet 9.0	·						
	SS-5	7 - 11	1.75	Grey medium to coarse sand, some (+) very fine to coarse gravel, cobble, little very fine to fine sand, trace silt;							
10 -	SS-6	2-10	1.1	wet							
	133-0	11-9									
12-	SS-7	11-7	4.0								
14_	155-7	4 - 4	1.0								
15-					. •						
16_				Bottom of Boring at 15'							
17-											
18-				wt = sampler advanced 6-inches by weight of drill rods							
19-											
20-	-		· .								
		Р	roportions U	sed: Trace=0-10% Little=10-20% Some=20-35% And-35-50%	Proportions Used: Trace=0-10% Little=10-20% Some=20-35% And-35-50%						



Boring ID: MW-17

Page 1 of 1

Project Number/Name: 03124 /C&D Battery

Location: Huguenot, NY

Drilling Contractor/Personnel: Aquifer Drilling & Testing, Victor Champagne, Remy

Start/ 8/26/03

Geologist/Inspector: John M. Nadeau

Finish Date: 8/27/03

Drilling Equip/Method: CME 550 Track Rig/HSA

Size/Type of Bit: 4 1/4" I.D. HSA

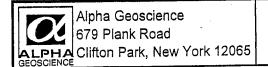
Sampling Method: 2 foot continuous split spoon

Well Installed? Yes

Elevation/Ground Surface:

Depth to Ground Water from Ground Surface (Date):

Depth (Ft)	Sample No.	Blows Per 6 In,	Recovery (ft)	DESCRIPTION	REMARKS	
1 -	SS-1	Push	0.75	Brown very fine to medium sand, some silt, trace fine to coarse gravel 2.25		
2 - 3 - 4 -	SS-2	Push	0.75	Reddish-brown coarse sand 2.50 Reddish-brown very fine to fine sand, some silt; moist 4.0		
5 - 6 -	SS-3	Push	1.45	Interbedded layers of (< 1/4 inch) Reddish-brown very fine to fine sand, some silt; and red silt, some very fine sand; and occasional layers of coarse sand, little very fine gravel; moist		
	SS-4	Push	1.50		7.5-9.0 very moist	
9 -	SS-5	Push	0.60	10	75.0 Very Moist	
	SS-6	22-24 32-42	1.5	Reddish-brown very fine to coarse sand and medium to coarse gravel, cobble, little silt; very moist 12		
	SS-7	13-12 21-20	1.2	Reddish-brown coarse sand, and very fine to coarse gravel, cobble, little very fine to medium sand, trace silt; wet		
	-SS-8	3-13 13-13	1.25	Brown medium to coarse sand, and very fine to coarse gravel, cobble, little very fine to fine sand, trace silt; very wet		
16	SS-9	1	1.25	Brown medium to coarse sand, and very fine to fine gravel,		
18_		27-15		little (+) very fine to fine sand, little (-) coarse gravel, trace silt; wet		
1	SS-10	1 - 1 3 -12	0.9			
20_			ron culicus 11	Bottom of Boring at 20' sed: Trace=0-10% Little=10-20% Some=20-35% And-35-50%		
	Proportions used. Trace-0-1076 Little-10-2076 Conte-20-0076 7 and 65 6576					



Boring ID: MW-17A

Page 1 of 1

Project Number/Name: 03124 /C&D Battery

Location: Huguenot, NY

Drilling Contractor/Personnel: Aquifer Drilling & Testing, Victor Champagne, Rudy

Start/

Geologist/Inspector: John M. Nadeau

Finish Date: 8/28/03

Drilling Equip/Method: CME 550 Track Rig/HSA

Size/Type of Bit: 4 1/4" I.D. HSA

Sampling Method: 2 foot continuous split spoon

Well Installed? Yes

Elevation/Ground Surface:

Depth to Ground Water from Ground Surface (Date):

Depth (Ft)	Sample No.	Blows Per 6 In,	Recovery (ft)	DESCRIPTION	REMARKS
1 -			·	Mottled Reddish-brown to orange-brown very fine to coarse sand, some(-) silt, trace very fine to fine gravel, moist	Augered 0'-2' without sampling
2 - 3 - 4 -	SS-1	5-5 6-6	2.0	4.25	
5 -	SS-2	1-1 1-2	1.67	Mottled Reddish-brown to orange-brown very fine to fine sand, some silt, little(-) medium to coarse sand, wet	
7 -	SS-3	1-2 2-2	1.67	7.0 Mottled Grey to orange-brown silt, little very fine to fine sand, little(-) clay; wet	
9 -	SS-4	1-1 3-3	1.67	8.75 Grey-brown medium to coarse sand, some(-) very fine to fine gravel, little very fine to fine sand, trace silt; wet	
11	SS-5	wt-8 15-21	2.0	11.5 Grey-brown medium to coarse sand, some very fine to	
12 – 13 – 14 –	SS-6	50-25 14-12	0.9	coarse gravel, cobble, little very fine to fine sand, trace silt; wet	Rock fragments in bottom of SS-6
15 –				Bottom of Boring at 15'	
17-				wt = sampler advanced 6-inches by	
18- 19-				weight of drill rods	
20-		P	roportions U	sed: Trace=0-10% Little=10-20% Some=20-35% And-35-50%	

ATTACHMENT 2

Well Completion Logs

Project: C&D Battery

Project No.: 01124

Client: Delaware Engineering Location: Huguenot, NY

Geologist/Hydrogeologist: John Nadeau

Date Drilled: 7/23/01

Log of Borehole: MW-14

Sheet: 1 of 2

Depth BGS (ft)	Blows Per 6 Inches	Recovery (ff)	DESCRIPTION (Trace=0-10%, Little=10-20%, Some=20-35%, And=35-50%)	Remarks
1-55	5 6 5 3	0.1	brown very fine to coarse sand, and very fine to coarse gravel, some organic 0.5'	little coarse gravel 1-2 ft
3-SS	6 6 8 8	1.1		
5-SS	-3 6 7 7 8	1.2	tan fine to coarse sand	moist at 4.5-10 ft
7 SS	6 5 6 6	1.7		
9 SS-	5 4 5 10	1.4	10.0	
10 11 SS-	6 14 17 21 23	0.1	cobble fragments	Rock fragment in split spoon
13 SS-	7 18 14 15	1.7	brown fine to coarse sand and very fine to coarse gravel, cobble	
15 SS-	8 9 10 12	1.9	light tan very fine to fine sand and silt	
17 SS-	13 15 15 16	1.8	brown very fine to coarse sand, some fine to coarse gravel, trace silt 18.25	
18 - SS-	8 9 9 10	2.0	light brown very fine to fine sand and silt	
20-		ì		

Drilling Contractor: ADT

Drilling Personnel: Richie, Kieth, Kim

Drilling Equipment: CME 55

Drilling Method: Hollow Stem Auger

Size/Type of Auger: 4 1/4

Sampling Method: Split Spoon

Well Installed?: Yes

ALPHA GEOSCIENCE 1071 Troy-Schenectady Latham, New York 12110 Project: C&D Battery

Project No.: 01124

Client: Delaware Engineering

Location: Huguenot, NY Geologist/Hydrogeologist: John Nadeau

Date Drilled: 7/23/01

Log of Borehole: MW-14

Depth BGS (ft)	Number	Blows Per 6 Inches	Recovery (ft)	DESCRIPTION (Trace=0-10%, Little=10-20%, Some=20-35%, And=35-50%)	Remarks
21.	SS-11	8 9 9 10	1.9	light brown very fine to fine sand and silt	
1	SS-12	5 4 5 6	1.7		wet at 22.5 ft
25-	SS-13	3 7 10	1.7	25.5 brown very fine to coarse sand, little fine gravel, trace silt 26.5	
27-	SS-14	9 10 5 14	1.9	light brown very fine to fine sand and silt 27.5 brown fine to coarse sand, some very fine to coarse gravel, trace silt	
29-	SS-15	8 7 8 9	0.9		
31-	SS-16	1 2 5 7	1.2		percentage of fine gravel increases with depth
33-	SS-17	6 9 12 15	1.9	33.5 brown to grey fine to coarse gravel, some coarse sand	
35 -	SS-18	10 17 18 14	0.9		
37 - 38 -	SS-19	10 11 15 14	NR	brown to fine to coarse sand, little very fine to coarse gravel 37.5 light brown very fine to fine sand and silt	
39 - 40 -					Bottom of boring at 40.0 ft

Drilling Contractor: ADT

Drilling Personnel: Richie, Kieth, Kim

Drilling Equipment: CME 55

Drilling Method: Hollow Stem Auger

Size/Type of Auger: 4 1/4

Sampling Method: Split Spoon

Well Installed?: Yes

ALPHA GEOSCIENCE 1071 Troy-Schenectady Latham, New York 12110

ENVIRONM	ENTAL RESOURCES MANAGEMENT, INC.	SKETCH MAP Pine Trees
DRILLING LOG		co-2.
PROJECT: C&D Batter LOCATION: Huguenot New York	TOTAL DEPTH 45 feet	CO-511 Rence Addition
OUDELOS SI SIZIONI	WATER LEVEL:	- 1A · · · · · · · · · · · · · · · · · ·
COMPANY: Embrie	DRILLING TOOL DATE METHOD: TOOL DRILLED:12-29- SON HELPER: R. Beckwith	NOTES:
	SOIL FILE CI.	
LOG BY: <u>C. Werle</u>		
Protective Casing DEPTH REEN COS MUMBER GRAPHE CAMPLE SAMPLE SAMPLES	PE DESCRIPTION (COLOR, TE)	/SOIL CLASSIFICATION (TURE, STRUCTURES)
-010-4 1 0-1 1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		and with mebbles
	Dark brown medium to coar (shale and quartz).	rse sand with pessere
	(Share 1	
0.2		
100	Dark brown coarse sand a	nd pebbles, minor
-5 2 2	I	8 - 78 Interscream or
	material dense & tightly	packed.
0.0		
100		
	Same as above with brown	silty coating on
10 3	pebbles.	
PO.		
10.7		
	grand with minor brown	ish gray interstitial silty
15 4	clay.	
106		
063		
620		
1 10 00		
1 180 2		
20 5	Same as above with some	fine sand SHEFT 1 OF 3

ENVIRONMENTAL RESOURCES MANAGEMENT, INC.	
	SKETCH MAP
DRILLING LOG	
PROJECT: C&D Batteries OWNER:	
LOCATION: Huguenot ADDRESS:	
WELL NUMBER: CD-5 (CONT) TOTAL DEPTH 45 feet	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
SURFACE ELEVATION: WATER LEVEL: Cable	
DAILLING COMPANY: Empire METHOD: TOO1 DAILLED: 12-29-10 DAILLED: D. Diedrickson HELPER: R. Beckwith	NOTES:
LOG BY: C. Werle	

_	A)	ak?	/ /5
: c	DEPTH IFEET	THE COS NUMBER	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
. 15, 20	OE. GRAN	SMAPLE SMAPLES	(COLOA, TEXTORE, STROOTS/IES)
7 4	106		
12	+ - 0.5		
	36.5		
<u> </u>	0:0		
2.	10.01		
2	, • •	6	Coarse angular pebbles and small cobbles.
	1 3.7.		
	11-11		
			·
	+15:-11		
	0		
	6		
	11-0-1		
3_	0.0	7	Pebbles and gravel, angular to subround.
TI			Repeated refusal with augers.
	10.1		
目	+		
目	+		
3		8	Grayish black coarse sand and fine gravel
11111111111111111111111111111111111111	5		pebbles grading into 3" of fine sand with tan brown
	11.1		plastic clay at base of sample -
	全		
目:	+ 5 7		
131	2 0		
!	::61		
· E	41-14		
	7	9	Gravel and pebbles with interstitial fine sand and silt.
	.01 []	* A.S.T.M. D1586	

ENVIRONMENTAL RESOURCES MANAGEMENT, INC.	
	SKETCH MAP
DRILLING LOG	
PROJECT.C&D Batteries OWNER: LOCATION: Huguenot ADDRESS: New York WELL NUMBER:CD-5 (CONT) TOTAL DEPTH 45 feet SURFACE ELEVATION: WATER LEVEL: Cable DRILLING DATE DATE DATE DATE DATE DATE DATE DATE	
GOMPANY: Emprie METHOD: TOOL DRILLED: 12-29-0	NOTES:
LOG BY:C. Werle	

- ₂ '= .	ſ	EPTH IFEET	APHIC LOG	//	MUMBER MAMPLE TY	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	40	ERITOR	NSY NO.	AMPLE	MPLEGA	(COLOR, TEXTURE, STRUCTURES)
	1 -0 T	P. 37				
		17. 1				
		6				
100						
	4.5	4.4	10			Coarse sand and gravel, some pebbles 1% - 2% fine
_		F				sand and silt.
13877	+	-				
. 	+	-				
	4			-		
	_					
	_0-	.L _				
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		$\prod_{i=1}^{n}$				
	-	th -	╢	1	 	
	-0-	1		<u> </u>		SHEET 3 OF 3

DRILLING LOG PROJECT: C&D Batte LOCATION: Huguenot New York WELL NUMBER: CD-2 SURFACE ELEVATION: DRILLING Empire COMPANY: D. Diedric LOG BY: C. Werle	TOTAL DEPTH 40.5 feet WATER LEVEL: DRILLING Cable DATE METHOD: Tool DRILLED: 12-30-8 EKSON HELPER: R. Beckwith	Parking Lot 181da 1 Addition
DEPTH IFEET COS NUMBER	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	
O DEPTH HEEL GRAPHE SAMPLE SAM	(COLOA, TEXTORE, STREET, STREET,	
0 1	Dark brown fine and medium sand with	
	pebbles.	
	Light tan fine to medium sand interbedded	
-5 2	with tan silt. Individual units well sorted.	
+==		
	Brownish gray medium to coarse sand and	
10 3	gravel with subangular to subrounded	

0.0 Same as above

* A.S.T.M. D1586

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Same as above.

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2

SHEET 1 OF 2

20 DEPTHIFEET GRAPHE GRAPHE SAMPLE SA	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
20 T CRAFT SAME SAME	
1 3 6 1	
720-	
25 6	Medium to coarse sand and gravel, some
	fine sand, no pebbles.
3-0 7	Medium to coarse sand and gravel, small pebbles, angular to subangular.
0.00	
0.0"	
35 20 8	Same as above.
00	
ا ا م	
a 30	
1 0 0 0	Gravel with coarse sand and pebbles, tannish
4 ₀ 8 9 9	brown silt ac coating on material

ENVIRONMENTAL RESOURCES MANAGEMENT, INC.

DRILLING LOG

LOG BY: C. Werle

PROJECT: C&D Batter	cies_ OWNER:
LOCATION: Huguenot	ADDRESS:
New York	
WELL NUMBER: CD-3	TOTAL DEPTH 40.0 feet
SURFACE ELEVATION:	(ADIE
DRILLING COMPANY Empire	DRILLING TOOL DATE 1-6-82 METHOD: TOOL DRILLED: 1-6-82 SON HELPER R. BECKWITH
Diedrick	son Helper: R. Beckwith

CD-5 Lagoon	ling Lot Bldg Addition
NOTES:	

DEPTH REET GRAPHE LOS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
DEPTH TO GRAPHE LE SAMPI	E SHAPE SHAP
-0	Brown fine to medium sand with some silt and pebbles.
0,0	
5 2	Tannish brown medium fine sand with gravel and pebbles.
0,0,0	
10 6 4 3	Gravel with some coarse sand and small
2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	cobbles, very minor amounts of interstitial silt.
2 5 2 5 2 5 2 6 2 6 2 6 2 6 2 7 2 7 2 7 2 7 2 7 2 7 2 7 2 7 2 7 2 7	
15 00 4	Coarse sand and gravel with pebbles and grayish brown interstitial clayey silt.
300	
20 5	Coarse sand and gravel and pebbles, some cobbles sample very tightly packed. STM DISSE STM DISSE

	DESCRIPTION/SOIL CLASSIFICATION GRAPHIC SAMPLE SAM				
. 0	EPTH IFE	HIC LOG HUMP	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)		
²⁰ T					
1					
	0; :a				
1	7 6 7				
+	7 9				
1	الأوسى و				
\Box	• • · · · · · ·	б	Coarse sand, gravel, small cobbles with		
25	10.0		brownish gray silt coating, sample tightly packed.		
+	1,1				
1	a , 9				
	\$ 0.				
+	200				
1	100				
3,	8 0	7	Same as above.		
,]	9 0	. II			
· +	3 0				
4					
	000				
	2 70				
+	04				
3 5	000	8	Gravel and small cobbles with minor amounts of interstitial silt.		
	000		DI INCEISCICIAI SIIC.		
	200				
-	0000				
_	0,0				
	ذورة				
	7.5	g	Same as above.		
40_	المرا ا	*ASTM.D			

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	<u>—</u>			Described Management (NC		
P L! X S! D,O D	OCATION VELL NUI URFACE RILLING OMPANY RILLER:	ELEVA	G Batiguence Yor CD-4	MENTAL RESOURCES MANAGEMENT. INC. SKETCH MAP Pine Trees CD-4 CD-2 CD-2 Lot CD-5 Lot CD-5 Lot CD-5 Lot CD-7 NOTES:		
	المحار	٠	 /s	DESCRIPTION/SOIL CLASSIFICATION		
c	EPTH PEET	BAKE 100	AMPLE HUMP	(COLOR, TEXTURE, STRUCTURES)		
٦°-				Tannish brown fine sand and silt with pebbles		
+		1		organic-rich soil at surface.		
+	4					
.]						
†		2		Tannish brown medium to fine sand with		
-5+		2		gravel.		
+						
1						
	6					
1	1.75					
+				Dark brown well sorted very fine sandy silt,		
10		3		material homogeneous.		
4		,		material nomegeness.		
	2.47					
1	7.7					
-	- -,-					
15.		4		Same as above.		
4						
	====					

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Same as above.

SHEET 1 OF 2

LOG BY: C. Werle DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES) Brown well sorted silt, as above, grading 6 into medium to coarse sand and gravel. Interbedded units of silt with <u>3</u>0. dark gray medium to coarse sand and gravel. Brown silty sand with infrequent pebbles. 8 Brown silty sand with some coarse sand and gravel.

SHEET 2 OF 2

.... Bandhanairin mynapanan ...

* A.S.T.M. D1586

Environmental Resources Management, Inc.

DRILLER'S LOGS

GENERAL INFORMATION & KEY TO SUBSURFACE LOGS

The Subsurface Logs attached to this report present the observations and mechanical data collected by the driller while at the site, supplemented by classification of the materials removed from the borings as determined through visual identification by technicians in the laboratory. It is cautioned that the materials removed from the borings represent only a fraction of the total volume of the deposits at the site and may not necessarily be representative of the subsurface conditions between adjacent borings or between the sampled intervals. The data presented on the Subsurface Logs together with the recovered samples will provide a basis for evaluating the character of the subsurface conditions relative to the proposed construction. The evaluation must consider all the recorded details and their significance relative to each other. Often analyses of standard boring data indicate the need for additional testing and sampling procedures to more accurately evaluate the subsurface conditions. Any evalutions of the contents of this report and the recovered samples must be performed by Professionals having experience in Soil Mechanics and Foundation Engineering. The information presented in the following defines some of the procedures and terms used on the Subsurface Logs to describe the conditions encountered.

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- (3) The Sample No. is used for identification on sample containers and/or Laboratory Test Reports.
- Blows on Sampler—shows the results of the "Penetration Test", recording the number of blows required to drive a split spoon sampler into the soil beneath the casing. The number of blows required for each six inches penetration is recorded. The total number of blows required for the last 12 inches of penetration are summarized in the "N" column. The outside diameter of the sampler, the hammer weight and the length of drop are noted at the bottom of the Subsurface Log.
- Blows on Casing shows the number of blows required to advance the casing a distance of 12 inches. The casing size, the hammer weight and the length of drop are noted at the bottom of the Subsurface Log. If the casing is advanced by means other than driving, the method of advancement will be indicated in the Notes column or under Method of Investigation at the bottom of the Subsurface Log.
- All recovered soil samples are reviewed in the laboratory by technicians. The visual descriptions are mode on basis of the sample as recovered and in accordance with the Unified Classification System. Guide Lines for the terms used in descriptions are presented in Tables II and III. The description of the relative soil compactness or consistency is based upon the penetration records as defined in Table IV. The description of the soil moisture is based upon the condition of the sample as recovered. The moisture condition is described as dry, damp, moist or wet. Water used to advance the boring may have affected the in-situ moisture content of the sample. Special terms are used as required to describe materials in greater detail; several such terms are listed in Table V. When sampling gravelly soils with a standard two-inch diameter split spoon, the true percentage of gravel is often not recovered due to the relatively small sampler diameter. The presence of boulders and large gravel is sometimes, but not necessarily, detected by an evaluation of the casing and sampler blows or through the "action" of the drill rig as reported by the driller.
- The description of rock shown is based upon the recovered rock core. Terms frequently used in the description are included in Table VI.
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3-1	-70	
	Of	<u></u>



EMPIRE SOILS INVESTIGATIONS, INC.

HOLE NO 8-175

SURF ELEV 325.6 C W DEPTH See Note #1

SUBSURFACE LOG

LOCATION YYY

BLOWS ON SAMPLER	BLOW ON CASING C	SOIL OR ROCK CLASSIFICATION	NOTES_C	
2 2 3 5	50/.5	Brown SILT, some Sand, trace clay (Moist - Loose) Gray SHALE, medium hard weathered, thin bedded some fractures	Note #1 G.W. at 2.0' completion G.W. at 2.2' 24 hrs. after completion Cored 2.5'-5.0', Run#1 95% Recovery AX Core	

TABLE II

plit Spoon Eample

Tube Sample

r or Pit Sample

Core

Identification of soil type is made on basis of an estimate of particle sizes, and in the case of fine grained sails also on basis of plasticity.

Soil Type	Soil Particle Size	
Boulder Cobble Gravel - Coarse - Fine Sand - Coarse - Medium - Fine	>12" 3"-12" 3"-3/4" 3/4"-#4 #4-#10 #10-#40 #40-#200	Coarse Grained . (Granular)
Silt-Non Plastic (Granular) # 200 Clay - Plastic (Cohesive)		Fine Grained

TABLE III

The following terms are used in classifying soils consisting of mixtures of two or more sail types. The estimate is based on weight of total sample.

Term	Percent of Total Sample
"and"	35 - 50
"some" "little"	20 - 35 10 - 2 0
trace	less than 10

(When sampling gravetly soils with a standard split spoon, the true percentage of gravel is often not recovered due to the relatively small sampler diameter.)

lative compactness or consistency is described in accord with the

ierms.	ular Soils	Cohesive Soils		
Gran	Blows per Foot, N	Term	Blows per Foot, N	
pact	< 10 11 - 30 31 - 50 > 51	Very Soft Soft Medium Stiff Hard	< 2 3-5 6-15 16-25 >26	

particles in the soils will often significantly influence the blows per rded during the Penetration Test.)

TABLE V

Varved - Alternating layers, seams, and partings of soils.

Soil deposit more than 6" thick. Loyer -Soil deposit less than 6" thick. Seam -

Parting - Soil deposit less than 1/8"

Uniform - All grains are of about the same

Classification Term	5	Megning				
Hord		Scratched by fingernail Scratched easily by penknife Scratched with difficulty by penknife Cannot be scratched by penknife				
ring (Very	Hard Weathered thered	Judged from the relative amounts of disintegrating iron staining, core recovery, clay seams, etc				
ng Lam Thin Bedd	inated bedded Jed	Natural breaks in (< 1 ") Rock Loyers (1" - 4") (4" - 12") (12" - 36") (> 36")				
	k bedded sive	(>36") caks in the rack oriented at same angle to the rack layers.)				

The state of the s		
DATE 12/21/81	EMPIRE SOILS INVESTIGATIONS, INC.	
FINISHED 12/22/81 SHEET 1 01 2	SUBSURFACE LOG	SURF ELEV
PROJECT Environmental Re	SOUTCE LOCATION POTT JETY	is, N,Y.
Management - C & D Bat	LETY	
S L S L S L S L S L S S	SOIL OR ROCK CLASSIFICATION	- NOTES
1 15 16 39 23 52	Greyish Brown - fine GRAVEL and coarse-fine SAND, trace Silt, dry	Groundwater Observation Installation
	5.01	2" diameter PVC
2 17 23 28 51	Brown fine SAND, trace to little Silt, moist	screen and riser pipe. Tip at 37' screen from 37' to 27' Bentonite seal from 25' to
3 8 15 19 34		20'. PVC stick- up 2' above ground and covered with a threaded capped
	15.0'	protective casing.
4 9 17 22 39	Brown SILT, wet	
20	Brown SILT, some fine Sand,	_
5 12 19 25 44	moist	
	25.0'	_
_/ 6 24 27 28 55	Brown - fine GRAVEL and coarse-fine SAND, trace Silt, moist	
30 7 7 18 20 38		
	35.0'	_
8 10 15 20 35	Brown coarse-fine SAND, some medium-fine Gravel, trace Silt, wet	

N = No blows to drive 2 "spoon 12" with 140 lb. pin wt falling 30 "per blow

C = No blows to drive "casing with lb weight falling "per blow"

STARTED 12/21/81 FINISHED 12/22/81 SHEET 1 01 2 PROJECT Environmental Resource LOCATION PORT Jer									SURF ELEV				
		Enviro ent- (· e	-	LOCATION	Port	Jerv	is, N	Υ	
SAAWIIS	SANIFII NO	BLOWS OF	1	BLOW ON CASING C				OR ROCK IFICATION				NOTES	
					Brown	c-f	S,	S+M-f G,	+- \$. 5 '			
						End	of	Boring					
5													-
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ا رج	FINIS	HED	12	/31	/81	_	U	SUBSURFACE LOG	SURF ELEV
l PR	OIE	ст _	En	vir	onm		al Ro	SOUTCE LOCATION Port Je-	14 - V
IIII dia	SAMIPILS	ON ILIWYS	0	BLOW! SAMP	LER	z	BLOW ON CASING C	SOIL OR ROCK CLASSIFICATION	NOTES
	1	1 ~	3	3		8			Samples 4 through 8 were
] 7								Medium Brown SILT and fine	wash samples. Groundwater Observation
	-/	2	8	8	8	16			Well 2" diameter PVC screen & riser pipe installed to
.1 1	4	13	24	1.0	29	4.8		10.0'	40.6'. Screen from 40.6'-30.6' Bentonite seal
	1							Brown coarse-fin e SAND, some medium-fine Gravel, trace SILT	from 25'-22' PVC Stickup 2.5' in- side Protective casing.
7	Ì	4						Coarse Sand (Wash sample)	
2	0							Brown coarse-fine GRAVEL, some + coarse-fine Sand,	
	-	5						trace- silt	
	<u>-</u>	/_6							
3	0								
		<u> </u>							
		<u> </u> 8							
	\dashv			+-	+-	+	+	1	

N = No blows to drive 2 " spoon 12" with 140th pin wt. falling 30 "per blow CLASSIFICATION ________

C = No blows to drive ____ " casing ___ " with ____ lb weight falling ___ "per blow ______

NT L STAR	RTED	_12	/30/	81		EMPIRE SOILS INVESTIGATIONS, INC.	HOLE NO B-CD-2
			/31/ of 2		W	SUBSURFACE LOG	G. W. DEPTH
ROJE	CT.	Env	iron	ment	al Re	LOCATION PORT Jery	vis, N.Y.
411		1	BLOWS ON SAMPLER		BLOW ON CASING C	SOIL OR ROCK CLASSIFICATION	NOTES
#		- 6	12 /1	I N		Brown c-f G, s+ c-f S, +-\$41.5	
						End of Boring	•
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_							
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N = No blows to drive______" spoon_____" with_____lb. pin wt. falling_____"per blow CLASSIFICATION ______

C = No blows to drive_____" casing____" with_____lb weight falling____"per blow ______

Project C&D Batteries ____Owner_ Location Huguenot, NY W.O. Number _____ Well Number CD-6 Total Depth 42.5 Diameter____ Surface Elevation 470.62 Water Level: Initial 29.8 24-hrs 28.66 _____Slot Size___010 2" 10' __Length__ Screen: Dia._ _Type___PVC 35' 2" _Length___ Casing: Dia. ___ Drilling-Company Empire Soils Drilling Method Holl Stem Auger

Sketch Map

cp-6

cp-5

Logoon

Notes

		DIIS Drilling Method HOIL Stell Anger
Driller Mike Warne	rLog	By C. Werle Date Drilled 3/1/82
Depth (Feet) Graphic Log Well Construction	Sample Number	Description/Soil Classification (Color, Texture, Structures)
	1	Grayish brown medium to coarse sand, gravel and small cobbles to 2"-minor fine sand and silt.
5	2	Coarse sand, gravel, cobbles with reddish silty clay coating.
-10-	3	Well sorted tannish brown medium to coarse sand, some pebbles - reddish silty coating.
15	4	Same as above.
- 20- - 20-	5	Gravel and cobbles with minor medium and coarse sand - red silty clay stringer interbedded with coarse material.
25	6	Medium to coarse sand and gravel, some small stones, approximately 2%-3% fine sand and silt.
30-1-30-1-30-1-30-1-30-1-30-1-30-1-30-1	7	Coarse sand and gravel, some small cobbles, brown silty coating on all material; sample wet.
35	8	Dark tannish brown medium to coarse sand and gravel, some larger stones.
40	9	Same as above.
45		

Environmental Resources Management

Drilling Log

Project C&D Batteries Owner Location Huguenot, NY __ W.O. Number ____ _ Diameter_ 6" 33.0' CD-8 _ Total Depth ___ Well Number -460.82 Water Level: Initial 23.5 24-hrs. Surface Elevation_ Slot Size . 010 10' Screen: Dia. 2" Length_ _Type ___PVC 25' 2" Length.... Casing_Dia.__ Drilling_Company_Empire Soils Drilling Method Holl.Stem Auger

Oriller Mike Warner Log By C. Werle Date Drilled 3/4/82

Driller	Mike	Warne	r Lo	g
Depth (Feet)	Graphic Log	Well Construction	Sample Number	
			1	
 5 -	0000	なるなる	2	
 -10-		5	3	
15		Contractors of the second	4	
- 20-		7	5	
25	#12		6	

30

35

7

8

Brown, organic-rich fine sand and silt, some pebbles, minor interstitial plastic brown clay.

Dark brown silty, clayey matrix with gravel and pebbles-material cohesive and moderately plastic.

Description/Soil Classification (Color, Texture, Structures)

Tan, very well sorted coarse silt.

Tan well sorted silt, as above, grading into tan silty clay - sample damp.

Brownish tan medium and fine sand with interstitial silt, grading into reddish tan, plastic, cohesive silty clay.

Well sorted brown fine sand and silt, occasional pebbles.

Same as above, no pebbles.

Brown fine sand and silt with slight grain size variation over length of sample.

Environmental Resour	es Man	agement "	Drilling Log							
		•	Sketch Map							
Project C&D Batteri	.es	Owner	co-1 °							
Location Huguenot,	NY	W.O. Number	_,_,_,_							
Well Number <u>CD-9</u> Total Depth <u>33.0'</u> Diameter										
Surface Flevation 462.41 Water Level: Initial 24.35 24-hrs. 20.36										
2"	1 en	sth 10' Slot Size .UIU	Lagoon							
Casing: Dia. 2"	Len	gth 25' Type PVC	Notes							
Drilling Company Emp	ire So	pils Drilling Method Holl Stem Auger								
Driller Mike Warne:	rLog	By <u>C. Werle</u> Date Drilled <u>3/3/82</u>								
Depth (Feet) Graphic Log Well Construction	Sample Number	Description/Soil Classi (Color, Texture, Struc	ification ctures)							
3 *	1	Tannish brown fine sand and s	silt, some pebbles.							
5 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	2	Dark tan, very well sorted so homogeneous.	ilt, sample totally							
10-11-11-11-11-11-11-11-11-11-11-11-11-1	3	Same as above.								
15	4	Tan silt, as above, with into	erbedded laminae of wet.							
- 20-	5	Brown silty clay, sample coh interbedded horizons of brow sand with interstitial silt.	nish black medium							
25	6	Brown fine and medium sand w silt sample somewhat cohesiv	ith interstitial e.							
- 30-	7	Brown fine sand, percent sil vertically.								
35	8	Dark brown medium and fine s stitial silt.	and with some inter-							

Environmental Resources Management, Inc.

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ARTED 5-1-70 LUISHED 5-1-70 EEET 1 OF 1	APIRE	SUBSURF	ace log	HOLE NO
		LOCATION YY	·	
CT XXX		LOCATIONT_T_	1	
N N N N N N N N N N		DESCRIPTION OF COVERED SAMPLES		REMARKS WATER READINGS
1 2 2 3 5 10 15 50/.5'	Gray SHALE	, some Sand, tre	weathered,	Note #1 GW. at 2.0' completion G.W. at 2.2' 24 hrs. after completion Cored 2.5' - 5.0', Run#1 95 % Recovery AX Core
	6	7		8 9
			TABLE III	· ·
Split Spoon mate of partic	of soil type is made on the sizes, and in the cas basis of plasticity. Soil Particle Size	basis of an esti- se of fine grained	The follow	ot of Total Sample I
Sample Auger or Pit Sample Sample Boulder Cobble Gravel - Coar - Fine Sand - Coars - Medic - Fine	3/4" - #4 #4 - #10	Coarse Grained (Granular)	land colider	ne" 20 - 35 Ite" 10 - 20 ce" less than 10 npling gravetly soils with a stand-
Rock Core	stic (Granular)<#200 c (Cohesive)	Fine Grained	is often no	or recovered due to the relatively oppler diameter.)
			TABLE V	
The relative compactness or consistent following terms. Granular Soils Term Blows per Foot, N	Cohesive S		Varved - Layer -	Alternating layers, seams, and partings of soils. Soil deposit more than 6" thick. Soil deposit less than 6" thick.
Loose <10	Very Soft	< 2 3-5	Seam-	
Firm 11 - 30 Compact 31 - 50 Very Compact > 51	Soft Medium Stiff Hard	6-15 16-25 >26		Soil deposit less than 1/8" thick. All grains are of about the same diameter.
(Large particles in the soils will often foot recorded during the Penetration	significantly influence Test.)	e the piows her		
ABLE VI				
Rock Classification Terms Term		rotched by fingerno	<u>Meanina</u> iil	
Hardness Soft Medium Hard Hard Very Hard	Sc Sc	ratched easily by pratched with difficult innot be scratched indeed from the relationship.	ulty by penknifo by penknife ive amounts o	f disintegrating
Weathering (Very Weathered Weathered	30	iron staining, co	re recovery, CI	ay seams, etc
Bedding Laminated Thin bedded Bedded Thick bedded Massive		atural breaks in Rock Layers	(<1" (1" - 4" (4" - 12" (12" - 36" (> 36")
Massive (Fracturing refers to no	itural breaks in the ro	ck oriented at some	angle to the ri	DER TOYETS.

SHE	'AR' NISI ET	HED	3-	1-82 1-82 _or_2		ikoż	MPTRE SUBSURFACE LOG	SURF. E	LEV DEPTH	See_	Note
PRC	DJEC					ell In , Inc.	stallations LOCATION Huguenot	t. New	Yor	k	
	SAMITTA			BLOWS (08	BLOW ON CASING, C	SOIL OR ROCK	5'x3" ⁻ Guard Z Pipe	- 11		2'Stick- w/cap
F 0 =	7	1	20	42 15	7	6	i i	2" Ø Riser		D D	
5 -	1	2	15 12	12	2	4	grades similar (Moist-Firm)	Pipe — Auger	1, 1, 1, 1, 1	0 3 7 7	
] 	7	3	10	5 5	1	1	Brown, medium-fine SAND, Some fine Gravel, trace silt (Moist-Firm) Ben	Cutting Fill tonite Seal	1000		12.0'
7.5	1	4	7	4 10		9	grades similar with trace coarse gravel,grading to Some coarse Gravel (moist-Loose)				
20 -	7	5	3 20	4 20	2	4	Brown, coarse-medium GRAVEL (Moist-Firm)			t ·	
25-	7	6	12	16	3	9	grades similar with Some Silt (Damp-Compact)) H
30 -	7	7	12 11	17	2	8	T 1	tonite Seal	1		29.5'- 30.0'-
35_ -	- - - -	8	7	9	2	0	Brown, medium-fine SAND & GRAVEL, Some coarse Gravel (Wet-Firm)	Well — Screen			
								Slot Size SIFICATIO	N V	isual iller	Ьу

15H T .	HED.	2	-82 -82 _Of_	2	- We		SUBSURFACE LOG SURF ELEV C. W. DEPTH See Note stallations LOCATION Huguenot, New York	
OBSERVATION Well Installations LOCATION Huguenot, New York C & D Battery, Inc.								
La S BLOWYON Z								
715	Ç.		NASIP			Z 0 0 7	SOIL OR ROCK NOTES	
SAMPLL	SANIP	<u>0</u>	6/	1.2		BLOW ON CASING C	CLASSIFICATION -	
_		13	16	30	46		Brown coarse-medium SAND & GRAVEL	
_							(Running Sand up 1.5' into casing.) (Wet-Compact) Plug 43.0'	
	<u> </u>						Boring Terminated @ 43.0'	
	<u> </u>						<u> </u>	
							Note: Groundwater first encountered	
							@ 29.8'. At completion of boring,	
							water level @ 30.9'	
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_!	_!		_!	1			12 with 140 lb pin wt falling 30 "per blow CLASSIFICATION Visual by	
•	o ble		drive	2	٠,	noun	12 with 140 lb pin wt falling 30 "per blow CLASSIFICATION VISUAL BY Driller	

INISHED 3-3-82 SO	SUBSURFACE LOC	G. W. DEPTH See Note							
C & D Battery, Inc.									
BIOWYON NAMELIA NO MORE TO THE PROPERTY OF THE	SOIL OR ROCK	Guard ±2'Stick-u							
1 6 4	SILT, ROOTS & fine GRAVEL 0.5'								
4 3 8		2" Ø Riser Pipe							
2 4 5	grades similar								
4 4 9	COBBLES from 7.0'-8.0'	Auger Cuttings Fill Z							
3 4 15 33	Brown, coarse GRAVEL (Moist-Compact) 13,0'								
3 5 4 3 5 11 6 7 11	Brown, medium-fine SAND w/CLAY seam @ 15.0'-15.2' (Moist-Firm) Be	0 15.0 15.0 16.0 16.0 1							
20 / 5 7 12 14 15 26 6 6 13 9 10 22	COBBLE in tip of spoon (Wet-Firm) Brown, medium-fine SAND, Some fine	4Q Sand							
7: 4 5 7 9 12	Gravel-little recovery (Wet-Firm) Brown, medium-fine SAND (Wet-Firm)	Screen .010" Slot Size Plug 29.0'							
	Boring Terminated @ 32.0'	32.0'							
25	Note: Water level @ 19.5' inside 20' of casing. At completion of boring water level @ 18.0'.								
No blems to deno	12 with 140 lb pin wt talling 30 per blow CLAS with lb weight talling per blowD. Hollow Stem Auger Casing	SIFICATION Visual by Driller							

FIN	ART	ונט.	3- 3- 1	-4-8	2	-	SÖILŠ	INVESTIGATIONS INC. SUBSURFACE LOC	HOLE NOCD-8 SURF. ELEV C. W. DEPTH _See Note
				_OF					. Name Wands
ROI	EC							tallations LOCATION Huguer	nor New York
<u>_</u>			. & I) ва	tte	·Y	Inc.		
14: 11:	1411111	44411 50	<u>-</u>	NAME!			BLOW ON CASING C	SOIL OR ROCK CLASSIFICATION	Guard Pipe ±2' Sti
0=	1	1	4	4	<u> </u>			Brown, coarse-medium GRAVEL & SILT	
	<u>/</u>		6	7		10		ROOTS (Damp-Firm)	2" Ø
5	7	2	6	6 21		13		Brown, coarse-medium SAND, GRAVEL &	
1-1-1	/		,	21		13		SILT (Possible Fill) (Damp-Firm) Note: Auger Refusal @ 6.5', Moved borehole and proceeded sampling	Auger Cuttings Fill Z
.o.¦	/	3	5	5		9		at 10.0' Brown, SILT & fine SAND (Damp-Loose)	
5_	7							grades similar with Some Clay	
-	_	4	5	i		9		(Wet-Loose)	entonite 0 17.0 18.0
- -0:	7	5	2				·	Brown, SILT & fine SAND w/medium-	
			6	7		10		fine SAND seams and CLAY seams (Wet-Firm)	4Q Sandz = 23.0
5	/	6	2	4 5		8		Brown, SILT & fine SAND, trace fine gravel	Well Screen
1								(Wet-Loose)	Slot Size
0-T	/	7	4 5	3 6		8		grades similar-no gravel (Wet-Loose)	33.0
5								grades, damp	Plug
	<u>/ </u>	8		5		9		Boring Terminated @ 37.0' Note: Water level @ 23.5' inside	37.0
 0					2		12	30' of casing.	SSIFICATION Visual by
								withlb_pin wt_fallingper blow	Driller

ST FIN	ART	1{D	3-	2-82 3-82		Son S	VIPIRE INVESTIGATIONS INC. SUBSURFACE LO	HOLE NO
		T _C	bse				tallations LOCATION Hugueno	t, New York
	\11.ll\v\	17 11,000	-	HEOWY ON SAMPLER	1,	ROW ON CASING, L	SOIL OR ROCK CLASSIFICATION	5'x3" ±2'Stick-L Guard Pipe w/cap
- 0-	<u>/</u> i		10	6 18	22.		Brown, medium-fine SAND & GRAVEL, Some Silt, roots (Damp-Firm) 2.0'	i c i
							Brown, SILT & fine SAND (Damp-Firm)	2" ø Riser
 	/	2	5	6 5	11			Auger Cuttings Fill Z 7
, d	/	3	8 6	5 7	11		grades similar	
15	/	4	4	5	9		grades similar w/CLAY seam @ 16.5' (Wet-Loose)	
20	7	5	3 7	6	13		grades similar with medium-fine ISAND seam @ 21.0'-21.2' (Wet-Firm)	Sentonite 21.5, 23.0, 23.0,
5	<u>/</u> ;		1 3	1 3	4		Brown, medium-fine SAND (Wet-Loose)	4Q Sand Z
0	7	7	3	2 5	5		grades similar w/trace silt & fine gravel Brown, medium-fine SAND & SILT w/	Slot size
35	<u> </u>	8	2 4	2 3	6		medium-fine SAND & SILT W/ medium-fine SAND seam @ 36.5'-36.7' (Wet-Loose) Boring Terminated @ 37.0'	Plug 2 (33.0')
							Note: Water level @ 28.0' inside 30' of casing. At completion of boring water level @ 24.2' inside 30' of casing	
. 🔨	. ;	lens s	to dr	ne _2 ne ngation	(.15	ing ,	with 140 to pin wt falling 30 per blow CLAS with b weight falling per blow Hollow Stem Auger Casing	Driller



HOLE No.: SB-1-05

PROJECT: Subsurface Investigation

C & D Technologies

LOCATION: NYS Route 209 Huguenot, New York PROJECT No.: DATE STARTED: DATE FINISHED: 404.10 2/28/05 2/28/05 SURFACE ELEV.: 457.3'

GW DEPTH: See Notes
REFERENCE PT.: Ground Surf.

NOTES BLOWS ON SAMPLER SOIL CLASSIFICATION DEPTH 6/12 12/18 18/24 N 0/6 Located in basin, north side. Topsoil becomes Brown SAND & GRAVEL, little silt (Frozen - Moist) 1.0 18 40 S-1 12 19 21 Water level @ 11.9' in augers upon Brown-Gray coarse SAND & GRAVEL, little reddish brown silt (gravel portion 49 1.2 S-2 33 16 24 23 completion of S-9. predominantly shale fragments, poorly-sorted) (Moist) 1.4 - similar 39 32 S-3 14 13 26 21 49 1.4 - similar 26 19 23 ±8' Brown-Gray fine SAND & SILT w/ embedded coarser sands, gravel & S-5 20 21 30 50/.3 51 0.7 shale fragments (Moist) Very hard augering 10'-11.5' (30 min. 0.1 - similar S-6 50/.3 for 18" advance - boulder?) Move 4' south, attempt #2 0.4 - similar 50/.5 S-7 Auger refusal @ 8' on cobble ±14' Move another 4' south, attempt #3 Brown GRAVEL & SAND, little silt (Saturated) 0.3 12 10 32 S-8 38 20 Advance samples 7-12 at attempt #3 - no recovery 12 6 26 NR 8 14 S-9 No visual or olfactory indications 0.1 S-10 50/.3 of contamination were noted. Brown GRAVEL & SAND (Saturated) 40 63 0.6 33 30 44 Abandoned with cement-bentonite grout mixture Brown fine-coarse GRAVEL (Saturated) 0.5 18 50/.4 14 (GLACIAL OUTWASH) End of Boring @ 23.4' 25 35• Split Spoon Sample Shelby Tube Sample Auger or Test Pit Sample Rock Core



HOLE No.: SB-2-05

PROJECT: Subsurface Investigation C & D Technologies

LOCATION:

NYS Route 209 Huguenot, New York PROJECT No.: 404.10 DATE STARTED:

DATE FINISHED:

2/25/05 2/28/05 SURFACE ELEV .: 456.0' GW DEPTH: See Notes REFERENCE PT.: Ground Surf.

_	DEP (fi	тн	SMPL. No.	0/6	BLOWS		MPLEF		REC.	SOIL CLASSIFICATION	NOTES
			55 Ž S-1	6	11	14	23	25	0.2		Located in basin, northwest side.
3.	_		S-2	26	8	10	14	18	0.8	Brown GRAVEL & fine-coarse SAND, little silt (poorly-sorted, Moist)	Water level @ 11.9' in augers upon
	_	Z	S-3	10	19	15	21	34	1.2	- similar	completion of sampling.
<u>-</u> ياني	5 - -	\angle		24	29	21	16	50	1.2	- similar	No auger cuttings returned.
	-	\angle	S-4								No visual or olfactory indications of contamination were noted.
	- 10 -		S-5	17	22	24	32	46	0.9	- similar]
	-		S-6	10	14	16	38	30	0.3	Brown-Gray coarse GRAVEL, some fine-coarse Sand (poorly-sorted, Moist)	Abandoned with cement-bentonite grout mixture
	_		S-7	50/.4					NR	- no recovery	
	- 15 - -		S-8	24	31	34	21	65	1.1	- similar (Wet)	-
	_		S-9	14	18	16	24	34	0.3	- similar	7
	_		S-10	15	30	37	49	67	0.9	Brown-Gray GRAVEL & fine-coarse SAND (Wet)	- -
	20 -		S-11	39	50/.4				NR	- no recovery (GLACIAL OUTWASH)	
14.38										End of Boring @ 20.9'	_
	_										4
47 27	25 —										7
	_										
	=										
	30 - -										
											4
•	35 -										7
	-	-									·
	40		\dashv								
i i	4	Ì	_								Split Spoon Sample
		ŀ									Shelby Tube
100	45										Auger or Test Pit Sample
	+	}									Rock Core
	$\left[$	F	\dashv		-						



HOLE No.: SB-3-05

PROJECT:

Subsurface Investigation C & D Technologies

LOCATION:

NYS Route 209 Huguenot, New York PROJECT No.: DATE STARTED:

DATE FINISHED:

404.10 2/25/05 2/25/05

SURFACE ELEV.: 458.3'

GW DEPTH: See Notes

REFERENCE PT.: Ground Surf.

_				_			_				
	DEP	тн	نہ	ı	SLOWS	ON SA	MPLER		ن	SOIL CLASSIFICATION	NOTES
i.	(ft		SMPt. No.	0/6	6/12	12/18	18/24	N	(3) REC		
v		/	S-1	10	13	12	16	25_	0.7	Light Brown fine SAND & SILT (Frozen)	Located in basin, west side.
_		VΙ									+
	_	7	S-2	16	29	31	32	60	1.5	Reddish-Brown coarse angular GRAVEL & SAND, little silt	Water level @ 13.5' in augers upon
	_	I								trace organics (Moist)	completion of sampling.
	_		S-3	11	23	23	41	46	1.6	- similar	-
w	5	1/1									4
		۲,	-	42	60	63	33	123	1.5	Reddish-Brown GRAVEL & SAND, little silt (poorly-sorted, Moist)	
	-	1/1	S-4	42	au	- 03	- 33	123		Todalon Significant Control of the C	<u> </u>
	_									- similar (Very Moist)	
-	٠ _	Н	S-5	21	50/.4				0.9	- Similar (Very Moist)	
	10 —							<u> </u>	┝━┥	(orbble from mont?)	Driller notes occasional cobbles.
-		М	S-6	40	50/.1				0.1	-recovered a single piece of coarse gravel (cobble fragment?)	7
_	_	Ц							\vdash		Minimal auger cuttings returned.
in a	_	$ \mathcal{L} $	S-7	40	36	50/.3			1.0	Brown coarse GRAVEL, some sand (Moist)	Militar auger collings rollarises.
									Ш		No visual or olfactory indications
	45		S-8	50/.2					0.2	Brown-Gray GRAVEL & fine-coarse SAND, little silt	7
	15	1									of contamination noted.
	_	\square	S-9	30	50/.1				0.2	- becomes wet	-
	-	1						-	\Box		Abandoned with cement-bentonite
	_		S-10	71	50/.4				0.2	- similar	grout mixture
	_	ſ	۳	•••							-
	20 -	1	C 44	23	19	15	25	34	1.0	Brown-Gray GRAVEL & SAND, trace silt (poorly-sorted, Wet)	
	_	1/	S-11	23	19	10	23	<u>-</u>	''-	5.0m. c.a., c.a.	_
	_	/ /						-	10	- similar	_
		1/	S-12	17	26	27	29	53	1.0	(GLACIAL OUTWASH)	
	_	Υ.							├─┤	End of Boring @ 24.0'	
	25 -		\vdash					 	Н	EIN OF BOARS & 24.0	
	_	1	\vdash						\vdash		
	_]						<u> </u>	\vdash		
	_							<u> </u>	\vdash		. 7
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_	_		\sqcup				<u> </u>	 	\vdash		Sample
	45 								\vdash		Auger or Test Pit Sample
i.								<u> </u>			Pit Sample
								<u> </u>	$oxed{oxed}$		Rock Care
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HOLE No.: SB-4-05

PROJECT:

Subsurface Investigation C & D Technologies

LOCATION:

NYS Route 209 Huguenot, New York PROJECT No.: DATE STARTED: DATE FINISHED:

404.10 2/22/05

2/22/05

SURFACE ELEV.: 472.5'

	DEP1	н[SMPL.			ON SA	MPLER		SOIL CLASSIFICATION NOTES		NOTES	
-	(,			0/8 50/.4	0/12	12/10	10/24		0.4	Asphalt pavement over	Located on basin rim, north side.	
_	f									Brown SAND & GRAVEL (Moist)		4
2 14		7	S-2	22	17	37	27	54	1.0	- similar, little silt	Water level @ 27.8' in augers upon	\dashv
87		4									completion of sampling.	\exists
_	5 -	Λ	S-3	16	27	16	9	43	0.7	- similar (Fill?)	Hole grouted with bentonite-	4
, 1	-	4				_				David CAND & CRAVET (Moint)	cement mix. Encountered some	٦
	-	/}	S-4	8	7	5	4	12	1.1	Brown SAND & GRAVEL (Moist)	difficulty while doing so due to	
· •	+	' 	S-5	2	3	3	6	6	1.1	- similar	coarse nature of formation	
800		/ †	3-3		3	Ť	,	Ť				4
	10 -	7	S-6	2	4	4	4	8	1.0	- similar	Filled 1 drum w/ auger cuttings.	4
		/										\dashv
S.		Λ	S-7	4	6	5	7	11	0.6	- similar, trace organics (rootlets) (Moist)		-
	4	4				<u> </u>				David CAND & CRAVEL (Moint)	No visual or olfactory indications	7
	15-	/	S-8	4	9	11	18	20	0.9	Brown SAND & GRAVEL (Moist)	of contamination noted.]
421. W	+	/ 	S-9	14	16	15	15	31	1.4	- becomes coarser (Slightly Moist)		_
	٦	/	3-3	1-7	10	1,0		<u> </u>				- 4
. ues	7	7	S-10	14	21	24	28	45	0.4	- similar	d	\dashv
	20	\Box										\dashv
(S-11	18	20	17	12	37	1.0	Brown-Gray coarse GRAVEL & SAND, trace organics (rootlets), seam shale		4
	4	4							\vdash	fragments noted		7
	\dashv	/	S-12	13	22	7	18	29	0.7	- similar, shale fragments wetted with Red-Brown saturated silt		
	-	/ 	S-13	13	21	16	9	37	0.4	- coarse GRAVEL (Moist)		
	25	/ F	3-13	13	41	10	Ĵ	3,	Ü.,			4
-	Ť	7	S-14	12	12	12	23	24	0.3	- similar, little fine-coarse sand		4
	٦	/										-
	\Box	1	S-15	13	13	12	8	25	0.4	- coarse GRAVEL (becomes Wet)		-
	30-	4							\sqcup			7
_	\mathcal{H}	/ F	S-16	9	15	13	17	28	0.3	- coarse GRAVEL (Wet)		7
	<i>)</i> -¥	/		_		49		25	0.4	- similar		
		/ F	S-17	9	13	12	21	20	0.4	- 511 Hilds		- 4
-	ا ہ	7	S-18	21	23	22	16	45	0.1	- coarse Shale fragments		4
1	35	<u>/</u> [\dashv
			S-19	23	28	31	26	59	1.0	- coarse GRAVEL (Wet)		1
	4	4	\dashv	_								1
	4	/ F	S-20	12	16	21	38	37	0.4	- similar (GLACIAL OUTWASH)		_]
	40 -	+			-					End of Boring @ 40.01		4
	4	ı									Split Spoon Sample	4
	╡	ļ										\dashv
											Shelby Tube	\dashv
v	45		_						Ш	· .	Auger or Test Pit Sample	┪
دين		-							$\vdash \vdash$		Pit Sample	7
	-	ŀ					-		\vdash		Rock Core]
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HOLE No.: SB-5-05

PROJECT: Subsurface Investigation LOCATION: NYS Route 209 PROJECT No.: DATE STARTED: DATE FINISHED:

404.10 2/24/05 2/24/05 SURFACE ELEV.: 458.2'

EP?	пн	SMPL. No.	_			MPLER		REC.	SOIL CLASSIFICATION	NOTES
(ft)]	\rightarrow		0/6	6/12		18/24			Topsoil over Brown-Gray GRAVEL & SAND, some Silt (Gravel portion	Located in basin, south side.
\dashv	/	S-1	3	2_	6	11	8	0.4	includes shale fragments; Very Moist)	Located in Lean, even side.
+	4					15	-		Glacial Outwash: Gray-Brown-Red coarse-fine GRAVEL, some Sand and Silt	Water level @ 13.2' in augers upon
\dashv	/	S-2	16	18	16	15	34	0.6	(Poorly sorted; Moist)	completion of sample S-9.
+	4		40	28	22	23	50	0.6	- similar (Moist w/ Wet seams)	
\dashv	/	S-3	18	20	22	23	30	0.0	- Shinda (Motor W 1700 Oct.)	
+	$\frac{1}{2}$	S-4	16	18	19	21	37	0.5	- similar (Gravel portion Wet)	
\dashv	/	3-4	10	10	19	-21	- 51	1	- onnia (olato) politica (olato)	
Ť	7	S-5	11	13	9	8	22	0.3	- similar	*
٦	/	33		10	Ť	<u> </u>		9.0		
7	7	S-6	19	21	27	5	48	0.2	- similar (Moist-Wet)	No cuttings returned.
٦	/	0-0								Large hole opened up at surface.
Ť		S-7	16	14	14	16	28	0.1	- similar (Wet)	Used 12 bags cement, 2 bags
1	/									bentonite, and 1 bag sand to fill.
7	1	S-8	24	8	10	43	18	0.2	- similar (Wet)	
┪	/									Abandoned with cement-bentonite
1	7	S-9	7_	16	18	21	34	0.3	- similar	grout mixture
									اً	
J	7	S-10	50/.2					0.1	- similar w/ thin seam Red-Brown clayey SILT noted	
]									End of Boring @ 18.5'	Spoon refusal @ 18.2
black										Auger Refusal @ 18.5'
╛										
╛	-							Ш	·.	
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	Γ									Shelby Tube Sample
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										Auger or Test Pit Sample
		\Box								Park Care
		\Box						\Box		Rock Core
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HOLE No.: SB-6-05

PROJECT:

Subsurface Investigation C & D Technologies

LOCATION:

NYS Route 209 Huguenot, New York PROJECT No.: DATE STARTED: DATE FINISHED:

404.10

2/21/05 2/22/05 SURFACE ELEV.: 473.0'

	DEP	тн	SMPL. No.				MPLER	\ 	REC.	SOIL CLASSIFICATION	NOTES
8.5 T	(ft)	_			6/12 25	12/18	18/24	N 43	교 트 1.4	Asphalt pavement over	Located on basin rim, southeast side.
	_		S-1	21	23	10		70		Light Brown fine SAND, trace silt (Slightly Moist)	-
	1	7	S-2	9	11	12	13	23	0.4	- similar	Water level @ 31.2' in augers @
											0715 morning of 2/22/05.
_	5		Ş-3	6	9	15	10	24	1.4	- similar, occasional seams fine-coarse SAND, trace coarse gravel	Lists aroused with hostonite
240	_	\angle							-	a contradict	Hole grouted with bentonite-
	4		S-4	12	15	18	16	33	1.2	- similar to S-3, seam very fine sand noted	Cement Mix.
•	_	\angle				-10	-10	20	1.0	- similar	.]
1 81:11	-		S-5	7	10	10	12	20	1.0	- Sitting	
	10 —		S-6	12	10	11	13	21	1.8	- becomes Light Brown very fine SAND (Slightly Moist)	Filled 2 drums w/ auger cuttings.
	-										
			S-7	13	16	16	19	32	1.7	- similar	-
		\angle							$\sqcup \downarrow$		No visual or olfactory indications
	15		S-8	11	13	14	18	27	2.0	- similar	of contamination noted.
ž M. V	_	4								-11	
	_		S-9	13	13	15	14	28	1.6	- similar	andoned with cement-bentonite
	_		S-10	9	18	17	17	35	1.2	- similar	grout mixture
- A	_		3-19	-	-10			- 50			
	20 —	7	S-11	12	15	17	16	32	2.0	- similar	· -
											-
			S-12	12	15	14	19	29	1.2	Light Brown very fine SAND, some Sitt (Moist)	┨
	_	Д								DOWN CONTRACTOR OF CONTRACTOR	7
	25 —		S-13	8	13	18	14	31	2.0	- becomes Brown SAND & GRAVEL @ 25.0' (Moist)	
		$^{\prime}$		_	9		16	23	1.8	Interbedded seams SAND / SAND & GRAVEL (Moist-Wet)	
	-		S-14	8	9	14	10	23	1.0	The bodded double of the bodded of the bodde	
	-		S-15	14	16	7	9	23	1.0	Brown fine-medium SAND, little coarse sand (Moist-Wet)	· -
	~ T	/		<u> </u>							-
	30 —		S-16	11	21	31	29	52	2.0	- becomes Brown GLACIAL OUTWASH: SAND & GRAVEL, some Silt (Wet)	-
		\angle									_
مست	_		S-17	17	19	22	29	41	2.0	- similar	
_	-	4		40	25	200	20	54	2.0	Brown SAND & GRAVEL, trace sift]
	35 —		S-18	16	25	26	29	31	2.0	DIOMI O. 110 & Olavices and	
	-	/	S-19	15	12	16	26	28	2.0	Gray-Brown fine-coarse SAND, some Gravel, trace silt	-
_	_										-
i, i, a			S-20	12	19	21	31	40	2.0	- similar, occasional silty fine sand seam noted	
	40 —									(GLACIAL OUTWASH)	
-	4						ļ			End of Boring @ 40.0'	Split Speen
	4								$\vdash\vdash$		Split Spoon — Sample
	4		$\vdash \vdash$				-		$\vdash \dashv$		Shelby Tube
	-								\vdash	•	Sample
	45 –								\vdash		Auger or Test Pit Sample
	\exists										
	_									Rock Core	
											_
			I						1 1		



HOLE No.: SB-7-05

PROJECT:

Subsurface Investigation C & D Technologies

LOCATION:

NYS Route 209 Huguenot, New York PROJECT No.: DATE STARTED:

DATE FINISHED:

404.10

2/23/05 2/23/05 SURFACE ELEV .: 458.5'

— DEPT			BLOWS ON SAME						T		
ų.	DEP (ft)	TΗ	SMPL. No.				MPLER 18/24	N	REC.	SOIL OR ROCK CLASSIFICATION	NOTES
	(II.		க் <u>ச</u> S-1	0/6 4	6/12	3	18/24	5	0.5	Topsoil: Dark Brown SAND & SILT (Frozen) becomes	Located in middle of basin.
	_		<u> </u>	·		Ť					-
 2		7	S-2	4	6	6	10	12	0.1	Brown SAND & GRAVEL, little silt (Moist)	Water level @ 13.7 in augers upon
											completion of sample S-8.
_	5 -		S-3	10	10	10	11	20	0.2	Brown coarse GRAVEL & SAND (Gravel portion includes shale fragments)	-
Ž.	Ĭ.	\angle								(Moist)	Hole grouted with bentonite- cement mix. Encountered some
		/	S-4	9	13	10	13	23	0.5	- similar, becomes Red-Brown (Wet)	difficulty while doing so due to
_	-	Υ,								to the althought Majort	coarse formation.
85	_		S-5	5	8	12	10	20	0.5	- similar, silty (Wet-Moist)]
	10 —		S-6	6	10	9	19	19	0.1	- similar, (Moist-Wet)	No cuttings returned.
	-		370	Ť	-,0	Ť	,,,		911		-
	_	7	S-7	5	14	9	6	23	0.1	- similar	
		\mathbb{Z}									
	15 -	1	S-8	10	11	14	18	25	NR	- no recovery (spoon Wet)	1
200 i	_	Υ.,					-		-	, maguan/]
	_		S-9	14	14	18	16	32	NR	- no recovery	
	-		S-10	50/.4					NR	- no recovery	-
		V		00///						(GLACIAL OUTWASH)	<u> </u>
	20 —	P	S-11	62					0.5	Brown-Gray angular fine-coarse SAND, little silt (Brown silt seam in shoe)	-
										End of Boring @ 20.5"	Possible mild chem odor and/or thin seam dark staining noted in
	_		L						-		sample S-11.
-	· _		-						-		
	25 —		-								
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			\vdash								-
•	40 -										
											Split Spoon Sample
									_		Shelby Tube
_	-								-		Sample
	45 -		\vdash						\vdash	Auger or Test Pit Sample	
	-								\vdash		
	-										Rock Core
ii ii											<u> </u>



HOLE No.: SB-8-05

PROJECT:

Subsurface Investigation C & D Technologies

LOCATION:

NYS Route 209 Huguenot, New York PROJECT No.: DATE STARTED:

DATE FINISHED:

404.10 2/24/05

2/24/05

SURFACE ELEV.: 459.8'

GW DEPTH: See Notes REFERENCE PT.: Ground Surf.

							SAMPLER . NOTES					
	DEP (ft)	TH)	SMPL. No.	0/8	BLOWS 6/12		18/24	N	REC.	SOIL CLASSIFICATION	NOTES	
	•	7	S-1	5	5	6	6	11		Topsoil (Frozen)	Located in basin, east side	
	_	/									<u>-</u>	-
liner Maria		7	S-2	5	3	3	4	6	0.3	- becomes Gravelly (Moist)	Water level @ 14.9' in augers upon	┨
		\angle									completion of sample S-12.	┨
	5 -		S-3	7	7	8	7	15	0.3	similar (silty SAND & GRAVEL w/ organics; Moist)		1
5.54 254	_	<u>/_</u>									Water level @ 17.02' below top of	\dagger
	_	/	S-4	15	17	16	18	33	NR	- no recovery	PVC upon completion of well;	1
	_	Κ,	_			<u> </u>		_		Light Brown medium SAND w/ occasional seams coarse sand (Slightly Moist)	17.12 OH 2/20/03.	1
	-	/	S-5	17	16_	12	14	28	1.1	Light Brown medium SAND w/ occasional seams coalse sand (Silging) worst,		1
	10 —	/ /	<u> </u>	9	21	20	23	41	1.6	Light Brown fine-medium SAND, little gravel (Moist)	No cuttings returned.]
	_		S-6	9	21	20	23		1.0	Light Stoff life install a state grade (many)	<u> </u>	
	-	7	S-7	12	14	12	19	26	NR	- no recovery	<u> </u>	1
	_										2" PVC monitoring well installed	-
	15 —	7	S-8	14	12	10	28	22	2.0	- similar to sample S-6 (Moist)	upon completion of boring:	1
	10 —										- bottom of auger hole @ 25.0'	┨
	_		S-9	9	11	14	24	25	1.0	Brown medium-coarse SAND, trace gravel (Wet)	- 10' 0.010" well screen to 14.5'	1
	_	<u>L</u>									- riser to surface	1
	_		S-10	12	18	26	31	44	1.4	- similar, becomes fine-medium SAND, trace gravel	- #00 sand to 12.0'	1
	20 —	Ι,						_	- 0	Brown coarse GRAVEL & SAND (poorly sorted; Wet)	- bentonite chips to 9.0°	1
	-		S-11	20	24	48	41	72	8.0	Blowli coalse Graver a Salah (booli) sories, wer)	- #00 sand to 8.5'	
	-		C 40	28	33	30	49	63	1.1	- similar	- #0 sand to 25.0'	
	-		S-12	20	33	30	43	- 03		- Girina	- grout to surface	-
		_	S-13	75/.1					0.1	- similar	- top of PVC elevation at 461.76'	-
	25 —	7									- locking guard pipe installed	-
			S-14	77	45	50/.2			0.9	(GLACIAL OUTWASH)	<u>-</u>	┨
	_									End of Boring @ 26.2	_	1
	-		\vdash								_	1
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J	ㅓ	1	\dashv						H		Sample	
	┪		\vdash								Shelby Tube Sample	
		1										-
ř	45									Auger or Test Pit Sample		
				\Box					Park Corn		Rock Core	
	_			_					Rock Core			
	4										. –	
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JΗ

1 of 1

APPENDIX B

WELL COMPLETION LOGS



1071 Troy-Schenectady Road Latham, NY 12110 (518) 783-1805 Well ___MW-14
Project _C&D Battery
Project No. ___01124
Client ___Delaware Engineering
Date Drilled ___7/23/01
Date Developed ____7/23/01

WELL CONSTRUCTION DETAILS	INSPECTION NOTES
M.P. EL. ——————————————————————————————————	Inspector John M. Nadeau Drilling Contractor ADT Type of Well Monitoring Static Water Level 31.71 Date 7/23/01 Measuring Point Top of PVC
Cement Grout 2" diameter PVC	Total Well Depth 40.0 feet Riser Pipe Material Schedule 40 PVC Diameter 2 inch Length 22.5 feet Joint Type Threaded
Bentonite Chips ————————————————————————————————————	Screen Material Schedule 40 PVC Diameter 2 inch Slot Size 10 Length 20 feet Stratigraphic Unit Screened Sand and Gravel
——————————————————————————————————————	Packing Sand Gravel #1 Natural Amount _5 bags Interval _18-40 feet
2" diameter No. 10 Slot PVC Screen #1 well Gravel	Seal Type Bentonite Chips Interval 16.0-18.0 feet Locking Case: Yes X No Diameter 4 inch
——————————————————————————————————————	Notes:

Œ	679 Plank Road Clifton Park, NY 12065 (518) 348-6995
ALPHA	;
CENCIENCE	:

Well		MW-	<u>15A</u>	· · · · · · · · · · · · · · · · · · ·	
Project		C&D	Batt	ery	
Project	No	0312	24		
Client _	Dela	ware	Engi	neerin	g
Date Dr	illed _	8/2	7/03		
Date De	evelor	ed	8/27/	03	

WELL CONSTRUCTION DETAILS

M.P. EL._ **DEPTH** Steel Protective Casing (ft) - 0.0 Cement --2.0 PVC Riser Bentonite : -3.0 --5.0 Grade "1" Sandpack PVC Screen

INSPECTION NOTES

INSPECTION NOTES
Inspector John M. Nadeau
Drilling Contractor Aquifer Drilling and Testing
Type of Well Monitoring
Static Water Level 7.08 Date 8/28/03
Measuring PointTop of PVC
Total Well Depth 15.0 feet below grade
Dia an Dia a
Riser Pipe Material Schedule 40 PVC Diameter 2-inch
Length 8 ft (including 3 ft Joint Type Threaded
stick-up)
Screen
Material Schedule 40 PVC Diameter 2-inch
Slot Size No. 10 Length 10 feet
Stratigraphic Unit Screened Sand and Gravel
Packing
Sand _Grade "1" Gravel Natural
Amount <u>3 bags</u> Interval <u>3.0 - 15.0 ft</u>
Soci
Seal Type Bentonite Chips Interval 2.0-3.0 ft
Type Bentome ompo merval
Locking Case: Yes X No
Diameter 4-inch
Notes:

Q	679 Plank Road Clifton Park, NY 12065 (518) 348-6995
ALPHA	
GEOSCIENCE	

Well	MW-16
Project _	C&D Battery
Project N	lo. <u>03124</u>
Client _	Delaware Engineering
Date Dril	led <u>8/27/03</u>
Date Dev	/eloped <u>8/27/03</u>

WELL CONSTRUCTION DETAILS

M.P. EL. -3.0 DEPTH Steel Protective Casing (ft) 0.0 Cement -_1.5 PVC Riser Bentonite ---5.0 Grade "1" Sandpack 7 PVC Screen

INSPECTION NOTES				
Inspector John M. Nadeau Drilling Contractor Aquifer Drilling and Testing Type of Well Monitoring Static Water Level 4.68 ft Date 8/28/03 Measuring Point Top of PVC Total Well Depth 15.0 feet below grade				
Riser Pipe Material Schedule 40 PVC Diameter 2-inch Length 8 ft (including 3 ft Joint Type Threaded stick-up) Screen				
Material Schedule 40 PVC Diameter 2-inch Slot Size No. 10 Length 10 feet Stratigraphic Unit Screened Sand and Gravel				
Packing Sand _Grade "1" Gravel Natural Amount 3 bags Interval _2.5 - 15.0 ft				
Seal Type Bentonite Chips Interval 1.5-2.5 ft				
Locking Case: Yes X No Diameter 4-inch				
Notes:				

C	679 P Cliftor (518)
ALPHA GEOSCIENCE	

lank Road n Park, NY 12065 348-6995

Well _	MW-17
Project	C&D Battery
Project No.	03124
Client De	laware Engineering
Date Drille	8/27/03
Date Devel	oped <u>8/27/03</u>

WELL CONSTRUCTION DETAILS

M.P. EL. **DEPTH** Steel Protective Casing -3.0 (ft) - 0.0 Cement -PVC Riser **-3**.0 Bentonite -**-**7.0 -- 10.0 Grade "1" Sandpack 7 PVC Screen -- 20.0

INSPECTION NOTES
Inspector John M. Nadeau Drilling Contractor Aquifer Drilling and Testing Type of Well Monitoring Static Water Level 14.92 Date 8/28/03 Measuring Point Top of PVC Total Well Depth 20.0 feet below grade
Riser Pipe Material Schedule 40 PVC Diameter 2-inch Length 13 ft (including Joint Type Threaded 3 ft stick up) Screen
Material Schedule 40 PVC Diameter 2-inch Slot Size No. 10 Length 10 feet Stratigraphic Unit Screened Sand and Gravel
Packing Sand Grade "1" Gravel Natural Amount 3 bags Interval 7.0 - 20.0 ft
Seal Type Bentonite Chips Interval 3-7 ft
Locking Case: Yes X No Diameter 4-inch
Notes:

O	679 Plank Road Clifton Park, NY 12065 (518) 348-6995
ALPHA	

Well	MW	/-17A	
Project _	C&I	D Battery	
Project N	lo. <u>031</u>	24	
Client	Delaware	e Engineering	<u></u>
Date Drill	led <u>8/</u>	28/03	
Date Dev	veloped	8/28/03	

WELL CONSTRUCTION DETAILS

M.P. EL. **DEPTH** Steel Protective Casing (ft) 0.0 Cement -> PVC Riser _1.5 Bentonite -2.5 - 5.0 Grade "1" Sandpack **PVC Screen**

INSPECTION NOTES

INSPECTION NOTES				
Inspector John M. Nadeau Drilling Contractor Aquifer Drilling and Testing Type of Well Monitoring Static Water Level 8.08 ft Date 8/28/03 Measuring Point Top of PVC Total Well Depth 15.0 feet below grade				
Riser Pipe Material Schedule 40 PVC Diameter 2-inch Length 8.0 feet Joint Type Threaded				
Screen Material Schedule 40 PVC Diameter 2-inch Slot Size No. 10 Length 10 feet Stratigraphic Unit Screened Sand and Gravel				
Packing Sand _Grade "1" Gravel Natural Amount _3 bags Interval _2.5-15.0 ft				
Seal Type Bentonite Chips Interval 1.5-2.5 ft Locking Case: Yes X No				
Notes:				

H2H ASSOCIATES, LLC

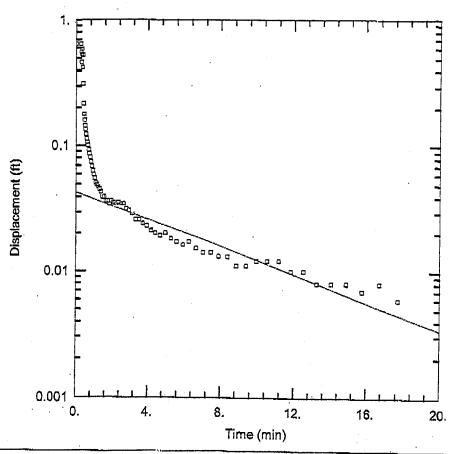
WELL CONSTRUCTION FORM

MW - 18 Well No.: SB-8-05

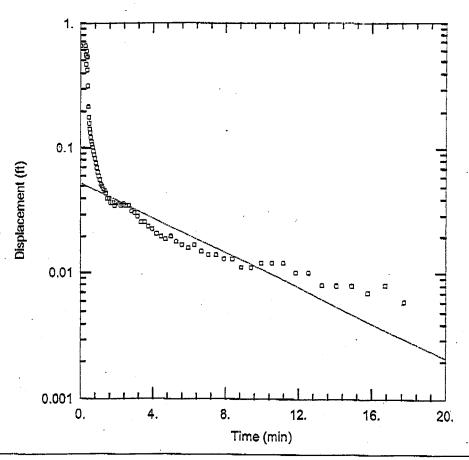
7 Hemphill Place, Suite 138 Malta, NY 12020 Tel. (518) 899-3484 Fax (518) 899-3487			FORM		Well 140.	3D-0-03		
PROJECT: C	PD Technologies	Inc - I a	goon Area			PI	ROJECT NO.:	404.10
PROJECT: C&D Technologies, Inc Lagoon Area				D.	ATE DRILLED:	2/24/05		
CLIENT: Delaware Engineering, P.C. LOCATION: Huguenot, Orange County, New York			,	D.	ATE DEVELOP	ED:		
	ONTRACTOR: 1				PURPOSE: Environm	nental Monto	oring Well Install:	ation
			u, mc.		1			
INSPECTOR:	John S. Hutchis	on			<u></u>		T) (. *1*	
Type of Well:		Е	nvironmental		Well In	estallation	on Detail	
Static Water I	Level:	17.12	Date: _	2/24/05		/		
Measuring Po	oint (M.P.):		Top of PVC		M.P. EL. 461.	76 _	_	
Total Depth of	f Well:	2	4.5' below grade				1 1	
Total Depth of		2	26.2' below grade	<u> </u>	GR. EL. 459.8	- X	17	0.0
	-				CEMENT CONCRETE	××	X	
Drilling Metl	hod				CEMENT CONCRETE &	X	X Y X	
Type:	Hollow Ste	m Auger	Diameter:	41/4" I.D.]	XXX	1,× 5× 3/1	2 ~!
Casing:		Ste	· -		1	777	777	3.0
Cuom.g.						// \	Y//\	
Sampling Me	ethod				CEMENT/ BENTONITE	$\angle/ $	Y//J	
Туре:	Split S	noon	Diameter:	3" O.D.	GROUT	$//\Lambda$	V//	
Weight:	140 pc		Fall:	30-inch] /	///	$1//\Lambda$	
Interval		Continuous				//)	1//1	
Hile vai		Johnmadas			PVC RISER		- [//]	
Riser Pipe Lo	eft in Place						1///	,
Material:	Schedule	40 PVC	Diameter: _	2" I.D.	FINE SAND CHOKE			<u>-85</u> 9.0'
Length:	16.4	6'	Joint Type: _	Flush, threaded		0838	353334 B	7,0
					BENTONITE	\$227		
Screen					PELLETS C	0500	0000	—12.5 [,] 12.
Material:	Schedule	40 PVC	Diameter: _	2" I.D.	FINE SAND CHOKE			— Id.5
Slot Size:	10-s	lot	Length:	10 feet(14.5 - 24.5 BGS)	· •		≘ੀ∷ੈ∴ੈ	14.5
Stratigraphic 1	Unit Screened:		Glacial Ou	twash].			
					10-SLOT SCREEN	: ~		
Filter Pack						· ; • •		
Sand:	x	Grave	el:	Natural:	 			
Grade:	Unimir	n #0 / Unim	in #00			·.·.		
Amount:			Interval:	12.5 - 25.0' BGS (#0)	SAND PACK	<u></u>		
		1	12.0 - 12.5' BGS	/ 8.5 - 9.0' BGS (#00)	OUID LYOK	· . : . =		a
Seal(s)								a4.5
Туре:	Cement C	Concrete	Interval: _	0 - 3' BGS	 		4.7.	
Type:	Cement-B	entonite	Interval:	3 - 8.5' BGS		***	1 1 1 1 1 1	a5.oʻ
Type:	Bento	nie	Interval: _	9 - 12' BGS	-			<i></i>
Locking Casi	ing:	X Yes	□ No			NOT TO	SCALE	
Notes:								

APPENDIX C

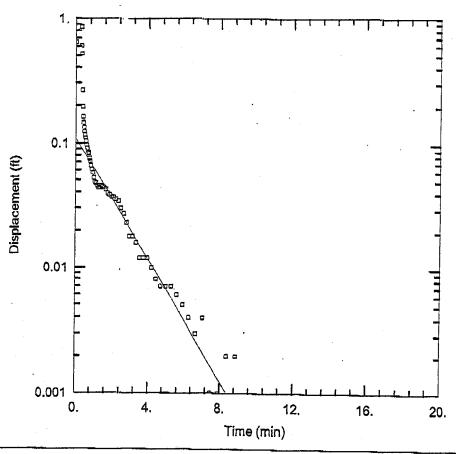
HYDRAULIC CONDUCTIVITY TEST REPORTS



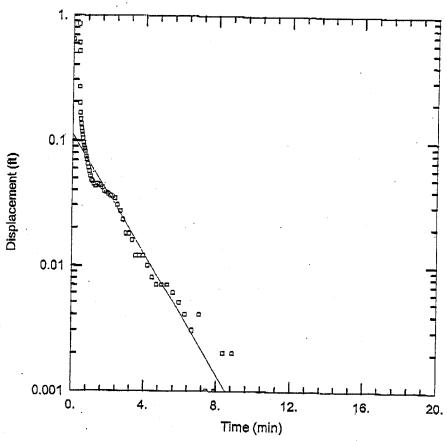
WELL MW-14 K-TEST #1 Data Set: \\Server\Main Station\projects\2001\01121-01140\01124-Delaware C&D\K-Test\K-Test #1.aqt Date: 07/24/01 Time: 11:54:48 PROJECT INFORMATION Company: Alpha Geoscience Client: Delaware Engineering Project: 01124 Test Location: Huegenot, NY Test Well: MW-14 Test Date: 7/23/01 AQUIFER DATA Saturated Thickness: 150. ft Anisotropy Ratio (Kz/Kr): 1. WELL DATA (MW-14) Initial Displacement: 0.647 ft Casing Radius: 0.083 ft Wellbore Radius: 0.354 ft Well Skin Radius: 0.354 ft Screen Length: 20.ft Total Well Penetration Depth: 10.79 ft Gravel Pack Porosity: 0.35 SOLUTION Aquifer Model: Unconfined Solution Method: Bouwer-Rice K = 0.0001794 cm/sec y0 = 0.04335 ft



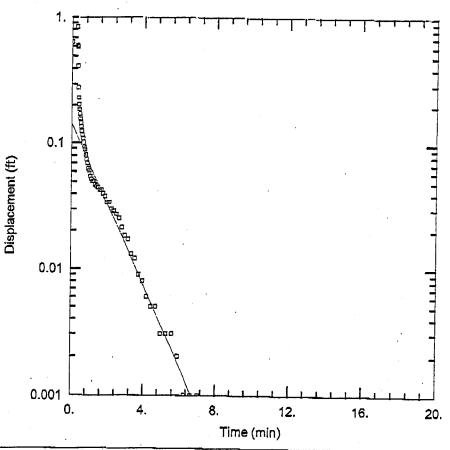
WELL MW-14 K-TEST #1 Data Set: \(\Server\Main Station\projects\2001\01121-01140\01124-Delaware C&D\K-Test\K-Test #1.agt Date: 07/24/01 Time: 11:53:39 PROJECT INFORMATION Company: Alpha Geoscience Client: Delaware Engineering Project: 01124 Test Location: Huegenot, NY Test Well: MW-14 Test Date: 7/23/01 AQUIFER DATA Saturated Thickness: 150. ft Anisotropy Ratio (Kz/Kr): 1. WELL DATA (MW-14) Initial Displacement: 0.647 ft Casing Radius: 0.083 ft Wellbore Radius: 0.354 ft Well Skin Radius: 0.354 ft Screen Length: 20. ft Total Well Penetration Depth: 10.79 ft Gravel Pack Porosity: 0.35 SOLUTION Aquifer Model: Unconfined Solution Method: Hvorslev K = 0.0003988 cm/secy0 = 0.05306 ft

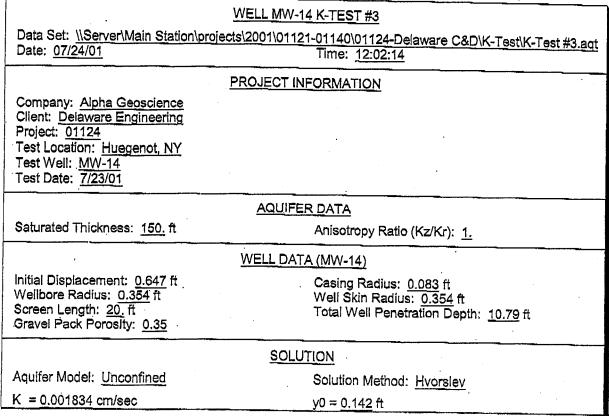


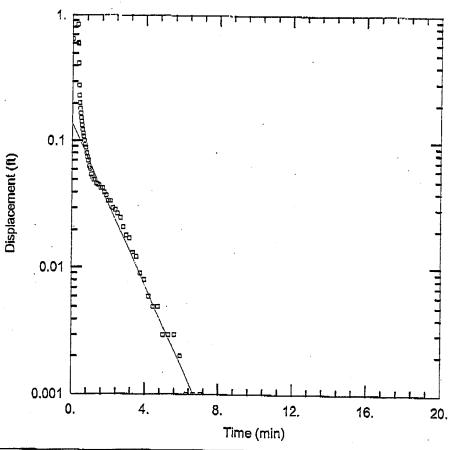
WELL MW-14 K-TEST #2 Data Set: \...\K-Test #2 br.aqt Date: 07/24/01 Time: 12:01:24 PROJECT INFORMATION Company: Alpha Geoscience Client: Delaware Engineering Project: 01124 Test Location: Huegenot, NY Test Well: MW-14 Test Date: 7/23/01 AQUIFER DATA Saturated Thickness: 150. ft Anisotropy Ratio (Kz/Kr): 1. WELL DATA (MW-14) Initial Displacement: 0.647 ft Casing Radius: 0.083 ft Wellbore Radius: 0.354 ft Well Skin Radius: 0.354 ft Screen Length: 20. ft Total Well Penetration Depth: 10.79 ft Gravel Pack Porosity: 0.35 SOLUTION Aquifer Model: Unconfined Solution Method: Bouwer-Rice K = 0.0007883 cm/sec y0 = 0.1083 ft



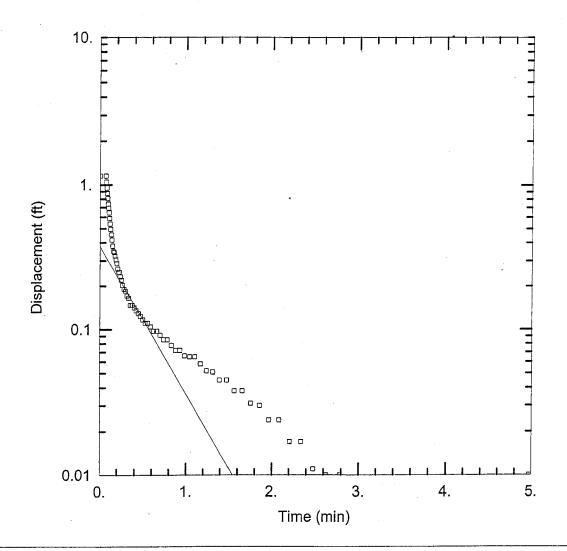
	WELL MW-14 K-TEST #2			
Data Set: \\Server\Main Station\projection \\Date: \overline{07/24/01}	ects\2001\01121-01140\01124-Delaware C&D\K-Test\K-Test #2.aqt Time: 12:01:49			
	PROJECT INFORMATION			
Company: Alpha Geoscience Client: Delaware Engineering Project: 01124 Test Location: Huegenot, NY Test Well: MW-14 Test Date: 7/23/01				
	AQUIFER DATA			
Saturated Thickness: 150. ft	Anisotropy Ratio (Kz/Kr): 1.			
	WELL DATA (MW-14)			
Initial Displacement: 0.647 ft Wellbore Radius: 0.354 ft Screen Length: 20. ft Gravel Pack Porosity: 0.35	Casing Radius: 0.083 ft Well Skin Radius: 0.354 ft Total Well Penetration Depth: 10.79 ft			
SOLUTION				
Aquifer Model: <u>Unconfined</u>	Solution Method: Hvorslev			
K = 0.001369 cm/sec	y0 = 0.1116 ft			







	WELL MW-14 K-TEST #3				
Data Set: \\K-Test #3 br.aqt Date: 07/24/01	Time: 12:02:49				
	PROJECT INFORMATION				
Company: Alpha Geoscience Client: Delaware Engineering Project: 01124 Test Location: Huegenot, NY Test Well: MW-14 Test Date: 7/23/01					
AQUIFER DATA					
Saturated Thickness: 150, ft	Anisotropy Ratio (Kz/Kr): 1.				
WELL DATA (MW-14)					
Initial Displacement: 0.647 ft Wellbore Radius: 0.354 ft Screen Length: 20. ft Gravel Pack Porosity: 0.35	Casing Radius: 0.083 ft Well Skin Radius: 0.354 ft Total Well Penetration Depth: 10.79 ft				
SOLUTION					
Aquifer Model: <u>Unconfined</u>	Solution Method: Bouwer-Rice				
K = 0.001045 cm/sec	y0 = <u>0.1378</u> ft				



C&D BATTERY MW-15A TEST #1 (BOUWER-RICE)

Data Set: D:\...\MW-15A Test #1 Rice.aqt

Date: 09/18/03 Time: 09:22:30

PROJECT INFORMATION

Company: Alpha Geoscience Client: Delaware Engineering

Project: 03124

Test Location: Huguenot, New York

Test Well: MW-15A Test Date: 8/28/03

AQUIFER DATA

Saturated Thickness: 100. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-15A)

Initial Displacement: 1.149 ft Wellbore Radius: 0.344 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.35

Casing Radius: 0.083 ft Well Skin Radius: 0.344 ft

Total Well Penetration Depth: 10.78 ft

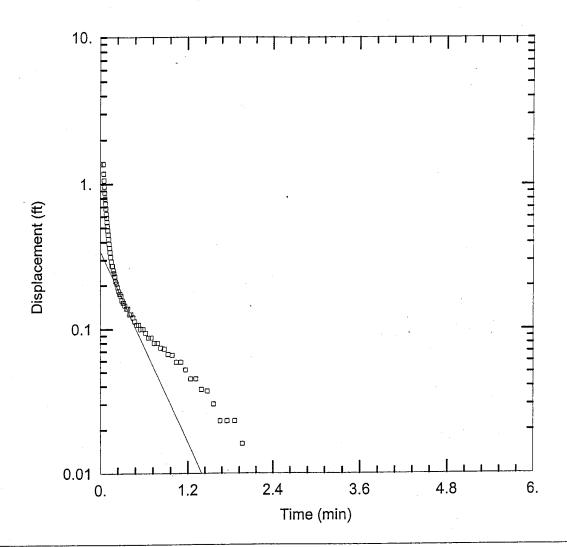
SOLUTION

Aquifer Model: Unconfined

K = 0.0008619 cm/sec

Solution Method: Bouwer-Rice

y0 = 0.3776 ft



C&D BATTERY MW-15A TEST #2 (BOUWER-RICE)

Data Set: D:\...\MW-15A Test #2 Rice.aqt

Date: 09/18/03 Time: 09:29:45

PROJECT INFORMATION

Company: <u>Alpha Geoscience</u> Client: <u>Delaware Engineering</u>

Project: 03124

Test Location: Huguenot, New York

Test Well: MW-15A Test Date: 8/28/03

AQUIFER DATA

Saturated Thickness: 100. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-15A)

Initial Displacement: 1.365 ft Wellbore Radius: 0.344 ft Screen Length: 10. ft

Gravel Pack Porosity: 0.35

Casing Radius: 0.083 ft Well Skin Radius: 0.344 ft

Total Well Penetration Depth: 10.78 ft

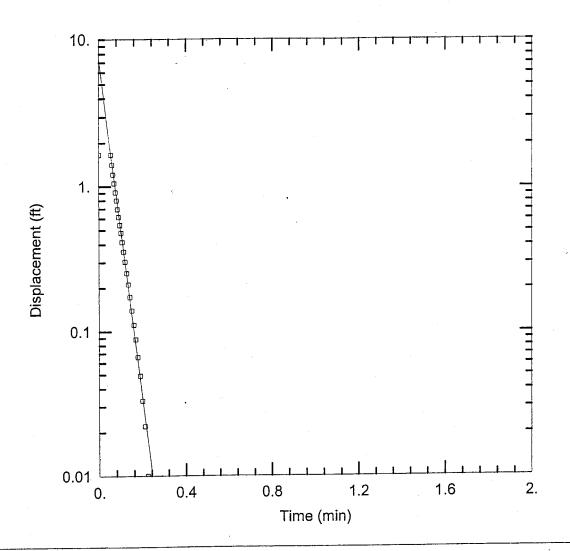
SOLUTION

Aquifer Model: Unconfined

K = 0.0009299 cm/sec

Solution Method: Bouwer-Rice

y0 = 0.3443 ft



C&D BATTERY MW-16 TEST #1 (BOUWER-RICE)

Data Set: D:\...\MW-16 Test #1 Rice.aqt

Date: <u>09/18/03</u> Time: <u>09:21:05</u>

PROJECT INFORMATION

Company: Alpha Geoscience Client: Delaware Engineering

Project: 03124

Test Location: Huguenot, New York

Test Well: MW-16
Test Date: 8/27/03

AQUIFER DATA

Saturated Thickness: 100. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-16)

Initial Displacement: 1.656 ft Wellbore Radius: 0.344 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.35

Casing Radius: 0.083 ft Well Skin Radius: 0.344 ft

Total Well Penetration Depth: 13.37 ft

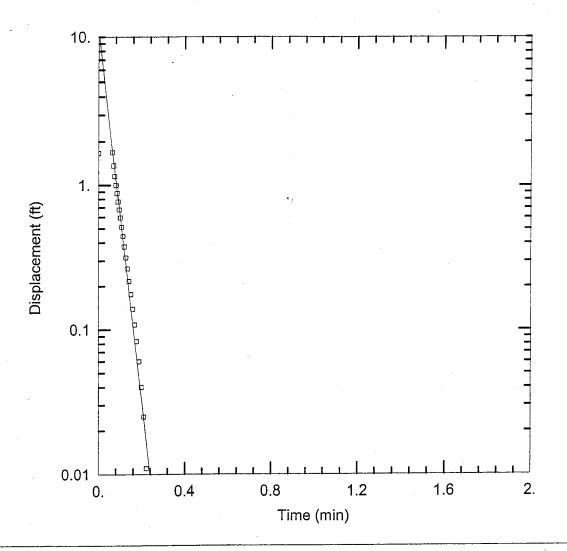
SOLUTION

Aquifer Model: Unconfined

K = 0.01034 cm/sec

Solution Method: Bouwer-Rice

y0 = 7.416 ft



C&D BATTERY MW-16 TEST #2 (BOUWER-RICE)

Data Set: D:\...\MW-16 Test #2 Rice.aqt

Date: 09/18/03 Time: 09:20:26

PROJECT INFORMATION

Company: Alpha Geoscience Client: Delaware Engineering

Project: 03124

Test Location: Huguenot, New York

Test Well: MW-16
Test Date: 8/27/03

AQUIFER DATA

Saturated Thickness: 100. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-16)

Initial Displacement: 1.656 ft Wellbore Radius: 0.344 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.35

Casing Radius: 0.083 ft Well Skin Radius: 0.344 ft

Total Well Penetration Depth: 13.37 ft

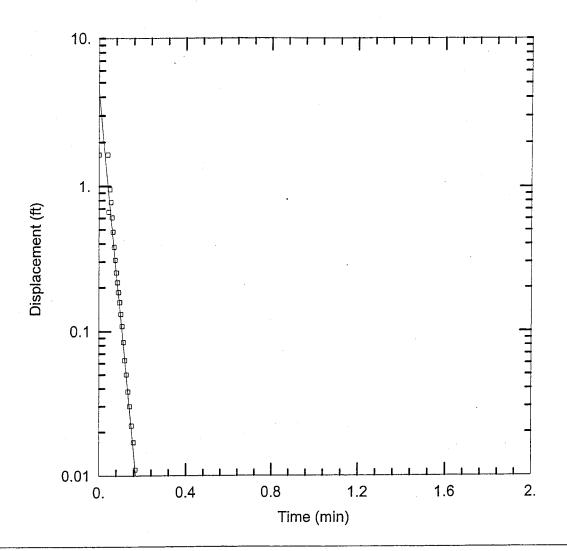
SOLUTION

Aquifer Model: Unconfined

K = 0.01121 cm/sec

Solution Method: Bouwer-Rice

y0 = 11.36 ft



C&D BATTERY MW-17 TEST #1 (BOUWER-RICE)

Data Set: D:\...\MW-17 Test #1 Rice.aqt

Date: 09/18/03 Time: 09:33:08

PROJECT INFORMATION

Company: Alpha Geoscience Client: Delaware Engineering

Project: 03124

Test Location: Huguenot, New York

Test Well: MW-17
Test Date: 8/28/03

AQUIFER DATA

Saturated Thickness: 100. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-17)

Initial Displacement: 1.642 ft Wellbore Radius: 0.344 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.35

Casing Radius: 0.083 ft Well Skin Radius: 0.344 ft

Total Well Penetration Depth: 7.26 ft

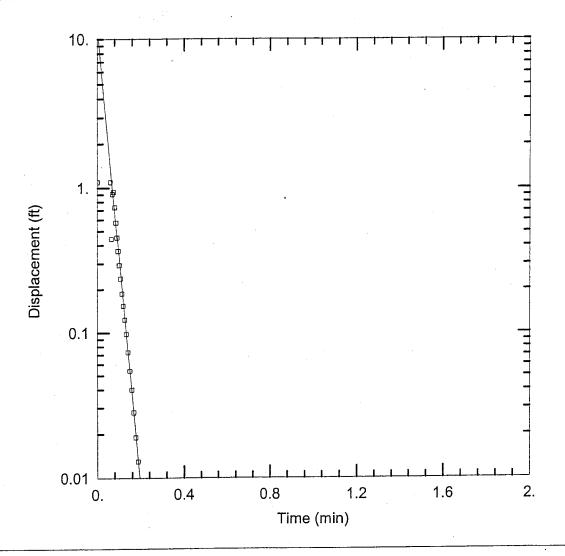
SOLUTION

Aquifer Model: Unconfined

K = 0.08094 cm/sec

Solution Method: Bouwer-Rice

y0 = 4.42 ft



C&D BATTERY MW-17 TEST #2 (BOUWER-RICE)

Data Set: D:\...\MW-17 Test #2 Rice.aqt

Date: 09/18/03

Time: 09:34:09

PROJECT INFORMATION

Company: Alpha Geoscience Client: Delaware Engineering

Project: 03124

Test Location: Huguenot, New York

Test Well: MW-17 Test Date: 8/28/03

AQUIFER DATA

Saturated Thickness: 100. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-17)

Initial Displacement: 1.096 ft Wellbore Radius: 0.344 ft

Screen Length: 10. ft Gravel Pack Porosity: 0.35 Casing Radius: 0.083 ft

Well Skin Radius: 0.344 ft

Total Well Penetration Depth: 7.26 ft

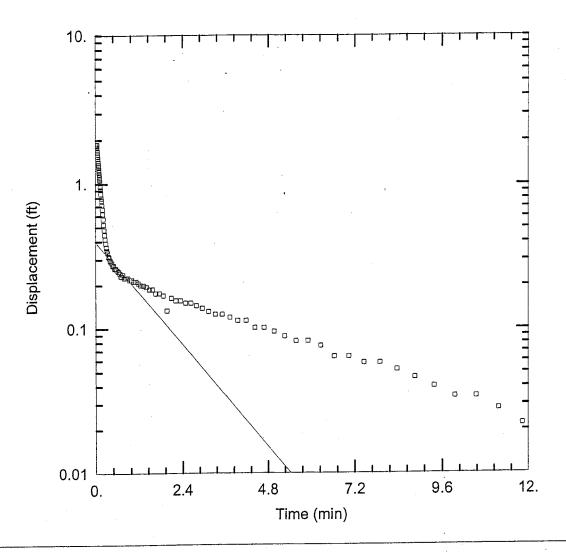
SOLUTION

Aquifer Model: Unconfined

K = 0.08155 cm/sec

Solution Method: Bouwer-Rice

y0 = 12.3 ft



C&D BATTERY MW-17A TEST #1 (BOUWER-RICE)

Data Set: D:\...\MW-17A Test #1 Rice.aqt

Date: 09/18/03 Time: 09:34:41

PROJECT INFORMATION

Company: Alpha Geoscience Client: Delaware Engineering

Project: 03124

Test Location: Huguenot, New York

Test Well: MW-17A
Test Date: 8/28/03

AQUIFER DATA

Saturated Thickness: 100. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-17A)

Initial Displacement: 1.861 ft Wellbore Radius: 0.344 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.35

Casing Radius: 0.083 ft Well Skin Radius: 0.344 ft

Total Well Penetration Depth: 9.82 ft

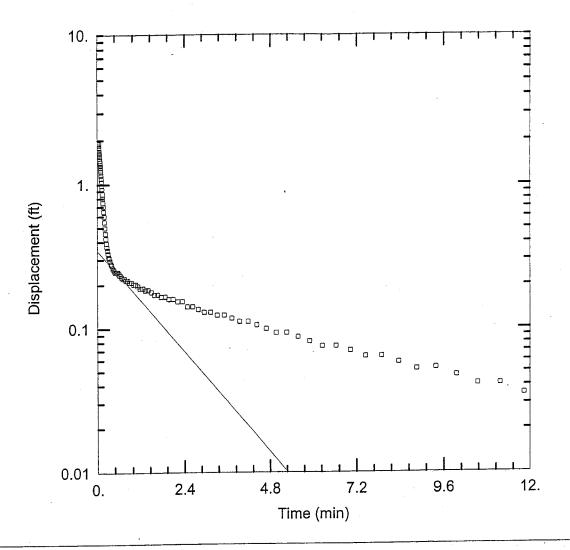
SOLUTION

Aguifer Model: Unconfined

K = 0.001621 cm/sec

Solution Method: Bouwer-Rice

y0 = 0.3959 ft



C&D BATTERY MW-17A TEST #2 (BOUWER-RICE)

Data Set: D:\...\MW-17A Test #2 Rice.aqt

Date: 09/18/03

Time: 10:27:52

PROJECT INFORMATION

Company: Alpha Geoscience Client: Delaware Engineering

Project: 03124

Test Location: Huguenot, New York

Test Well: MW-17A Test Date: 8/28/03

AQUIFER DATA

Saturated Thickness: 100. ft

Anisotropy Ratio (Kz/Kr): 1.

Casing Radius: 0.083 ft

WELL DATA (MW-17A)

Initial Displacement: 1.893 ft Wellbore Radius: 0.344 ft

Screen Length: 10. ft Gravel Pack Porosity: 0.35 Total Well Penetration Depth: 9.82 ft

Well Skin Radius: 0.344 ft

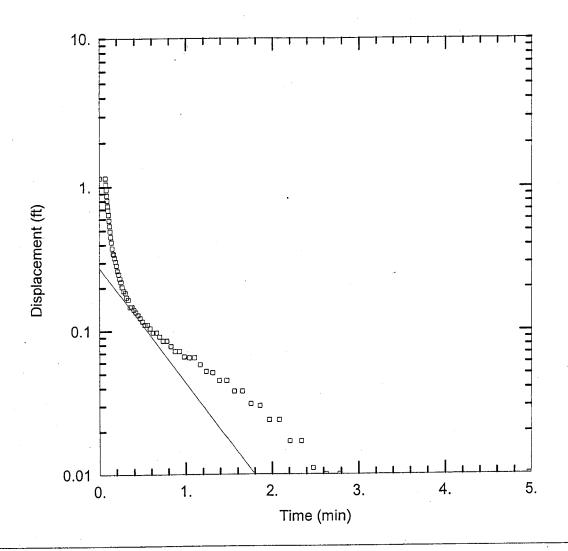
SOLUTION

Aquifer Model: Unconfined

K = 0.001606 cm/sec

Solution Method: Bouwer-Rice

y0 = 0.3469 ft



C&D BATTERY MW-15A TEST #1 (HVORSLEV)

Data Set: D:\...\MW-15A Test #1 Hv.aqt

Date: 09/18/03

PROJECT INFORMATION

Time: 10:59:40

Company: Alpha Geoscience Client: Delaware Engineering

Project: 03124

Test Location: Huguenot, New York

Test Well: MW-15A
Test Date: 8/28/03

AQUIFER DATA

Saturated Thickness: 100. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-15A)

Initial Displacement: 1.149 ft

Wellbore Radius: 0.344 ft Screen Length: 10. ft

Gravel Pack Porosity: 0.35

Casing Radius: 0.083 ft Well Skin Radius: 0.344 ft

Total Well Penetration Depth: 10.78 ft

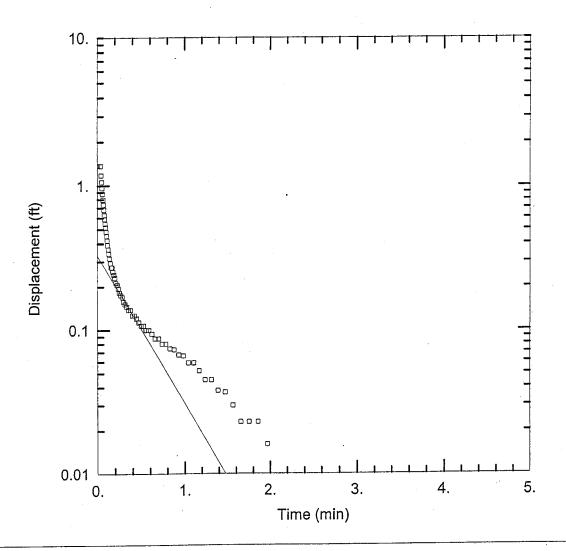
SOLUTION

Aquifer Model: Unconfined

K = 0.001089 cm/sec

Solution Method: Hvorslev

y0 = 0.2763 ft



C&D BATTERY MW-15A TEST #2 (HVORSLEV)

Data Set: D:\...\MW-15A Test #2 Hv.aqt

Date: <u>09/18/03</u> Time: <u>11:00:17</u>

PROJECT INFORMATION

Company: Alpha Geoscience Client: Delaware Engineering

Project: 03124

Test Location: Huguenot, New York

Test Well: MW-15A Test Date: 8/28/03

AQUIFER DATA

Saturated Thickness: 100. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-15A)

Initial Displacement: 1.365 ft Wellbore Radius: 0.344 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.35

Casing Radius: 0.083 ft Well Skin Radius: 0.344 ft

Total Well Penetration Depth: 10.78 ft

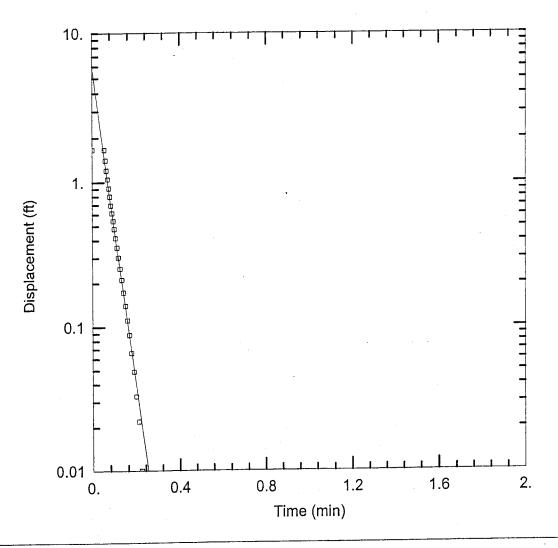
SOLUTION

Aquifer Model: Unconfined

K = 0.001396 cm/sec

Solution Method: Hvorslev

y0 = 0.3307 ft



C&D BATTERY MW-16 TEST #1 (HVORSLEV)

Data Set: D:\...\MW-16 Test #1 Hv.aqt

Date: 09/18/03

Time: 11:01:03

PROJECT INFORMATION

Company: Alpha Geoscience Client: Delaware Engineering

Project: 03124

Test Location: Huguenot, New York

Test Well: MW-16
Test Date: 8/27/03

AQUIFER DATA

Saturated Thickness: 100. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-16)

Initial Displacement: 1.656 ft Wellbore Radius: 0.344 ft

Wellbore Radius: 0.344 II

Screen Length: 10. ft
Gravel Pack Porosity: 0.35

Casing Radius: 0.083 ft Well Skin Radius: 0.344 ft

Total Well Penetration Depth: 13.37 ft

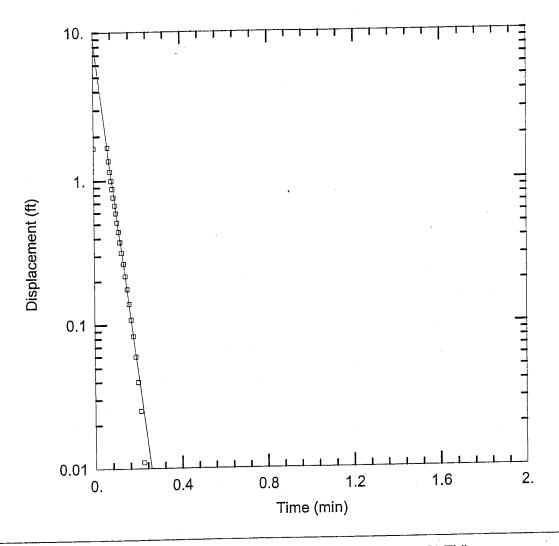
SOLUTION

Aquifer Model: Unconfined

K = 0.01493 cm/sec

Solution Method: Hvorslev

y0 = 5.935 ft



C&D BATTERY MW-16 TEST #2 (HVORSLEV)

Data Set: D:\...\MW-16 Test #2 Hv.aqt

Date: 09/18/03

Time: 11:01:27

PROJECT INFORMATION

Company: Alpha Geoscience Client: Delaware Engineering

Project: 03124

Test Location: Huguenot, New York

Test Well: MW-16
Test Date: 8/27/03

AQUIFER DATA

Saturated Thickness: 100. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-16)

Initial Displacement: 1.656 ft Wellbore Radius: 0.344 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.35

Casing Radius: 0.083 ft Well Skin Radius: 0.344 ft

Total Well Penetration Depth: 13.37 ft

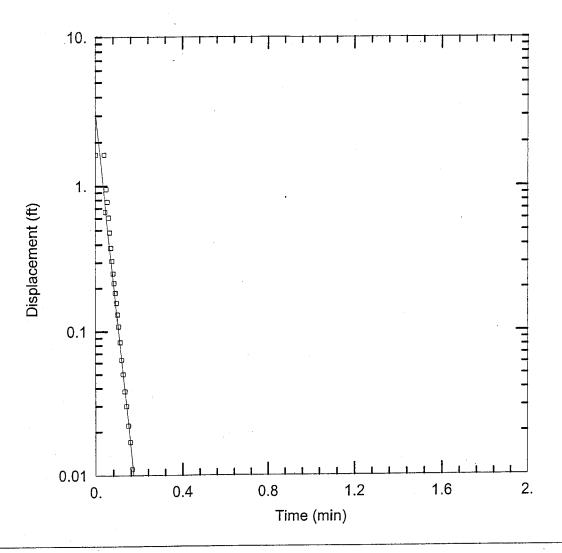
SOLUTION

Aquifer Model: Unconfined

K = 0.01558 cm/sec

Solution Method: Hvorslev

y0 = 8.871 ft



C&D BATTERY MW-17 TEST #1 (HVORSLEV)

Data Set: D:\...\MW-17 Test #1 Hv.aqt

Date: 09/18/03 Time: 11:01:52

PROJECT INFORMATION

Company: Alpha Geoscience Client: Delaware Engineering

Project: 03124

Test Location: Huguenot, New York

Test Well: MW-17
Test Date: 8/28/03

AQUIFER DATA

Saturated Thickness: 100. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-17)

Initial Displacement: 1.642 ft

Wellbore Radius: 0.344 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.35

Casing Radius: 0.083 ft

Well Skin Radius: 0.344 ft

Total Well Penetration Depth: 7.26 ft

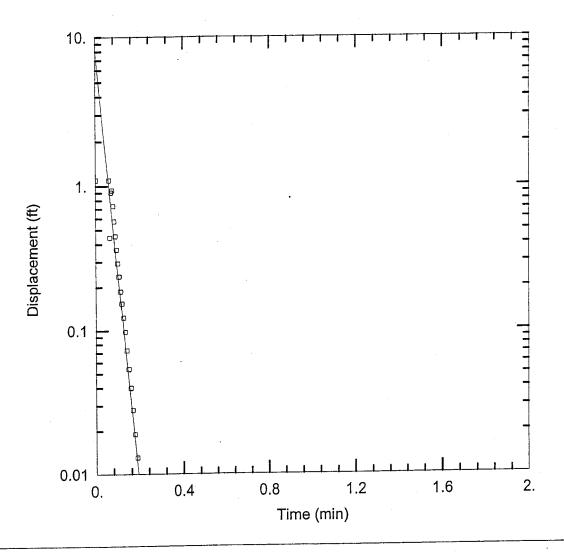
SOLUTION

Aguifer Model: Unconfined

K = 0.1308 cm/sec

Solution Method: Hvorslev

y0 = 3.26 ft



C&D BATTERY MW-17 TEST #2 (HVORSLEV)

Data Set: D:\...\MW-17 Test #2 Hv.aqt

Date: 09/18/03 Time: 11:09:39

PROJECT INFORMATION

Company: Alpha Geoscience Client: Delaware Engineering

Project: 03124

Test Location: Huguenot, New York

Test Well: MW-17
Test Date: 8/28/03

AQUIFER DATA

Saturated Thickness: 100. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-17)

Initial Displacement: 1.096 ft Wellbore Radius: 0.344 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.35

Casing Radius: 0.083 ft Well Skin Radius: 0.344 ft

Total Well Penetration Depth: 7.26 ft

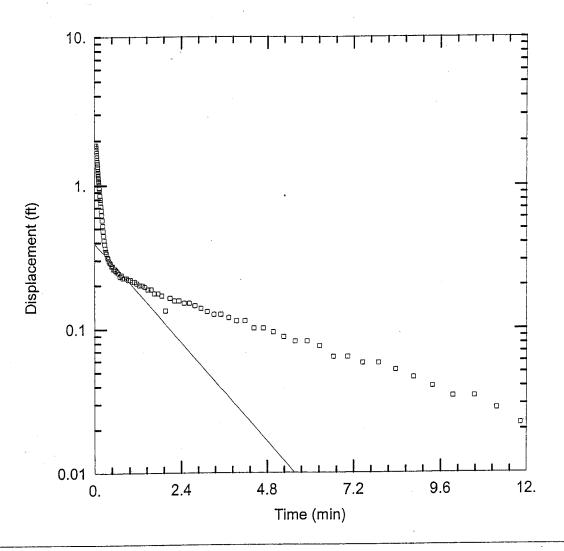
SOLUTION

Aguifer Model: Unconfined

K = 0.1366 cm/sec

Solution Method: Hvorslev

y0 = 8.084 ft



C&D BATTERY MW-17A TEST #1 (HVORSLEV)

Data Set: D:\...\MW-17A Test #1 Hv.aqt

Date: 09/18/03 Time: 11:02:26

PROJECT INFORMATION

Company: Alpha Geoscience Client: Delaware Engineering

Project: 03124

Test Location: Huguenot, New York

Test Well: MW-17A
Test Date: 8/28/03

AQUIFER DATA

Saturated Thickness: 100. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-17A)

Initial Displacement: 1.861 ft Wellbore Radius: 0.344 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.35

Casing Radius: 0.083 ft Well Skin-Radius: 0.344 ft

Total Well Penetration Depth: 9.82 ft

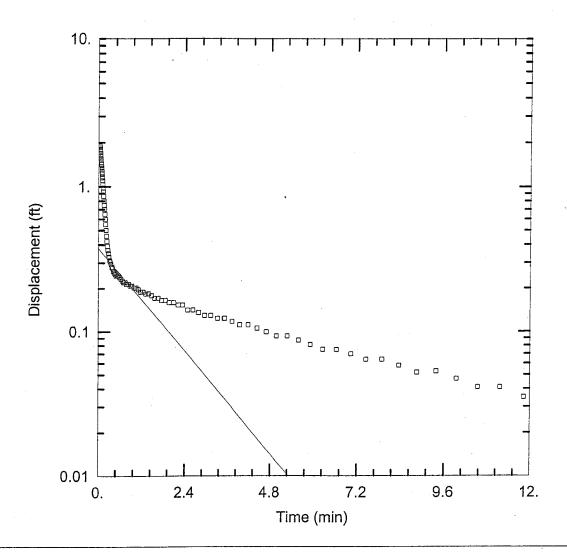
SOLUTION

Aquifer Model: Unconfined

K = 0.00259 cm/sec

Solution Method: Hvorslev

y0 = 0.3936 ft



C&D BATTERY MW-17A TEST #1 (HVORSLEV)

Data Set: D:\...\MW-17A Test #2 Hv.aqt

Date: 09/18/03 Time: 11:02:46

PROJECT INFORMATION

Company: <u>Alpha Geoscience</u> Client: <u>Delaware Engineering</u>

Project: 03124

Test Location: Huguenot, New York

Test Well: MW-17A Test Date: 8/28/03

AQUIFER DATA

Saturated Thickness: 100. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-17A)

Initial Displacement: 1.893 ft
Wellbore Radius: 0.344 ft
Well Skin Radius: 0.344 ft
Well Skin Radius: 0.344 ft

Screen Length: 10. ft Total Well Penetration Depth: 9.82 ft Gravel Pack Porosity: 0.35

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev

K = 0.002685 cm/sec y0 = 0.3783 ft

APPENDIX D

LABORATORY REPORTING SHEET

EPA SAMPLE NO.

MW-6

ab Name: AES, INC.

Contract:

Code: AES Case No.: DE0105 SAS No.:

SDG No.: MW-6

latrix: (soil/water) WATER

Lab Sample ID: MW-6

mple wt/vol: 1000.0 (g/mL) ML Lab File ID: 010801 B04

el: (low/med) LOW

Date Received: 8/01/01

Moisture: not dec. 100. dec. ____ Date Extracted: 8/02/01

: raction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 8/02/01

PC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/L

Q

#2070 1	12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232 53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254 11096-82-5Arochlor-1260	.065 .065 .065 .065 .065 .23	บ บ บ บ
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FORM I PEST

EPA SAMPLE NO.

MW-6 MP

ab Name: AES, INC.

Contract:

ab Code: AES Case No.: DE0105 SAS No.:

SDG No.: MW-6

latrix: (soil/water) WATER

Lab Sample ID: MW-6 MP

sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 010801 B03

Level: (low/med) LOW

Date Received: 8/01/01

Moisture: not dec. 100. dec.___

Date Extracted: 8/02/01

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 8/02/01

FPC Cleanup: (Y/N) N

pH: 6.0

Dilution Factor:

1.00

CAS NO.

COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

Q

12674-11-2Arochlor-1016	.065	บ
11104-28-2Arochlor-1221	.065	ប
11141-16-5Arochlor-1232	.065	ប
53469-21-9Arochlor-1242	.065	U
12672-29-6Arochlor-1248	.065	ប
11097-69-1Arochlor-1254	.051	J
11096-82-5Arochlor-1260	.065	ប
11090-02-3 ALOCHIOL 1200		1

FORM I PEST

EPA SAMPLE NO.

MW-7

ab Name: AES, INC.

Contract:

Code: AES Case No.: DE0105 SAS No.: SDG No.: MW-6

[atrix: (soil/water) WATER

Lab Sample ID: MW-7

Tample wt/vol: 1000.0 (g/mL) ML Lab File ID: 010801 B02

e'el: (low/med) LOW

Date Received: 8/01/01

Moisture: not dec. 100. dec. ____ Date Extracted: 8/02/01

CAS NO. COMPOUND

raction: (SepF/Cont/Sonc) SEPF Date Analyzed: 8/02/01

PC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232 53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254	.065 .065 .065 .065 .065	U U U U
11097-69-1Arochlor-1254 11096-82-5Arochlor-1260	.065	U

FORM I PEST

EPA SAMPLE NO.

MW-7 MP

ab Name: AES, INC.

Contract:

ab Code: AES Case No.: DE0105 SAS No.:

SDG No.: MW-6

atrix: (soil/water) WATER

Lab Sample ID: MW-7 MP

ample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 010801 B01

Date Received: 8/01/01

evel: (low/med) LOW

Date Extracted: 8/02/01

!xtraction: (SepF/Cont/Sonc) SEPF

Moisture: not dec. 100. dec.___

Date Analyzed: 8/02/01

PC Cleanup: (Y/N) N pH: 6.0

Dilution Factor:

1.00

CAS NO.

COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

Q

1016	.065	U
12674-11-2Arochlor-1016 11104-28-2Arochlor-1221	.065	U
11141-16-5Arochlor-1232 53469-21-9Arochlor-1242	.065	Ü
12672-29-6Arochlor-1248 11097-69-1Arochlor-1254	.065	U
11096-82-5Arochlor-1260	.065	U

FORM I PEST

EPA SAMPLE NO.

MW-8

ab Name: AES, INC.

Contract:

Code: AES Case No.: DE0105 SAS No.:

SDG No.: MW-6

Matrix: (soil/water) WATER

Lab Sample ID: MW-8

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 010801 B11

Level: (low/med) LOW

Date Received: 8/01/01

Moisture: not dec. 100. dec.____ Date Extracted: 8/02/01

Eraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 8/03/01

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/L

Q

12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232 53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254 11096-82-5Arochlor-1260	.065 .065 .065 .065 .065 .065	บ บ บ บ บ บ
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FORM I PEST

EPA SAMPLE NO.

MW-9

ab Name: AES, INC.

Contract:

ab Code: AES Case No.: DE0105 SAS No.:

SDG No.: MW-6

latrix: (soil/water) WATER

Lab Sample ID: MW-9

iample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 010801 B12

revel: (low/med) LOW

Date Received: 8/01/01

Moisture: not dec. 100. dec.___

Date Extracted: 8/02/01

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 8/03/01

FPC Cleanup: (Y/N) N

pH: 6.0

Dilution Factor:

1.00

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

Q

12674-11-2Arochlor-1016	.065	U
11104-28-2Arochlor-1221	.065	U
11141-16-5Arochlor-1232	.065	U
53469-21-9Arochlor-1242	.065	ប
12672-29-6Arochlor-1248	.065	บ
11097-69-1Arochlor-1254	.065	บ
11096-82-5Arochlor-1260	.065	ับ .
11030-02 J ALCONIOL 1200		

FORM I PEST

EPA SAMPLE NO.

MW-10

Lab Name: AES, INC.

Contract:

Code: AES Case No.: DE0105 SAS No.:

SDG No.: MW-6

Matrix: (soil/water) WATER

Lab Sample ID: MW-10

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 010801 B13

L vel: (low/med) LOW

Date Received: 8/01/01

% Moisture: not dec. 100. dec.____ Date Extracted: 8/02/01

Etraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 8/03/01

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/L

Q

12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232 53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254 11096-82-5Arochlor-1260	.065 .065 .065 .065 .065 .065	บ บ บ บ บ บ
11090 02 3		.

FORM I PEST

EPA SAMPLE NO.

MW-12

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE0105 SAS No.: SDG No.: MW-6

Matrix: (soil/water) WATER

Lab Sample ID: MW-12

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 010801 B07

Level: (low/med) LOW

Date Received: 8/01/01

% Moisture: not dec. 100. dec.____

Date Extracted: 8/02/01

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 8/02/01

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CAS NO.

COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q

		Ì
12674-11-2Arochlor-1016	.065	U
11104-28-2Arochlor-1221	.065	U
11141-16-5Arochlor-1232	.065	ַ
53469-21-9Arochlor-1242	.065	บ
12672-29-6Arochlor-1248	.065	ן ט
11097-69-1Arochlor-1254	.041	J
11096-82-5Arochlor-1260	.065	U
	•	

FORM I PEST

EPA SAMPLE NO.

MW-13

ab Name: AES, INC.

Contract:

Code: AES Case No.: DE0105 SAS No.:

SDG No.: MW-6

Matrix: (soil/water) WATER

Lab Sample ID: MW-13

jample wt/vol: 1000.0 (g/mL) ML Lab File ID: 010801 B09

Date Received: 8/01/01

rel: (low/med) LOW

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 8/02/01

Moisture: not dec. 100. dec.____ Date Extracted: 8/02/01

3PC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/L

Q

12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232 53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254 11096-82-5Arochlor-1260	.065 .065 .065 .065 .065 .065	U U U U U U
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FORM I PEST

EPA SAMPLE NO.

MW-14

ab Name: AES, INC.

Contract:

ab Code: AES

Case No.: DE0105 SAS No.:

SDG No.: MW-6

fatrix: (soil/water) WATER

Lab Sample ID: MW-14

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 010801 B06

Date Received: 8/01/01

_evel: Moisture: not dec. 100.

(low/med) LOW

Date Extracted: 8/02/01

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 8/02/01

GPC Cleanup: (Y/N) N

pH: 6.0

dec.

Dilution Factor:

1.00

CAS NO.

COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

Q

U .065 12674-11-2----Arochlor-1016 .065 U 11104-28-2----Arochlor-1221 U .065 11141-16-5----Arochlor-1232 U .065 53469-21-9----Arochlor-1242 U .065 12672-29-6----Arochlor-1248 .25 11097-69-1----Arochlor-1254 U .065 11096-82-5----Arochlor-1260

FORM I PEST

MW-14 MP

U

U

U

.065

.065

.15

.065

Contract: ab Name: AES, INC. SDG No.: MW-6 Code: AES Case No.: DE0105 SAS No.: Lab Sample ID: MW-14 MP latrix: (soil/water) WATER Lab File ID: 010801 B05 mple wt/vol: 1000.0 (g/mL) ML Date Received: 8/01/01 (low/med) LOW _∈ rel: Date Extracted: 8/02/01 Moisture: not dec. 100. dec.____ Erraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 8/02/01 Dilution Factor: 1.00 GPC Cleanup: (Y/N) N pH: 6.0 CONCENTRATION UNITS: Q (ug/L or ug/Kg) UG/L COMPOUND CAS NO. U .065 12674-11-2----Arochlor-1016 U .065 11104-28-2----Arochlor-1221 U .065 11141-16-5----Arochlor-1232

FORM I PEST

53469-21-9----Arochlor-1242

12672-29-6----Arochlor-1248

11097-69-1----Arochlor-1254

11096-82-5----Arochlor-1260

EPA SAMPLE NO.

X-1

ab Name: AES, INC.

Contract:

ab Code: AES Case No.: DE0105 SAS No.:

SDG No.: MW-6

fatrix: (soil/water) WATER

Lab Sample ID: X-1

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 010801 B08

Date Received: 8/01/01

Level: (low/med) LOW

ኔ Moisture: not dec. 100. dec.____

Date Extracted: 8/02/01

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 8/02/01

GPC Cleanup: (Y/N) N

pH: 6.0

Dilution Factor:

1.00

CONCENTRATION UNITS:

Q

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/L

		1
12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232 53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254 11096-82-5Arochlor-1260	.065 .065 .065 .065 .065 .065	บ บ บ บ บ บ

FORM I PEST

	1		
INORGANIC	ANALYSIS	DATA	SHEET

EPA SAMPLE NO	EPA	SAMPLE	NO.
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		INOR	GANIC ANA	LYSIS	S DAT	ra sh	EET	EPA SAMPLE NO.
o Name	: ADIRONDACI	K ENVIRONME	ENTAL C	ontra	act:			MW-6
								SDG No.: MW-6_
	soil/water)							ID: MW-6
							=	
el (l	ow/med):	LOW			Da	ate R	dece11	red: 08/01/01
olids	:							
	Concentrat	tion Units	(ug/L or	mg/kg	g dr	y wei	Lght)	: UG/L
					-			
	CAS No.	Analyte	Concentra	ation	C	Q	M	
							-	
	7429-90-5_	Aluminum					NR	
	7440-36-0						NR	
	7440-38-2						NR	
	7440-39-3			39.1	В		P_	
		Beryllium		-			NR	
	7440-43-9			0.40_	В		P	
	7440-70-2				T		NR	
	7440-47-3						NR	
	7440-48-4						NR	
	7440-50-8						NR	
	7439-89-6						NR	
		Lead		3.0	В		P	
		Magnesium_					NR	
		Manganese_					NR	
		Mercury					NR	
	7440-02-0						NR	
		Potassium_				/874·	NR	
		Selenium_					NR	
	7440-22-4	T					NR	
	7440-23-5		-				NR	
		Thallium					NR	
	7440-20-0	Vanadium_					NR	
	7440-62-2						NR	
	F/440-00-0	Cyanide			1.		NR	
Lor Be	efore:	Cla	city Befor	re:				Texture:
lor Af	fter:	Clas	city Afte:	r:				Artifacts:
nments	3 •							
muchics	٠							

1 INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-6MP

Lab Name	: ADIRONDACE	K_ENVIRONM	ENTAL Con	ntract	:				
Lab Code	: AES	Case No.	: DE_0105	SAS N	o.:	-	SDG No.	: MW-	-6
Matrix (soil/water)	: WATER_			Lab Sa	mple	ID: MW-6	MP	
Level (le	ow/med):	LOW			Date R	eceiv	red: 08/0	1/01	
% Solids	:								
	Concentrat	cion Units	(ug/L or mo	g/kg (dry wei	.ght):	: UG/L		
	CAS No.	Analyte	Concentrati	ionC	Q	М			
	7429-90-5 _7440-36-0_ _7440-38-2_	Antimony Arsenic				NR NR NR			
	7440-43-9_	Beryllium_ Cadmium	22	.8_B_ 20_U_		P_ NR P_			
	7440-70-2 _7440-47-3_ _7440-48-4_	Chromium_ Cobalt				NR NR NR NR			
	7440-50-8 _7439-89-6_ _7439-92-1_	Iron Lead	2	.8_U_		NR P			
	7439-96-5 _7439-97-6_	Mercury				NR NR NR		•	
	7440-02-0_	Nickel_ Potassium_				NR NR			

Color Before:	Clarity Before:	<u>:</u> :	Texture:	_
Color After:	Clarity After:		Artifacts:	
Comments:				

7782-49-2<u></u>Selenium_

_7440-23-5 Sodium _7440-28-0 Thallium _7440-62-2 Vanadium

Cyanide_

7440-22-4|Silver_

_7440-66-6_Zinc_

ILM04.0

NR

NR

NR NR NR

NR NR

	1		
INORGANIC	ANALYSIS	DATA	SHEET

EPA SAMPLE NO.

Code:	: AES	Case No.	: DE_0105 SAS	No	.:		SDG No.: MW-6_
	soil/water)						ID: MW-7
				г	Date Ro	ecei:	ved: 08/01/01
er (ro	ow/med):	TOW)acc 10		, , , , , , , , , , , , , , , , , , , ,
olids	•		•				
	Concentrat	tion Units	(ug/L or mg/kg	g d	ry wei	ght)	: UG/L
	CAS No.	Analyte	Concentration	С	Q	М	
			·				
,	7429-90-5	Aluminum		+		NR	
	7429-90-3 7440-36-0_					NR	
	7440-38-0_ 7440-38-2_					NR	
·	7440-39-3		855				
		Beryllium_				NR	
	7440-43-9	Cadmium	5.6_			_P_	
	7440-70-2	Calcium				NR	
	7440-47-3	Chromium				NR	•
	7440-48-4					NR	
	7440-50-8					NR	
	7/39-89-6	Iron				NR	
	7439-03-0	T.ead	2.8	Ū		P	
		Magnesium		T		NR	
	7439-96-5	Manganese_		-		NR	
		Mercury				NR	
	7440-02-0					NR	
	7440 02 0	Potassium				NR	
		Selenium_				NR	
	7440-22-4					NR	
	7440-23-5	Sodium				NR	
	7440-23-5	Thallium_				NR	
		Vanadium_				NR	
	7440-66-6					NR	
	-1440 00 0	Cyanide				NR	
		+Gyanitas					
	L		٠				
or Be	fore:	Cla	rity Before:		·		Texture:
or Af	ter:	Cla	rity After:				Artifacts:
OL AL			•		-		

1 INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name	: ADIRONDAC	K ENVIRONME	ENTAL Contr	act:			MW-7MP
							SDG No.: MW-6_
Matrix (soil/water)	: WATER_		I	ab Sam	nple	ID: MW-7MP
Level (1	ow/med):	LOW		Ē	ate Re	ecei	red: 08/01/01
% Solids	•						
	Concentra	tion Units	(ug/L or mg/k	g di	ry wei	ght)	: UG/L
	CAS No.	Analyte	Concentration	С	Q	M	
		Aluminum_				NR	
		Arsenic	25.4			NR NR	
	7440-41-7	Barium Beryllium_	25.4			P_NR	
	7440-43-9 7440-70-2	CadmiumCalcium	0.47	B		P_ NR	
	7440-47-3 7440-48-4	Chromium_				NR NR	
	[7440-50-8]	Copper				NR	
		Lead	2.8	U		NR P_	
	7439-95-4	Magnesium_				NR	

_7439-96-5_Manganese_ _7439-97-6_Mercury_ _7440-02-0_Nickel__

7440-09-7 Potassium_

7782-49-2_Selenium_

_7440-23-5_Sodium____ _7440-28-0_Thallium_ _7440-62-2_Vanadium_

Cyanide_

_7440-22**-**4__Silver_

_7440-66-6_Zinc_

Color Before:	Clarity Before:		Texture:
Color After:	Clarity After:		Artifacts:
Comments:			

ILM04.0

NR

NR NR

NR

NR NR

NR NR NR NR

NR

	1		
INORGANIC	ANALYSIS	DATA	SHEET

EPA	SAMPLE	NO.

		THOUGHTO 11111	HIDIO DIIII O	
Lab Name:	: ADIRONDACE	K_ENVIRONMENTAL C	Contract:	MW-8
ab Code:	: AES	Case No.: DE_0105	SAS No.:	SDG No.: MW-6_
Matrix (s	soil/water)	: WATER_	Lab Sample	ID: MW-8
evel (lo	ow/med):	LOW	Date Recei	red: 08/01/01
² Solids:	:			
	Concentrat	cion Units (ug/L or	mg/kg dry weight)	: UG/L
	CAS No.	Analyte Concentra	ation C Q M	

CAS	No.	Analyte	Concentration	С	Q	М
	1-90-5 1-36-0 1-38-2 1-39-3 1-41-7 1-43-9 1-70-2 1-47-3 1-48-4 1-50-8 1-95-4 1-96-5 1-96-5 1-97-6 1-02-0 1-02-0 1-22-4 1-23-5 1-28-0 1-28-0 1-28-0 1-62-2	Aluminum_ Antimony_ Arsenic_ Barium_ Beryllium_ Cadmium_ Calcium Chromium_ Cobalt_ Copper_ Iron_	21.6	B_U_		NR NR NR P NR NR NR NR NR NR NR NR NR NR NR NR NR
		Cyanide				NR.

Color Befor	e:	Clarity Before:		Texture:	
Color After	· • · · · · · · · · · · · · · · · · · ·	Clarity After:	· · · · · · · · · · · · · · · · · · ·	Artifacts:	
Comments:					
• 					
					<u> </u>
					- `

1 INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name:	: ADIRONDAC	K ENVIRONME	ENTAL Cont	rac	t:	·	MW-8F
		_					
Lab Code	: AES	Case No.	: DE_0105 SA	S N	lo.:		SDG No.: MW-6_
Matrix (soil/water)	: WATER_			Lab Sar	nple	ID: MW-8F
Level (lo	ow/med):	LOW			Date Re	eceiv	red: 08/01/01
% Solids	•						
	Concentrat	tion Units	(ug/L or mg/	kg	dry wei	ght)	: UG/L
	CAS No.	Analyte	Concentratio	n C	Q	М	
4	7429-90-5	Aluminum_				NR	
	7440-36-0 <u></u>	Antimony				NR	
•	_7440-38 - 2_	Arsenic				NR	
		Barium	14.2	B_		P_	
	7440-41-7	Beryllium_				NR	
	7440-43-9_	Cadmium	0.20	_U_		P	
	[7440_70 <u>-</u> 2	Calcium	1	1	1	NR	

Color Before: _____ Clarity Before: Texture: Artifacts:___ Color After: _____ Clarity After:

_2.8_U_

Comments:

7440-47-3 Chromium_ 7440-48-4 Cobalt____

_7439-92-1_Lead____ _7439-95-4_Magnesium_

7439-96-5_Manganese_

7440-09-7 Potassium 7782-49-2 Selenium

7440-28-0 Thallium

7440-62-2_Vanadium_

Cyanide_

7439-97-6 Mercury_ 7440-02-0 Nickel

7440-22-4 | Silver _7440-23-5_|Sodium__

7440-66-6_Zinc_

7440-50-8 Copper_

_7439-89-6_Iron_

FORM I - IN

NR NR

NR

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Ρ NR

NR NR

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NR NR NR

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	1		
INORGANIC	ANALYSIS	DATA	SHEET

EPA	SAMPLE	NO.
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		INOR	GANIC ANALYSIS	S DATA	SHEET	EFA SAMELE NO.
						MW-9
Name	: ADIRONDACI	K_ENVIRONME	ENTAL Contra	act:		
Code	: AES	Case No.:	DE_0105 SAS	No.:		SDG No.: MW-6
rix (soil/water)	: WATER_		Lab	Sample	ID: MW-9
rel (lo	ow/med):	LOW		Date	Recei	ved: 08/01/01
Solids						
		tion Units	(ug/L or mg/k	g dry v	weight)	: UG/L
	CAS No.	Analyte	Concentration	C C	Q M	
es.						
•	7429-90-5_	Aluminum			NR	
	7440-36-0	Antimony		 	NR	
	[7440-38-2]	Arsenic		<u> </u>	NR	
	7440-39-3	Barium	34.1_	_B	P	
	7440-41-7	Beryllium			NR	
		Cadmium	0.20_	ĹŪ	P_	
	7440-70-2				NR	
		Chromium_			NR	
		Cobalt			NR	
		Copper			NR	
		Iron			NR	
	7439-92-1	Lead	4.7_		P	
		Magnesium_			NR	•
	7/39-95-4	Manganese			NR	
		Mercury			NR	
	7440-02-0		 		NR	
•		Potassium			NR	
	1440-03-1	Selenium			NR	
	7440-22-4		 		NR	
	7440-22-4				NR	*
	L/44U-23-5	Sodium _Thallium			NR	
- '	F7440-28-0	Triattium_		++-	NR	
		Vanadium			NR	
	7440-66-6	Zinc _Cyanide			NR	
	l,,					
or Be	efore:	Cla	rity Before:		_	Texture:
lor Ai	fter:	Cla	rity After:			Artifacts:
477			-			
		•				

FORM I - IN

1 INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ab Nam	e: ADIRONDAC	K_ENVIRONM	ENTAL Contra	act			MW-9F
							SDG No.: MW-6_
atrix	(soil/water)	: WATER_			Lab Sa	mple	ID: MW-9F
. 7 .	7 /	TOW			Data B	ogo i r	ved: 08/01/01
eAeT (low/med):	LOW			Date r	есет.	vea. 00/01/01
Solid	s:						
	Concentra	tion Units	(ug/L or mg/k	a d	drv wei	Laht)	: UG/L
	- Confedireta		(· د		 1	
	CAS No.	Analyte	Concentration	_	Q	M	
	CAS NO.	Analyce	Concenctación		¥		
	7400 00 5	7.1				NID	
		Aluminum_				NR NR	
		AntimonyArsenic				NR	
	7440-38-2		16.6			P_	
				P-		NR	
		Beryllium_	0.20	TT		P	
	7440-43-9		0.20_	-υ-			
	7440-70-2					NR	
		Chromium_		\vdash		NR	
		Cobalt				NR	
		Copper				NR	
		Iron	2.8	тт		_NR	
	7439-92-1		 	-υ		P_	
		Magnesium_				NR NR	•
		Manganese_		-		NR.	
		Mercury				NR	
	_7440-02-0					NR.	
		Potassium_		\vdash		NR NR	
		Selenium_				NR	
	7440-22-4					NR	
	7440-23-5			-		NR	
		Thallium Vanadium		-		NR	
	7440-62-2					NR	,
	L/440-00-0					NR	
		_Cyanide				+1117	
				1	L		
		~ 3					m h
olor F	Before:	Clai	rity Before:	_			Texture:
,O1O1 1							

FORM I - IN

	1		
INORGANIC	ANALYSIS	DATA	SHEET

EPA SAMPLE NO.

b Name:	: ADIRONDACE	K_ENVIRONME	INTAL Contra	act	•		MW-10
b Code	: AES	Case No.:	DE_0105 SAS	N	o.:		SDG No.: MW-6_
	soil/water)						ID: MW-10
	ow/med):	T.OW			Date R	ecei	ved: 08/01/01
Solids	•						
	Concentrat	tion Units	(ug/L or mg/k	g d	dry wei	ght)	: UG/L
	CAS No.	Analyte	Concentration	C	Q	M	
	7429-90-5	Aluminum_				NR	
		Antimony				NR	
		Arsenic				NR	
	7440-39-3		115_	B_		_P_	
	7440 41-7	Parullium				_NR	
	7440-43-9	Cadmium	0.75_	B_		_P_	
	7440-70-2	Calcium				_NR	
	7440-47-3	Chromium_				NR	
	7440-48-4	Cobalt				NR	
						NR	
		Iron	1			_NR	
	7439-92-1	Lead	2.8	ŲU_		P	
		Magnesium_				NR	
		Manganese_				NR	
		Mercury				NR	
	7440-02-0	Nickel		<u> </u>		NR	
	7440-09-7	Potassium				_NR	
						NR	
	7440-22-4			ļ		_NR	
		Sodium		-		_NR	
	7440-28-0	Thallium_		<u> </u>		NR	
	7440-62-2			ļ	· · · · · · · · · · · · · · · · · · ·	NR	
	7440-66-6	Zinc				NR	
		Cyanide	<u> </u>	-	_	_NR	
olor Be	efore:	Cla	rity Before:	_			Texture:
olor Af			rity After:	. –			Artifacts:
			. -	-			
omments	•						

FORM I - IN

1 INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ab Name	: ADIRONDAC	K_ENVIRONM	ENTAL Contra	act:			MW-10F
ab Code	: AES	Case No.	: DE_0105 SAS	No	·:		SDG No.: MW-6_
atrix (soil/water)	: WATER_		L	ab Sa	mple	ID: MW-10F
evel (l	ow/med):	LOW		D	ate R	ecei	ved: 08/01/01
Solids	:						
	Concentra ⁻	tion Units	(ug/L or mg/k	g dr	ry wei	ght)	: UG/L
	CAS No.	Analyte	Concentration	C	Q	M	
	7429-90-5	Aluminum				NR	
	7440-36-0					NR	
	7440-38-2	Arsenic				NR	
	7440-39-3	Barium	60.7	В		_P	
		Beryllium_				NR	
		Cadmium	0.20_	Ū		P.	
	7440-70-2	Calcium				NR	
	7440-47-3	Chromium_				NR	
	7440-48-4					NR	
	[7440-50-8]	Copper				NR	
	7439-89-6	Iron				NR	
	7439-92-1	Lead	2.8_	U		P	
	7439-95-4	Magnesium				NR	•
	7439-96-5	[Manganese]				NR	
	7439-97-6	Mercury				NR	
	[7440-02 - 0]	Nickel				_NR	
	7440-09-7	Potassium				NR	
		$oxedsymbol{oxedsymbol{oxedsymbol{oxed}}}$ Selenium $oxedsymbol{oxedsymbol{oxedsymbol{oxed}}}$				NR	
	_7440-22-4	_Silver	4			_NR	
	_7440-23-5	_Sodium				_NR	
	[7440-28-0]					_NR	
		Vanadium				NR	
	_7440-66 - 6					NR	
		_Cyanide				NR	

Color Before:	Clarity B	Before:	Texture:	
Color After:	Clarity A	After:	Artifacts:	
Comments:				

	1		
INORGANIC	ANALYSIS	DATA	SHEET

		INOR	GANIC ANALY	SIS DAT	A SHEET	EPA SAMPLE NO). —
Lab Name	: ADIRONDACI	K_ENVIRONM	ENTAL Con	tract:		MW-12	
ab Code	e: AES	Case No.	: DE_0105	SAS No.	:	SDG No.: MW-6_	
 Matrix (soil/water)	: WATER		La	ab Sample	ID: MW-12	
evel (1	.ow/med):	LOW		Da	te Recei	ved: 08/01/01	
^ Solids	s:						
		tion Units	(ug/L or mg	/kg dry	y weight)	: UG/L	
	CAS No.	Analyte	Concentrati	on C	Q M		•
		Aluminum_			NR NR		
•	7440-36-0	Antimony Arsenic			NR		
	7440-39-3		9	. 5_B_	P		
	7440-41-7	Beryllium_			NR		
	7440-43-9		0.2	20_U	P		
	7440-70-2				NR		
		Chromium_			NR		
	7440-48-4	Cobalt			NR		
	7440-50-8	Copper			NR		
	7439-89-6	Iron			NR		
	7439-92-1	Iron Lead	2	.8_U	P_		٠
	7439-95-4	Magnesium_			NR	•	
	7439-96-5	Manganese_			NR		-
est <u>i</u>	7439-97-6	Mercury			NR		
_		Nickel			NR_		
	7440-09-7	Potassium_			NR		
	7782-49-2	_Selenium			NR		
	7440-22-4	_Silver			NR		
	7440-23-5	Sodium	<u></u>		NR		
	7440-28-0	$oxedsymbol{oxedsymbol{oxedsymbol{oxed}}}$ Thallium $oxedsymbol{oxedsymbol{oxed}}$		- -	NR		
	7440-62-2				NR		
	7440-66-6	_Zinc			NR.		
		_Cyanide	ļ		NR		
	ı	1	i	1 1	1 [

Color Before:	Clarity Before:	Texture:
Color After:	Clarity After:	Artifacts:
Comments:		<u> </u>

ILM04.0

1 INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-13

Lab Name:	: ADIRONDACE	K_ENVIRONME	ENTAL Contr	act:					
Lab Code	: AES	Case No.	: DE_0105 SAS	S No.	:		SDG No	.: MW-6	<u>;</u>
Matrix (soil/water)	: WATER_		Lā	ab Sam	nple	ID: MW-1	L3	-
Level (1	ow/med):	LOW		Da	ate Re	eceiv	ed: 08/0	01/01	
% Solids	•								
	Concentrat	tion Units	(ug/L or mg/k	g dr	y wei	ght):	UG/L		
	CAS No.	Analyte	Concentration	С	Q	М			
	7429-90-5 _7440-36-0_	Antimony_			× .	NR NR			
	7440 - 39-3		13.7	В		NR P NR			
	7440-41-7 _7440-43-9_ _7440-70-2	Cadmium	0.20	U_		P_ NR			
	7440-47-3 7440-48-4	Chromium_				NR NR			
	7440-50-8 7439-89-6	Copper				NR NR			
	[7439-95 - 4]	Lead Magnesium_		U		P_ NR		•	
	<pre>[7439-97-6]</pre>	Manganese_ Mercury				NR NR			
		Nickel Potassium				NR NR			

Color	Before:	 Clarity	Before:	· ·	Texture:
Color	After:	Clarity	After:	-11-24-14	Artifacts:
Commen	ts:				
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_7782-49-2_Selenium__

_7440-22-4_Silver_

7440-23-5\sodium_

7440-28-0 Thallium_ 7440-62-2 Vanadium_ 7440-66-6 Zinc_____

Cyanide_

ILM04.0

NR

NR

NR

NR NR NR

NR

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INORGANIC	ANALYSIS	DATA	SHEET

b Code:	: ADIRONDAC	K_ENVIRONM						
trix (s	• አଢ଼େ		ENTAL	Contr	act	:		MW-14
	• AES	Case No.	: DE_01	.05 SAS	S No	o.:	 .	SDG No.: MW-6_
	soil/water)	: WATER_				Lab Sa	ample	ID: MW-14
7 / 7								ved: 08/01/01
vel (lo	ow/med):	TOM				Date i	кесет	vea: 00/01/01
Solids:	:							
					,			TO /T
	Concentrat	tion Units	(ug/L	or mg/k	g a	ry we	ignt)	: UG/L
	CAS No.	Analyte	Conce	ntration	C	Q	M	
,								
-	7429-90-5	Aluminum					NR	
		Antimony_		*			NR	
		Arsenic					NR	
		Barium		117	В		P	
Ì		Beryllium_			ГТ		NR	
	7440-43-9	Cadmium		0.99	В		\Box_{P}	
	7440-70-2	Calcium					NR	
Ì	7440-47-3						NR	
	7440-48-4						NR	
•	_7440-50-8_						NR	
	7440-30-6 7430-80-6	Iron					NR	
-	_7439-89-0 <u>_</u> 7439-92-1_	T 03d		18.5			P	
	7439-92-1 _7439-95-4_						NR	
	7439-95-4 _7439 - 96-5_						NR	
							NR	
		Mercury			\vdash		NR	
	7440-02-0				\vdash		NR	
		Potassium_			 		NR	
}	_//82-49 - 2_ _7440-22 - 4_	Selenium_	 		 		NR	
					\vdash		NR	
.	_7440-23-5_						NR	
	7440 - 28-0		-		\vdash		NR	
	7440-62-2				 - 		NR	
	7440-66-6_	Cupido					NR	
		Cyanide	 		+-+			

Color Before:	Clarity Before:	 Texture:
tolor After:	Clarity After:	 Artifacts:
Comments:		
iv.		

1 INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

			MW-14MP
Lab	Name: ADIRONDACK_ENVIRONMENTAL	Contract:	

Lab Code: AES___ Case No.: DE_0105 SAS No.: ____ SDG No.: MW-6_

Matrix (soil/water): WATER_ Lab Sample ID: MW-14MP____

Level (low/med): LOW___ Date Received: 08/01/01

% Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR.
7440-39-3	Barium	13.7_	B_		P_
[7440-41-7]	Beryllium_				NR
[7440-43 - 9]	Cadmium	0.20_	U_		P_
[7440-70 - 2]	Calcium				NR
[7440-47 - 3]	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper	11170-7-1			NR
7439-89-6	Iron				NR
7439-92-1		2.8_	U		P_
7439-95-4	$oxedsymbol{oxedsymbol{oxedsymbol{oxed}}}$ Magnesium $oxedsymbol{oxedsymbol{oxed}}$		<u> </u>		NR
	Manganese_				NR
7439-97-6	Mercury		<u> </u>		NR
7440-02-0	Nickel				NR
7440-09-7	_Potassium_		<u> </u>		NR
_7782-49-2	_Selenium		<u> </u>		NR
7440-22-4					NR
7440-23-5			<u> </u>		NR
7440-28-0	-		<u> </u>		NR
_7440-62-2			_		NR
_7440-66-6			↓		NR
	_Cyanide		-		NR
			<u></u>	1	

Color Before:	Clarity Before:	· ·	Texture:	
Color After:	Clarity After:	- · · · · · · · · · · · · · · · · · · ·	Artifacts:	
Comments:				
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INORGANIC	ANALYSIS	DATA	SHEET

EPA	SAMPLE	NO.
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Date Received: 08/01/01 Date Received: 08/01/01	Code	: AES	Case No.	: DE 0105 SAS	3 N	o.:		SDG No.: MW-6_
Date Received: 08/01/01 Concentration Units (ug/L or mg/kg dry weight): UG/L CAS No. Analyte Concentration C Q M 7429-90-5 Aluminum NR 7440-36-0 Antimony NR 7440-38-2 Arsenic NR 7440-39-3 Barium 13.4 B P 7440-41-7 Beryllium NR 7440-43-9 Cadmium 0.20 U P 7440-70-2 Calcium NR 7440-70-2 Calcium NR 7440-48-4 Cobalt NR 7440-48-4 Cobalt NR 7440-50-8 Copper NR 7439-92-1 Lead 2.8 U P 7439-95-4 Magnesium NR 7439-95-5 Manganese NR 7439-97-6 Mercury NR 7440-02-0 Nickel NR 7440-09-7 Potassium NR 7440-09-7 Potassium NR 7482-49-2 Selenium NR	•							
Concentration Units (ug/L or mg/kg dry weight): UG/L CAS No. Analyte Concentration C Q M 7429-90-5 Aluminum NR 7440-36-0 Antimony NR 7440-38-2 Arsenic NR 7440-39-3 Barium 13.4 B P 7440-41-7 Beryllium NR 7440-41-7 Beryllium NR 7440-43-9 Cadmium 0.20 U P 7440-70-2 Calcium NR 7440-47-3 Chromium NR 7440-48-4 Cobalt NR 7440-48-4 Cobalt NR 7439-89-6 Iron NR 7439-92-1 Lead 2.8 U P 7439-95-4 Magnesium NR 7439-95-6 Mercury NR 7440-02-0 Nickel NR 7440-09-7 Potassium NR 74782-49-2 Selenium NR	-TTV (.	SOII/ Water/	• ,4111 211_				_	
CAS No. Analyte Concentration C Q M 7429-90-5_Aluminum	rel (lo	ow/med):	LOW			Date R	ecei	ved: 08/01/01
CAS No. Analyte Concentration C Q M 7429-90-5 Aluminum NR 7440-36-0 Antimony NR 7440-38-2 Arsenic NR 7440-41-7 Beryllium NR 7440-41-7 Beryllium NR 7440-70-2 Calcium NR 7440-47-3 Chromium NR 7440-48-4 Cobalt NR 7440-50-8 Copper NR 7439-95-4 Magnesium NR 7439-95-6 Manganese NR 7439-97-6 Mercury NR 7440-02-0 Nickel NR 7440-09-7 Potassium NR 7782-49-2 Selenium NR	Solids	:						
7429-90-5 Aluminum		Concentrat	tion Units	(ug/L or mg/k	g (dry wei	.ght)	: UG/L
7429-90-5 Aluminum						^	M	
7440-36-0 Antimony NR 7440-38-2 Arsenic NR 7440-39-3 Barium 13.4 B P 7440-41-7 Beryllium NR 7440-43-9 Cadmium 0.20 U P 7440-47-3 Chromium NR 7440-48-4 Cobalt NR 7440-50-8 Copper NR 7439-89-6 Iron NR 7439-92-1 Lead 2.8 U P 7439-95-4 Magnesium NR 7439-96-5 Manganese NR 7439-97-6 Mercury NR 7440-02-0 Nickel NR 7440-09-7 Potassium NR 7482-49-2 Selenium NR		CAS No.	Analyte	Concentration		Q	IM	
7440-36-0 Antimony								
7440-38-2 Arsenic		7429-90-5_	Aluminum_				 1	
7440-39-3 Barium 13.4 B P 7440-41-7 Beryllium 0.20 U P 7440-43-9 Cadmium 0.20 U P 7440-47-3 Chromium NR 7440-47-3 Chromium NR 7440-50-8 Copper NR 7439-89-6 Iron NR 7439-92-1 Lead 2.8 U P 7439-95-4 Magnesium NR 7439-96-5 Manganese NR 7439-97-6 Mercury NR 7440-02-0 Nickel NR 7440-09-7 Potassium NR 7782-49-2 Selenium NR		_7440-36-0 __	Antimony_		\sqcup			
7440-41-7 Beryllium NR 7440-43-9 Cadmium 0.20 U P 7440-70-2 Calcium NR 7440-47-3 Chromium NR 7440-48-4 Cobalt NR 7439-89-6 Iron NR 7439-92-1 Lead 2.8 U P 7439-95-4 Magnesium NR 7439-96-5 Manganese NR 7439-97-6 Mercury NR 7440-02-0 Nickel NR 7440-09-7 Potassium NR 7782-49-2 Selenium NR							_+ 1	
7440-43-9 Cadmium		_7440-39-3_	_Barium		$\mid_{R}\mid$			
7440-70-2 Calcium		_7440-41-7_	Beryllium_	0.20	77			
7440-47-3 Chromium NR 7440-48-4 Cobalt NR 7440-50-8 Copper NR 7439-89-6 Iron NR 7439-92-1 Lead 2.8 U P 7439-95-4 Magnesium NR 7439-96-5 Manganese NR 7440-02-0 Nickel NR 7440-09-7 Potassium NR 7782-49-2 Selenium NR				U.20_	$+$ $^{\cup}+$			
7440-48-4 Cobalt								
7440-50-8 Copper					\vdash			
7439-89-6 Iron								•
7439-92-1 Lead 2.8 U P 7439-95-4 Magnesium NR 7439-96-5 Manganese NR 7439-97-6 Mercury NR 7440-02-0 Nickel NR 7440-09-7 Potassium NR 7782-49-2 Selenium NR							- 1	
7439-95-4 Magnesium NR 7439-96-5 Manganese NR 7439-97-6 Mercury NR 7440-02-0 Nickel NR 7440-09-7 Potassium NR 7782-49-2 Selenium NR				2.8	Ū			
7439-96-5 Manganese NR 7439-97-6 Mercury NR 7440-02-0 Nickel NR 7440-09-7 Potassium NR 7782-49-2 Selenium NR					1		NR	
7439-97-6 Mercury NR 7440-02-0 Nickel NR 7440-09-7 Potassium NR 7782-49-2 Selenium NR							NR	
7440-02-0 Nickel NR 7440-09-7 Potassium NR 7782-49-2 Selenium NR	•						1	
7440-09-7 Potassium NR 7782-49-2 Selenium NR		7440-02-0	Nickel					
1/02 47 2_BCECHEUM		7440-09-7	Potassium_		igsquare		1	
7/40-22-4 Silver		7782-49-2	_Selenium_		 			
/ 4 4 U ZZ 4 DII V CI 1		_7440-22-4	_Silver					
7440-23-5 Sodium		7//0-22-5	_Sodium		-			
/440 23 3_BOOLEMIN		L/440-23-3_			ـــــــا	<u> </u>		
7440-28-0 ThalliumNR		7440-28-0	Thallium_				1101751	
7440-28-0 Thallium NR 7440-62-2 Vanadium NR		_7440-28-0 __	_Thallium _Vanadium		-	· ·		- "
7440-28-0 Thallium NR 7440-62-2 Vanadium NR 7440-66-6 Zinc NR		_7440-28-0 __	Thallium Vanadium Zinc				NR	
7440-23-5 Sodium NR		7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-22-4	MercuryNickelPotassiumSeleniumSilverSodium				NR NR NR NR NR NR	
7440-28-0 Thallium NR		7440-23-5	Thallium				NR	
7440-28-0 Thallium NR		7440-28-0	Thallium_				1.1.1.1.1	
7440-28-0 Thallium NR 7440-62-2 Vanadium NR		_7440-28-0 __	_Thallium _Vanadium					-1
7440-28-0 Thallium NR 7440-62-2 Vanadium NR		_7440-28-0 __	Thallium Vanadium Zinc				NR	The state of the s

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CONVENTIONALS ANALYSIS DATA SHEET

MW-6

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES Case No.: DE 0105 SAS No.: SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 010801B-04

Level (Low/Med):

Low

Date Received: 8/1/01

% Solids:

0.0

Analyte	Concentration	C	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)			-	EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	1100			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

CONVENTIONALS ANALYSIS DATA SHEET

MW-6MP

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES

Case No.: DE 0105 SAS No.: SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 010801B-03

Level (Low/Med): Low

Date Received: 8/1/01

% Solids:

0.0

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	580			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рн				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196
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Comments	

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CONVENTIONALS ANALYSIS DATA SHEET

MW-7

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES Case No.: DE 0105 SAS No.: SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 010801B-02

Level (Low/Med): Low

Date Received: 8/1/01

% Solids:

0.0

Analyte	Concentration	C	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)	·			EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	8700			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments		 		
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CONVENTIONALS ANALYSIS DATA SHEET

MW-7MP

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0105 SAS No.:

SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 010801B-01

Level (Low/Med): Low

Date Received: 8/1/01

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride			<u> </u>	EPA 300.0
Fluoride	8600			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рĤ				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196
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Comments		
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CONVENTIONALS ANALYSIS DATA SHEET

8-WM

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES Case No.: DE 0105 SAS No.: SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 010801B-11

Level (Low/Med):

Low

Date Received: 8/1/01

% Solids:

0.0

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N		***		EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 353.1
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)		-		EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	6300			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments		
	 	
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1 CONVENTIONALS ANALYSIS DATA SHEET

MW-9

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0105 SAS No.:

SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 010801B-12

Level (Low/Med): Low

Date Received: 8/1/01

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight):

ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 353.1
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity			:	EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	6200			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
Н				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

1 CONVENTIONALS ANALYSIS DATA SHEET

MW - 10

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES Case No.: DE 0105 SAS No.: SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 010801B-13

Level (Low/Med): Low

Date Received: 8/1/01

% Solids:

0.0

Analyte	Concentration	C	Q 、	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 353.1
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	3160			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

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CONVENTIONALS ANALYSIS DATA SHEET

MW-12

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0105 SAS No.:

SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 010801B-07

Level (Low/Med): Low

Date Received: 8/1/01

% Solids:

0.0

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	310			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
РН				EPA 150.1
Turbidity				EPA 180.1
Color			1	EPA 110.1
Hexavalent Chromium				SW 7196

Comments			<u></u>	

CONVENTIONALS ANALYSIS DATA SHEET

MW-13

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES Case No.: DE 0105 SAS No.: SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 010801B-09

Level (Low/Med): Low

Date Received: 8/1/01

% Solids:

0.0

Analyte	Concentration	С	Q	Method	
Total Kjeldahl Nitrogen, as N				EPA 351.3	
Ammonia, as N				EPA 350.1	
Nitrate		,		EPA 300.0	
Chemical Oxygen Demand (COD)				EPA 410.4	
Biochemical Oxygen Demand (BOD 5)				EPA 405.1	
Total Organic Carbon (TOC)	·			EPA 415.2	
Total Dissolved Solids (TDS)				EPA 160.1	
Sulfate				EPA 300.0	
Alkalinity				EPA 310.1	
Total Phenols				EPA 420.1	
Chloride				EPA 300.0	
Fluoride	220			EPA 300.0	
Eh					
Specific Conductance			<u> </u>	EPA 120.1	
Cyanide		<u> </u>		EPA 335.3	
рН		<u> </u>	<u> </u>	EPA 150.1	
Turbidity		<u> </u>	<u> </u>	EPA 180.1	
Color				EPA 110.1	
Hexavalent Chromium				SW 7196	

Comments	
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CONVENTIONALS ANALYSIS DATA SHEET

MW - 14

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0105 SAS No.: SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 010801B-06

Level (Low/Med): Low

Date Received: 8/1/01

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight):

ug/L

Analyte	Concentration	C	C Q Method EPA 351.3 EPA 350.1 EPA 300.0 EPA 410.4 EPA 405.1 EPA 405.1 EPA 300.0 EPA 120.1 EPA 335.3 EPA 150.1 EPA 180.1 EPA 180.1		
Total Kjeldahl Nitrogen, as N					
Ammonia, as N					
Nitrate					
Chemical Oxygen Demand (COD)					
Biochemical Oxygen Demand (BOD 5)					
Total Organic Carbon (TOC)					
Total Dissolved Solids (TDS)					
Sulfate					
Alkalinity	·				
Total Phenols					
Chloride					
Fluoride	4100			EPA 300.0	
Eh					
Specific Conductance					
Cyanide	·				
Н				EPA 150.1	
Turbidity					
Color					
Hexavalent Chromium				SW 7196	

Comments		 	- W		
				·	

CONVENTIONALS ANALYSIS DATA SHEET

MW-14MP

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES Case No.: DE 0105 SAS No.: SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 010801B-05

Level (Low/Med):

Low

Date Received: 8/1/01

% Solids:

0.0

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	4300			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments						
	***************************************	 	· · · · · · · · · · · · · · · · · · ·	 	 	

CONVENTIONALS ANALYSIS DATA SHEET

Swartwout

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0105 SAS No.: SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 010801B-10

Level (Low/Med): Low

Date Received: 8/1/01

% Solids:

0.0

Analyte	Concentration	Ŋ	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 353.1
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	450			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
Н			<u> </u>	EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium			<u> </u>	SW 7196
				<u></u>

Comments	

EPA SAMPLE NO.

SED-5

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE0104 SAS No.:

SDG No.: SED-5

Matrix: (soil/water) SOIL

Lab Sample ID: SED-5

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 010724 B06

Level: (low/med) LOW

Date Received: 7/24/01

% Moisture: not dec. 47. dec.

Date Extracted: 7/25/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 7/26/01

GPC Cleanup: (Y/N) N pH: 6.7

CAS NO. COMPOUND

Dilution Factor: 1.00

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

		T
12674-11-2Arochlor-1016	63.	υ
11104-28-2Arochlor-1221	63.	U
11141-16-5Arochlor-1232	63.	U
53469-21-9Arochlor-1242	63.	ַ
12672-29-6Arochlor-1248	63.	U
11097-69-1Arochlor-1254	63.	υ
11096-82-5Arochlor-1260	31.	J

FORM I PEST

EPA SAMPLE NO.

SED-6

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE0104 SAS No.:

SDG No.: SED-5

Matrix: (soil/water) SOIL

Lab Sample ID: SED-6

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 010725 B05

Level: (low/med) LOW

Date Received: 7/24/01

Moisture: not dec. 64.

dec.____

Date Extracted: 7/25/01

E traction: (SepF/Cont/Sonc) SONC

Date Analyzed: 7/26/01

GPC Cleanup: (Y/N) N pH: 6.2

Dilution Factor:

1.00

CAS NO.

COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

Q

U 93. 12674-11-2----Arochlor-1016 93. U 11104-28-2----Arochlor-1221 93. U 11141-16-5----Arochlor-1232 U 93. 53469-21-9----Arochlor-1242 U 93. 12672-29-6----Arochlor-1248 J 15. 11097-69-1----Arochlor-1254 37. J 11096-82-5----Arochlor-1260

FORM I PEST

EPA SAMPLE NO.

SED-7

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE0104 SAS No.:

SDG No.: SED-5

Matrix: (soil/water) SOIL

Lab Sample ID: SED-7

Sample wt/vol:

30.0 (g/mL) G Lab File ID: 010724 B04

Level: (low/med) LOW

Date Received: 7/24/01

% Moisture: not dec. 63. dec.___

Date Extracted: 7/25/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 7/26/01

GPC Cleanup: (Y/N) N pH: 6.4 Dilution Factor: 1.00

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

Q

12674-11-2Arochlor-1016	90.	U
11104-28-2Arochlor-1221	90.	U
11141-16-5Arochlor-1232	90.	U
53469-21-9Arochlor-1242	90.	U
12672-29-6Arochlor-1248	90.	บ
11097-69-1Arochlor-1254	170.	
11096-82-5Arochlor-1260	150.	1

FORM I PEST

EPA SAMPLE NO.

SED-8

Lab Name: AES, INC.

Contract:

L b Code: AES Case No.: DE0104 SAS No.:

SDG No.: SED-5

Matrix: (soil/water) SOIL

Lab Sample ID: SED-8

simple wt/vol: 30.0 (g/mL) G Lab File ID: 010724 B03

Level: (low/med) LOW

Date Received: 7/24/01

Moisture: not dec. 69. dec.____ Date Extracted: 7/25/01

Estraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 7/26/01

Dilution Factor:

GPC Cleanup: (Y/N) N pH: 6.0

CAS NO. COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

12674-11-2Arochlor-1016	110.	U
11104-28-2Arochlor-1221	110.	U
11141-16-5Arochlor-1232	110.	U
53469-21-9Arochlor-1242	110.	U
12672-29-6Arochlor-1248	110.	ַ
11097-69-1Arochlor-1254	210.	
11096-82-5Arochlor-1260	140.	
		_

FORM I PEST

EPA SAMPLE NO.

SED-9

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE0104 SAS No.:

SDG No.: SED-5

Matrix: (soil/water) SOIL

Lab Sample ID: SED-9

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 010724 B02

Level: (low/med) LOW

Date Received: 7/24/01

% Moisture: not dec. 47. dec. Date Extracted: 7/25/01

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 7/26/01

GPC Cleanup: (Y/N) N pH: 6.4 Dilution Factor: 2.00

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

Q.

12674-11-2Arochlor-1016	130.	U
11104-28-2Arochlor-1221	130.	U
11141-16-5Arochlor-1232	130.	υ.
53469-21-9Arochlor-1242	130.	U
12672-29-6Arochlor-1248	130.	ן ט
11097-69-1Arochlor-1254	350.	
11096-82-5Arochlor-1260	720.	1
	·	_

FORM I PEST

EPA SAMPLE NO.

SED-10

Lab Name: AES, INC.

Contract:

L b Code: AES Case No.: DE0104 SAS No.:

SDG No.: SED-5

Matrix: (soil/water) SOIL

Lab Sample ID: SED-10

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 010724 B01

Level: (low/med) LOW

Date Received: 7/24/01

Moisture: not dec. 60. dec.____

Date Extracted: 7/25/01

Estraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 7/26/01

GPC Cleanup: (Y/N) N pH: 6.5

Dilution Factor:

CAS NO.

COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

Q

U 170. 12674-11-2----Arochlor-1016 170. U 11104-28-2----Arochlor-1221 170. U 11141-16-5----Arochlor-1232 170. U 53469-21-9----Arochlor-1242 170. U 12672-29-6----Arochlor-1248 1100. 11097-69-1----Arochlor-1254 370. 11096-82-5----Arochlor-1260

FORM I PEST

EPA SAMPLE NO.

SOIL CMP

Lab Name: AES, INC.

Contract:

SDG No.: SED-5 Lab Code: AES Case No.: DE0104 SAS No.:

Matrix: (soil/water) SOIL

Lab Sample ID: SOIL CMP

Sample wt/vol:

(g/mL) G 30.0

Lab File ID: 010724 B13

(low/med) LOW Level:

Date Received: 7/24/01

% Moisture: not dec. 4.

dec.

Date Extracted: 7/25/01

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 7/26/01

GPC Cleanup: (Y/N) N pH:

4.5

Dilution Factor:

1.00

CAS NO.

COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

Q

U 35. 12674-11-2----Arochlor-1016 U 35. 11104-28-2----Arochlor-1221 35. U 11141-16-5----Arochlor-1232 35. U 53469-21-9----Arochlor-1242 U 35. 12672-29-6----Arochlor-1248 U 35. 11097-69-1----Arochlor-1254 130. 11096-82-5----Arochlor-1260

FORM I PEST

EPA SAMPLE NO.

SW-1

Lab Name: AES, INC.

Contract:

Lb Code: AES Case No.: DE0104 SAS No.: SDG No.: SED-5

Matrix: (soil/water) WATER

Lab Sample ID: SW-1

Simple wt/vol: 1000.0 (g/mL) ML Lab File ID: 010724 B07

Date Received: 7/24/01

Level: (low/med) LOW

Moisture: not dec. 100. dec. ____ Date Extracted: 7/25/01

Estraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 7/26/01

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: .20

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

		T
12674-11-2Arochlor-1016	.065	ប
11104-28-2Arochlor-1221	.065	U
11141-16-5Arochlor-1232	.065	U
53469-21-9Arochlor-1242	.065	U
12672-29-6Arochlor-1248	.065	U
11097-69-1Arochlor-1254	.065	U
11096-82-5Arochlor-1260	.065	U
	·	

FORM I PEST

EPA SAMPLE NO.

SW-2

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE0104 SAS No.:

SDG No.: SED-5

Matrix: (soil/water) WATER

Lab Sample ID: SW-2

Sample wt/vol:

1000.0 (g/mL) ML

Lab File ID: 010724 B08

Level: (low/med) LOW

Date Received: 7/24/01

% Moisture: not dec. 100. dec.___

Date Extracted: 7/25/01

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 7/26/01

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor:

.20

CAS NO.

COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

Q

.065 U 12674-11-2----Arochlor-1016 U .065 11104-28-2----Arochlor-1221 .065 U 11141-16-5----Arochlor-1232 .065 U 53469-21-9----Arochlor-1242 U .065 12672-29-6----Arochlor-1248 .065 U 11097-69-1----Arochlor-1254 U .065 11096-82-5----Arochlor-1260

FORM I PEST

EPA SAMPLE NO.

SW-3

Lab Name: AES, INC.

Contract:

I b Code: AES Case No.: DE0104 SAS No.: SDG No.: SED-5

Matrix: (soil/water) WATER

Lab Sample ID: SW-3

mple wt/vol: 1000.0 (g/mL) ML Lab File ID: 010724 B09

Level: (low/med) LOW

Date Received: 7/24/01

Moisture: not dec. 100. dec._____ Date Extracted: 7/25/01

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 7/26/01

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: .20

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q

		T
12674-11-2Arochlor-1016	.065	ប
11104-28-2Arochlor-1221	.065	U
11141-16-5Arochlor-1232	.065	ប
53469-21-9Arochlor-1242	.065	ប
12672-29-6Arochlor-1248	.065	U
11097-69-1Arochlor-1254	.065	U
11096-82-5Arochlor-1260	.065	U

FORM I PEST

EPA SAMPLE NO.

SW-4

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE0104 SAS No.:

SDG No.: SED-5

Matrix: (soil/water) WATER

Lab Sample ID: SW-4

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 010724 B10

Level: (low/med) LOW

Date Received: 7/24/01

% Moisture: not dec. 100. dec.___

Date Extracted: 7/25/01

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 7/26/01

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: .20

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/L

Q

		1
12674-11-2Arochlor-1016	.065	ับ
11104-28-2Arochlor-1221	.065	ע
11141-16-5Arochlor-1232	.065	ן ט
53469-21-9Arochlor-1242	.065	ן ט
12672-29-6Arochlor-1248	.065	U
11097-69-1Arochlor-1254	.065	U
11096-82-5Arochlor-1260	.065	U

FORM I PEST

EPA SAMPLE NO.

SW-5

Lab Name: AES, INC.

Contract:

Lee Code: AES Case No.: DE0104 SAS No.: SDG No.: SED-5

Matrix: (soil/water) WATER

Lab Sample ID: SW-5

Supple wt/vol: 1000.0 (g/mL) ML Lab File ID: 010724 B11

Level: (low/med) LOW

Date Received: 7/24/01

Moisture: not dec. 100. dec. ____ Date Extracted: 7/25/01

E traction: (SepF/Cont/Sonc) SEPF Date Analyzed: 7/26/01

CAS NO. COMPOUND

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: .20

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232 53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254	.065 .065 .065 .065 .065	U U U U U
11096-82-5Arochlor-1260	.065	_ U

FORM I PEST

EPA SAMPLE NO.

SW-6

Lab Name: AES, INC.

Contract:

Lab Code: AES

Case No.: DE0104 SAS No.:

SDG No.: SED-5

Matrix: (soil/water) WATER

Lab Sample ID: SW-6

Sample wt/vol:

(g/mL) ML 1000.0

Lab File ID: 010724 B12

Level: (low/med) LOW

Date Received: 7/24/01

% Moisture: not dec. 100.

dec.__

Date Extracted: 7/25/01

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 7/26/01

GPC Cleanup: (Y/N) N pH: 6.0

Dilution Factor: .20

CAS NO.

COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

Q

U .065 12674-11-2----Arochlor-1016 .065 U 11104-28-2----Arochlor-1221 U .065 11141-16-5----Arochlor-1232 .065 U 53469-21-9----Arochlor-1242 U .065 12672-29-6----Arochlor-1248 U .065 11097-69-1----Arochlor-1254 U .065 11096-82-5----Arochlor-1260

FORM I PEST

INORGANIC ANALYSIS DATA SHEET

EPA	SAMPLE	NO
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			SED-5 SAS				SDG No.: SED-5
ix (soil/water)	SOIL			Lab Sar	прте	ID: SED-5_
•	ow/med):	LOW			Date Re	eceiv	ed: 07/24/01
lids	:	52.9			-		
	Concentrat	ion Units (1	ıg/L or mg/kg (dry	weight	=):	MG/KG
	CAS No.	Analyte	Concentration	С	Q	М	
	7420 00 5	71		-		$-\left \frac{1}{NR}\right $	
	7429-90-5_			-		- NR	
	7440-36-0			-		- NR	
	7440-38-2		97.5	-		P_	
	7440-39-3_		97.5	-		NR	
		Beryllium_	0.076	ਹ		- P	
	7440-43-9_		0.076_	۱۷۱		- NR	
	7440-70-2			-		- NR	
	7440-47-3_			-		- NR	
	7440-48-4_			-		- NR	
	7440-50-8_			-		- NR	
	7439-89-6_		24 6	-	- NT	- P	• •
	7439-92-1_		24.6_	-	N	- NR	
		Magnesium_		-		_ ' '	
		Manganese_		-		NR NR	•
	7439-97-6			-		- NR	
	7440-02-0_			-		NR NR	
		Potassium_		-		_ NR	
	7782-49-2_					_ NR	
	7440-22-4_			-		- NR	
	7440-23-5_			_		_ NR	
	7440-28-0			_		- NR	
	7440-62-2_			_		- NR	
	7440-66-6	Zinc		_		NR	
		Cyanide		-		- NR	
			<u> </u>	1_		_1	
	•		,				
r Be	fore:	Clar	ity Before:				Texture:
r Af	ter:	Clar	ity After:				Artifacts:
							
ents	:						

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

b Name: ADIRONDACK	ENVIRONMEN	ITAL Contra	act	:		SED-6
	Case No.:		No	.:	-	SDG No.: SED-5_
	2077			Tab Cam	-1-	ID: SED-6_
trix (soil/water):	201r			דימה פמוויו)Te	ID: 3ED=0_
vel (low/med):	LOW			Date Re	ceiv	ed: 07/24/01
Solids:	35.8					
Concentrati	on Units (\	ıg/L or mg/kg (dry	weight):	MG/KG
CAS No.	Analyte	Concentration	С	Q	М	
7429-90-5	Aluminum		-		NR	
1	Antimony				NR	
	Arsenic		$ \Box $		NR	
7440-39-3	Barium	84.6_	$ \overline{B} $		P_	
	Beryllium_		_		NR	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Cadmium	0.47_	В		P_	
7440-70-2_	Calcium		-		NR	
7440-47-3_	Chromium		-		NR NR	
7440-48-4_			$\left - \right $		NR NR	
7440-50-8_	Copper		-		NR NR	
7439-89-6_	Iron	27.9	-	N	P_	
	Lead Magnesium_				NR	
	Manganese_		-		NR	
1 1	Mercury		-		NR	
7440-02-0	Nickel		-		NR	
7440-09-7	Potassium		-		NR	
7782-49-2	Selenium				NR	
7440-22-4					NR	
7440-23-5	Sodium				NR	
7440-28-0	Thallium_		. _		NR	
7440-62-2	Vanadium		. _		NR	
7440-66-6_	Zinc		.		NR	-
	Cyanide		. _		NR NR	
			.		.	
lor Before:	Clar	ity Before:		· · · · · · · · · · · · · · · · · · ·		Texture:
olor After:	Clar	ity After:				Artifacts:
		-				
omments:						

א כוים	SAMPLE	MO
EPA	SAMPLE	NO

Name	: ADIRONDACI	K_ENVIRONMEN	NTAL Contra	ıct	:		SED-7
		Case No.:		No	· . :		SDG No.: SED-5_
				1	Tah Sa	mnle	ID: SED-7_
1X (soil/water)	: 2011 <u> </u>			nan na	.mp10	10. 505 /_
1 (1	ow/med):	LOW			Date R	eceiv	red: 07/24/01
lids	·	37.2					
			ıg/L or mg/kg d	iry	weigh	t):	MG/KG
• •	CAS No.	Analyte	Concentration	C	Q	M	
	CAS NO.	Andryco	00000		~		
	7429-90-5	Aluminum				NR	
	7440-36-0			-		NR	
	7440-38-2			-		NR	
	7440-39-3		97.4	\overline{B}		_ _P	
		Beryllium_				NR	
	7440-43-9		0.58	B		P	
	7440-70-2			-		NR	
	7440-70-2_			-		NR	
	7440-47-3_			-		- NR	
				-		- NR	
	7440-50-8_			-		- NR	
		Iron	38.3	-	N	$- \mathbf{P} $	·
	· · · · · · · · · · · · · · · · · · ·			-		- NR	
		Magnesium_		-		- NR	
				-		- NR	
	7439-97-6_			-	-	$- _{NR}^{NR}$	8
	7440-02-0			-		- NR	. :
		Potassium_		1-1			
	7782-49-2_			-		- NR	·
	7440-22-4_			-		- NR	
	7440-23-5_			-		- NR	
	7440-28-0_		<u> </u>	_		_ NR	
	7440-62-2_			1-1		NR	
	7440-66-6_	Zinc		_		_ NR	
		Cyanide		_		_ NR	
	1	.		 _	l	_ _	1
r Be	fore:	Clar	ity Before:				Texture:
r Af		Clar	ity After:				Artifacts:
ents							
					*-		

EPA	SAMPLE	NO
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b Name:	ADIRONDACE	C ENVIRONMEN	ITAL Contra	act			<u> </u>	SED-8	
	AES			No.	.:		SDG	No.:	SED-5_
				_		_		0	
trix (s	soil/water):	: SOIL]	Lab Sam	ple	ID: S	SED-8	_
vel (lo	ow/med):	LOW		I	Date Re	ceiv	ed: (07/24,	/01
Solids:	:	30.8							
	Concentrati	ion Units (\	ıg/L or mg/kg	dry	weight	:):	MG	/KG	
. 1						T			
	CAS No.	Analyte	Concentration	C	Q	M			
	7429-90-5	Aluminum		- -		NR			
	7440-36-0			_ .		NR			
		Arsenic				NR			
		Barium	206	-		P_			
	7440-41-7	Beryllium_				NR			
	7440-43-9		1.4_	$ \overline{B} $		P_			
	7440-70-2		,	_ .		NR			
	7440-47-3			$ \bot $		NR			
	7440-48-4					NR			
	7440-50-8					_ NR			
,	7439-89-6					NR		•	
	7439-92-1		71.9	-	N	P_			
		Magnesium_	-	-		NR			
		Manganese_		-		NR			
	7439-97-6			-		NR			
	7440-02-0			-		NR			
		Potassium_				NR			
	7782-49-2			-		NR			
	7440-22-4					NR			
	7440-23-5	· —		1-1		NR			
	7440-28-0	Thallium				NR			
	7440-62-2					NR			
	7440-66-6					NR			
	_	Cyanide				NR			
						_			
lor Be	fore:	Clar	ity Before:				T	'extur	e:
lor Af	ter:	Clar	ity After:	<u>ئىنى</u>			A	rtifa	cts:
		-			•				
mments	•				•				

EPA	SAMPLE	NO.

rix (soil/water):	SOIL			Lab Sar	nple	ID: SED-9_
	ow/med):	LOW	:		Date Re	eceiv	ed: 07/24/01
olids		53.0					
	Concentrati	ion Units (ıg/L or mg/kg o	dry	weight	=):	MG/KG
	CAS No.	Analyte	Concentration	С	Q	М	
	7429-90-5	Aluminum		-		NR	
	7440-36-0			-		NR	
	7440-38-2			-		NR	
	7440-39-3		29.1	В		P_	
		Beryllium				NR	
	7440-43-9		2.3	-		P_	
	7440-70-2					NR	
	7440-47-3			-		NR	
	7440-48-4			-		NR	
	7440-50-8					NR	
	7439-89-6			-		NR	
	7439-92-1		396	-	N	- P_	•
		Magnesium_		-		NR	
		Manganese_		-		NR	
	7439-97-6			-		- NR	
	7440-02-0			-		NR	
		Potassium		-		NR	
	7782-49-2					NR	
	7440-22-4			-		NR	
	7440-23-5			-		NR	
	7440-28-0_			-		NR	
	7440-62-2	Vanadium		-		- NR	
	7440-66-6	Zinc		-		NR	
	/ 1.0 00 0_	Cyanide		-		NR	
				. — .			
					*.		
or Be	fore:	Clar	ity Before:	_			Texture:
	ter:		ity After:				Artifacts:

EPA S	AMPLE	NO
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b Name:	: ADIRONDACE	K_ENVIRONMEN	TAL Contra	ct	<u> </u>	<u> </u>	SED-10
b Code	: AES	Case No.:	SED-5 SAS	No	.:	_	SDG No.: SED-5_
trix (soil/water)	SOIL		;	Lab Sam	ple I	D: SED-10_
vel (lo	ow/med):	LOW			Date Re	ceive	d: 07/24/01
Solids	:	39.8					
	Concentrat	ion Units (ıg/L or mg/kg (iry	weight	:):	MG/KG
	CAS No.	Analyte	Concentration	С	Q	M	
	7429-90-5	Aluminum		-	····	NR	
	7440-36-0					NR	
	7440-38-2			_		NR	
	7440-39-3		137			P_	
	7440-41-7	Beryllium_				NR	
	7440-43-9		3.7_	$ _ $		_ P_	
	7440-70-2	Calcium		_		_ NR	
	7440-47-3	Chromium_		_		NR	
	7440-48-4	Cobalt		_		_ NR	
	7440-50-8	Copper		$ _{-} $		_ NR	•
	7439-89-6	Iron		_		_ NR	•
	7439-92-1	Lead	48.6_	_	N	_ P	
	7439-95-4	Magnesium_		_		_ NR	
	7439-96-5	Manganese_		1_1		_ NR	
	7439-97-6	Mercury		_		_ NR	
	7440-02-0	Nickel		$ _{-} $		_ NR	
	7440-09-7	Potassium_		_		_ NR	
,	7782-49-2	Selenium		1_1		_ NR	
	7440-22-4_	Silver		_		_ NR	
	7440-23-5			_		_ NR	•
	7440-28-0_	Thallium		_		_ NR	
	7440-62-2_	Vanadium		_		NR	
	7440-66-6			_		_ NR	
		Cyanide		-		_ NR	
				_		_	
					•		
olor Be	fore:	Clar	ity Before:	_			Texture:
olor Af	ter:	Clar	ity After:				Artifacts:
omments	•						

INORGANIC ANALYSIS DATA SHEET

EPA	SAMPLE	NO
11.47		110

ix (8	soil/water)	: SOIL			Lab Sar	mple	ID: SOIL_CMP_
1 (10	ow/med):	LOW	,		Date Re	eceiv	ed: 07/24/01
lids	;	95.9					-
	Concentrat	ion Units (1	ig/L or mg/kg	dry	weight	t):	MG/KG
	CAS No.	Analyte	Concentration	С	Q	М	
	7429-90-5	Aluminum	·	-		$-\left \frac{1}{NR}\right $	
	7440-36-0			-		NR	
	7440-38-2			-		NR	
	7440-39-3		33.7	\overline{B}		P_	
		Beryllium_				NR	
	7440-43-9		0.042	ีซิ		_ P_	
	7440-70-2			1_1		NR	
	7440-47-3					NR	
	7440-48-4					_ NR	
	7440-50-8					NR	
	7439-89-6	Iron				NR	
	7439-92-1	Lead	20.8_	$ \bot $	N	_ P_	
	7439-95-4					_ NR	•
	7439-96-5	Manganese_				_ NR	
	7439-97-6			IΞI		_ NR	
	7440-02-0	Nickel				_ NR	
	7440-09-7	Potassium				_ NR	
	7782-49-2			$ \Box $		_ NR	
	7440-22-4					_ NR	
	7440-23-5	Sodium				_ NR	
-	7440-28-0	Thallium_				_ NR	
	7440-62-2	Vanadium				_ NR	
	7440-66-6	Zinc		_		_ NR	• • • • • • • • • • • • • • • • • • • •
		Cyanide		_		_ NR	
				_		_	
r Be	fore:	Clar	ity Before:				Texture:
	ter:	_	ity After:				Artifacts:

EPA SAMPLE NO.

ab Name	: ADIRONDACK	_ENVIRONMEN	TAL Contra	ct	:		2W-1
			SED-5 SAS			-	SDG No.: SED-5_
atrix (soil/water):	WATER_			Lab Sam	ple	ID: SW-1
evel (l	ow/med):	LOW	,		Date Re	ceiv	red: 07/24/01
Solids	:						
	Concentrati	ion Units (1	ig/L or mg/kg (lry	weight):	UG/L
	CAS No.	Analyte	Concentration	С	Q	М	
	7429-90-5	Aluminum		-		NR	
	7440-36-0	Antimony		-		NR	
		Arsenic		-		NR	
	7440-38-2		16.7	B		P_	
	7440-41-7					NR	
	7440-43-9		0.20	ប៊		P_	
	7440-70-2				*******	NR	
	7440-47-3			-		NR	
	7440-48-4			-		NR	
	7440-50-8			-		NR	
	7439-89-6		-	-		NR	
	7439-92-1		2.8	ਹ			
		Magnesium				P_ NR	
		Manganese_		-		NR	
	7439-97-6			-		NR	
	7440-02-0			-		NR	
		Potassium_		-		NR	
	7782-49-2			-	· · · · · · · · · · · · · · · · · · ·	NR	
	7440-22-4			-		NR	
	7440-23-5	Sodium				NR	B)
	7440-28-0	Thallium		-		NR	
	7440-62-2	Vanadium		-		NR	
	7440-66-6	Zinc		-	··	NR	
		Cyanide				NR	1
				-		-	
				'-		- ,	
olor Be	fore:	Clar	ity Before:				Texture:
olor Af	ter:	Clar	ity After:	_			Artifacts:
Comments	:						
				- 5			

INORGANIC ANALYSIS DATA SHEET

EPA	SAMPLE	NO
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Name	: ADIRONDACE	K_ENVIRONME	NTAL Contra	act	:		SW-2	
Code	AES	Case No.:	SED-5 SAS	No	•• _		SDG No.: SED-	-5_
cix (s	soil/water)	: WATER_			Lab s	Sample	e ID: SW-2	_
el (lo	ow/med):	LOW			Date	Recei	ived: 07/24/01	
	· ·							
olids			•					
	Concentrati	ion Units (ug/L or mg/kg	dry	weig	ght):	UG/L	
_	CAS No.	Analyte	Concentration	С	Q	М		
	7400 00 5	27		-		$ _{\overline{\mathrm{N}}}$	-	
	7429-90-5_			-		$ _{N}$	I .	
	7440-36-0_			-		NI	•	
	7440-38-2		8.2_	B		P		
	7440-39-3					$ _{NI}^{P}$		
		Beryllium_	0.20	ᅵᇴᅵ		P		
	7440-43-9			۱۹۱		$ _{NI}^{P}$		
	7440-70-2			-		NI		
	7440-47-3			-		NI	E .	
	7440-48-4			-		NI	2	
	7440-50-8_			-		NI	•	
	7439-89-6_		2.8	╻			1	
	7439-92-1_			١٠١		P_NI		
	1	Magnesium_		1-1				
	(Manganese_		-				
	7439-97-6_			-		NI	· .	
	7440-02-0_			-		NI	3	
		Potassium_	<u> </u>	1-1		NI		
	7782-49-2_			1-1		NI	The state of the s	
	7440-22-4_					NI		
	7440-23-5					NI		
	7440-28-0			-		NI	1	
	7440-62-2_			-		NI		
	7440-66-6	Zinc		-		N		
		Cyanide				N	K	
	l			 _		I	 [
	C	Class	it. Doforo:				Texture:	
r Be	fore:	Clar	ity Before:	_		_	rexcure.	
r Aft	ter:	Clar	ity After:		 		Artifacts:	
nents	:							

EPA	SAMPLE	NO.
		410

SW-3

b Name:	ADIRONDACK	_ENVIRONMEN	TAL Con	tra	ict:				
b Code:	AES	Case No.:	SED-5 S	AS	No.	:			SDG No.: SED-5_
trix (s	soil/water):	WATER_			L	ab	Samp	le I	D: SW-3
evel (lo	ow/med):	LOW	,		D	ate	Rec	eive	d: 07/24/01
Solids	:								
	Concentrati	on Units (ıg/L or mg/k	g	iry	wei	.ght)	:	UG/L
		:		.					
٠	CAS No.	Analyte	Concentrati	on	С	Q)	M	
	7429-90-5	Aluminum			_			NR	
	7440-36-0							NR	
,	7440-38-2							NR	
	7440-39-3_		10.	5_	\overline{B}			P_	
	7440-41-7_				- -			NR	
	7440-43-9_		0.2	0_	" -			P_	
	7440-70-2				- -			NR	
	7440-47-3_				- -			NR	
	7440-48-4_				- -			NR NR	
		Copper			- -			NR	
		Iron		8	ਜੂ −				•
	7439-92-1_ 7439-95-4	Lead		°-				P_ NR	
	7439-95-4_				- -			NR	
•	7439-90-5_				- -			NR	
		Nickel			- -			NR	
		Potassium			- -			NR	
	7782-49-2	Selenium			- -			NR	
	7440-22-4	Silver			- -			NR	
	7440-23-5	Sodium			- -			NR	
	7440-28-0	Thallium			- -			NR	
		Vanadium						NR	
	7440-66-6	Zinc						NR	
		Cyanide			_ _			NR	
					_ _				
,				•					
olor Be	fore:	Clar	ity Before:		<u> </u>				Texture:
olor Af	ter:	Clar	ity After:		4				Artifacts:
mments	•								
	•						•		
			<u> </u>						
									

1 INORGANIC ANALYSIS DATA SHEET

EPA	SAMPLE	NO.
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Code	: AES	Case No.:	SED-5 SAS	No	·:		SDO	G No.: SED-5_
rix (soil/water)	: WATER_	•		Lab Sa	mple	ID:	SW-4
el (l	ow/med):	LOW			Date R	eceiv	red:	07/24/01
olids	•							
	Concentrat	ion Units (1	ıg/L or mg/kg (dry	y weigh	t):	U	G/L
	CAS No.	Analyte	Concentration	С	Q	М		
	7429-90-5	Aluminum		_		NR		
	7440-36-0	Antimony		-		NR		
	7440-38-2	Arsenic		-		NR		
	7440-39-3	Barium	9.7	B		_ P		
	7440-41-7	Beryllium_				NR		
	7440-43-9	Cadmium	0.20_	บิ		_ P_		
	7440-70-2	Calcium		_		NR		
	7440-47-3	Chromium		-	-	NR		
	7440-48-4	Cobalt		_		NR		
	7440-50-8	Copper		_		NR		
	7439-89-6	Iron		-		NR	•	
	7439-92-1	Lead	2.8	Ū		_ P		
	7439-95-4	Magnesium				NR		
	7439-96-5	Manganese_		-		NR		
	7439-97-6	Mercury				NR		
	7440-02-0	Nickel				NR		
	7440-09-7	Potassium_				NR		
	7782-49-2	Selenium		_		NR		
	7440-22-4	Silver				NR		
	7440-23-5	Sodium				NR		
	7440-28-0	Thallium		_		NR		
	7440-62-2	Vanadium_		_		_ NR		
	7440-66-6	Zinc		_		_ NR		
		Cyanide				NR		
				_		_		
Name The s	for .	C1	ity Before:				r	Texture:
or Be	fore:	Clar.	ity Before:	_	<u> </u>		•	rexture.
or Af	ter:	Clar	ity After:				. 1	Artifacts:
			<u>.</u> ·					
nents	•	-						

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		_ENVIRONMEN					
	AES	Case No.:	SED-5 SAS	No			SDG No.: SED-5_
Matrix (s	soil/water)	WATER_			Lab S	Sample	e ID: SW-5
Level (lo	ow/med):	LOW			Date	Recei	ived: 07/24/01
Solids:	:						
	Concentrati	ion Units (1	ig/L or mg/kg o	dry	weig	ght):	UG/L
	CAS No.	Analyte	Concentration	С	Q	М	
	7429-90-5	Aluminum		-		$ _{\overline{NF}}$	R
	7440-36-0	Antimony		-		NF	1
	7440-38-2	Arsenic		-		NF	
	7440-39-3	Barium	12.4	B		P	
	7440-41-7	Beryllium				- NI	
	7440-43-9	Cadmium	0.20	ש		P_	
	7440-70-2	Calcium				- NI	
	7440-47-3	Chromium		-		NI	1
	7440-48-4	Cobalt		-		NI NI	
	7440-50-8	Copper				NI	•
	7439-89-6	Iron		-		NI	1
	7439-92-1	Lead	10.4	-		P	
	7439-95-4	Magnesium_		-		NI	
	7439-96-5	Manganese_		-		NI NI	
	7439-97-6	Mercury		-		NI	1
	7440-02-0	Nickel		-		NI	
	7440-09-7	Potassium		-		NI	3
•	7782-49-2	Selenium		-	-	NI	
	7440-22-4	Silver				NI	
	7440-23-5			-		NI	. I
•	7440-28-0	Thallium		-		NI	R
	7440-62-2			-		N	R
	7440-66-6					NI	R
	_	Cyanide		-		N	R
		-		-			
Color Be	fore:	Clar	ity Before:				Texture:
Color Af	ter:	Clar	ity After:				Artifacts:
Comments	:						
						·	
							
							The state of the s

INORGANIC ANALYSIS DATA SHEET

EPA	SAMPLE	NO.
LEA	SHIFTE	NO.

) Name	: ADIRONDACE	K ENVIRONME	NTAL Contra	act	:		SW-6
	: AES			No	.:		SDG No.: SED-5_
	soil/water):				Lab Sa	mple	ID: SW-6
el (l	ow/med):	LOW			Date R	eceiv	red: 07/24/01
olids	•						
	Concentrati	ion Units (ug/L or mg/kg o	iry	weigh	t):	UG/L
	CAS No.	Analyte	Concentration	С	Q	м	
						- ==	
	7429-90-5_	Aluminum				NR NR	
	7440-36-0_			-		- NR	
	7440-38-2	Arsenic	100	=		- NR	
	7440-39-3_	Barium	12.3_	В		- P_ NR	,
	7440-41-7_	Beryllium_	0.20	ਹ		$-\left \begin{smallmatrix} \mathbf{N}\mathbf{K} \\ \mathbf{P} \end{smallmatrix} \right $	• •
	7440-43-9_	Cadmium	0.20	۱۰۱			•
	7440-70-2_	Calcium		-		- NR	
	7440-47-3_	Chromium		-		- NR	
	7440-48-4_	Cobalt		-		- NR	
	7440-50-8_	Copper		-		- NR	
	7439-89-6_	Iron		ਜ਼		- NR	,
	7439-92-1_	Lead	2.8_	4		_ P_	
•	7439-95-4_	Magnesium_		-		- NR	
	7439-96-5_	Manganese_		-		- NR	
	7439-97-6_	Mercury		-		- NR	
	7440-02-0_	Nickel		-		- NR	·
	7440-09-7_	Potassium_		-		- NR	
	7782-49-2_	Selenium		-		NR NR	
	7440-22-4_	Silver		1-1		NR NR	
	7440-23-5_	Sodium		-		- NR	
	7440-28-0_	Thallium		-		- NR	
•	7440-62-2_	Vanadium		-		- NR	
	7440-66-6	Zinc		-		- NR	
		Cyanide		-		- ""	
	l	l		I — I		_!	
or Be	fore:	Clar	ity Before:		<u></u>		Texture:
or Af	ter:	Clar	ity After:				Artifacts:
nments	•						
	· .						

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CONVENTIONALS ANALYSIS DATA SHEET

SED-5

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES Case No.: DE 0104 SAS No.: SDG No.: SED-5

Matrix (soil/water): Soil

Lab Sample ID: 010724B-06

Level (Low/Med):

Low

Date Received: 7/24/01

% Solids:

53

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N	·			EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 9056
Chemical Oxygen Demand (COD)		_		EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 9056
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 9056
Fluoride	4.5			EPA 9056
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments				
	 		<u> </u>	
		•		

FORM I - CONV

CONVENTIONALS ANALYSIS DATA SHEET

SED-6

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0104 SAS No.: SDG No.: SED-5

Matrix (soil/water): Soil

Lab Sample ID: 010724B-05

Level (Low/Med): Low

Date Received: 7/24/01

% Solids:

36

Concentration Units (ug/L or mg/Kg dry weight):

mg/Kg

Analyte	Concentration	C	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 9056
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 9056
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 9056
Fluoride	11			EPA 9056
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
Нq				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments		
		· · · · · · · · · · · · · · · · · · ·

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CONVENTIONALS ANALYSIS DATA SHEET

SED-7

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES Case No.: DE 0104 SAS No.: SDG No.: SED-5

Matrix (soil/water): Soil

Lab Sample ID: 010724B-04

Level (Low/Med): Low

Date Received: 7/24/01

% Solids:

37

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 9056
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 9056
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 9056
Fluoride	38			EPA 9056
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196
			l	

Comments	

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CONVENTIONALS ANALYSIS DATA SHEET

SED-8

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0104 SAS No.:

SDG No.: SED-5

Matrix (soil/water): Soil

Lab Sample ID: 010724B-03

Level (Low/Med): Low

Date Received: 7/24/01

% Solids:

31

Analyte	Concentration	C	Q	Method
Total Kjeldahl Nitrogen, as N			·	EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 9056
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 9056
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 9056
Fluoride	51			EPA 9056
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
Н				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium	<u> </u>			SW 7196
		<u> </u>		

comments	3	

CONVENTIONALS ANALYSIS DATA SHEET

SED-9

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES Case No.: DE 0104 SAS No.: SDG No.: SED-5

Matrix (soil/water): Soil

Lab Sample ID: 010724B-02

Level (Low/Med):

Low

Date Received: 7/24/01

% Solids:

53

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 9056
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)	·			EPA 160.1
Sulfate	-			EPA 9056
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 9056
Fluoride	5.3			EPA 9056
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	·	 ····	 · · · · · · · · · · · · · · · · · · ·

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CONVENTIONALS ANALYSIS DATA SHEET

SED-10

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0104 SAS No.: SDG No.: SED-5

Matrix (soil/water): Soil

Lab Sample ID: 010724B-01

Level (Low/Med): Low

Date Received: 7/24/01

% Solids:

40

Analyte	Concentration	C	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 9056
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)	·			EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 9056
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 9056
Fluoride	17			EPA 9056
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
Йq				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196
			<u> </u>	

Comments	

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CONVENTIONALS ANALYSIS DATA SHEET

Soil CMP

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES Case No.: DE 0104 SAS No.: SDG No.: SED-5

Matrix (soil/water): Soil

Lab Sample ID: 010724B-13

Level (Low/Med):

Low

Date Received: 7/24/01

% Solids:

96

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 353.1
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 9056
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 9056
Fluoride	2.1	Ŭ		EPA 9056
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН	·			EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments			

CONVENTIONALS ANALYSIS DATA SHEET

sw-1

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES Case No.: DE 0104 SAS No.: SDG No.: SED-5

Matrix (soil/water): Water

Lab Sample ID: 010724B-07

Level (Low/Med): Low

Date Received: 7/24/01

% Solids:

0.0

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	100	U		EPA 300.0
Eh	·			
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments					

1 CONVENTIONALS ANALYSIS DATA SHEET

SW-2

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES Case No.: DE 0104 SAS No.: SDG No.: SED-5

Matrix (soil/water): Water

Lab Sample ID: 010724B-08

Level (Low/Med): Low

Date Received: 7/24/01

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity			-	EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	100	U		EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196
			<u> </u>	

Comments		 	

FORM I - CONV

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CONVENTIONALS ANALYSIS DATA SHEET

sw-3

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0104 SAS No.: SDG No.: SED-5

Matrix (soil/water): Water

Lab Sample ID: 010724B-09

Level (Low/Med): Low

Date Received: 7/24/01

% Solids:

0.0

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate			·	EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	170			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

CONVENTIONALS ANALYSIS DATA SHEET

SW-4

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES Case No.: DE 0104 SAS No.: SDG No.: SED-5

Matrix (soil/water): Water

Lab Sample ID: 010724B-10

Level (Low/Med):

Low

Date Received: 7/24/01

% Solids:

0.0

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 353.1
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	240			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	•

1 CONVENTIONALS ANALYSIS DATA SHEET

SW-5

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0104 SAS No.: SDG No.: SED-5

Matrix (soil/water): Water Lab Sample ID: 010724B-11

Level (Low/Med): Low

Date Received: 7/24/01

% Solids:

0.0

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 353.1
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride			<u> </u>	EPA 300.0
Fluoride	220			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
Н				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments		

CONVENTIONALS ANALYSIS DATA SHEET

SW-6

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES Case No.: DE 0104 SAS No.: SDG No.: SED-5

Matrix (soil/water): Water

Lab Sample ID: 010724B-12

Level (Low/Med): Low

Date Received: 7/24/01

% Solids:

0.0

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 353.1
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)	,			EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	360			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments			

EPA SAMPLE NO.

FP-1 0-6"

Lab Name: AES, INC.

Contract:

L b Code: AES Case No.: DE 0309 SAS No.: SDG No.: FP-1

Matrix: (soil/water) SOIL

Lab Sample ID: FP-1

Simple wt/vol: 30.0 (q/mL) G Lab File ID: 030828010-008

Level: (low/med) LOW

Date Received: 08/28/03

Moisture: not dec. 42. dec. ____ Date Extracted: 08/29/03

E traction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/30/03

3PC Cleanup: (Y/N) N pH: 5.7 Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

12674-11-2Arochlor-1016	58. บ
11104-28-2Arochlor-1221	58. U
11141-16-5Arochlor-1232	58. + JU
53469-21-9Arochlor-1242	58. U
12672-39-6Arochlor-1248	58. U
11097-69-1Arochlor-1254	58. U
11096-82-5Arochlor-1260	18. J

FORM I PEST

EPA SAMPLE NO.

Lab Name: AES, INC.

Contract:

FP-2

Lab Code: AES

Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix: (soil/water) SOIL

Lab Sample ID: FP-2

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 030828010-006

Level: (low/med) LOW

Date Received: 08/28/03

% Moisture: not dec. 32. dec.

Date Extracted: 08/29/03

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/30/03

GPC Cleanup: (Y/N) N pH: 5.6 Dilution Factor:

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG

0

12674-11-2Arochlor-1016				49.	U
11104-28-2Arochlor-1221	•			49.	Ū
11141-16-5Arochlor-1232				49.	U
53469-21-9Arochlor-1242		*	j.	49.	U
12672-29-6Arochlor-1248				49.	U
11097-69-1Arochlor-1254				49.	U
11096-82-5Arochlor-1260				24.	J

FORM I PEST

EPA SAMPLE NO.

FP-3

Lab Name: AES, INC.

Contract:

L b Code: AES Case No.: DE 0309 SAS No.: SDG No.: FP-1

Matrix: (soil/water) SOIL

Lab Sample ID: FP-3

Simple wt/vol: 30.0 (g/mL) G Lab File ID: 030828010-009

Level: (low/med) LOW

Date Received: 08/28/03

Moisture: not dec. 36 dec. ____ Date Extracted: 08/29/03

E traction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/30/03

GPC Cleanup: (Y/N) N pH: 4.9 Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

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		U
		111.
	52.	lυ
	52.	U
·	52.	U
	52.	U
		52. 52.

FORM I PEST

EPA SAMPLE NO.

FP-4

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix: (soil/water) SOIL

Lab Sample ID: FP-4

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 030828010-005

Level: (low/med) LOW

Date Received: 08/28/03

% Moisture: not dec. 56. dec.

Date Extracted: 08/29/03

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/30/03

GPC Cleanup: (Y/N) N pH: 5.6

Dilution Factor:

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

10674 11 0 7 7 7 1016	7.6	
12674-11-2Arochlor-1016	76.	10
11104-28-2Arochlor-1221	76.	U ·
11141-16-5Arochlor-1232	76.	U
53469-21-9Arochlor-1242	76.	U
12672-29-6Arochlor-1248	76.	U
11097-69-1Arochlor-1254	90	
11096-82-5Arochlor-1260	76.	U

FORM I PEST

EPA SAMPLE NO.

FS-1

Lab Name: AES, INC.

Contract:

Lob Code: AES Case No.: DE 0309 SAS No.: SDG No.: FP-1

Lab Sample ID: FS-1 Matrix: (soil/water) SOIL

Simple wt/vol: 30.0 (g/mL) G Lab File ID: 030828010-007

Date Received: 08/28/03 L vel: (low/med) LOW

% Moisture: not dec. 35. dec. Date Extracted: 08/29/03

E traction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/30/03

GPC Cleanup: (Y/N) N pH: 5.5 Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

		ł
12674-11-2Arochlor-1016	51.	U
11104-28-2Arochlor-1221	51.	U
11141-16-5Arochlor-1232	51.	U
53469-21-9Arochlor-1242	51.	U
12672-29-6Arochlor-1248	51.	U
11097-69-1Arochlor-1254	51.	U
11096-82-5Arochlor-1260	26.	J
		ļ.

FORM I PEST

EPA SAMPLE NO.

MW-6

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix: (soil/water) WATER

Lab Sample ID: MW-6

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 030828010-012

Level: (low/med) LOW

Date Received: 08/28/03

% Moisture: not dec. dec._____

Date Extracted: 08/29/03

Extraction: (SepF/Cont/Sonc) SepF

Date Analyzed: 08/29/03

GPC Cleanup: (Y/N) N pH: 7

Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/L

		1
12674-11-2Arochlor-1016	.065	U
11104-28-2Arochlor-1221	.065	U
11141-16-5Arochlor-1232	.065	U
53469-21-9Arochlor-1242	.065	U
12672-29-6Arochlor-1248	.065	U
11097-69-1Arochlor-1254	.065	U
11096-82-5Arochlor-1260	.065	U
		İ

FORM I PEST

EPA SAMPLE NO.

MW - 7

Lab Name: AES, INC.

Contract:

Code: AES Case No.: DE 0309 SAS No.: SDG No.: FP-1

Matrix: (soil/water) WATER

Lab Sample ID: MW-7

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 030828010-015

Low/med) LOW

Date Received: 08/28/03

% Moisture: not dec. dec.____

Date Extracted: 08/29/03

Etraction: (SepF/Cont/Sonc) SepF Date Analyzed: 08/29/03

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/L

12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232 53469-21-9Arochlor-1242	.065 .065 .065 .065	บ บ บ บ
11141-16-5Arochlor-1232		U
12672-29-6Arochlor-1248	, , , , ,	ប
11097-69-1Arochlor-1254	.065	U
11096-82-5Arochlor-1260	.065	

FORM I PEST

EPA SAMPLE NO.

8 - WM

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix: (soil/water) WATER

Lab Sample ID: MW-8

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 030828010-016

Level: (low/med) LOW

Date Received: 08/28/03

% Moisture: not dec. dec.____

Date Extracted: 08/29/03

Extraction: (SepF/Cont/Sonc) SepF

Date Analyzed: 08/29/03

GPC Cleanup: (Y/N) N

pH: 7

Dilution Factor: 1.00

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q

		<u> </u>
12674-11-2Arochlor-1016	.065	ט
11104-28-2Arochlor-1221	.065	U
11141-16-5Arochlor-1232	.065	U
53469-21-9Arochlor-1242	.065	U
12672-29-6Arochlor-1248	.065	U
11097-69-1Arochlor-1254	.065	U
11096-82-5Arochlor-1260	.065	U

FORM I PEST

EPA SAMPLE NO.

MW - 9

Contract: Lab Name: AES, INC.

Code: AES Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix: (soil/water) WATER

Lab Sample ID: MW-9

3 mple wt/vol: 1000.0 (g/mL) ML Lab File ID: 030828010-017

ivel: (low/med) LOW

Date Received: 08/28/03

Moisture: not dec. dec.____

Date Extracted: 08/29/03

Erraction: (SepF/Cont/Sonc) SepF Date Analyzed: 08/29/03

FPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

12674-11-2Arochlor-1016		.065	U
11104-28-2Arochlor-1221	*	.065	U
11141-16-5Arochlor-1232		.065	U
53469-21-9Arochlor-1242		.065	U
12672-29-6Arochlor-1248		.065	U
11097-69-1Arochlor-1254		.065	U
11096-82-5Arochlor-1260	4	.065	U

FORM I PEST

EPA SAMPLE NO.

MW-10

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix: (soil/water) WATER

Lab Sample ID: MW-10

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 030828010-018

Level: (low/med) LOW

Date Received: 08/28/03

% Moisture: not dec. dec.

Date Extracted: 08/29/03

Extraction: (SepF/Cont/Sonc) SepF

Date Analyzed: 08/30/03

GPC Cleanup: (Y/N) N pH: 7

Dilution Factor:

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L CAS NO. COMPOUND

	 	1
12674-11-2Arochlor-1016	. 065	
11104-28-2Arochlor-1221	.065	Ū
11141-16-5Arochlor-1232	.065	U
53469-21-9Arochlor-1242	.065	U
12672-29-6Arochlor-1248	.065	U
11097-69-1Arochlor-1254	.065 .065	U
11096-82-5Arochlor-1260	.005	

FORM I PEST

EPA SAMPLE NO.

SDG No.: FP-1

MW-12

Lab Name: AES, INC.

Contract:

Lo Code: AES Case No.: DE 0309 SAS No.:

Matrix: (soil/water) WATER Lab Sample ID: MW-12

Lab File ID: 030828010-010 Sample wt/vol: 1000.0 (g/mL) ML

Date Received: 08/28/03 Low/med) LOW

Date Extracted: 08/29/03 % Moisture: not dec. dec.

Etraction: (SepF/Cont/Sonc) SepF Date Analyzed: 08/29/03

Dilution Factor: 1.00 GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L CAS NO. COMPOUND

.065 IJ 12674-11-2----Arochlor-1016 11104-28-2----Arochlor-1221 .065 U U .065 11141-16-5----Arochlor-1232 U .065 53469-21-9----Arochlor-1242 U .065 12672-29-6----Arochlor-1248 U 11097-69-1----Arochlor-1254 .065 U 11096-82-5----Arochlor-1260 .065

FORM I PEST

EPA SAMPLE NO.

MW-13

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix: (soil/water) WATER

Lab Sample ID: MW-13

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 030828010-011

Level: (low/med) LOW

Date Received: 08/28/03

% Moisture: not dec. dec.____

Date Extracted: 08/29/03

Extraction: (SepF/Cont/Sonc) SepF

Date Analyzed: 08/29/03

GPC Cleanup: (Y/N) N pH: 7

Dilution Factor:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg	J) UG/L	Q
11104-28-2 11141-16-5 53469-21-9 12672-29-6 11097-69-1	-Arochlor-1016 -Arochlor-1221 -Arochlor-1232 -Arochlor-1242 -Arochlor-1248 -Arochlor-1254 -Arochlor-1260		.065 .065 .065 .065 .065	U U U U U U

FORM I PEST

EPA SAMPLE NO.

MW-14

Lab Name: AES, INC.

Contract:

Lo Code: AES Case No.: DE 0309 SAS No.: SDG No.: FP-1

Matrix: (soil/water) water

Lab Sample ID: MW-14

Simple wt/vol: 1000.0 (g/mL) ML

Lab File ID: 030828010-013

Level: (low/med) LOW

Date Received: 08/28/03

% Moisture: not dec. dec.____

Date Extracted: 08/29/03

Etraction: (SepF/Cont/Sonc) Sept

Date Analyzed: 08/30/03

GPC Cleanup: (Y/N) N pH: 7. Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/L Q

	. !	
12674-11-2Arochlor-1016	 .065	U
11104-28-2Arochlor-1221	.065	U
11141-16-5Arochlor-1232	.065	υ.
53469-21-9Arochlor-1242	.065	U
12672-29-6Arochlor-1248	.065	U .
11097-69-1Arochlor-1254	.088	
11096-82-5Arochlor-1260	.065	U
	and the second second	,

FORM I PEST

EPA SAMPLE NO.

SED-11 0-6"

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix: (soil/water) SOIL

Lab Sample ID: SED-11

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 030828010-004

Level: (low/med) LOW

Date Received: 08/28/03

% Moisture: not dec. 26. dec.

Date Extracted: 08/29/03

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 08/30/03

GPC Cleanup: (Y/N) N pH: 5.8

Dilution Factor: 1.00

CAS NO.

COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

Q

12674-11-2----Arochlor-1016 11104-28-2----Arochlor-1221 11141-16-5----Arochlor-1232 53469-21-9----Arochlor-1242 12672-29-6----Arochlor-1248

U 45. 45. U U 45. U 45.

11097-69-1----Arochlor-1254 11096-82-5----Arochlor-1260

68. 45.

45.

U

U

FORM I PEST

Lab Name: AES, INC.

Contract:

SED-12

O-6"

Loc Code: AES Case No.: DE 0309 SAS No.: SDG No.: FP-1

Matrix: (soil/water) SOIL Lab Sample ID: SED-12

3 mple wt/vol: 30.0 (g/mL) G Lab File ID: 030828010-003

Level: (low/med) LOW Date Received: 08/28/03

Moisture: not dec. 30. dec. ____ Date Extracted: 08/29/03

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/30/03

GPC Cleanup: (Y/N) N pH: 5.6 Dilution Factor: 1.00

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG Q

12674-11-2Arochlor-1016	48.	U
11104-28-2Arochlor-1221	48.	U
11141-16-5Arochlor-1232	48.	U
53469-21-9Arochlor-1242	48.	U
12672-29-6Arochlor-1248	48.	U
11097-69-1Arochlor-1254	52.	
11096-82-5Arochlor-1260	48.	U

FORM I PEST

EPA SAMPLE NO.

SED-13

_ab Name: AES, INC.

Contract:

Lab Code: AES

Case No.: DE 0309 SAS No.:

SDG. No.: FP-1

Matrix: (soil/water) SOIL

Lab Sample ID: SED-13

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 030828010-002

Level: (low/med) LOW

Date Received: 08/28/03

 % Moisture: not dec.
 58.
 dec.

Date Extracted: 08/29/03

Extraction: (SepF/Cont/Sonc) S0NC

Date Analyzed: 08/30/03

GPC Cleanup: (Y/N) N

pH: 6.3

Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

Q

U. 79. 12674-11-2----Arochlor-1016 79. U 11104-28-2----Arochlor-1221 U 79. 11141-16-5----Arochlor-1232 79. U 53469-21-9----Arochlor-1242 79. U 12672-29-6----Arochlor-1248 79. IJ 11097-69-1----Arochlor-1254 130. 11096-82-5----Arochlor-1260

FORM I PEST

EPA SAMPLE NO.

SED-14

Lab Name: AES, INC.

Contract:

b Code: AES Case No.: DE 0309 SAS No.: SDG No.: FP-1

Matrix: (soil/water) SOIL

Lab Sample ID: SED-14

mple wt/vol: 30.0 (g/mL) G Lab File ID: 030828010-001

[[vel: (low/med) LOW

Date Received: 08/28/03

% Moisture: not dec. 43. dec. ____ Date Extracted: 08/29/03

traction: (SepF/Cont/Sonc) S0NC Date Analyzed: 08/30/03

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

		1
12674-11-2Arochlor-1016	58.	U
11104-28-2Arochlor-1221	58.	U
11141-16-5Arochlor-1232	58.	U
53469-21-9Arochlor-1242	58.	U
12672-29-6Arochlor-1248	 58.	U
11097-69-1Arochlor-1254	58.	U
11096-82-5Arochlor-1260	72.	
1100011101 11100		

FORM I PEST

EPA SAMPLE NO.

SWARTOUT

Lab Name: AES, INC.

Contract:

Lab Code: AES

Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix: (soil/water) WATER

Lab Sample ID: SWARTOUT

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 030828010-014

Level: (low/med) LOW

Date Received: 08/28/03

% Moisture: not dec. dec.____

Date Extracted: 08/29/03

Extraction: (SepF/Cont/Sonc) SepF

Date Analyzed: 08/29/03

GPC Cleanup: (Y/N) N

pH: 7

Dilution Factor:

1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/L

Q

.065 U 12674-11-2----Arochlor-1016 .065 U 11104-28-2----Arochlor-1221 U .065 11141-16-5----Arochlor-1232 .065 U 53469-21-9----Arochlor-1242 U .065 12672-29-6----Arochlor-1248 .065 U 11097-69-1----Arochlor-1254 U .065 11096-82-5----Arochlor-1260

FORM I PEST

EPA SAMPLE NO.

b Code	: AES	Case No.:	DE_0309 SAS	No	o.:		SDG No.: FP-1
trix (soil/water)	: SOIL			Lab Sar	mple	ID: FP-1
vel (l	ow/med):	LOW			Date Re	eceiv	ed: 08/28/03
Solids	:	58.0					
	Concentrat	ion Units (ug/L or mg/kg	dry	v weight	=):	MG/KG
	CAS No.	Analyte	Concentration	Ć	Q	M	
	7400 00 5			_		- -	
		Aluminum		_	·	NR	
	7440-36-0			-		NR	•
	7440-38-2_		100	-		NR NR	
	7440-39-3		122_	-		- P_	
		Beryllium_		Ū		NR	
	7440-43-9		0.21_	J۷J		P_	
	7440-70-2_			-		NR	
	7440-47-3_					NR	
•	7440-48-4_					NR	
	7440-50-8_			-		NR	
	7439-89-6_	Iron				NR	•
	7439-92-1_	Lead	67.5	_		_ P	
	7439-95-4_			_		NR	
	7439-96-5_					_ NR	
	7439-97-6_	·				NR	
	7440-02-0_	Nickel		_		NR	
	1 —	Potassium_		_		NR	
	7782-49-2_			_		NR	
	7440-22-4_	Silver		_		NR	
	7440-23-5	Sodium		_		NR	
,	7440-28-0	Thallium_				NR	
	7440-62-2	Vanadium_				NR	
	7440-66-6	Zinc				NR	
	7440-42-8	Boron				NR	
						.	
			•				
or Be	fore:	Clari	ty Before:				Texture:
or Aft	er:	Clari	ty After:				Artifacts:
		<i>:</i>					
ments							

EPA	SAMPLE	$\cap TX$
DEA	SWILDE	TAC

Lab Name:	: ADIRONDACK	_ENVIRONMEN	NTAL Conti	act	•		0-6"
Lab Code:	: AES	Case No.:	DE_0309 SAS	No	· . :		SDG No.: FP-1
	 soil/water):	* * * * * * * * * * * * * * * * * * *	-			ple	ID: FP-2
Level (lo		LOW			Date Re	eceiv	red: 08/28/03
% Solids:		68.0					
	Concentrati	on Units (ug/L or mg/kg	dry	weight	:):	MG/KG
	CAS No. 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7	Analyte Aluminum Antimony Arsenic Barium Beryllium	Concentration 73.5	- - -	Q	M NR NR NR P NR	
	7440-43-9 7440-70-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1 7439-95-4	CadmiumCalciumChromiumCobaltCopperIronLeadMagnesium	0.18			P NR NR NR NR NR NR NR NR NR NR NR NR NR	
	7439-96-5 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-22-4 7440-23-5 7440-28-0	Manganese_ Mercury_ Nickel_ Potassium_ Selenium_ Silver_ Sodium_ Thallium				NR NR NR NR NR NR NR NR	
	7440-62-2 7440-66-6 7440-42-8					NR NR NR	
Color Be	fore:	Clar	ity Before:			*	Texture:
Color Af			ity After:				Artifacts:
Comments							
Commerce	•				· · · · · · · · · · · · · · · · · · ·		
						·	

EPA	SAMPLE	NO
****		TAO.

b Cod	le: AES	Case No.:	DE_0309 SAS	N	o.:		SDG No.: FP-1
trix	(soil/water)	: SOIL_			Lab Sa	mple	ID: FP-3
vel ((low/med):	LOW			Date R	ecei	ved: 08/28/03
Solid	ls:	64.0					
	Concentrat	cion Units (ug/L or mg/kg	dry	y weigh	t):	MG/KG
	CAS No.	Analyte	Concentration	C	Q	M	
	7429-90-5	Aluminum		-	! `	$- \overline{NR}$	
		Antimony		-		- NR	
	7440-38-2			-		- NR	
	7440-39-3		94.2	-		- P	
	· -	Beryllium		-		NR	
	7440-43-9		0.19	ਹ		P	
	7440-70-2	- I	· · · · ·	١		NR	
•		Chromium		-	·	NR	
	7440-48-4			-		- NR	and the a tternment of the terminal of the t
	7440-50-8	Copper	·	-		- NR	
	7439-89-6	Iron		-	•	- NR	
	7439-92-1	Lead	46.8	-		- P	
	7439-95-4	Magnesium		-		NR	
	7439-96-5			-		- NR	
	7439-97-6	Mercury		-		- NR	
	7440-02-0	Nickel		-		- 1 1	
	7440-02-0_			-		- NR	
	7782-49-2	.] [- NR	
	7440-22-4	· · · · · · · · · · · · · · · · · · ·		-		NR	
	7440-22-4					NR	
	7440-23-3	Thallium		-		- NR	
	· · · · · · · · · · · · · · · · · · ·	l		-1		- NR	
	7440-62-2 7440-66-6	Vanadium_		-		NR	
	7440-88-8	Zinc		-		NR	
	/440-42-8_	Boron		-		NR	
				_		.	
or Be	efore:	Clari	ty Before:		·		Texture:
or Af	ter:	Clari	ty After:		•		Artifacts:
		· · · · · · · · · · · · · · · · · · ·					
nents	5:						

INORGANIC ANALYSIS DATA SHEET

EPA	SAMPLE	MO

b Name:	: ADIRONDACE	C_ENVIRONMEN	ITAL Con	tra	ct:			0-6"
b Code:	: AES	Case No.:	DE_0309 S	AS	No.	· : _		SDG No.: FP-1
crix (s	soil/water)	: SOIL			, I	Lab S	Sample	e ID: FP-4
vel (lo	ow/med):	LOW	-		Ι	Date	Recei	ved: 08/28/03
Solids	: ,	44.0						
	Concentrati	ion Units (ıg/L or mg/k	g d	ry	weig	ght):	MG/KG
	CAS No.	Analyte	Concentrati	.on	c	Q	M	-
	7429-90-5	Aluminum			- -		$ _{\overline{\mathtt{NR}}}$	{
	7440-36-0				-1-		NR	8
	7440-38-2				- -		NR	8
	7440-39-3		11	.6	- -		P_	
	7440-41-7	Beryllium		_	-1-		NR	8
	7440-43-9		0.2	27	ਹ		P	
	7440-70-2						NR	
	7440-47-3						NR	
	7440-48-4	Cobalt					NR	
	7440-50-8	Copper					NR	
	7439-89-6	Iron					NR	•
	7439-92-1	Lead	89.	2_			P_	
	7439-95-4	Magnesium_			_ .		NR	
	7439-96-5	Manganese_			_1.		NR	1
	7439-97-6	Mercury			_ _		NR	!
	7440-02-0	Nickel			_ _		NR	- I
	7440-09-7				_ -		NR	•
	7782-49-2	Selenium			_ -		NF	
	7440-22-4				_ -		NF	
	7440-23-5_				_ -	. <u> </u>	NR	
	7440-28-0_	Thallium					NR	
	7440-62-2_	Vanadium			_ -		NF	
	7440-66-6_	Zinc			_ -		NF	I .
	7440-42-8_	Boron			_ -		NF	K
					_1.		_	_1'
or Be	fore:	Clar	ity Before:					Texture:
lor Af	ter:	Clar	ity After:			<u>.</u>	<u>.</u> .	Artifacts:
		•						
mments	:							
								· · · · · · · · · · · · · · · · · · ·

1 INORGANIC ANALYSIS DATA SHEET

אסים	SAMPLE	NT/
ĽFA	SHUBLE	INC.

	:	65.0			Date Re	ceiv	ed: 08/28/03
	e		ug/L or mg/kg (dry	v weight):	MG/KG
	CAS No.	Analyte	Concentration	С	Q	М	
	7420 00 5	77.1		-		NR	
	7429-90-5	Aluminum_				NR	
	7440-36-0_			-		NR NR	
	7440-38-2		100	-		P	
	7440-39-3_		100	-		NR	
	7440-41-7		0.18	ט		P	
	7440-43-9_		0.18_			NR	
	7440-70-2			-	·	1 1	
	7440-47-3			-		NR	
	7440-48-4_					NR	
	7440-50-8_	1		_	 	NR	
	7439-89-6_	Iron		_		NR	
	7439-92-1_	Lead	39.2			P_	
	7439-95-4_	Magnesium_		1_1		NR	
	7439-96-5_			$ \bot $		NR	
	7439-97-6			_	·	NR	
	7440-02-0	Nickel		_		NR	
	7440-09-7	Potassium				NR	
	7782-49-2			-		NR	
	7440-22-4	Silver		-		NR	
	7440-23-5	Sodium		-		NR	
	7440-28-0	Thallium		-		NR	
	7440-62-2			-		NR	
	7440-66-6	Zinc		-		NR	
•	7440-42-8	Boron		-		NR	
D	F 0 110 .	Cl ami	ity Before:				Texture:
r. Rei	fore:	Clari	ry perore:				Tevente.
			ity After:				Artifacts:

TT T 7 7		$\Delta T \cap$
H. PA	SAMPLE	INIU).

ah Name	· ADTRONDACE	K ENVIRONMEN	ITAL Contra	ıct	:		MW - 6
			DE_0309 SAS				SDG No.: FP-1
	 soil/water):						ID: MW-6
iatiix (;	SOII/ Water/	. WAILIK_		-			
evel (lo	ow/med):	LOW		I	Date Re	ceiv	red: 08/28/03
Solids	•	·					
	Concentrat:	ion Units (\	ug/L or mg/kg o	dry	weight	.):	UG/L
	CAS No.	Analyte	Concentration	С	Q	M	
		·				_	
	7429-90-5	Aluminum_		_ .		NR	
	7440-36-0			_ .		NR	
	7440-38-2			_ .		NR	
	7440-39-3		7.8_	B		P_	
	7440-41-7			_ .		NR	•
	7440-43-9	Cadmium	0.60_	ַ ט		P -	
	7440-70-2	Calcium		_ .		NR	
	7440-47-3	Chromium_				NR	
	7440-48-4	Cobalt		_ .	·	NR	
	7440-50-8	Copper				NR	
	7439-89-6	Iron		_ .		NR	
	7439-92-1	Lead	2.1_	U.	· · · · · · · · · · · · · · · · · · ·	P_	
	7439-95-4	Magnesium_		_ .		NR	
	7439-96-5_	Manganese_		_ .		NR	
	7439-97-6_	Mercury		_ .		NR	
	7440-02-0	Nickel		_ .		NR	
	7440-09-7_			_ .		NR	
	7782-49-2_					NR	
	7440-22-4_			_ .		NR NR	
	7440-23-5_					NR	
	7440-28-0_					NR	
	7440-62-2_	Vanadium		_ .		NR	
	7440-66-6_	Zinc		_ .		NR	
	7440-42-8_	Boron		_ .		NR NR	
				 _ .		_	
olor Be	fore:	Clar	ity Before:				Texture:
olor Af	ter:	Clar	ity After:				Artifacts:
7							•
Comments	•						

EPA	SAMPLE	NO.

Code	: AES	Case No.:	DE_0309 SAS	No	· : _ <u>· ·</u>		SDG No.: FP-1
rix (soil/water)	: WATER_			Lab Sar	mple	ID: MW-7
el (1	ow/med):	LOW	• .		Date Re	eceiv	ed: 08/28/03
olids	:					-	
		ion Units (ug/L or mg/kg (drv	weight	<u>.)</u> :	UG/L
	1	T					
	CAS No.	Analyte	Concentration	С	Q	М	
	7429-90-5	Aluminum		-		NR	
	7440-36-0	Antimony				NR	
	7440-38-2	Arsenic				NR	
	7440-39-3	Barium	25.1	B		P_	
	7440-41-7	Beryllium_				NR	
	7440-43-9	Cadmium	0.60	ט		P_	
	7440-70-2	Calcium		_1		NR	
	7440-47-3	Chromium				NR	
	7440-48-4	Cobalt				NR	
	7440-50-8	Copper	 	-		NR	
	7439-89-6	Iron		-		NR	
	7439-92-1	Lead	2.1	טו		P	
	7439-95-4	Magnesium		-		NR	
	7439-96-5			- -		NR	
	7439-97-6	Mercury		- -		NR	
	7440-02-0		· · · · · · · · · · · · · · · · · · ·	- -		NR	
	7440-09-7			- -		NR	
	7782-49-2	_		- -		NR	
	7440-22-4			- -		NR	
	7440-23-5			- -		NR	
	7440-28-0	Thallium		- -		NR	
	7440-62-2				_,	NR	
	7440-66-6	Zinc				NR	
	7440-42-8			- -		NR	
	_		-	- -		-	
•				' -			
r Bef	ore:	Clari	ty Before:				Texture:
r Aft	cer:	Clari	ty After:				Artifacts:
	. 		-			•	
ents:							•

EPA	SAMPLE	NO.
LIFT	הדוד בהוצים	T// -

ab Name: ADIRONDACK_ENVIRONMENTAL Contract:							
ab Code: AES	Case No.:	DE_0309 SAS	No	· . : _ ·	_	SDG No.: FP-1	
atrix (soil/water): WATER_ Lab Sample I						D: MW-8	
evel (low/med):		Date Received: 08/28/03					
Solids:							
Concentrat	ion Units (u	ıg/L or mg/kg (dry	weight):	UG/L	
CAS No.	Analyte	Concentration	С	Q	M		
7429-90-5 7440-36-0	Antimony		- -		NR NR NR		
7440-38-2_ 7440-39-3_ 7440-41-7_ 7440-43-9	BariumBeryllium	15.2_	E E		P_ NR P		
7440-70-2_ 7440-47-3_ 7440-48-4	CalciumChromium				NR NR NR		
7440-50-8_ 7439-89-6_ 7439-92-1_	Iron Lead	2.1_	_ ប៊		NR NR P_ NR		
7439-96-5_ 7439-97-6_			- - -		NR NR NR NR		
7440-02-0 7440-09-7 7782-49-2 7440-22-4	Potassium_ Selenium_		- -		NR NR NR		
7440-22-4_ 7440-23-5_ 7440-28-0_ 7440-62-2	Sodium Thallium		- - -		NR NR NR		
7440-66-6_ 7440-42-8_	Zinc Boron				NR NR		
	G1	i has Doffers	'-		'.	Texture:	
olor Before: Clarity Before:					Artifacts:		
olor After:omments:	Clar	TCA WITCEL:		1100		ALCIIACCO.	

INORGANIC ANALYSIS DATA SHEET

DEA DAMEDE NO	EPA	SAMPLE	NO.
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lx (s	soil/water)	: WATER_			Lab Sa	mple	ID: MW-9
(10	ow/med):	LOW			Date R	eceiv	ed: 08/28/03
lids							
	Concentrat	ion Units (1	ıg/L or mg/kg (dry	weigh	t):	UG/L
	1	1	<u> </u>				* · · · · · · · · · · · · · · · · · · ·
• • •	CAS No.	Analyte	Concentration	C	Q	М	
	7429-90-5	Aluminum		-		NR	
	7440-36-0	Antimony		-		NR	
	7440-38-2	Arsenic		-		NR	
	7440-39-3	Barium	18.7	B		- P	
	7440-41-7					NR	· · · · · · · · · · · · · · · · · · ·
	7440-43-9		0.60	ט		- P	
	7440-70-2	Calcium				NR	
	7440-47-3	Chromium		-		NR	
	7440-48-4	Cobalt		-		- NR	
	7440-50-8	Copper		-		NR	
	7439-89-6	Iron		-		NR	
	7439-92-1	Lead	2.1	ΙŪΙ		P	
	7439-95-4	Magnesium_				NR	
	7439-96-5	Manganese_		-		NR	
	7439-97-6	Mercury		-		NR	
	7440-02-0	Nickel		-		NR	
	7440-09-7	Potassium		-		NR	
	7782-49-2	Selenium		-		NR	
	7440-22-4	Silver		-		NR	
	7440-23-5	Sodium		-		NR	
	7440-28-0	Thallium		-		NR	
,	7440-62-2	Vanadium		-		NR	•
	7440-66-6	Zinc		-		NR	
	7440-42-8	Boron		-		NR	
				-		_	
	I			. — '		·	
: Bei	fore:	Clar	ity Before:				Texture:
~ 1\f+	cer:	Clar	ity After:				Artifacts:
ודמי			1				

אכוים	SAMPLE	$NT \cap$
LFA	SMILLI	INO.

		·				MW-10
			NTAL Contra			
ab Co	de: AES	Case No.:	DE_0309 SAS	No.: _		SDG No.: FP-1
Matrix	(soil/water)	: WATER_		Lab S	ample II	D: MW-10
Level	(low/med):	LOW		Date	Receive	d: 08/28/03
s Soli	ds:				÷	
	Concentrat:	ion Units (ug/L or mg/kg	dry weig	jht):	UG/L
	ı	1	·	T 1		
	CAS No.	Analyte	Concentration	C Q	M	
	7429-90-5	Aluminum		-	NR	
	7440-36-0	Antimony			NR NR	
	7440-38-2	Arsenic			NR	
		Barium	48.5	B	P	•
		Beryllium			NR	
	7440-43-9		0.60	Ū	P_NR	
	7440-70-2	Calcium				
	7440-47-3	Chromium			NR	
		Cobalt			NR	
	7440-50-8	Copper			NR	
	7439-89-6	Iron			NR	
	7439-92-1	Lead	2.1	 	P	•
	7439-95-4	Magnesium			NR	
	7439-96-5	Manganese			NR	
	7439-97-6	—		-	NR	
	7440-02-0	. L			NR	
	7440-09-7				NR	
	7782-49-2	Selenium			NR	
	7440-22-4				NR	
	7440-23-5	Sodium			NR	
	7440-28-0	Thallium			NR	
	7440-62-2	Vanadium			NR	
	7440-66-6	Zinc			NR NR	
	7440-42-8	Boron		- -	NR	
	l	.	1	. I <u> </u>	II	
Color	Before:	Clar	ity Before:		_	Texture:
Color	After:	Clar	ity After:			Artifacts:
Commen	ıts:					
_						

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H.DV	SAMDLE	NI()
rien .	SAMPLE	TAC

de: AES	Case No.:	DE_0309 SAS	No	· . :	·	SDG No.: FP-1_
: (soil/wate	r): WATER_			Lab Sai	mple	ID: MW-12
					_	· ——————
(low/med):	LOW			Date R	eceiv	red: 08/28/03
ds:						
.cas .						
Concentr	ation Units (ug/L or mg/kg	dry	weight	t):	UG/L
GT G T	7 - 7 - 4 -			^	1.7	
CAS No.	Analyte	Concentration		Q	М	
7429-90-	5 Aluminum		-	-	NR	
	0 Antimony	·	-		- NR	
7440-38-	~		-		- NR	
	3 Barium	16.4	B		- P	
	7_Beryllium_		"		- NR	
7440-41-	9 Cadmium	0.60	ਹ		- P	
	2 Calcium				- NR	
l l	3 Chromium		-		- NR	
	4 Cobalt		[-		- NR	
			-		- NR	
7440-50-	/		-		- NR	
7439-89-		2.1	ט		$-\left \begin{array}{c} NR \\ P \end{array} \right $	•
7439-92-			'		- NR	
7439-95-			-		- NR	
· · · · · · · · · · · · · · · · · · ·	5_ Manganese_		-		- NR	
7439-97-			-		1	
7440-02-			-		NR	
	7_ Potassium_		-	- 	NR NR	
•	2 Selenium_		-		- NR	
	4_ Silver		_	<u> </u>	NR NR	
7440-23-	5 Sodium				NR NR	
	O_ Thallium		-		NR NR	
7440-62-			-		- NR	
7440-66-			-		- NR	
7440-42-	8_ Boron		-		- NR	
			l l .		.	
Before:	Clar	ity Before:				Texture:
After:	Clar	ity After:				Artifacts:
ts:						

ED7	SAMPLE	NO
LPA	SAMPLE	MO.

b Name	: ADIRONDACI	K ENVIRONMEN	NTAL Contra	act	:		MM - 13
			DE_0309 SAS				SDG No.: FP-1
	soil/water)						ID: MW-13
	ow/med):				Date Re	ceiv	ed: 08/28/03
Solids							
SOLIGS							
	Concentrat	ion Units (1	ug/L or mg/kg (dry	weight):	UG/L
	CAS No.	Analyte	Concentration	С	Q	M	
	7429-90-5	Aluminum		-		NR	
	7440-36-0			-		NR	
	7440-38-2			-		NR	•
	7440-39-3		20.3	B		P_	
	7440-41-7	Beryllium				NR	
	7440-43-9		0.60	ប៊		P_	
	7440-70-2					NR	
	7440-47-3			-		NR	
	7440-48-4			-		NR	
	7440-50-8			-		NR	
	7439-89-6			-		NR	
	7439-92-1	Lead	2.1	ਹਿ		P_	•
	7439-95-4					NR	
				-		NR	
	7439-97-6					NR	
	7440-02-0			-		NR	
,	7440-02-0	Potassium_		-		NR	
	7782-49-2			-		NR	
	7440-22-4			-	**	NR	
	7440-23-5			-		NR	
	7440-28-0			-		NR	
	7440-62-2			-		NR	
	7440-66-6	Zinc		-		NR	
	7440-42-8	Boron		-		NR	
]	
	. 1						
lor Be	fore:	Clar	ity Before:				Texture:
lor Af	ter:	Clar	ity After:				Artifacts:
omments	;						

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

	: ALS	Case No.:	DE 0309 SAS	No	o . :		SDG No.: FP-1
			2=_0000 0.10	•••			
rix (soil/water)	: WATER_			Lab Sar	mple	ID: MW-14
el (1	ow/med):	LOW			Date Re	eceiv	red: 08/28/03
olids	:						
	Concentrat	ion Units (ug/L or mg/kg (dr.	z weicht	-) •	IIG/I
	1	1011 011105 (r cr mg/mg .	<u> </u>	- weight	- / •	
	CAS No.	Analyte	Concentration	C	Q	М	
	7429-90-5	7]		-	-	$-\left \frac{1}{NR}\right $	
	7440-36-0	Antimony		-		- NR	;
	7440-38-2	Arsenic Arsenic		-		- NR	
	7440-39-3	Barium	26.4	B		- P	
	7440-41-7	Beryllium_				NR	
	7440-43-9	Cadmium	0.60	וּטּו		- P	
	7440-70-2	Calcium				NR	
	7440-47-3	Chromium		-		NR	
	7440-48-4	·		-		NR	
	7440-50-8	Copper		-		NR	
	7439-89-6	Iron		-		NR	
	7439-92-1	Lead	2.1	ט		- P	•
	7439-95-4	Magnesium				NR	
	7439-96-5	Manganese		-		NR	
	7439-97-6	Mercury			-	NR	
1	7440-02-0	Nickel		_		NR	
	7440-09-7	Potassium		_		NR	
	7782-49-2	Selenium -		_		NR	
	7440-22-4	Silver				NR	•
	7440-23-5	Sodium				NR	
	7440-28-0	Thallium_		_		NR	
	7440-62-2	Vanadium				NR	
	7440-66-6_	Zinc				NR	
j	7440-42-8_	Boron		_		- NR	
1	·			_1		- I <u> </u>	
or Bef	ore:	Clari	ty Before:				Texture:
			-		i		
or Aft	er:	Clari	ty After:		· · · · · · · · · · · · · · · · · · ·		Artifacts:
ments:					-		

$\Delta D \Delta$	CAMDIE	NTO
EPA	SAMPLE	NO.

ab Name: ADIRONDA	r environmei	NTAL Contra	act:			SED-11 0-6"
						SDG No.: FP-1
ab Code: AES	case No.:	DE_0309 BAS	110.	•		DDG 1.0 11 1
atrix (soil/water): SOIL		I	ab Sam	ple I	ID: SED-11
evel (low/med):	LOW		Ι	ate Re	ceive	ed: 08/28/03
Solids:	74.0					
Concentra	tion Units (ug/L or mg/kg o	dry	weight	.) :	MG/KG
						
CAS No.	Analyte	Concentration	С	Q	М	
7429-90-5	Aluminum		- -		NR	
7440-36-0			- -		NR	
7440-38-2			- -		NR	
7440-39-3		45.7	\overline{B}		P_	
7440-41-7	!		-		NR	
7440-43-9		0.16	ט		P_	
7440-70-2	_				NR	
7440-47-3					NR	
7440-48-4	Cobalt				NR	
7440-50-8	Copper		_ _		NR	
7439-89-6					NR	•
7439-92-1	Lead	6.4_	_ _		P_	
7439-95-4	Magnesium				NR	
7439-96-5	Manganese_		_ -		NR	
7439-97-6	Mercury		_ _		NR	
7440-02-0	Nickel		_ _		_ NR	
7440-09-7	_ Potassium_		_ -		NR NR	
7782-49-2			_ -		NR	
7440-22-4	_		_ -		NR	
7440-23-5	_ 1		_ -		NR	
7440-28-0			_ .		NR	
7440-62-2			_ -		- NR	
7440-66-6			- -		- NR	
7440-42-8	_ Boron		- -		_ NR	•
			_ -	· · · · · · · · · · · · · · · · · · ·	_1	
olor Before:	Clar	ity Before:				Texture:
olor After:	Clar	ity After:	·			Artifacts:
ommont a						
omments:						

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P.PA	SAMPI	11 NO	

rix (soil/water)	: SOIL			Lab	Samp]	le ID:	: SED-12	_
el (1	ow/med):	LOW			Date	Rece	eived:	08/28/03	
olids	:	70.0							
	Concentrat	ion Units (ug/L or mg/kg	dry	/ wei	ght)	. M	MG/KG	
	1	T	T						
	CAS No.	Analyte	Concentration	C	Q	N	1		
	7429-90-5	Aluminum		-	-	<u>ī</u>	JR		
	7440-36-0	1		-			JR		
	7440-38-2			-			JR.		
	7440-39-3		50.1	B					
		Beryllium				1	JR		
	7440-43-9		0.17	ប		I	?		
	7440-70-2					1	JR		
	7440-47-3			-		1	IR		
	7440-48-4	Cobalt		-		1	JR		
	7440-50-8	Copper		-		N	JR		
	7439-89-6	Iron		-		N	JR		
	7439-92-1		5.8	-		E	>		
	7439-95-4	Magnesium				N	IR		
		Manganese		_		N	IR		
	7439-97-6	Mercury			-	I N	IR		
	7440-02-0						IR		
	7440-09-7	Potassium		_		N	IR		
	7782-49-2	Selenium -	·			N	IR		
	7440-22-4	Silver					IR		
	7440-23-5	Sodium					IR		
	7440-28-0	Thallium_					IR		
	7440-62-2	Vanadium_		_			IR		
	7440-66-6	Zinc					IR		
	7440-42-8_	Boron		_		N	IR		
				_		_			
	•							1.0	
r Bei	fore:	Clari	ity Before:					Texture: _	
r Aft	-er.	—— Clari	ity After:			_		Artifacts:	
ents									

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Lab Name: ADIRONDACK	_ENVIRONMEN	TAL (Contra	ict: _		_	0-6"
Lab Code: AES	Case No.:	DE_0309	SAS	No.:	.	SD	G No.: FP-1
Matrix (soil/water):	SOIL			Lab	Sampl	e ID:	SED-13
Level (low/med):	LOW			Date	e Rece	ived:	08/28/03
% Solids:	42.0						N
Concentrati	on Units (ig/L or m	g/kg d	iry we	ight):	M	G/KG
1	Analyte Aluminum Antimony Arsenic	Concentr			N N	R R R	
7440-39-3 7440-41-7 7440-43-9 7440-70-2 7440-47-3 7440-48-4	Barium Beryllium Cadmium Calcium Chromium Cobalt		3.3_	B	P N N N	R	
7440-50-8_ 7439-89-6_ 7439-92-1_ 7439-95-4_ 7439-96-5_ 7439-97-6	Copper Iron Lead Magnesium Manganese_ Mercury		_208_		N F	rr.	
7440-02-0_ 7440-09-7_ 7782-49-2_ 7440-22-4_ 7440-23-5_	Nickel Potassium Selenium Silver Sodium					IR IR IR IR IR	
7440-28-0_ 7440-62-2_ 7440-66-6_ 7440-42-8_	Thallium_ Vanadium_ Zinc_ Boron_				N	IR IR IR	
Galam Dafama.	Clar	ity Befor	· e • .				Texture:
Color After:		ity After					Artifacts:
Comments:		10, 11100					

INORGANIC ANALYSIS DATA SHEET

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EPA SAMPLE	INIC.	

ix (soil/water)	: SOIL			Lab Sar	mple	ID: SED-14
1 (10	ow/med):	LOW			Date R	eceiv	ed: 08/28/03
lids	•	57.0					
	Concentrat	ion Units (ug/L or mg/kg	dry	y weight	t):	MG/KG
	CAS No.	Analyte	Concentration	С	Q	M	
	7429-90-5	Aluminum		-		$- \overline{NR} $	
	7440-36-0			-		NR	
	7440-38-2	·		-		NR	
	7440-39-3		32.7	B		P	
	7440-41-7					NR	
	7440-43-9		2.0	-	***************************************	- P	
	7440-70-2			-		NR	
	7440-47-3			-		NR	
	7440-48-4			-		NR	
	7440-50-8	Copper		-		NR	
	7439-89-6	Iron		-		NR	
	7439-92-1		112	1-1	-	- P	• •
		Magnesium		-		NR	
	7439-96-5	Manganese		-		NR	
	7439-97-6			-		NR	
	7440-02-0			-		NR	
		Potassium		-		NR	
	7782-49-2			-		NR	
	7440-22-4			-		NR	
	7440-23-5			-		NR	
	7440-28-0			-		NR	
	7440-62-2	·		-		NR	
	7440-66-6	Zinc		-		NR	
	7440-42-8_					NR	
		<u> </u>		_		_	
. Dof	ore:	Clar:	ity Before:				Texture:
		· ·	-				
Aft	er:	Clari	ity After:		 		Artifacts:

EPA	SAMPLE	NO.

b Name:	ADIRONDACI	K_ENVIRONMEN	NTAL Contra	act	:		SWARTOUT
		Case No.:		No	.:		SDG No.: FP-1
crix (s	soil/water)	: WATER			Lab Sam	ple	ID: SWARTOUT
					D-4- D-		
zel (lo	ow/med):	LOW		•	Date Re	celv	red: 08/28/03
Solids	:						·
	Concentrat	ion Units (1	ug/L or mg/kg (dry	weight	·):	UG/L
	CAS No.	Analyte	Concentration	C	Q	М	
	7429-90-5	Aluminum		-		\overline{NR}	•
	7440-36-0			-		NR	
	7440-38-2					NR	
	7440-39-3	Barium	129	B		- P	
	7440-41-7					NR	
	7440-43-9		0.60	ਹ		P_	
	7440-70-2					NR	
	7440-47-3				-	NR	
	7440-48-4	Cobalt				NR	
	7440-50-8	Copper		-		NR	
	7439-89-6	Iron		-		NR	
	7439-92-1	Lead	2.1	Ū		P	
	7439-95-4					NR	
	7439-96-5	Manganese		-		NR	
	7439-97-6	Mercury		-		NR	
	7440-02-0	Nickel		-		NR	
	7440-09-7	Potassium				NR	
	7782-49-2	Selenium		-		NR	
	7440-22-4	Silver		-		NR	
	7440-23-5			171		NR	
	7440-28-0					NR	
	7440-62-2					NR	
	7440-66-6	Zinc				NR	
	7440-42-8	Boron		-		NR	
	_			$ \Box $		_	
lor Be	fore:	Clar	ity Before:				Texture:
lor Af	ter:	Clar	ity After:				Artifacts:
mments	•						

CONVENTIONALS ANALYSIS DATA SHEET

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix (soil/water):

Soil

Lab Sample ID: 030828010-008

Level (Low/Med):

Low

Date Received: 8/28/03

% Solids:

58.1

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	с	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)			1	EPA 410.4
Biochemical Oxygen Demand (BOD 5)			,	EPA 405.1
Total Organic Carbon (TOC)	39800			Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	3.44			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium			-	sw 7196

Comments			

CONVENTIONALS ANALYSIS DATA SHEET

FP-2

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0309 SAS No.: SDG No.: FP-1

Matrix (soil/water): Soil

Lab Sample ID: 030828010-006

Level (Low/Med): Low

Date Received: 8/28/03

% Solids:

68.3

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	C	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)	24300			Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	14.3			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рн				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

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CONVENTIONALS ANALYSIS DATA SHEET

FP-3

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES

Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix (soil/water): Soil

Lab Sample ID: 030828010-009

Level (Low/Med):

Low

Date Received: 8/28/03

% Solids:

64.2

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)	·			EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)	26600			Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate			·	EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride			_	EPA 300.0
Fluoride	3.11	U		EPA 300.0
Eh	·			
Specific Conductance	<u>'</u>			EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

1 CONVENTIONALS ANALYSIS DATA SHEET

FP-4
5-6"
1

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES

Case No.: DE 0309 SAS No.: SDG No.: FP-1

Matrix (soil/water):

Soil

Lab Sample ID: 030828010-005

Level (Low/Med):

Low

Date Received: 8/28/03

% Solids:

43.7

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	C	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)		<u> </u>		EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)	78700			Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	9.61			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
Hq		<u> </u>		EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

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CONVENTIONALS ANALYSIS DATA SHEET

LAB NAME: Adirondack Environmental

CONTRACT:

FS-1 0-6"

LAB CODE: AES

Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix (soil/water): Soil

Lab Sample ID: 030828010-007

Level (Low/Med):

Low

Date Received: 8/28/03

% Solids:

65.4

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N			İ	EPA 351.3
Ammonia, as N			,	EPA 350.1
Nitrate		· ·		EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)	·	,		EPA 405.1
Total Organic Carbon (TOC)	22100			Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	3.06	Ŭ.		EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments		
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CONVENTIONALS ANALYSIS DATA SHEET

MW-6

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES Case No.: DE 0309 SAS No.: SDG No.: FP-1

Matrix (soil/water): Water

Lab Sample ID: 030828010-012

Level (Low/Med): Low

Date Received: 8/28/03

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	C	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	140			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
Hq				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

FORM I - CONV

CONVENTIONALS ANALYSIS DATA SHEET

MW-7

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES Case No.: DE 0309 SAS No.: SDG No.: FP-1

Matrix (soil/water): Water

Lab Sample ID: 030828010-015

Level (Low/Med):

Low

Date Received: 8/28/03

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	7870			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

CONVENTIONALS ANALYSIS DATA SHEET

MW-8

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix (soil/water): Water

Lab Sample ID: 030828010-016

Level (Low/Med):

Low

Date Received: 8/28/03

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight):

ug/L

Analyte	Concentration	C	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	6560			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рн				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

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CONVENTIONALS ANALYSIS DATA SHEET

MW-9

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix (soil/water): Water

Lab Sample ID: 030828010-017

Level (Low/Med):

Low

Date Received: 8/28/03

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	6520			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity		ı		EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments		,		
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CONVENTIONALS ANALYSIS DATA SHEET

MW-10

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix (soil/water): Water

Lab Sample ID: 030828010-018

Level (Low/Med):

Low

Date Received: 8/28/03

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	5530			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
РН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

CONVENTIONALS ANALYSIS DATA SHEET

MW-12

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES

Case No.: DE 0309 SAS No.: SDG No.: FP-1

Matrix (soil/water): Water

Lab Sample ID: 030828010-010

Level (Low/Med):

Low

Date Received: 8/28/03

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	290			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

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CONVENTIONALS ANALYSIS DATA SHEET

MW-13

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0309 SAS No.: SDG No.: FP-1

Matrix (soil/water): Water

Lab Sample ID: 030828010-011

Level (Low/Med):

Low

Date Received: 8/28/03

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L .

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N			÷	EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)			-	EPA 405.1
Total Organic Carbon (TOC)				Lloyd Kahn
Total Dissolved Solids (TDS)	14			EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols	٠,			EPA 420.1
Chloride				EPA 300.0
Fluoride	100	Ŭ		EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	* *	
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CONVENTIONALS ANALYSIS DATA SHEET

MW - 14

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix (soil/water): Water

Lab Sample ID: 030828010-013

Level (Low/Med):

Low

Date Received: 8/28/03

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)	,			EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	6540			EPA 300.0
Eh	•			
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН	·			EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

1 CONVENTIONALS ANALYSIS DATA SHEET

SED-11		
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LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0309

SAS No.:

SDG No.: FP-1

Matrix (soil/water):

Soil

Lab Sample ID: 030828010-004

Level (Low/Med):

Low

Date Received: 8/28/03

% Solids:

73.5

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)	17600			Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	5.99			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide Cyanide				EPA 335.3
Н				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

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CONVENTIONALS ANALYSIS DATA SHEET

SED-12

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix (soil/water): Soil

Lab Sample ID: 030828010-003

Level (Low/Med):

Low

Date Received: 8/28/03

% Solids:

70.4

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)	16200			Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	6.53			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments				

1 CONVENTIONALS ANALYSIS DATA SHEET

SED-13

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0309

SAS No.:

SDG No.: FP-1

Matrix (soil/water): Soil

Lab Sample ID: 030828010-002

Level (Low/Med): Low

Date Received: 8/28/03

% Solids:

42.4

Concentration Units (ug/L or mg/Kg dry weight):

mg/Kg

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)	40200			Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate			·	EPA 300.0
Alkalinity				EPA 310.1
Total Phenols	· · · · · · · · · · · · · · · · · · ·			EPA 420.1
Chloride				EPA 300.0
Fluoride	4.72	Ŭ		EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
Hq				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	·	· · · · · · · · · · · · · · · · · · ·	
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CONVENTIONALS ANALYSIS DATA SHEET

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix (soil/water): Soil

Lab Sample ID: 030828010-001

Level (Low/Med):

Low

Date Received: 8/28/03

% Solids:

56.8

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)		•		EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)	25400		-	Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate	·			EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	3.52	U		EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide			·	EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

CONVENTIONALS ANALYSIS DATA SHEET

Swartout

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES

Case No.: DE 0309 SAS No.:

SDG No.: FP-1

Matrix (soil/water):

Water

Lab Sample ID: 030828010-014

Level (Low/Med):

Low

Date Received: 8/28/03

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	C	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)			,	Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	710			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FP1-612

Lab Name: AES, INC.

Contract:

ab Code: AES Case No.: DE 0310 SAS No.: SDG No.: FP1-612

Matrix: (soil/water) SOIL Lab Sample ID: FP1-612

mample wt/vol: 30.0 (g/mL) G Lab File ID: 030904045-009

evel: (low/med) LOW

Date Received: 09/04/03

% Moisture: not dec. 27. dec.____ Date Extracted: 09/04/03

xtraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 09/06/03

GPC Cleanup: (Y/N) N pH: 5.5 Dilution Factor: 1.00

CONCENTRATION UNITS: CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q CAS NO. COMPOUND

12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232 53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254 11096-82-5Arochlor-1260	45. 45. 45. 45. 45. 10.	U U U U U U U

FORM I PEST

1D PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FP2-612

Lab Name: AES, INC.

Contract:

Lab Code: AES

Case No.: DE 0310 SAS No.:

SDG No.: FP1-612

Matrix: (soil/water) SOIL

Lab Sample ID: FP2-612

Sample wt/vol:

30.0 (g/mL) G

Lab File ID: 030904045-010

Date Received: 09/04/03

% Moisture: not dec. 30.

Level: (low/med) LOW

Date Extracted: 09/04/03

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 09/06/03

GPC Cleanup: (Y/N) N

pH: 5.8

dec.____

Dilution Factor:

1.00

COMPOUND CAS NO.

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

47. U 12674-11-2----Arochlor-1016 47. U 11104-28-2----Arochlor-1221 47. U 11141-16-5----Arochlor-1232 47. U 53469-21-9----Arochlor-1242 U 47. 12672-29-6----Arochlor-1248 U 47. 11097-69-1----Arochlor-1254 47. U 11096-82-5----Arochlor-1260

FORM I PEST

PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FP3-612

Lab Name: AES, INC.

Contract:

ab Code: AES Case No.: DE 0310 SAS No.: SDG No.: FP1-612

Matrix: (soil/water) SOIL

Lab Sample ID: FP3-612

mample wt/vol: 30.0 (g/mL) G Lab File ID: 030904045-011

Tevel: (low/med) LOW

Date Received: 09/04/03

Moisture: not dec. 24. dec. ____ Date Extracted: 09/04/03

xtraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 09/06/03

GPC Cleanup: (Y/N) N pH: 5.5 Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/KG Q

12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232 53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254 11096-82-5Arochlor-1260	43. 43. 43. 43. 43. 43.	บ บ บ บ บ บ บ บ
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FORM I PEST

EPA SAMPLE NO.

FP4-612

Lab Name: AES, INC.

Contract:

Lab Code: AES

Case No.: DE 0310 SAS No.:

SDG No.: FP1-612

Matrix: (soil/water) SOIL

Lab Sample ID: FP4-612

Sample wt/vol:

30.0 (g/mL) G

Lab File ID: 030904045-012

Level: (low/med) LOW

Date Received: 09/04/03

% Moisture: not dec. 26. dec.____

Date Extracted: 09/04/03

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 09/06/03

1.00

GPC Cleanup: (Y/N) N

pH: 5.6

Dilution Factor:

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

Q

45. U. 12674-11-2----Arochlor-1016 U 45. 11104-28-2----Arochlor-1221 45. U 11141-16-5----Arochlor-1232 U 45. 53469-21-9----Arochlor-1242 45. U 12672-29-6----Arochlor-1248 U 45. 11097-69-1----Arochlor-1254 U 45. 11096-82-5----Arochlor-1260

FORM I PEST

FS1-612

Lab Name: AES, INC.

Contract:

ab Code: AES Case No.: DE 0310 SAS No.: SDG No.: FP1-612

Matrix: (soil/water) SOIL

Lab Sample ID: FS1-612

Dample wt/vol: 30.0 (g/mL) G Lab File ID: 030904045-013

evel: (low/med) LOW

Date Received: 09/04/03

% Moisture: not dec. 29. dec. ____ Date Extracted: 09/04/03

xtraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/06/03

GPC Cleanup: (Y/N) N pH: 5.7 Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/KG Q

12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232 53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254 11096-82-5Arochlor-1260	46. 46. 46. 46. 46. 10.	U U U U U U J
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FORM I PEST

PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE 0310 SAS No.:

SDG No.: FP1-612

Matrix: (soil/water) WATER

Lab Sample ID: MW-15

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 030904045-003

Level: (low/med) LOW

Date Received: 09/04/03

% Moisture: not dec. dec.____

Date Extracted: 09/04/03

Extraction: (SepF/Cont/Sonc) SepF Date Analyzed: 09/05/03

GPC Cleanup: (Y/N) N pH: 7. Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO. COMPOUND

Q

,		
12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232 53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254 11096-82-5Arochlor-1260	.065 .065 .065 .078 .065 .065	บ บ บ บ
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FORM I PEST

1D PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-16

Lab Name: AES, INC.

Contract:

ab Code: AES Case No.: DE 0310 SAS No.: SDG No.: FP1-612

Matrix: (soil/water) WATER

Lab Sample ID: MW-16

Sample wt/vol: 970.0 (g/mL) ML

Lab File ID: 030904045-004

evel: (low/med) LOW

Date Received: 09/04/03

% Moisture: not dec. dec.____

Date Extracted: 09/04/03

xtraction: (SepF/Cont/Sonc) SepF Date Analyzed: 09/05/03

GPC Cleanup: (Y/N) N pH: 7. Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/L Q

		1 .
12674-11-2Arochlor-1016	.067	U
11104-28-2Arochlor-1221	.067	U
11141-16-5Arochlor-1232	.067	U
53469-21-9Arochlor-1242	.035	J
12672-29-6Arochlor-1248	.067	U
11097-69-1Arochlor-1254	.067	U
11097-83-1	.067	U
11000 02 5		.

FORM I PEST

PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-17

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE 0310 SAS No.: SDG No.: FP1-612

Matrix: (soil/water) WATER

Lab Sample ID: MW-17

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 030904045-001

Level: (low/med) LOW

Date Received: 09/04/03

% Moisture: not dec. dec.____

Date Extracted: 09/04/03

Extraction: (SepF/Cont/Sonc) SepF

Date Analyzed: 09/05/03

GPC Cleanup: (Y/N) N pH: 7. Dilution Factor: 1.00

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232 53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254 11096-82-5Arochlor-1260	.065 .065 .065 .063 .065 .065	บ บ บ บ บ บ
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FORM I PEST

EPA SAMPLE NO.

MW-17A

Lab Name: AES, INC.

Contract:

ab Code: AES Case No.: DE 0310 SAS No.: SDG No.: FP1-612

Lab Sample ID: MW-17A Matrix: (soil/water) WATER

Lab File ID: 030904045-002 mample wt/vol: 1000.0 (g/mL) ML

Date Received: 09/04/03 evel: (low/med) LOW

Date Extracted: 09/04/03 % Moisture: not dec. dec.____

Date Analyzed: 09/05/03 xtraction: (SepF/Cont/Sonc) SepF

GPC Cleanup: (Y/N) N pH: 7. Dilution Factor: 1.00

Q

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L COMPOUND CAS NO.

.065 U 12674-11-2----Arochlor-1016 U .065 11104-28-2----Arochlor-1221 U .065 11141-16-5----Arochlor-1232 J .032 53469-21-9----Arochlor-1242 U .065

12672-29-6----Arochlor-1248 11097-69-1----Arochlor-1254 11096-82-5----Arochlor-1260

U .065 U .065

1/87 Rev.

FORM I PEST

EPA SAMPLE NO.

SD11-612

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE 0310 SAS No.:

SDG No.: FP1-612

Matrix: (soil/water) SOIL

Lab Sample ID: SD11-612

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 030904045-008

Level: (low/med) LOW

Date Received: 09/04/03

% Moisture: not dec. 20. dec.____

Date Extracted: 09/04/03

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/06/03

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232 53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254 11096-82-5Arochlor-1260	41. 41. 41. 41. 41.	ם ם ם ם ם
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FORM I PEST

EPA SAMPLE NO.

SD12-612

Lab Name: AES, INC.

Contract:

ab Code: AES Case No.: DE 0310 SAS No.: SDG No.: FP1-612

Lab Sample ID: SD12-612

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 030904045-007

evel: (low/med) LOW

Matrix: (soil/water) SOIL

Date Received: 09/04/03

% Moisture: not dec. 24. dec.____ Date Extracted: 09/04/03

xtraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/06/03

GPC Cleanup: (Y/N) N pH: 5.5 Dilution Factor: 1.00

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

Q

12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232 53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254 11096-82-5Arochlor-1260	43. 43. 43. 43. 43. 43.	บ บ บ บ บ

FORM I PEST

EPA SAMPLE NO.

SD13-612

Lab Name: AES, INC.

Contract:

Lab Code: AES

Case No.: DE 0310 SAS No.:

SDG No.: FP1-612

Matrix: (soil/water) SOIL

Lab Sample ID: SD13-612

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 030904045-006

Level: (low/med) LOW

Date Received: 09/04/03

% Moisture: not dec. 11. dec.____

Date Extracted: 09/04/03

Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 09/06/03

GPC Cleanup: (Y/N) N pH: 5.4

Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

Q

CAS NO.

COMPOUND

U 37. U 37. 37. U 37. U

53469-21-9----Arochlor-1242 12672-29-6----Arochlor-1248 11097-69-1----Arochlor-1254

12674-11-2----Arochlor-1016

11104-28-2----Arochlor-1221

11141-16-5----Arochlor-1232

11096-82-5----Arochlor-1260

37. 37. 37.

U U

U

FORM I PEST

EPA SAMPLE NO.

SD14-612

Lab Name: AES, INC.

Contract:

ab Code: AES Case No.: DE 0310 SAS No.:

SDG No.: FP1-612

Matrix: (soil/water) SOIL Lab Sample ID: SD14-612

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 030904045-005

evel: (low/med) LOW

Date Received: 09/04/03

% Moisture: not dec. 28. dec.____

Date Extracted: 09/04/03

xtraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/06/03

GPC Cleanup: (Y/N) N pH: 6.1 Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/K	g) UG/KG	Q
11104-28-2- 11141-16-5- 53469-21-9- 12672-29-6-	Arochlor-1016Arochlor-1221Arochlor-1232Arochlor-1242Arochlor-1248Arochlor-1254Arochlor-1260		46. 46. 46. 46. 170. 46.	υ υ υ υ

FORM I PEST

EPA SAMPLE NO.

	INORGANI	C ANALYSIS D.	ATA SHEET		FP1-612
b Name: ADIRONDACK	_ENVIRONMENTAL	Contrac	t:		
b Code: AES					SDG No.: FP1-612
trix (soil/water):	SOIL		Lab Samp	le I	D: FP1-612
		•	Date Rec	eive	d: 09/04/03
evel (low/med):				4.	
Solids:	73.0				
Concentrati	on Units (ug/I	or mg/kg dr	y weight)	:	MG/KG
CAS No.	Analyte Cor	ncentration	Z Q	М	
			_	NR	
7429-90-5_			-	NR	
7440-36-0_			-	NR	
7440-38-2	Arsenic Barium	106	-	P_	
7440-39-3	Beryllium			NR	
7440-41-7_		0.16	J	P_	
7440-43-9_	Calcium			NR	
7440-70-2_ 7440-47-3	Chromium			NR	
7440-47-3_	Cobalt			NR	
7440-48-4_	Copper		_	NR	
7439-89-6	Iron			NR	
7439-83-6_	Lead	13.4		P	
7439-95-4	Magnesium			NR	
7439-96-5	Manganese_			NR	
7439-96-5_	Mercury		_	NR	
7440-02-0				NR	
7440-02-0_	Potassium_			NR	
7782-49-2	Selenium			NR	
7440-22-4	.			NR	
7440-23-5_			_	NR	
7440-28-0			_	NR NR	
7440-62-2	Vanadium		_	NR	
7440-66-6	Zinc		_	NR	
7440-42-8	Boron		_	- NR	
<u> </u>		I	_	-!!	
olor Before:	Clarity	Before:		٠	Texture:
Color After:	Clarity	After:			Artifacts:
Comments:					

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EPA	DAMPLE	NO

	soil/water)	Case No.:			Lab Sam	ple	ID: FP2-612
							ed: 09/04/03
] (10	ow/med):	LOW			Date Re		ca: 05, 0 =, 1 =
lids	:	70.0					
	Concentrat:	ion Units (ıg/L or mg/kg (dry	veight	:):	MG/KG
		· · · · · · · · · · · · · · · · · · ·				 1	
	CAS No.	Analyte	Concentration	c	Q	М	
				_		-	
	7429-90-5	Aluminum_		_		NR	
	7440-36-0			_		NR	
	7440-38-2	Arsenic		<u> </u>		NR	
	7440-39-3	Barium	57.0_	В		P_ NR	
	7440-41-7_	Beryllium_		=		_ /	
	7440-43-9_	Cadmium	0.17_	Ū		P_ NR	
	7440-70-2_	Calcium		_		- NR	
	7440-47-3_	Chromium		-		- NR	
	7440-48-4_	Cobalt	<u> </u>	-		- NR	
	7440-50-8_	Copper			<u> </u>	- NR	
	7439-89-6_	Iron		_		}	
	7439-92-1_	Lead	3.1_	-		P_NR	
	7439-95-4_	Magnesium_		_		- NR	
	7439-96-5_	Manganese_		_		- NR	
	7439-97-6_	Mercury		_		- NR	
	7440-02-0_	Nickel		-	i	- NR	
	7440-09-7_	Potassium_		 –		- NR	
	7782-49-2_	Selenium		-		- NR	
	7440-22-4_	Silver		—		- NR	
	7440-23-5_	Sodium				- NR	
	7440-28-0_			· —		- NR	
	7440-62-2_	Vanadium		- -		- NR	
	7440-66-6	Zinc		· -		- NR	
	7440-42-8_	Boron		-		_	
Do	fore:	Clar	ity Before:				Texture:
)I De	Tore.		_				Artifacts:
7 E	ter:	Clar	ity After:				ALCILACES:

EPA SAMPLE NO

						FP3-612
ab Name: ADIRONDACK	_ENVIRONMEN	TAL Contra	.ct:	 -		
ab Code: AES	Case No.:	DE_0310 SAS	No.	:	_	SDG No.: FP1-612
atrix (soil/water):	SOIL	•	I.	ab Samp	ole I	[D: FP3-612
evel (low/med):	LOW		D	ate Re	ceive	ed: 09/04/03
Solids:	76.0					
		ıg/L or mg/kg d	iry	weight):	MG/KG
Concentrati		, , , , , , , , , , , , , , , , , , , ,	- 		· ·	
CAS No.	Analyte	Concentration	С	Q	M	
7429-90-5	Aluminum		- - _ -		NR	
7440-36-0	Antimony		- -		NR NR	
7440-38-2_ 7440-39-3	Arsenic Barium	103	- -		P_NR	
7440-39-3_	Beryllium		_ -			
7440-43-9_	Cadmium	0.16_			P_ NR	
7440-70-2_	CalciumChromium		- -		NR	
7440-47-3_ 7440-48-4	Cobalt	·	- -		NR	
7440-50-8	Copper		_ -		NR	
7439-89-6	Iron	18.8	- -		NR P	
7439-92-1_ 7439-95-4	Lead_ Magnesium_		- -		NR	
7439-95-4_	Manganese_				NR	
7439-97-6	Mercury				NR	
7440-02-0	Nickel		- -		NR NR	
7440-09-7_ 7782-49-2	Potassium_ Selenium		-		NR	
7440-22-4	· 1				NR	
7440-23-5	Sodium		- -		NR NR	
7440-28-0_ 7440-62-2	ThalliumVanadium	-	- -		NR	
7440-62-2_	Zinc		[] [NR	
7440-42-8	Boron		- _		- NR	
			_ _		_	
		. •				The section of the se
olor Before:	Clar	rity Before:				Texture:
Color After:	Clar	rity After:				Artifacts:
lommont c						
Comments:						

EPA SAMPLE NO.

			NTAL Contra				
Code	: AES	Case No.:	DE_0310 SAS	No).: 	_	SDG No.: FP1-612
rix (s	soil/water):	: SOIL			Lab Sam	ple	ID: FP4-612
rel (lo	ow/med):	LOW			Date Re	ceiv	ed: 09/04/03
Solids		74.0					
ottus			/- //	J	ساسات الساد	. \ .	MC/VC
	Concentrati	ion Units (ıg/L or mg/kg d	ary	weight	-). · · · ·	MG/ NG
	CAS No.	Analyte	Concentration	С	Q	M	
	7429-90-5	Aluminum		-		NR	
	7440-36-0			_		NR	
	7440-38-2			_		NR	
	7440-39-3		54.1_	$\lfloor - \rfloor$		P_	
	7440-41-7	Beryllium_				NR	
	7440-43-9		0.16_	Ū		P_	
	7440-70-2			_		NR	
	7440-47-3					_ NR	
	7440-48-4			_		_ NR	
	7440-50-8			_		_ NR	
	7439-89-6			_		_ NR	
	7439-92-1		4.1_	_		_ P	
		Magnesium_		_		NR	
	7439-96-5	Manganese_		_		_ NR	
	7439-97-6	Mercury		_		_ NR	
	7440-02-0	Nickel		_		- NR	
	7440-09-7	Potassium_		_		- NR	
	7782-49-2_	Selenium_		_		- NR	
	7440-22-4	Silver		_		NR NR	
	7440-23-5_			-		- NR	
	7440-28-0_			-		NR NR	
	7440-62-2_	Vanadium		1-	l	- NR	
	7440-66-6_	Zinc		-		- NR	
	7440-42-8_	Boron		-		- ****	
			.	١	l ————	_	
lor Be	fore:	Clar	ity Before:	_			Texture:
lor Af			ity After:				Artifacts:
mments	·:						
							-y

EPA	SAMPLE	NO
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-1- N-mo	: ADIRONDACE	Z PNTITRONMEN	ITAL Contra	ict:	:		FS1-612
							SDG No.: FP1-612
ab Code	: AES	Case No.:	DE_0310 SAS	NO.	· :		SDG NO.: FFI-012
Matrix (soil/water)	: SOIL					ID: FS1-612
Level (1	ow/med):	LOW		Ι	Date Re	eceiv	red: 09/04/03
solids	:	71.0					
	Concentrat:	ion Units (\	ıg/L or mg/kg	dry	weight	:):	MG/KG
						 -1	
	CAS No.	Analyte	Concentration	С	Q	M	
	7429-90-5	Aluminum		- -		NR	
	7440-36-0	Antimony		- :		NR	
	7440-38-2			- -		NR	
	7440-39-3	Barium	99.5			_ P_	
	7440-41-7			- :		NR	
	7440-43-9	Cadmium	0.17	ט		_ P_	
	7440-70-2	· —				_ NR	
	7440-47-3	Chromium				_ NR	
	7440-48-4	Cobalt				NR	
	7440-50-8	Copper				_ NR	
	7439-89-6	Iron				_ NR	
	7439-92-1	Lead	14.4			_ P_	
	7439-95-4					NR	•
	7439-96-5	Manganese				_ NR	
	7439-97-6	Mercury				_ NR	
	7440-02-0	Nickel				_ NR	
	7440-09-7	Potassium				_ NR	
	7782-49-2	Selenium_		_		_ NR	
	7440-22-4	Silver		1_1	<u> </u>	_ NR	
	7440-23-5	Sodium		_		_ NR	
	7440-28-0	Thallium		_		_ NR	
	7440-62-2			1_1		NR NR	
	7440-66-6_	Zinc		-		NR NR	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	7440-42-8_	Boron		-		NR	
		.	.	. I <u> </u>			I
							Texture:
Color Be	efore:	Clar	ity Before:		 		Texeure.
Color A	fter:	Clar	ity After:				Artifacts:
Comments	ð:						
					 		

EPA	SAMPLE	ИО
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Name	: ADIRONDACK	_ENVIRONMEN	ITAL Contra	act	:		MW-15
Code	: AES	Case No.:	DE_0310 SAS	No	·.:	- 	SDG No.: FP1-612
rix (:	soil/water):	WATER_			Lab Sar	mple	ID: MW-15
el (10	ow/med):	LOW			Date Re	eceiv	ed: 09/04/03
olids	•						
		ion Units (1	ıg/L or mg/kg d	irv	weight	t):	UG/L
	Concentrati	TOU OUTER (19/11 OI III9/129 (<u>'</u>			,
	CAS No.	Analyte	Concentration	С	Q	M	
	7429-90-5	Aluminum				NR	
	7440-36-0			-		NR	
	7440-38-2	Arsenic				NR	
	7440-39-3	Barium	80.6_	B		P_	
	7440-41-7	Beryllium_		_		NR	
	7440-43-9	Cadmium	0.60_	ਹੋ		_ P	
	7440-70-2	Calcium		 _		NR	
	7440-47-3	Chromium_		_		NR NR	
	7440-48-4	Cobalt		_		NR NR	
	7440-50-8	Copper		_		NR NR	
	7439-89-6			==		$-\left \frac{NR}{R} \right $	•
	7439-92-1	Lead	2.1_	Ū		P_NR	
	7439-95-4	Magnesium_		_		$-\left \frac{NR}{NR} \right $	
		Manganese_		-		$-\left \frac{NR}{NR} \right $	· ·
	7439-97-6	Mercury		-		$-\left \frac{NR}{NR} \right $	
	7440-02-0	Nickel		-		- NR	
	7440-09-7_	Potassium_		-		$-\left \frac{NR}{NR} \right $	
	7782-49-2	Selenium		-		$-\left \frac{NR}{NR} \right $	
	7440-22-4_	Silver		-	<u> </u>	$- _{NR}^{NR} $	
	7440-23-5_	Sodium		· -		- NR	•
	7440-28-0			· —		- NR	
	7440-62-2_			· —		- NR	
	7440-66-6			· -		- NR	
	7440-42-8	Boron		-			, i
		.	.				
or Be	efore:	Clar	ity Before:				Texture:
			ity After:				Artifacts:
or Af	ter:		10y 111001	_			
nments	5:		,				

EPA S	SAMPLE	NO
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	INORGANIC ANALYSIS	DATA SHEET	
			MW-16
ab Name: ADIRONDACK	_ENVIRONMENTAL Contra	ict:	
	Case No.: DE_0310 SAS	No.:	SDG No.: FP1-612
Matrix (soil/water):	WATER_		ID: MW-16
Level (low/med):	LOW	Date Receiv	ed: 09/04/03
Solids:			
Concentrati	on Units (ug/L or mg/kg (dry weight):	UG/L
7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-95-4 7439-95-4 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-22-4	Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver	C Q M NR NR NR NR NR NR NR N	
7440-23-5_ 7440-28-0_ 7440-62-2_ 7440-66-6_ 7440-42-8	Sodium	NR NR	
1440-42-8_			
Color Before:	Clarity Before:		Texture:
Color After:	Clarity After:		Artifacts:
			
Comments:			

EPA	SAMPLE	NO
LPA	OMMETIM	\mathbf{I}^{A}

Name:	: ADIRONDACE	C_ENVIRONMEN	ITAL Contra	ct	:		MW-17
Code:	: AES	Case No.:	DE_0310 SAS	No	·.:		SDG No.: FP1-612
	soil/water):				Lab Sam	ple	ID: MW-17
	ow/med):				Date Re	ceiv	ed: 09/04/03
C1 (1)	· · · · · · · · · · · · · · · · · · ·						
olids	:						
	Concentrati	ion Units (\	ıg/L or mg/kg d	lry	weight	:):	UG/L
				г			
	CAS No.	Analyte	Concentration	С	Q	М	
		Aluminum		-		NR	
	7429-90-5_	Antimony_		-		NR	
		Arsenic _		-		NR	
-	7440-38-2_ 7440-39-3	Barium	51.8	B		P_	
	7440-39-3_	Beryllium_				NR	
	7440-41-7_	Cadmium	0.60	บิ		P_	
	7440-70-2	Calcium				NR	
	7440-47-3	Chromium		-		NR	
	7440-48-4	Cobalt		_		NR	
	7440-50-8	Copper		-		_ NR	
	7439-89-6	Iron		-		NR	
	7439-92-1	Lead	2.1	บิ		_ P_	
	7439-95-4	Magnesium_		_		NR	
	7439-96-5	Manganese_		_		_ NR	
	7439-97-6	Mercury		_		_ NR	
	7440-02-0	Nickel		_		_ NR	
	7440-09-7	Potassium		_		NR	
	7782-49-2	Selenium_		_		- NR	
	7440-22-4	Silver		_		_ NR	
	7440-23-5	Sodium		-		NR	
	7440-28-0	Thallium		.		- NR	
	7440-62-2			.		NR NR	
	7440-66-6	Zinc		.		- NR NR	
	7440-42-8	Boron		. —		- 111	
			,	.			
	4.*						
or Be	efore:	Clar	ity Before:				Texture:
or Af	ter:	Clar	ity After:				Artifacts:
	-						
nments	S:		4.0				

EPA SAMPLE NO.

MW-17A

			ITAL Contra	a+			MW-17A
Lab Name:	: ADIRONDACE	C_ENVIRONMEN	· == ···				
Lab Code	: AES	Case No.:	DE_0310 SAS			_	SDG No.: FP1-612
Matrix (soil/water):	: WATER_					ID: MW-17A
Level (1	ow/med):	LOW			Date Re	ceiv	red: 09/04/03
% Solids	:						
	Concentrat:	ion Units (ug/L or mg/kg o	dry	weight	:):	UG/L
			1			 1	
	CAS No.	Analyte	Concentration	C	Q	M	
	7429-90-5	Aluminum				NR	
	7440-36-0	Antimony_		_		NR	•
	7440-38-2	Arsenic				NR R	
	7440-39-3	Barium	72.5	$ \overline{B} $		P_NR	
	7440-41-7	Beryllium_		_			
	7440-43-9		0.60_	ਹ		P_ NR	•
	7440-70-2	Calcium		1_1			
	7440-47-3	Chromium		_		NR	
	7440-48-4	Cobalt		_		NR	
	7440-50-8	Copper		1_1		_ NR	
	7439-89-6	Iron		1_		NR	
	7439-92-1	Lead	2.1_	ਹ		_ P_	
	7439-95-4			. _		NR	I .
	7439-96-5			.	·	NR	a contract of the contract of
	7439-97-6	-		.		NR	
	7440-02-0			.		NR	
	7440-09-7			. _		NR	
	7782-49-2			_ _		_NR	I .
	7440-22-4			.		NR_	
	7440-23-5			- -		NR	
	7440-28-0			_		_ NR	1
	7440-62-2			.		_ NR	
	7440-66-6			- -		NR	1
	7440-42-8			- -		- NR	•
			_	_	l		.
•			D . 6			•	Texture:
Color B	efore:	Cla	rity Before:	_			10210 02 0
	ftor.	Cla	rity After:			. :	Artifacts:
Color A	Trer:		_				•
Commont	c ·						
Comment	D .						

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EPA	SAMPLE	NO.
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								i i
b Name	: ADIRONDACK	C_ENVIRONMEN	NTAL Contra	act	:			
b Code	: AES	Case No.:	DE_0310 SAS	No	.:			SDG No.: FP1-612
trix (soil/water):	SOIL_			Lab	Samp:	le I	ID: SD11-612
vel (lo	ow/med):	LOW			Date	Rec	eive	ed: 09/04/03
Solids	•	80.0						
	Concentrati	ion Units (ug/L or mg/kg d	lry	wei	.ght)	:	MG/KG
							_	
	CAS No.	Analyte	Concentration	C	Ç	-	M	
	7429-90-5	Aluminum		-			NR	
	7440-36-0	· —		-			NR	
	7440-38-2			-			NR	
			21.5	B			P_	
	7440-39-3						NR	
	7440-41-7		0.15	Ū			P	
	7440-43-9_						NR	
	7440-70-2_			-			NR	
				-			NR	
	7440-48-4			-			NR	
	7440-50-8_			-			NR	
	1 '		0.52	ਹਿ			P	
	7439-92-1_		U.54_				NR	
		Magnesium_		-			NR	
		Manganese_		-			NR	
	7439-97-6_			-			NR	
	7440-02-0	Nickel		[-[NR	
		Potassium_		-				
	7782-49-2			_			NR	
	7440-22-4	Silver		_			NR	
	7440-23-5			_			NR	-
	7440-28-0			-			NR	
	7440-62-2	Vanadium		_			NR	
	7440-66-6	Zinc		_			NR	
	7440-42-8	Boron		-		l	NR	
				 _				
			· · · · · · ·					Touturo.
lor Be	fore:	Clar	ity Before:			·		Texture:
olor Af	ter:	Clar	ity After:					Artifacts:
omments	:							
		<u> </u>						

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шЕА		IVO

						SD12-612
Lab Name: ADIRONDACH	_ENVIRONMEN	TAL Contra	ict:			
Lab Code: AES	Case No.:	DE_0310 SAS	No.	:		SDG No.: FP1-612
Matrix (soil/water):	SOIL		Lá	ab Sam	ple I	ID: SD12-612
Level (low/med):	LOW		Da	ate Re	ceive	ed: 09/04/03
% Solids:	76.0					
	lon Units (u	g/L or mg/kg o	iry v	weight	:):	MG/KG
	r 			· · · · · · · · · · · · · · · · · · ·	 1	
CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum		- -		NR	
7440-36-0	Antimony		- -		NR	
	Arsenic				NR	
7440-39-3	Barium	20.6	B _		P_	
7440-41-7_	Beryllium_		_ _		NR	
7440-43-9_	Cadmium	0.16_	[편]		P_NR	
7440-70-2_	Calcium		_ -			
7440-47-3_	Chromium		- -		- NR	
7440-48-4_	Cobalt		- -		NR	
7440-50-8_	Copper		- -		- NR NR	•
7439-89-6_	Iron		_ _			•
7439-92-1_	Lead	1.3_	- -		P_ NR	
7439-95-4_	Magnesium_		- -		- NR	
7439-96-5	Manganese_		- -		- NR	
7439-97-6_	Mercury		- -		- NR	
7440-02-0_	Nickel		- -	 	- NR	
7440-09-7	Potassium_ Selenium		- -		NR	
7782-49-2 7440-22-4	Silver		- -		- NR	
7440-22-4_			- -		NR	
7440-23-3_	· · · · · · · · · · · · · · · · · · ·		- -		NR	
7440-62-2			- -		$- _{\rm NR} $	
7440-66-6			- -		- NR	
7440-42-8			- -		_ NR	
/110 12 0_					_	
\						
Color Before:	Clar	ity Before:				Texture:
Color Belore.						· · · · · · · · · · · · · · · · · · ·
Color After:	Clar	ity After:				Artifacts:
Comments:						
Commerce.						
						

EPA	SAMPLE	NO
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Date Received: 09/04/03
CAS No. Analyte Concentration C Q M 7429-90-5-7440-36-0 Aluminum NR NR 7440-38-2-7440-39-3 Arsenic NR NR 7440-41-7-7440-43-9 Beryllium NR NR 7440-47-3 Cadmium NR NR 7440-48-4 Cobalt NR 7439-92-1 Lead 7.2 NR 7439-95-4 Magnesium NR 7439-97-6 Marganese NR 7440-02-0 Nickel NR 7439-97-5 Mercury NR 7440-02-4 Selenium NR 7440-22-4 Silver NR 7440-23-5 Sodium NR
CAS No. Analyte Concentration C Q M 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-43-9 7440-47-3 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1 7439-95-4 7439-95-4 7439-96-5 7440-02-0 7440-02-0 7440-02-0 7440-02-0 7440-02-1 7440-02-1 7439-97-6 7440-02-0 7440-02-0 7440-02-0 7440-02-0 7440-02-0 7440-02-0 7440-02-1 7440-02-1 7440-02-1 7440-02-1 7440-02-2 7440-02-3 Concentration C Q M NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR NR
CAS No. Analyte Concentration C Q M 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-47-3 7440-48-4 7440-50-8 7439-92-1 7439-95-4 7439-95-4 7439-96-5 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-23-5 Analyte Concentration C Q M NR NR NR NR NR NR NR NR
Table Tabl
T440-36-0
7440-36-0 Antimony - NR 7440-38-2 Arsenic Barium 27.8 B P 7440-41-7 Beryllium 0.13 U P 7440-43-9 Cadmium 0.13 U NR 7440-70-2 Chromium NR NR 7440-48-4 Cobalt NR NR 7439-89-6 Iron NR NR 7439-92-1 Lead 7.2 P Magnesium NR NR Magnesium NR NR 7440-02-0 Nickel NR 7440-02-0 Silver NR 7440-22-4 Silver NR 7440-23-5 Sodium NR
7440-38-2 Arsenic
7440-39-3 Barium 27.8 B P 7440-41-7 Reryllium 0.13 U P 7440-43-9 Cadmium 0.13 U NR 7440-47-3 Chromium NR NR 7440-48-4 Cobalt NR NR 7439-89-6 Iron NR NR 7439-95-4 Magnesium NR NR 7439-96-5 Manganese NR NR 7440-02-0 Nickel NR NR 7782-49-2 Selenium NR NR 7440-22-4 Silver NR 7440-23-5 Sodium NR
7440-41-7 Reryllium 0.13 WR NR 7440-43-9 Cadmium 0.13 WR NR 7440-70-2 Chromium NR NR NR 7440-48-4 Cobalt NR NR 7439-89-6 Iron NR NR 7439-92-1 Lead 7.2 P 7439-96-5 Magnesium NR NR 7440-02-0 Nickel NR 7782-49-2 Selenium NR 7440-22-4 Silver NR 7440-23-5 Sodium NR
7440-70-2 7440-47-3 Calcium Chromium Chromium Cobalt Copper T439-89-6 Tron Lead T439-95-4 Magnesium Manganese Mercury NR NR NR NR NR NR NR NR NR NR NR NR NR
7440-70-2 Calcium NR 7440-47-3 Chromium NR 7440-48-4 Cobalt NR 7439-89-6 Iron NR 7439-92-1 Lead 7.2 7439-95-4 Magnesium NR 7439-96-5 Manganese NR 7440-02-0 Nickel NR 7782-49-2 Selenium NR 7440-22-4 Silver NR 7440-23-5 Sodium NR
7440-47-3 Chromium INR 7440-48-4 Cobalt NR 7439-89-6 Iron NR 7439-92-1 Lead NR 7439-95-4 Magnesium NR 7439-97-6 Mercury NR 7440-02-0 Nickel NR 7782-49-2 Selenium NR 7440-23-5 Sodium NR
7440-50-8 CODATE
7439-89-6
7439-89-6 7439-92-1 7439-95-4 7439-96-5 7439-96-5 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-22-4 7440-23-5 Sodium 77.2 P NR NR NR NR NR NR NR NR NR NR NR NR NR
7439-95-4 Magnesium NR 7439-96-5 Manganese Mercury Nickel NR 7440-09-7 Potassium Selenium NR 7782-49-2 Silver NR 7440-23-5 Sodium NR
7439-95-4 Magnese Manganese Mercury Nickel NR NR NR NR NR NR NR NR NR NR NR NR NR
7439-96-5 Manganesc NR NR NR NR NR NR NR N
7440-02-0 Nickel NR NR NR NR NR NR NR NR NR NR NR NR NR
7440-02-0 NICKET NR NR NR NR NR NR NR NR NR NR NR NR NR
7782-49-2 Selenium NR NR NR NR NR NR NR N
7440-22-4 Selenium NR NR NR NR Sodium NR NR NR
7440-22-4_ Silver NR NR NR
7440-23-5 SOUTUM
7440-28-0 Thallium NR
7440-28-0 Thallium NR NR Vanadium NR
7440-62-2 Vanadram NR NR
7440-42-8 Boron NR
Clarity Refore: Texture:
r Before: Clarity Before: Texture:
or After: Clarity After: Artifacts

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LPA	SAMPLE	MO.

ab Code: AES	RONDACK_ENVIRONME	NTAL CO			SD14-612
ab Code: AES	RONDACK_ENVIRONME	NTAL CO	1 1.		
			ntract:		
	Case No.:	DE_0310	SAS No.:		SDG No.: FP1-612
atrix (soil/	water): SOIL		La	ab Sample	ID: SD14-612
evel (low/me	d): LOW		Da	ate Receiv	red: 09/04/03
Solids:	72.0				
Conc	entration Units	(ug/L or mg/	kg dry v	weight):	MG/KG
CAS	No. Analyte	Concentrat	ion C	Q M	
		_	- -	$$ $\left \frac{1}{NR}\right $	
	9-90-5 Aluminum		- -	NR	
)-36-0 Antimony_	_	- -	NR	
	0-38-2 Arsenic	-	$\frac{1}{3} \left \frac{1}{B} \right $	P	
7440	0-39-3 Barium	_		NR	
7440	0-41-7 Beryllium	-	23 B _		
	0-43-9 Cadmium	_	- - - -	NR	
1	0-70-2 Calcium		- -	NR	
	0-47-3 Chromium_	_		NR NR	
	0-48-4_ Cobalt			NR	
	0-50-8_ Copper	_	- -	NR	
1	9-89-6_ Iron		- -		
	9-92-1_ Lead		3.2	P_NR	
	9-95-4_ Magnesium		_ -	NR	
	9-96-5 Manganese	_			1
743	9-97-6 Mercury	_	_ _	NR NR	
744	0-02-0_ Nickel		_ _	NR.	
. 744	0-09-7 Potassium		- -	NR NR	
778	2-49-2_ Selenium_	_	_ -	NR.	
744	0-22-4 Silver		_ _	NR	•
744	0-23-5_ Sodium		_ -	NR.	
744	0-28-0 Thallium_		_ _	NR	
744	0-62-2 Vanadium_		_ _	NR.	
744	0-66-6 Zinc		_ _	NR	1
744	0-42-8 Boron			NR.	•
					.1
olor Before	. Cla	rity Before	:		Texture:
		_	-		Artifacts:
Color After:	Cla	rity After:			
Comments:	•				•

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CONVENTIONALS ANALYSIS DATA SHEET

FP1-612

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0310 SAS No.:

SDG No.: FP1-612

Matrix (soil/water): Soil

Lab Sample ID: 030904045-009

Level (Low/Med):

Low

Date Received: 9/4/03

% Solids:

72.8

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)	15400			Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride	<u> </u>			EPA 300.0
Fluoride	2.75	Ū		EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide Cyanide				EPA 335.3
				EPA 150.1
pH Turbidity				EPA 180.1
				EPA 110.1
Color	 			SW 7196
Hexavalent Chromium				

Comments	

1 CONVENTIONALS ANALYSIS DATA SHEET

FP2-612

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES Case No.: DE 0310 SAS No.: SDG No.: FP1-612

Matrix (soil/water): Soil

Lab Sample ID: 030904045-010

Level (Low/Med): Low

Date Received: 9/4/03

% Solids:

69.8

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)	13500			Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	2.87	U		EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium	· ·			SW 7196

Comments	

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CONVENTIONALS ANALYSIS DATA SHEET

FP3-612

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES Case No.: DE 0310 SAS No.: SDG No.: FP1-612

Matrix (soil/water): Soil

Lab Sample ID: 030904045-011

Level (Low/Med): Low

Date Received: 9/4/03

% Solids:

75.5

Concentration Units (ug/L or mg/Kg dry weight):

mg/Kg

Analyte	Concentration	C	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N			•	EPA 350.1
Nitrate			-	EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)	9820			Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	2.65	· U		EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рн				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196
Hexavarenc ontonitain				

Comments

FORM I - CONV

CONVENTIONALS ANALYSIS DATA SHEET

FP4-612

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES Case No.: DE 0310 SAS No.: SDG No.: FP1-612

Matrix (soil/water): Soil

Lab Sample ID: 030904045-012

Level (Low/Med): Low

Date Received: 9/4/03

% Solids:

73.8

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)	9340			Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	5.96			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
pH				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196
nexavatenc chiomium		1		

Comments	

CONVENTIONALS ANALYSIS DATA SHEET

FS1-612

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES Case No.: DE 0310 SAS No.: SDG No.: FP1-612

Matrix (soil/water): Soil

Lab Sample ID: 030904045-013

Level (Low/Med): Low

Date Received: 9/4/03

% Solids:

71.3

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	C	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)	11000			Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
	 			EPA 300.0
Sulfate				EPA 310.1
Alkalinity				EPA 420.1
Total Phenols				EPA 300.0
Chloride	2.81	IJ		EPA 300.0
Fluoride	2.01	1		
Eh				EPA 120.1
Specific Conductance		 		EPA 335.3
Cyanide		 		EPA 150.1
рН		 	 	EPA 180.1
Turbidity			 	EPA 110.1
Color		 		SW 7196
Hexavalent Chromium		 		5 / 130

Comments	

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CONVENTIONALS ANALYSIS DATA SHEET

MW-15

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0310 SAS No.: SDG No.: FP1-612

Matrix (soil/water): Water

Lab Sample ID: 030904045-003

Level (Low/Med): Low

Date Received: 9/4/03

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
				EPA 300.0
Sulfate				EPA 310.1
Alkalinity				EPA 420.1
Total Phenols		 		EPA 300.0
Chloride	120			EPA 300.0
Fluoride	120	 		
Eh				EPA 120.1
Specific Conductance		 		EPA 335.3
Cyanide		}		EPA 150.1
рН		 	 	EPA 180.1
Turbidity		 	 	EPA 110.1
Color		 	 	SW 7196
Hexavalent Chromium		 	 	
		1	J	<u> </u>

Comments	

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CONVENTIONALS ANALYSIS DATA SHEET

MW-16

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES Case No.: DE 0310 SAS No.:

SDG No.: FP1-612

Matrix (soil/water): Water

Lab Sample ID: 030904045-004

Level (Low/Med): Low

Date Received: 9/4/03

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	100	Ŭ		EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рĤ				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

FORM I - CONV

1 CONVENTIONALS ANALYSIS DATA SHEET

MW - 17

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES

Case No.: DE 0310 SAS No.: SDG No.: FP1-612

Matrix (soil/water): Water

Lab Sample ID: 030904045-001

Date Received: 9/4/03

Level (Low/Med): Low

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight):

ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate .				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
				EPA 300.0
Sulfate				EPA 310.1
Alkalinity		-		EPA 420.1
Total Phenols				EPA 300.0
Chloride	1800			EPA 300.0
Fluoride	1000	 		
Eh		 	 	EPA 120.1
Specific Conductance		 	 	EPA 335.3
Cyanide		}	 	EPA 150.1
рН		 	 	EPA 180.1
Turbidity		 	 	EPA 110.1
Color	<u> </u>	 		SW 7196
Hexavalent Chromium		<u> </u>	-	
		. I	<u> </u>	<u> </u>

Comments	

FORM I - CONV

CONVENTIONALS ANALYSIS DATA SHEET

MW-17A

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES

Case No.: DE 0310 SAS No.: SDG No.: FP1-612

Matrix (soil/water): Water

Lab Sample ID: 030904045-002

Level (Low/Med):

Low

Date Received: 9/4/03

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	C	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	100	U		EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA'335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

CONVENTIONALS ANALYSIS DATA SHEET

SD11-612

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0310 SAS No.:

SDG No.: FP1-612

Matrix (soil/water): Soil

Lab Sample ID: 030904045-008

Level (Low/Med):

Low

Date Received: 9/4/03

% Solids:

80.1

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)	6590			Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	2.50	U		EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium	·	1		SW 7196
HEXAVATERE CHICALTUM				

Comments	

1

CONVENTIONALS ANALYSIS DATA SHEET

SD12-612

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0310 SAS No.: SDG No.: FP1-612

Matrix (soil/water): Soil

Lab Sample ID: 030904045-007

Level (Low/Med):

Low

Date Received: 9/4/03

% Solids:

76.4

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)	9750			Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	2.62	Ū		EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
Нq				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196

Comments	

FORM I - CONV

1

CONVENTIONALS ANALYSIS DATA SHEET

SD13-612

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0310 SAS No.:

SDG No.: FP1-612

Matrix (soil/water): Soil

Lab Sample ID: 030904045-006

Level (Low/Med): Low

Date Received: 9/4/03

% Solids:

88.6

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)	11100			Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	2.26	U		EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рн				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196
TOAQVATORO OMTOMICAN				

Comments	

1 CONVENTIONALS ANALYSIS DATA SHEET

SD14-612

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES

Case No.: DE 0310 SAS No.:

SDG No.: FP1-612

Matrix (soil/water): Soil

Lab Sample ID: 030904045-005

Date Received: 9/4/03

Level (Low/Med): Low

% Solids:

72.3

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Concentration	n	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)	15400			Lloyd Kahn
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Fluoride	4.98			EPA 300.0
Eh				
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
Н				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.1
Hexavalent Chromium				SW 7196
110114				

Comments	

FORM I - CONV

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Client Sample ID: SB-6-05(0-2 BGW)

Collection Date: 2/21/2005

Lab Sample ID: 050301024-001

Matrix: SOIL

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A	N)				Analyst: SM
Barium	18.5	0.50	µg/g	. 1	3/11/2005 5:36:00 PM
Cadmium	< 0.25	0.25	µg/g	1	3/11/2005 5:36:00 PM
Lead	< 0.25	0.25	µg/g	1	3/11/2005 5:36:00 PM
ICP METALS, TCLP SW1311/601	A(SW1311)				Analyst: SM
Barium-TCLP	< 0.10	0.10	mg/L	1	3/10/2005 5:51:00 PM
Cadmium-TCLP	< 0.05	0.05	mg/L	1	3/10/2005 5:51:00 PM
Lead-TCLP	< 0.05	0.05	mg/L	1	3/10/2005 5:51:00 PM

* - Value exceeds Maximum Contaminant Level

R - RPD outside accepted recovery limits

CLIENT: Delaware Engineering

Work Order: 050301024
Project: Metals in Soil

PO#: 01-179

Date: 15-Mar-05

Client Sample ID: SB-6-05(2-4 BGW)

Collection Date: 2/21/2005 **Lab Sample ID:** 050301024-002

Matrix: SOIL

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050	A)	,	-		Analyst: SM
Barium	20.7	0.50	μg/g	1	3/11/2005 5:49:00 PM
Cadmium	< 0.25	0.25	μg/g	1	3/11/2005 5:49:00 PM
Lead	< 0.25	0.25	µg/g	1	3/11/2005 5:49:00 PM
ICP METALS, TCLP SW1311/601	0A(SW1311)				Analyst: SM
Barium-TCLP	< 0.10	0.10	mg/L	1	3/10/2005 5:55:00 PM
Cadmium-TCLP	< 0.05	0.05	mg/L	1 `	3/10/2005 5:55:00 PM
Lead-TCLP	< 0.05	0.05	mg/L	1	3/10/2005 5:55:00 PM

R - RPD outside accepted recovery limits

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Client Sample ID: SB-6-05(4-6 BGW)

Collection Date: 2/21/2005

Lab Sample ID: 050301024-003

Matrix: SOIL

Analyses	Result	PQL Q	ıal Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050)A)				Analyst: SM
Barium	24.6	0.50	μg/g	1	3/11/2005 5:53:00 PM
Cadmium	< 0.25	0.25	μg/g	1	3/11/2005 5:53:00 PM
Lead	< 0.25	0.25	µg/g	1	3/11/2005 5:53:00 PM
CP METALS, TCLP SW1311/60	10A(SW1311)				Analyst: SM
Barium-TCLP	0.11	0.10	mg/L	1	3/10/2005 5:58:00 PM
Cadmium-TCLP	< 0.05	0.05	mg/L	1	3/10/2005 5:58:00 PM
Lead-TCLP	< 0.05	0.05	mg/L	1	3/10/2005 5:58:00 PM

CLIENT: Delaware Engineering

Work Order: 050301024
Project: Metals in Soil

PO#: 01-179

Date: 15-Mar-05

Client Sample ID: SB-6-05(8-10 BGW)

Collection Date: 2/21/2005 **Lab Sample ID:** 050301024-004

Matrix: SOIL

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A	\)				Analyst: SM
Barium	25.9	0.50	μg/g	1	3/11/2005 5:56:00 PM
Cadmium	< 0.25	0.25	µg/g	1	3/11/2005 5:56:00 PM
Lead	< 0.25	0.25	µg/g	1	3/11/2005 5:56:00 PM
ICP METALS, TCLP SW1311/6010	A(SW1311)				Analyst: SM
Barium-TCLP	< 0.10	0.10	mg/L	1	3/10/2005 6:01:00 PM
Cadmium-TCLP	< 0.05	0.05	mg/L	1	3/10/2005 6:01:00 PM
Lead-TCLP	< 0.05	0.05	mg/L	1	3/10/2005 6:01:00 PM

R - RPD outside accepted recovery limits

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

PO#: 01-179

050301024

Project:

Metals in Soil

Client Sample ID: SB-4-05(0-2 BGW)

Collection Date: 2/22/2005

Lab Sample ID: 050301024-005

Matrix: SOIL

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A)					Analyst: SM
Barium	47.4	0.50	µg/g	1	3/11/2005 6:00:00 PM
Cadmium	< 0.25	0.25	μg/g	1	3/11/2005 6:00:00 PM
Lead	< 0.25	0.25	µg/g	1	3/11/2005 6:00:00 PM
ICP METALS, TCLP SW1311/6010A(SW1311)					Analyst: SM
Barium-TCLP	0.65	0.10	mg/L	1	3/10/2005 6:06:00 PM
Cadmium-TCLP	< 0.05	0.05	mg/L	1	3/10/2005 6:06:00 PM
Lead-TCLP	< 0.05	0.05	mg/L	. 1	3/10/2005 6:06:00 PM

* - Value exceeds Maximum Contaminant Level

E - Value above quantitation range

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Date: 15-Mar-05

Client Sample ID: SB-4-05(2-4 BGW)

Collection Date: 2/22/2005

Lab Sample ID: 050301024-006

Matrix: SOIL

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A)					Analyst: SM
Barium	377	0.50	µg/g	1	3/11/2005 6:03:00 PM
Cadmium	2.16	0.25	μg/g	1	3/11/2005 6:03:00 PM
Lead	17.3	0.25	µg/g	1	3/11/2005 6:03:00 PM
CP METALS, TCLP SW1311/6010A	(SW1311)				Analyst: SM
Barium-TCLP	2.82	0.10	mg/L	1	3/10/2005 6:14:00 PM
Cadmium-TCLP	< 0.05	0.05	mg/L	1 .	3/10/2005 6:14:00 PM
Lead-TCLP	< 0.05	0.05	mg/L	1	3/10/2005 6:14:00 PM

* - Value exceeds Maximum Contaminant Level

R - RPD outside accepted recovery limits

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

PO#: 01-179

050301024

Project:

Metals in Soil

Client Sample ID: SB-4-05(4-6 BGW)

Collection Date: 2/22/2005

Lab Sample ID: 050301024-007

Matrix: SOIL

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A)					Analyst: SM
Barium	429	0.50	µg/g	1	3/11/2005 6:25:00 PM
Cadmium	6.25	0.25	μg/g	1	3/11/2005 6:25:00 PM
Lead	10.0	0.25	ha\a	1	3/11/2005 6:25:00 PM
CP METALS, TCLP SW1311/6010A(S	SW1311)				Analyst: SM
Barium-TCLP	3.47	0.10	mg/L	1	3/10/2005 6:18:00 PM
Cadmium-TCLP	< 0.05	0.05	mg/L	1	3/10/2005 6:18:00 PM
Lead-TCLP	< 0.05	0.05	mg/L	1	3/10/2005 6:18:00 PM

* - Value exceeds Maximum Contaminant Level

R - RPD outside accepted recovery limits

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Date: 15-Mar-05

Client Sample ID: SB-4-05(8-10 BGW)

Collection Date: 2/22/2005

Lab Sample ID: 050301024-008

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
ICP METALS SW6010B(SW305	i0A)				Analyst: SM
Barium	53.0	0.50	μg/g	1	3/11/2005 6:35:00 PM
Cadmium	0.29	0.25	μg/g	1	3/11/2005 6:35:00 PM
Lead	< 0.25	0.25	µg/g	1	3/11/2005 6:35:00 PM
CP METALS, TCLP SW1311/6	010A(SW1311)				Analyst: SM
Barium-TCLP	1.74	0.10	mg/L	1	3/11/2005 2:10:00 PM
Cadmium-TCLP	< 0.05	0.05	mg/L	1	3/11/2005 2:10:00 PM
Lead-TCLP	< 0.05	0.05	mg/L	1 .	3/11/2005 2:10:00 PM

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Client Sample ID: SB-7-05(0-2 BGW)

Collection Date: 2/23/2005

Lab Sample ID: 050301024-009

Analyses	Result	PQL Qua	d Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A)					Analyst: SM
Barium	334	0.50	µg/g	1	3/11/2005 6:39:00 PM
Cadmium	5.24	0.25	µg/g	1	3/11/2005 6:39:00 PM
Lead	5.81	0.25	µg/g	1.	3/11/2005 6:39:00 PM
CP METALS, TCLP SW1311/6010A	(SW1311)	•		•	Analyst: SM
Barium-TCLP	3.13	0.10	mg/L	1	3/11/2005 2:15:00 PM
Cadmium-TCLP	0.10	0.05	mg/L	1	3/11/2005 2:15:00 PM
Lead-TCLP	< 0.05	0.05	mg/L	1	3/11/2005 2:15:00 PM

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Date: 15-Mar-05

Client Sample ID: SB-7-05(2-4 BGW)

Collection Date: 2/23/2005

Lab Sample ID: 050301024-010

Analyses		Result	PQL Q	ual Units	DF	Date Analyzed
ICP METALS S	SW6010B(SW3050A)					Analyst: SM
Barium	,	259	0.50	μg/g	1	3/11/2005 6:43:00 PM
Cadmium		8.75	0.25	µg/g	1	3/11/2005 6:43:00 PM
Lead		35.8	0.25	hā/ā	1	3/11/2005 6:43:00 PM
CP METALS, TO	CLP SW1311/6010A(S	W1311)				Analyst: SM
Barium-TCLP		2.91	0.10	mg/L	1	3/11/2005 2:19:00 PM
Cadmium-TCLP	Section 1985	0.10	0.05	mg/L	1	3/11/2005 2:19:00 PM
Lead-TCLP		0.08	0.05	mg/L	1	3/11/2005 2:19:00 PM

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

PO#: 01-179

050301024

Project:

Metals in Soil

Client Sample ID: SB-7-05(4-6 BGW)

Collection Date: 2/23/2005

Lab Sample ID: 050301024-011

Matrix: SOIL

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A)					Analyst: SM
Barium	236	0.50	µg/g	1	3/11/2005 6:47:00 PM
Cadmium	13.2	0.25	µg/g	1	3/11/2005 6:47:00 PM
Lead	30.1	0.25	μg/g	1	3/11/2005 6:47:00 PM
CP METALS, TCLP SW1311/6010A(SW1311)	•			Analyst: SM
Barium-TCLP	2.27	0.10	mg/L	1	3/11/2005 2:23:00 PM
Cadmium-TCLP	0.07	0.05	mg/L	1	3/11/2005 2:23:00 PM
Lead-TCLP	< 0.05	0.05	mg/L	1	3/11/2005 2:23:00 PM

* - Value exceeds Maximum Contaminant Level

E - Value above quantitation range

R - RPD outside accepted recovery limits

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Date: 15-Mar-05

Client Sample ID: SB-7-05(8-10 BGW)

Collection Date: 2/23/2005

Lab Sample ID: 050301024-012

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050	A)	, ,			Analyst: SM
Barium	567	0.50	μg/g	. 1	3/11/2005 6:53:00 PM
Cadmium	30.5	0.25	μg/g	1	3/11/2005 6:53:00 PM
Lead	32.9	0.25	µg/g	1	3/11/2005 6:53:00 PM
ICP METALS, TCLP SW1311/601	0A(SW1311)				Analyst: SM
Barium-TCLP	5.42	0.10	mg/L	1	3/11/2005 2:27:00 PM
Cadmium-TCLP	0.40	0.05	mg/L	1	3/11/2005 2:27:00 PM
Lead-TCLP	0.06	0.05	mg/L	1	3/11/2005 2:27:00 PM

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Client Sample ID: SB-8-05(0-2 BGW)

Collection Date: 2/24/2005

Lab Sample ID: 050301024-013

Matrix: SOIL

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A)				Analyst: SM
Barium	53.6	0.50	µg/g	1	3/14/2005 2:31:00 PM
Cadmium	0.26	0.25	μg/g	1	3/14/2005 2:31:00 PM
Lead	< 0.25	0.25	µg/g	1	3/14/2005 2:31:00 PM
CP METALS, TCLP SW1311/6010	A(SW1311)				Analyst: SM
Barium-TCLP	0.31	0.10	mg/L	1	3/11/2005 2:33:00 PM
Cadmium-TCLP	< 0.05	0.05	mg/L	1	3/11/2005 2:33:00 PM
Lead-TCLP	< 0.05	0.05	mg/L	1	3/11/2005 2:33:00 PM

* - Value exceeds Maximum Contaminant Level

E - Value above quantitation range

R - RPD outside accepted recovery limits

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Client Sample ID: SB-8-05(2-4 BGW)

Collection Date: 2/24/2005

Lab Sample ID: 050301024-014

Analyses	Result	PQL Qu	ial Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A))				Analyst: SM
Barium	139	0.50	µg/g	1	3/14/2005 3:02:00 PM
Cadmium	7.68	0.25	µg/g	1	3/14/2005 3:02:00 PM
Lead	< 0.25	0.25	µg/g	1	3/14/2005 3:02:00 PM
ICP METALS, TCLP SW1311/6010	A(SW1311)				Analyst: SM
Barium-TCLP	1.75	0.10	mg/L	1	3/11/2005 2:37:00 PM
Cadmium-TCLP	0.10	0.05	mg/L	1	3/11/2005 2:37:00 PM
Lead-TCLP	< 0.05	0.05	mg/L	1	3/11/2005 2:37:00 PM

R - RPD outside accepted recovery limits

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Client Sample ID: SB-8-05(4-6 BGW)

Collection Date: 2/24/2005

Lab Sample ID: 050301024-015

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A)					Analyst: SM
Barium	167	0.50	μg/g	1	3/14/2005 3:14:00 PM
Cadmium	2.71	0.25	μg/g	1	3/14/2005 3:14:00 PM
Lead	0.84	0.25	ha/a	1	3/14/2005 3:14:00 PM
CP METALS, TCLP SW1311/6010	A(SW1311)				Analyst: SM
Barium-TCLP	2.14	0.10	mg/L	1	3/11/2005 2:45:00 PM
Cadmium-TCLP	< 0.05	0.05	mg/L	1	3/11/2005 2:45:00 PM
Lead-TCLP	< 0.05	0.05	mg/L	. 1	3/11/2005 2:45:00 PM

R - RPD outside accepted recovery limits

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Date: 15-Mar-05

Client Sample ID: SB-8-05(8-10 BGW)

Collection Date: 2/24/2005

Lab Sample ID: 050301024-016

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A	N) .				Analyst: SM
Barium	229	0.50	μg/g	1	3/14/2005 3:17:00 PM
Cadmium	3.07	0.25	µg/g	1	3/14/2005 3:17:00 PM
Lead	1.26	0.25	µg/g	1.	3/14/2005 3:17:00 PM
ICP METALS, TCLP SW1311/6010	A(SW1311)				Analyst: SM
Barium-TCLP	3.49	0.10	mg/L	1	3/11/2005 2:49:00 PM
Cadmium-TCLP	0.08	0.05	mg/L	1	3/11/2005 2:49:00 PM
Lead-TCLP	< 0.05	0.05	mg/L	1	3/11/2005 2:49:00 PM

R - RPD outside accepted recovery limits

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Client Sample ID: SB-5-05(0-2 BGW)

Collection Date: 2/24/2005

Lab Sample ID: 050301024-017

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A)					Analyst: SM
Barium	600	0.50	μg/g	1	3/14/2005 3:26:00 PM
Cadmium	2310	2.50	μg/g	10	3/14/2005 5:51:00 PM
Lead	1020	0.25	μg/g	1	3/14/2005 3:26:00 PM
CP METALS, TCLP SW1311/6010A	(SW1311)				Analyst: SM
Barium-TCLP	8.12	0.10	mg/L	1	3/11/2005 3:17:00 PM
Cadmium-TCLP	5.63	0.05	* mg/L	1	3/11/2005 3:17:00 PM
Lead-TCLP	0.86	0.05	mg/L	1	3/11/2005 3:17:00 PM

R - RPD outside accepted recovery limits

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Client Sample ID: SB-5-05(2-4 BGW)

Collection Date: 2/24/2005

Lab Sample ID: 050301024-018

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A)	:				Analyst: SM
Barium	775	0.50	µg/g	1	3/14/2005 3:35:00 PM
Cadmium	369	0.25	µg/g	1	3/14/2005 3:35:00 PM
Lead	240	0.25	µg/g	1	3/14/2005 3:35:00 PM
ICP METALS, TCLP SW1311/6010A(SW1311)				Analyst: SM
Barium-TCLP	11.5	0.10	mg/L	1	3/11/2005 3:22:00 PM
Cadmium-TCLP	5.34	0.05	* mg/L	1	3/11/2005 3:22:00 PM
Lead-TCLP	0.73	0.05	mg/L	1	3/11/2005 3:22:00 PM

B - Analyte detected in the associated Method Blank

^{* -} Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order: Project:

050301024 Metals in Soil

PO#: 01-179

Client Sample ID: SB-5-05(4-6 BGW)

3/28/05

Collection Date: 2/24/2005

Lab Sample ID: 050301024-019

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A)						Analyst: SM
Barium	909	0.50		µg/g	1	3/14/2005 3:51:00 PM
Cadmium	286	0.25		µg/g	1	3/14/2005 3:51:00 PM
Lead	169	0.25		µg/g	1	3/14/2005 3:51:00 PM
CP METALS, TCLP SW1311/6010A	(SW1311)					Analyst: SM
Barium-TCLP	10.9	0.10		mg/L	1.1	3/11/2005 3:26:00 PM
Cadmium-TCLP	1.94	0.05	*	mg/L	1	3/11/2005 3:26:00 PM
Lead-TCLP	0.15	0.05		mg/L	1	3/11/2005 3:26:00 PM

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Date: 15-Mar-05

Client Sample ID: SB-5-05(8-10 BGW)

Collection Date: 2/24/2005

Lab Sample ID: 050301024-020

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
ICP METALS SW6010	B(SW3050A)				Analyst: SM
Barium	914	0.50	μg/g	1	3/14/2005 4:26:00 PM
Cadmium	402	0.25	μg/g	1	3/14/2005 4:26:00 PM
Lead	168	0.25	µg/g	1	3/14/2005 4:26:00 PM
ICP METALS, TCLP SV	W1311/6010A(SW1311)				Analyst: SM
Barium-TCLP	12.5	0.10	mg/L	1	3/11/2005 3:30:00 PM
Cadmium-TCLP	1.94	0.05	* mg/L	1 .	3/11/2005 3:30:00 PM
Lead-TCLP	0.25	0.05	mg/L	1	3/11/2005 3:30:00 PM

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

PO#: 01-179

050301024

Project:

Metals in Soil

Client Sample ID: SB-3-05(0-2 BGW)

Collection Date: 2/25/2005

Lab Sample ID: 050301024-021

	Result	PQL Qua	l Units	DF	Date Analyzed
SW6010B(SW3050A)				:	Analyst: SM
	590	0.50	μg/g	1	3/14/2005 4:33:00 PM
	11.8	0.25	μg/g	1 -	3/14/2005 4:33:00 PM
*.	26.0	0.25	µg/g	1	3/14/2005 4:33:00 PM
TCLP SW1311/6010A(S	W1311)				Analyst: SM
	4.51	0.10	mg/L	1	3/11/2005 3:49:00 PM
P	0.11	0.05	mg/L	1	3/11/2005 3:49:00 PM
	80.0	0.05	mg/L	1	3/11/2005 3:49:00 PM
	SW6010B(SW3050A) TCLP SW1311/6010A(S	SW6010B(SW3050A) 590 11.8 26.0 TCLP SW1311/6010A(SW1311) 4.51 0.11	SW6010B(SW3050A) 590 0.50 11.8 0.25 26.0 0.25 TCLP SW1311/6010A(SW1311) 4.51 0.10 0.01 0.05	SW6010B(SW3050A) 590 0.50 µg/g 11.8 0.25 µg/g 26.0 0.25 µg/g TCLP SW1311/6010A(SW1311) 4.51 0.10 mg/L P 0.11 0.05 mg/L	SW6010B(SW3050A) 590 0.50 µg/g 1 11.8 0.25 µg/g 1 26.0 0.25 µg/g 1 TCLP SW1311/6010A(SW1311) 4.51 0.10 mg/L 1 0.11 0.05 mg/L 1

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Date: 15-Mar-05

Client Sample ID: SB-3-05(2-4 BGW)

Collection Date: 2/25/2005

Lab Sample ID: 050301024-022

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A)				Analyst: SM
Barium	359	0.50	µg/g	. 1	3/14/2005 4:49:00 PM
Cadmium	4.14	0.25	µg/g	1	3/14/2005 4:49:00 PM
Lead	9.39	0.25	µg/g	1	3/14/2005 4:49:00 PM
CP METALS, TCLP SW1311/6010	A(SW1311)				Analyst: SM
Barium-TCLP	3.76	0.10	mg/L	1	3/11/2005 3:53:00 PM
Cadmium-TCLP	0.09	0.05	mg/L	1	3/11/2005 3:53:00 PM
Lead-TCLP	0.06	0.05	mg/L	1	3/11/2005 3:53:00 PM

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 15-Mar-05

CLIENT: Work Order: Delaware Engineering

050301024

Project:

Metals in Soil

PO#: 01-179

Client Sample ID: SB-3-05(4-6 BGW)

Collection Date: 2/25/2005

Lab Sample ID: 050301024-023

Analyses	Result	PQL Q	ıal Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A)					Analyst: SM
Barium	666	0.50	μg/g	1	3/14/2005 4:53:00 PM
Cadmium	7.42	0.25	μg/g	1	3/14/2005 4:53:00 PM
Lead	53.3	0.25	h д /д	1	3/14/2005 4:53:00 PM
CP METALS, TCLP SW1311/6010A	\(SW1311)				Analyst: SM
Barium-TCLP	5.50	0.10	mg/L	1	3/11/2005 3:57:00 PM
Cadmium-TCLP	0.06	0.05	mg/L	1	3/11/2005 3:57:00 PM
Lead-TCLP	< 0.05	0.05	mg/L	1	3/11/2005 3:57:00 PM

R - RPD outside accepted recovery limits

E - Value above quantitation range

Delaware Engineering

Work Order: 050301024

Project: Metals in Soil

PO#: 01-179

CLIENT:

Date: 15-Mar-05

Client Sample ID: SB-3-05(8-10 BGW)

Collection Date: 2/25/2005

Lab Sample ID: 050301024-024

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A)				Analyst: SM
Barium	429	0.50	μg/g	1	3/14/2005 4:57:00 PM
Cadmium	3.87	0.25	μg/g	1	3/14/2005 4:57:00 PM
Lead	18.0	0.25	µg/g	1	3/14/2005 4:57:00 PM
ICP METALS, TCLP SW1311/6010	A(SW1311)				Analyst: SM
Barium-TCLP	4.17	0.10	mg/L	1	3/11/2005 4:02:00 PM
Cadmium-TCLP	< 0.05	0.05	mg/L	1	3/11/2005 4:02:00 PM
Lead-TCLP	< 0.05	0.05	mg/L	1	3/11/2005 4:02:00 PM

R - RPD outside accepted recovery limits

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Client Sample ID: SB-2-05(0-2 BGW)

Collection Date: 2/28/2005

Lab Sample ID: 050301024-025

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A)					Analyst: SM
Barium	1030	0.50	μg/g	. 1	3/14/2005 5:01:00 PM
Cadmium	316	0.25	µg/g	1	3/14/2005 5:01:00 PM
Lead	780	0.25	ha\a	1	3/14/2005 5:01:00 PM
CP METALS, TCLP SW1311/6010	A(SW1311)				Analyst: SM
Barium-TCLP	4.18	0.10	mg/L	1	3/11/2005 4:26:00 PM
Cadmium-TCLP	1.13	0.05	* mg/L	1	3/11/2005 4:26:00 PM
Lead-TCLP	0.66	0.05	mg/L	1	3/11/2005 4:26:00 PM

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Client Sample ID: SB-2-05(2-4BGW)

Collection Date: 2/28/2005

Lab Sample ID: 050301024-026

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A)					Analyst: SM
Barium	1370	0.50	μg/g	1	3/14/2005 5:06:00 PM
Cadmium	57.2	0.25	µg/g	1	3/14/2005 5:06:00 PM
Lead	143	0.25	ha/a	1	3/14/2005 5:06:00 PM
ICP METALS, TCLP SW1311/6010A	(SW1311)				Analyst: SM
Barium-TCLP	11.8	0.10	mg/L	1	3/11/2005 4:30:00 PM
Cadmium-TCLP	0.15	0.05	mg/L	1	3/11/2005 4:30:00 PM
Lead-TCLP	0.32	0.05	mg/L	1	3/11/2005 4:30:00 PM

R - RPD outside accepted recovery limits

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Client Sample ID: SB-2-05(4-6 BGW)

Collection Date: 2/28/2005

Lab Sample ID: 050301024-027

Analyses		Result	PQL Qu	al Units	DF	Date Analyzed
ICP METALS	SW6010B(SW3050A)			· · · · · · · · · · · · · · · · · · ·		Analyst: SM
Barium		739	0.50	µg/g	1	3/14/2005 5:18:00 PM
Cadmium		42.6	0.25	μg/g	1	3/14/2005 5:18:00 PM
Lead		73.6	0.25	µg/g	. 1	3/14/2005 5:18:00 PM
CP METALS,	TCLP SW1311/6010A(S	W1311)				Analyst: SM
Barium-TCLP		5.61	0.10	mg/L	1	3/11/2005 4:37:00 PM
Cadmium-TCL	P	0.32	0.05	mg/L	1	3/11/2005 4:37:00 PM
Lead-TCLP	· ·	0.14	0.05	mg/L	1	3/11/2005 4:37:00 PM

R - RPD outside accepted recovery limits

CLIENT: Delaware Engineering

Work Order: 050301024

Metals in Soil Project:

PO#: 01-179

Date: 15-Mar-05

Client Sample ID: SB-2-05(8-10 BGW)

Collection Date: 2/28/2005 Lab Sample ID: 050301024-028

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050)A)				Analyst: SM
Barium	673	0.50	μg/g	1	3/14/2005 5:22:00 PM
Cadmium	21.3	0.25	μg/g	1	3/14/2005 5:22:00 PM
Lead	55.4	0.25	µg/g	1	3/14/2005 5:22:00 PM
CP METALS, TCLP SW1311/60	10A(SW1311)				Analyst: SM
Barium-TCLP	6.52	0.10	mg/L	1	3/11/2005 4:41:00 PM
Cadmium-TCLP	0.24	0.05	mg/L	1	3/11/2005 4:41:00 PM
Lead-TCLP	0.15	0.05	mg/L	1	3/11/2005 4:41:00 PM

R - RPD outside accepted recovery limits

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Client Sample ID: SB-1-05(0-2 BGW)

Collection Date: 2/28/2005

Lab Sample ID: 050301024-029

Analyses	Result	PQL	Qual T	J nits	DF	Date Analyzed
ICP METALS SW6010B(SW3050	A)			-		Analyst: SM
Barium	930	0.50	ք	g/g	1	3/14/2005 5:26:00 PM
Cadmium	175	0.25	μς	g/g	1	3/14/2005 5:26:00 PM
Lead	92.2	0.25		g/g	1	3/14/2005 5:26:00 PM
ICP METALS, TCLP SW1311/601	0A(SW1311)					Analyst: SM
Barium-TCLP	6.98	0.10	m	g/L	1	3/11/2005 4:45:00 PM
Cadmium-TCLP	1.26	0.05	* m	g/L ·	1	3/11/2005 4:45:00 PM
Lead-TCLP	0.13	0.05	m	g/L	1:	3/11/2005 4:45:00 PM

R - RPD outside accepted recovery limits

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Date: 15-Mar-05

Client Sample ID: SB-1-05(2-4 BGW)

Collection Date: 2/28/2005

Lab Sample ID: 050301024-030

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A))		<u> </u>		Analyst: SM
Barium	991	0.50	μg/g	1	3/14/2005 5:29:00 PM
Cadmium	112	0.25	µg/g	1	3/14/2005 5:29:00 PM
Lead	72.4	0.25	µg/g	1	3/14/2005 5:29:00 PM
CP METALS, TCLP SW1311/6010	A(SW1311)	•			Analyst: SM
Barium-TCLP	8.57	0.10	mg/L	1	3/11/2005 4:50:00 PM
Cadmium-TCLP	0.90	0.05	mg/L	1	3/11/2005 4:50:00 PM
Lead-TCLP	0.14	0.05	mg/L	1	3/11/2005 4:50:00 PM

R - RPD outside accepted recovery limits

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Client Sample ID: SB-1-05(4-6 BGW)

Collection Date: 2/28/2005

Lab Sample ID: 050301024-031

Analyses	Result	PQL Q	ıal Units	DF	Date Analyzed
ICP METALS SW6010B(SW3050A)			-	Analyst: SM
Barium	711	0.50	μg/g	1	3/14/2005 5:33:00 PM
Cadmium	74.9	0.25	μg/g	1	3/14/2005 5:33:00 PM
Lead	56.2	0.25	µg/g	1	3/14/2005 5:33:00 PM
ICP METALS, TCLP SW1311/6010	A(SW1311)				Analyst: SM
Barium-TCLP	5.86	0.10	mg/L	1	3/11/2005 4:54:00 PM
Cadmium-TCLP	0.83	0.05	mg/L	1	3/11/2005 4:54:00 PM
Lead-TCLP	0.09	0.05	mg/L	1	3/11/2005 4:54:00 PM

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 15-Mar-05

CLIENT:

Delaware Engineering

Work Order:

050301024

Project:

Metals in Soil

PO#: 01-179

Client Sample ID: SB-1-05(8-10 BGW)

Collection Date: 2/28/2005

Lab Sample ID: 050301024-032

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed
ICP METALS SW6010B(SW30	50A)				Analyst: SM
Barium	440	0.50	µg/g	1	3/14/2005 5:46:00 PM
Cadmium	80.8	0.25	μg/g	1	3/14/2005 5:46:00 PM
Lead	94.5	0.25	µg/g	1	3/14/2005 5:46:00 PM
ICP METALS, TCLP SW1311/6	6010A(SW1311)				Analyst: SM
Barium-TCLP	3.53	0.10	mg/L	1	3/11/2005 4:58:00 PM
Cadmium-TCLP	0.39	0.05	mg/L	1	3/11/2005 4:58:00 PM
Lead-TCLP	0.08	0.05	mg/L	1	3/11/2005 4:58:00 PM

R - RPD outside accepted recovery limits

EPA SAMPLE NO.

MW-6

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE 0501 SAS No.: SDG No.: MW-6

Matrix: (soil/water) WATER

Lab Sample ID: MW-6

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 050401035-001C

Level: (low/med) LOW

Date Received: 04/01/05

% Moisture: not dec. dec. Date Extracted: 04/01/05

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/07/05

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

Q

		1
12674-11-2Arochlor-1016	.065	ט
11104-28-2Arochlor-1221	.065	U.
11141-16-5Arochlor-1232	.065	U
53469-21-9Arochlor-1242	.065	U
12672-29-6Arochlor-1248	.065	U
11097-69-1Arochlor-1254	.24	
11096-82-5Arochlor-1260	.065	U

FORM I PEST

EPA SAMPLE NO.

MW - 7

Lab Name: AES, INC.

Contract:

lab Code: AES Case No.: DE 0501 SAS No.: SDG No.: MW-6

Matrix: (soil/water) WATER

Lab Sample ID: MW-7

mple wt/vol: 1000.0 (g/mL) ML Lab File ID: 050401035-002C

Level: (low/med) LOW

Date Received: 04/01/05

Moisture: not dec. dec. Date Extracted: 04/01/05

Ittraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/07/05

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CONCENTRATION UNITS:
CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

12674-11-2Arochlor-1016	.065	U
11104-28-2Arochlor-1221	.065	U
11141-16-5Arochlor-1232	.065	U
53469-21-9Arochlor-1242	.065	U
12672-29-6Arochlor-1248	.065	U
11097-69-1Arochlor-1254	.065	U
11096-82-5Arochlor-1260	.065	U

FORM I PEST

EPA SAMPLE NO.

MW-8

Lab Name: AES, INC.

Contract:

SDG No.: MW-6

Matrix: (soil/water) WATER

Sample wt/vol: 1000.0 (g/mL) ML

Lab Sample ID: MW-8

Lab File ID: 050401035-003C

Level: (low/med) LOW

Date Received: 04/01/05

% Moisture: not dec. dec. Date Extracted: 04/01/05

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/07/05

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/L

Q

		<u> </u>
12674-11-2Arochlor-1016	.065	U
11104-28-2Arochlor-1221	.065	U
11141-16-5Arochlor-1232	.065	U
53469-21-9Arochlor-1242	.065	U
12672-29-6Arochlor-1248	.065	U
11097-69-1Arochlor-1254	.065	U
11096-82-5Arochlor-1260	.065	U

FORM I PEST

EPA SAMPLE NO.

MW - 9

Lab Name: AES, INC.

Contract:

I ub Code: AES Case No.: DE 0501 SAS No.: SDG No.: MW-6

Matrix: (soil/water) WATER

Lab Sample ID: MW-9

mple wt/vol: 1000.0 (g/mL) ML Lab File ID: 050401035-004C

Invel: (low/med) LOW

Date Received: 04/01/05

Moisture: not dec. dec. Date Extracted: 04/01/05

traction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/07/05

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

Q

11096-82-5Arochlor-1260 .065 U	12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232 53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254 11096-82-5Arochlor-1260	.065 .065 .065 .065 .065	U U U U U
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FORM I PEST

EPA SAMPLE NO.

MW-10

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE 0501 SAS No.:

SDG No.: MW-6

Matrix: (soil/water) WATER Lab Sample ID: MW-10

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 050401035-005C

Level: (low/med) LOW

Date Received: 04/01/05

% Moisture: not dec. dec. Date Extracted: 04/01/05

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/07/05

CAS NO. COMPOUND

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

12674-11-2Arochlor-1016	.065	U
11104-28-2Arochlor-1221	.065	U
11141-16-5Arochlor-1232	.065	U
53469-21-9Arochlor-1242	.065	U
12672-29-6Arochlor-1248	.065	U
11097-69-1Arochlor-1254	.065	U
11096-82-5Arochlor-1260	.065	U
11000 02 0		

FORM I PEST

MW-12

Lab Name: AES, INC.

Contract:

L b Code: AES Case No.: DE 0501 SAS No.: SDG No.: MW-6

Lab Sample ID: MW-12

Matrix: (soil/water) WATER

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 050401035-014C

Level: (low/med) LOW

Date Received: 04/01/05

Moisture: not dec. dec.____

Date Extracted: 04/01/05

E traction: (SepF/Cont/Sonc) SEPF

11096-82-5----Arochlor-1260

Date Analyzed: 04/07/05

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor:

1.00

CAS NO.

COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q

U .065 12674-11-2----Arochlor-1016 U .065 11104-28-2----Arochlor-1221 U .065 11141-16-5----Arochlor-1232 U .065 53469-21-9----Arochlor-1242 U .065 12672-29-6----Arochlor-1248 .065 U 11097-69-1----Arochlor-1254 .065 U

FORM I PEST

EPA SAMPLE NO.

MW-13

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE 0501 SAS No.: SDG No.: MW-6

Matrix: (soil/water) WATER

Lab Sample ID: MW-13

Sample wt/vol:

1000.0 (g/mL) ML Lab File ID: 050401035-006C

Level: (low/med) LOW

Date Received: 04/01/05

% Moisture: not dec.

dec.

Date Extracted: 04/01/05

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/07/05

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/L

0

		l
12674-11-2Arochlor-1016	.065	U
11104-28-2Arochlor-1221	.065	U
11141-16-5Arochlor-1232	.065	U
53469-21-9Arochlor-1242	.065	U
12672-29-6Arochlor-1248	.065	U
11097-69-1Arochlor-1254	.065	U
11096-82-5Arochlor-1260	.065	ַ ע

FORM I PEST

EPA SAMPLE NO.

MW-14

Lab Name: AES, INC.

Contract:

I b Code: AES Case No.: DE 0501 SAS No.: SDG No.: MW-6

Matrix: (soil/water) WATER

Lab Sample ID: MW-14

mple wt/vol: 1000.0 (g/mL) ML Lab File ID: 050401035-008C

Level: (low/med) LOW

Date Received: 04/01/05

Moisture: not dec. dec. Date Extracted: 04/01/05

traction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/07/05

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q

12674-11-2Arochlor-1016	.065	U
11104-28-2Arochlor-1221	.065	U
11141-16-5Arochlor-1232	.065	U
53469-21-9Arochlor-1242	.065	ַ
12672-29-6Arochlor-1248	.065	U
11097-69-1Arochlor-1254	.20	
11096-82-5Arochlor-1260	.065	U

FORM I PEST

EPA SAMPLE NO.

MW-15

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE 0501 SAS No.:

SDG No.: MW-6

Matrix: (soil/water) WATER

Lab Sample ID: MW-15

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 050401035-009C

Level: (low/med) LOW

Date Received: 04/01/05

% Moisture: not dec. dec.___

Date Extracted: 04/01/05

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/07/05

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/L

Q

12674-11-2Arochlor-1016	.065	U
11104-28-2Arochlor-1221	.065	Ū
11141-16-5Arochlor-1232	.065	υ
53469-21-9Arochlor-1242	.065	U
12672-29-6Arochlor-1248	.065	U
11097-69-1Arochlor-1254	.065	U
11096-82-5Arochlor-1260	.065	U
		l

FORM I PEST

PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-16

Lab Name: AES, INC.

Contract:

L b Code: AES Case No.: DE 0501 SAS No.:

SDG No.: MW-6

Matrix: (soil/water) WATER

Lab Sample ID: MW-16

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 050401035-010C

Date Received: 04/01/05

% Moisture: not dec.

Lovel: (low/med) LOW

dec.__

Date Extracted: 04/01/05

H traction: (SepF/Cont/Sonc) SEPF

11096-82-5----Arochlor-1260

Date Analyzed: 04/07/05

.065

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor:

CAS NO.

COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q

.065 U 12674-11-2----Arochlor-1016 .065 U 11104-28-2----Arochlor-1221 U .065 11141-16-5----Arochlor-1232 U .065 53469-21-9----Arochlor-1242 U .065 12672-29-6----Arochlor-1248 .065 U 11097-69-1----Arochlor-1254 U

FORM I PEST

1D PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-17

Lab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE 0501 SAS No.:

SDG No.: MW-6

Matrix: (soil/water) WATER

Lab Sample ID: MW-17

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 050401035-011C

Level: (low/med) LOW

Date Received: 04/01/05

% Moisture: not dec. dec.____

Date Extracted: 04/01/05

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/07/05

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

Q

53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254 11096-82-5Arochlor-1260	12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232	.065 .065 .065	U U U
	53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254	.065	U U U

FORM I PEST

1D PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-17A

Lab Name: AES, INC.

Contract:

SDG No.: MW-6

Matrix: (soil/water) WATER

L b Code: AES Case No.: DE 0501 SAS No.:

Lab Sample ID: MW-17A

Simple wt/vol: 1000.0 (g/mL) ML

Lab File ID: 050401035-012C

Lovel: (low/med) LOW

Date Received: 04/01/05

% Moisture: not dec.

dec.___

Date Extracted: 04/01/05

E traction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/07/05

GPC Cleanup: (Y/N) N pH: 6.0

Dilution Factor:

1.00

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

Q

U .065 12674-11-2----Arochlor-1016 U .065 11104-28-2----Arochlor-1221 .065 U 11141-16-5----Arochlor-1232 U .065 53469-21-9----Arochlor-1242 U .065 12672-29-6----Arochlor-1248 U 11097-69-1----Arochlor-1254 .065 U .065 11096-82-5----Arochlor-1260

FORM I PEST

1D PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-18

_ab Name: AES, INC.

Contract:

Lab Code: AES Case No.: DE 0501 SAS No.:

SDG No.: MW-6

Matrix: (soil/water) WATER

Lab Sample ID: MW-18

Fample wt/vol: 1000.0 (g/mL) ML Lab File ID: 050401035-013C

Level: (low/med) LOW

Date Received: 04/01/05

Moisture: not dec. dec. _____

Date Extracted: 04/01/05

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/07/05

GPC Cleanup: (Y/N) N pH: 6.0

Dilution Factor: 1.00

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

Q

12674-11-2Arochlor-1016 11104-28-2Arochlor-1221 11141-16-5Arochlor-1232 53469-21-9Arochlor-1242 12672-29-6Arochlor-1248 11097-69-1Arochlor-1254 11096-82-5Arochlor-1260	.065 .065 .065 .065 .065	บ บ บ บ บ บ
		·

FORM I PEST

PCB ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-1

Lab Name: AES, INC.

Contract:

ab Code: AES Case No.: DE 0501 SAS No.: SDG No.: MW-6

Matrix: (soil/water) WATER

Lab Sample ID: X-1

ample wt/vol: 1000.0 (g/mL) ML Lab File ID: 050401035-007C

Jevel: (low/med) LOW

Date Received: 04/01/05

Moisture: not dec. dec. Date Extracted: 04/01/05

xtraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/07/05

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	0.55	,,
12674-11-2Arochlor-1016	.065	יון
11104-28-2Arochlor-1221	.065	U
11141-16-5Arochlor-1232	.065	บ
53469-21-9Arochlor-1242	.065	ן ט
12672-29-6Arochlor-1248	.065	שׁ
11097-69-1Arochlor-1254	.065	שׁ
11096-82-5Arochlor-1260	.065	U
11070 02 5		İ

FORM I PEST

	SAMPLE	NT/
H. P A	SAMPLE.	INK J

			TAL Contra				
b Code	: AES	Case No.:	DE_0501 SAS	No	- :		SDG No.: MW-6
trix (soil/water):	WATER_			Lab Sam	ple	ID: MW-6
vel (1	ow/med):	LOW			Date Re	ceiv	red: 04/01/05
Solids	:						
	Concentrati	ion Units (ıg/L or mg/kg d	lry	weight	.):	UG/L
	CAS No.	Analyte	Concentration	С	Q	М	
	7429-90-5	Aluminum				NR	
	7440-36-0			-		NR	
		Arsenic		-		NR	
	1	Barium	131	B		P	
	1	Beryllium				NR	
		Cadmium	0.35	B		P_	
	7440-70-2	Calcium				NR	
	7440-47-3	Chromium		-		NR	
	7440-48-4			-		NR	·
•	7440-50-8	Copper		-		NR	
	7439-89-6	Iron		-		NR	
	7439-92-1	Lead	6.8	-		P_NR	
		Magnesium		-		NR	·
		Manganese		-		NR	·
	7439-97-6			-		NR	•
	7440-02-0			-		NR	
	7440-09-7					NR	
	7782-49-2					NR	
	7440-22-4	Silver				NR	
	7440-23-5	Sodium				NR	
	7440-28-0	Thallium_		_		NR	
	7440-62-2	Vanadium_		_		NR	
	7440-66-6	Zinc		_		NR	
	7440-42-8	Boron		$ _ $		NR	
				_		_	
olor Be	efore:	Clar	ity Before:				Texture:
			_			-	
olor Af	ter:	Clar	ity After:				Artifacts:
omments	3 :						

עסים	SAMPLE	NTO
CEA	OMITELLE	INC

		K_ENVIRONME					
Code	: AES	Case No.:	DE_0501 SAS	No	· · · ·		SDG No.: MW-6
rix (soil/water)	: WATER_			Lab San	nple	ID: MW-7
el (1	ow/med):	LOW			Date Re	eceiv	red: 04/01/05
olids							
	Concentrat	ion Units (ug/L or mg/kg o	dry	weight	:):	UG/L
	CAS No.	Analyte	Concentration	С	Q	М	
	7429-90-5	Aluminum		-		- NR	
	7429-90-5_	Antimony		-		NR	
	7440-38-0_			-		NR	
	7440-38-2_		9.2	B		P_	
	7440-41-7	Beryllium_				NR	·
	7440-43-9		0.67_	B		P_	
	7440-70-2	Calcium				NR	
	7440-47-3	Chromium				NR	
	7440-48-4					NR	
	7440-50-8			$ \Box $		NR	
	7439-89-6			-		NR	· .
	7439-92-1		2.9	ਹ	-	_ P_	•
		Magnesium		_		NR	
		Manganese_		-		NR	·
	7439-97-6			$ \Box $		_ NR	
	7440-02-0			$ \Box $		NR	
	7440-09-7	Potassium_				NR	
	7782-49-2	Selenium -		$ \Box $		NR	
	7440-22-4			1_1		_ NR	
	7440-23-5			_		NR	
	7440-28-0	Thallium				NR	
	7440-62-2	Vanadium		-		NR	·
	7440-66-6	Zinc		$ _ $		NR	
	7440-42-8	Boron		-		- NR	
				<u> </u>		_	I
or Be	fore:	Clar	ity Before:				Texture:
			ity After:				Artifacts:
or Af	ter:	CIAL	icy Aller.				
ments	3:						

b Name:	: ADIRONDACI	K_ENVIRONMEN	NTAL Contr	act	:		MW - 8
							SDG No.: MW-6
rix (s	soil/water)	: WATER_			Lab S	Sample	ID: MW-8
vel (lo	ow/med):	LOW			Date	Receiv	red: 04/01/05
Solids	•						
	Concentrat	ion Units (ug/L or mg/kg	dry	weig	jht):	UG/L
	CAS No.	Analyte	Concentration	С	Q	М	
	7429-90-5	Aliminim		-		NR	
	7440-36-0			-		- NR	
	7440-38-0_			-		NR NR	
	7440-38-2		12.5	B		P	
		Beryllium		۲۱		$- \bar{NR} $	
	7440-43-9		0.30	ט		P_	
	7440-70-2					NR	
	7440-47-3					- NR	
	7440-48-4			-		- NR	
	7440-50-8			-		- NR	
	7439-89-6			-		NR	
	7439-89-6_		4.8	-		P_	
		Magnesium_		-			•
		Magnesium_ Manganese		-		- NR	
	7439-90-5_			-		- NR	
	7440-02-0			-		- NR	
		Potassium		1-1		- NR	
	7782-49-2			-		NR	
	7440-22-4			1-1		- NR	
	7440-23-5			-		NR	
	7440-28-0	Thallium		-		NR	
	7440-62-2	Vanadium		-		NR NR	
	7440-66-6	Zinc		-		- NR	
	7440-42-8			-		_{NR}	
	_						
		* •					
or Be:	fore:	Clar	ity Before:			_	Texture:
or Aft	ter:	Clar	ity After:			· .	Artifacts:
		•					

	· · · · · · · · · · · · · · · · · · ·		DE_0501 SAS				SDG No.: MW-6_
1X	(soil/water)	: WATER_			Lab Sam	прте	ID: MW-9
l (: lida	low/med):	LOW			Date Re	eceiv	red: 04/01/05
TTOS	:						
	Concentrat	ion Units (ug/L or mg/kg	dry	weight	:):	UG/L
	1	<u></u>	T		····	 ,	
	CAS No.	Analyte	Concentration	c	Q	M	
	0.15 1.0	1			~		
	7429-90-5	Aluminum		-		NR	
	7440-36-0			-		NR	
	7440-38-2			-		NR	
	7440-39-3		18.5	B		P	
		Beryllium				NR	
	7440-43-9		0.30	Ū		P	
	7440-70-2					NR	
	7440-47-3					NR	
	7440-48-4			-		NR	·
	7440-50-8			-		NR	
	7439-89-6			-		NR	
	7439-92-1		2.9	ਹਿ		P	•
		Magnesium				NR	
		Manganese		-		NR	
	7439-97-6			-		NR	
	7440-02-0		·	-		NR	
		Potassium		-		NR	
	7782-49-2			-		NR	
	7440-22-4			-		NR	
	7440-23-5					NR	
	7440-28-0					NR	
	7440-62-2	Vanadium		_		NR	
	7440-66-6	Zinc				NR	
	7440-42-8	Boron				NR	
_	_	, 41 !	· · · · · · · · · · · · · · · · · · ·				Marshussa.
r Be	fore:	Clari	ity Before:				Texture:
c Af	ter:	Clari	ity After:				Artifacts:
		_					

Lab Name:	ADIRONDACE	K ENVIRONMEN	NTAL Contra	act	:		MW-10
			DE_0501 SAS				SDG No.: MW-6
	oil/water):		-				ID: MW-10
Level (low	v/med):	LOW			Date Re	ceiv	ed: 04/01/05
% Solids:							
			.a/I on ma/lea/	J	·······	١.	IIC/I
_	concentrati	ton units (t	ug/L or mg/kg (<u>ж</u>	werduc	<i>)</i> :	00711
	CAS No.	Analyte	Concentration	c	Q	M	
17	7429-90-5	Aluminum				NR	
7	7440-36-0	Antimony		_		NR	
7	7440-38-2	Arsenic		_		NR	
	7440-39-3_	Barium	28.2_	B		P_	
		Beryllium_		_		NR	
	7440-43-9_		0.30	ਹ		P_	
1	7440-70-2_	Calcium		_		NR	
	7440-47-3_			_		NR	
1	7440-48-4			_		NR	
		Copper		1_1		NR	
	7439-89-6	Iron		_		NR	**
i i	7439-92-1_	Lead	2.9	ਹ		P_	
		Magnesium_	<u></u>	l_		NR	
		Manganese_		_		NR	
1		Mercury		l_l		NR	
	7440-02-0_	Nickel		-		NR	
t t	_	Potassium_		_		NR	
	7782-49-2_	Selenium		_		NR	
	7440-22-4_	Silver		_		NR	
		Sodium		_		NR	
	7440-28-0_	Thallium_		_		NR	
	7440-62-2_	Vanadium_		_		NR	
2	7440-66-6_	Zinc		_		NR	
7	7440-42-8_	Boron		-		NR	
. 1_				_		.	
Color Befo	ore.	Clar	ity Before:				Texture:
20202 2010							-
Color Afte	er:	Clar	ity After:				Artifacts:
Comments:							
Comments:							

INORGANIC ANALYSIS DATA SHEET

Name	: ADIRONDACI	K ENVIRONME	NTAL Contra	act	:		MW-12
			DE_0501 SAS				SDG No.: MW-6
	soil/water)						ID: MW-12
T T.V ('	5011/ Water/					_	
el (lo	ow/med):	LOW	8		Date Re	ceiv	red: 04/01/05
olids							
ollas	:						
	Concentrati	ion Units (ug/L or mg/kg o	iry	weight	:):	UG/L
							ı
		7 7t	Concentration		Q	М	
	CAS No.	Analyte	Concentration		Q	141	
•	7429-90-5	Aluminum		-		NR	
		Antimony		-		NR	
	7440-38-2	Arsenic		-		NR	
	7440-39-3	Barium	17.7	B		P	·
	7440-41-7					NR	
	7440-43-9		0.30	Ū		P	
	7440-70-2	Calcium				NR	
	7440-47-3			_		NR	
	7440-48-4			-		NR	
	7440-50-8			-		NR	
	7439-89-6			-		NR	, .
	7439-92-1		2.9	ប		P_	
		Magnesium				NR	
	7439-96-5					NR	
	7439-97-6	Mercury		_		NR	
	7440-02-0			_		NR	
	7440-09-7			_		NR	
	7782-49-2			_		NR	
	7440-22-4_			_		NR	
	7440-23-5_			_	·	NR	
	7440-28-0_			_		NR	
	7440-62-2_	Vanadium		-		NR NR	
	7440-66-6_	Zinc	[-		- NR	
	7440-42-8_	Boron		-		- 1415	
		l	l	I -		ا ـــــا ـ	
or Be	fore:	Clar	ity Before:				Texture:
or ne							
or Af	ter:	Clar	ity After:				Artifacts:
							
ments	:						
							·

Lab Na	me: ADIRONDAC	K_ENVIRONME	NTAL Contr	act	t:	····	MW-13
Lab Co	ode: AES	Case No.:	DE_0501 SAS	No	o.:		SDG No.: MW-6
Matrix	(soil/water)	: WATER_			Lab Sa	mple	ID: MW-13
Level	(low/med):	LOW			Date R	eceiv	ed: 04/01/05
% Soli	ds:						
	Concentrat	ion Units (ug/L or mg/kg	dry	y weigh	t):	UG/L
	CAS No.	Analyte	Concentration	C	Q	M	
	7429-90-5	Aluminum		-		$-\left \frac{1}{NR}\right $	
	7440-36-0			-		NR	$\mathcal{L} = \mathcal{L}$
	7440-38-2	·		-		NR NR	
	7440-39-3		11.8	\overline{B}		_ P	
		Beryllium				NR	
	7440-43-9		0.30	บิ		- P	
	7440-70-2	Calcium				NR	•
	7440-47-3			_		NR	
	7440-48-4	· ——		_		NR	
	7440-50-8	Copper		-		NR	
		Iron		-		NR	
	7439-92-1	Lead	2.9	Ū		P	
	7439-95-4	Magnesium				NR	
	7439-96-5	Manganese_				NR	
	7439-97-6	Mercury		_		NR	
		Nickel				NR	
		Potassium_		_		NR	
	7782-49-2			_		_ NR	•
	7440-22-4_			_		_ NR	
	7440-23-5_			_		_ NR	
	7440-28-0_			_		_ NR	
	7440-62-2_	Vanadium		_		_ NR	
	7440-66-6_	Zinc		_		_ NR	
	7440-42-8_	Boron		_		_NR	
		l		_		_	
Color	Before:	Clar	ity Before:				Texture:
Color	After:	Clar	ity After:				Artifacts:
Commen	ts:						
_							

EPA SAMPLE NO.

Code	E: AES	Case No.:	DE_0501 SAS	No	···		SDG No.: MW-6_
ix (soil/water)	: WATER_			Lab Sar	mple	ID: MW-14
1 (1	ow/med):	LOW	and the second s		Date Re	eceiv	ed: 04/01/05
lids	:						
	Concentrat	ion Units (ug/L or mg/kg	đru	z weiahi	-).	UG/L
	·	TOTA CITATO		<u> </u>			00, 2
;	CAS No.	Analyte	Concentration	С	Q	М	
	7429-90-5	Aluminum		-		$- \overline{NR} $	
	7440-36-0			-		NR	
	7440-38-2		<u></u>	-		NR	
	7440-39-3		27.3	B		- P	
	7440-41-7	Beryllium_				NR	
	7440-43-9		0.30	$ \overline{\overline{U}} $		P_	
	7440-70-2	Calcium				NR	
	7440-47-3	Chromium				NR	
	7440-48-4	Cobalt		_		NR	
	7440-50-8	Copper				NR	
	7439-89-6	Iron		-		NR	
	7439-92-1	Lead	2.9	<u></u>		_ P	
	7439-95-4	Magnesium_		$\lfloor \perp \rfloor$		NR	
	7439-96-5	Manganese_			-	NR	
	7439-97-6	Mercury				NR	
	7440-02-0	Nickel		_		NR	
	7440-09-7	Potassium_		_		NR	
	7782-49-2	Selenium				NR	
	7440-22-4_	Silver		_		NR	
	7440-23-5_	Sodium		_		NR	
	7440-28-0_	Thallium		_		NR	
	7440-62-2_	Vanadium		_]		NR	
	7440-66-6_	Zinc		_[****	NR	
	7440-42-8_	Boron		-		- NR	
	l			_1		- {	
Be:	fore:	Clari	ty Before:				Texture:
	ter:		ty After:				Artifacts:
. WT			.c _f cc.				
ents	•		1				

FORM I - IN

b Name:	: ADIRONDACE	_ENVIRONME	NTAL Contra	act:			<u></u>
b Code	: AES	Case No.:	DE_0501 SAS	No.:			SDG No.: MW-6
trix (s	soil/water):	WATER_		La	b Sam	ple	ID: MW-15
vel (lo	ow/med):	LOW		Da	te Re	ceiv	ed: 04/01/05
Solids	:						
	Concentrat:	ion Units (ug/L or mg/kg (dry w	eight):	UG/L
	CAS No.	Analyte	Concentration	С	Q	М	
	7429-90-5	Aluminum		-		NR	
		Antimony		-		NR	
	_	Arsenic		- -		NR	
	7440-38-2_	Barium	132	B			
	7440-39-3_	Beryllium				P_ NR	
	7440-43-9	Cadmium	0.30				
	7440-70-2	Calcium				P_NR	
	7440-47-3	Chromium		-		NR	
	7440-48-4	Cobalt		- -	······································	NR	
	7440-50-8	Copper		- -		NR	
	7439-89-6	Iron		-		NR	•
	7439-89-6_	Lead	2.9	ਜ਼			
	7439-92-1	Magnesium				P_ NR	
		Manganese_]-		NR	
	7439-98-5_	Mercury		-		NR	
	7440-02-0	Nickel	<u> </u>	-		NR	
	7440-02-0	Potassium		-		NR	
	7782-49-2	Selenium		- -		NR	
	7440-22-4	Silver		-		NR	
	7440-23-5	Sodium		-		NR	
	7440-23-3_	Thallium		-		NR	
	7440-28-0_			- -		NR	
	7440-62-2_	Zinc		-		NR	
	7440-42-8	Boron		-		NR	
	'¬¬¬¬¬¬¬¬¬¬			- -			
	l	1	1	'-' -		ا	
lor Be	fore:	Clar	ity Before:				Texture:
lor Af	ter:	Clar	ity After:				Artifacts:
mments	• ·						
	-						
	······································						

			DE_0501 SAS	146			SDG No.: MW-6_
ix (soil/water)	: WATER_			Lab Sai	mple	ID: MW-16
		LOW	•		Date Re	eceiv	red: 04/01/05
lids	:						
	Concentrat	ion Units (ug/L or mg/kg	drv	weight	-).	IIG/I
	COMCCILCTAD	1011 0111100 (ug,			-, .	33, 2
		· .	_			T.,	
	CAS No.	Analyte	Concentration		Q	M	
	7429-90-5	Aluminum				$-\left \frac{1}{NR} \right $	
	7440-36-0			-		- NR	
	7440-38-0_			-	· · · · · · · · · · · · · · · · · · ·	- NR	
	7440-38-2		42.7	B		- P_	
		Beryllium				NR	
	7440-43-9		0.30	ਹ		- P_	
	7440-70-2					NR	
	7440-70-2			-		- NR	
	7440-47-3_			-	•	- NR	
	7440-50-8			-		NR	
	7439-89-6			-		- NR	
	7439-89-6_		6.3	-		P_	• •
		Magnesium		-	,	NR	
		Manganese		-		NR	
	7439-97-6					- NR	
	7440-02-0			-		NR	
		Potassium		-		NR	
	7782-49-2			-		NR	
	7440-22-4			-		NR	
	7440-23-5			-		NR	
	7440-28-0			-		NR	
	7440-62-2	Vanadium		-		NR	
	7440-66-6	Zinc		-		NR	
	7440-42-8	Boron		-		NR	
	_						
						-	
	- t						
r Be	fore:	Clari	ty Before:				Texture:
r Aft	cer:	Clari	ty After:				Artifacts:
		4					

EPA	SAMPLE	NO.
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Lab Name	: ADIRONDAC	K ENVIRONMEI	NTAL Contra	act	:		MW-17
	e: AES			No	.:	-	SDG No.: MW-6
					Lab San	mple	ID: MW-17
					Data Da	-	red: 04/01/05
Level (1	.ow/med):	LOW			Date Re	ece i v	/ea: 04/01/05
% Solids	3:						
	Concentrat	ion Units (ug/L or mg/kg	dry	weight	:)¹:	UG/L
	GR G. No.	Analyte	Concentration		Q	M	
	CAS No.	Analyte	Concentration		¥	'	-
	7429-90-5	Aluminum		-		NR	
	7440-36-0			-		NR	
		Arsenic		-		NR	
		Barium	110	B		P_	
		Beryllium				NR	
	7440-43-9		0.30	ט		_ P_	
	7440-70-2	Calcium				NR	
	7440-47-3	Chromium				NR	
	7440-48-4	Cobalt				NR	
		Copper				NR	
	7439-89-6	Iron				_ NR	
	7439-92-1	Lead	2.9_	 		P_	
	7439-95-4	Magnesium		_		NR	·
	7439-96-5	Manganese_		_		NR	
	7439-97-6	Mercury				NR	
	7440-02-0	Nickel		-		NR	
	7440-09-7	Potassium_		-		NR	
	7782-49-2	Selenium		1_1		NR	
	7440-22-4			1_1		NR	
	7440-23-5			_		NR	
	7440-28-0_	Thallium		_		NR	
	7440-62-2			_		NR	•
	7440-66-6_	Zinc		-		_ NR	
	7440-42-8_	Boron		-		- NR	
		. I	I	1_1			
Color Be	efore:	Clar	ity Before:	·			Texture:
Color Af	ter:	Clar	ity After:				Artifacts:
Cl = mm = +							
Comments	5 :					<u> </u>	
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INORGANIC ANALYSIS DATA SHEET

			DE_0501 SAS	TAIC			SDG No.: MW-6_
x (soil/water)	: WATER_			Lab San	nple	ID: MW-17A
. (1	ow/med):	LOW			Date Re	eceiv	red: 04/01/05
ids	:						
		ion Units (ug/L or mg/kg	drv	z weight	:):	UG/L
	·					-, ,	
	CAS No.	Analyte	Concentration	C	Q	М	
	7429-90-5			_		- NR	
	7429-90-5_ 7440-36-0			-		- NR	
	7440-38-0_			-		- NR	
	7440-38-2_		49.0	B		P	
		Beryllium				NR	
	7440-41-7_		0.30	ਹ		- P	
	7440-70-2			١		NR	
	7440-70-2_			-		NR	
	7440-48-4			-		NR	
	7440-50-8	Copper		-		NR	
	7439-89-6	Iron		-		NR	
	7439-89-6_	Lead	2.9	ਹ		- P	•
	7439-92-1	Magnesium		١٦		NR	
	7439-96-5	Manganese		-		NR	
	7439-97-6	Mercury		-		NR	
	7440-02-0	Nickel		-		NR	
	7440-09-7	Potassium		-		NR	
	7782-49-2	Selenium		-		NR	
	7440-22-4	Silver		-	•	NR	
	7440-23-5	Sodium		-		NR	
	7440-28-0	Thallium		-		NR	the state of the s
	7440-62-2	Vanadium		-		NR	
	7440-66-6	Zinc			-	NR	
	7440-42-8	Boron		-		NR	
	•						
Bei	fore:	Clari	ity Before:				Texture:
Aft	er:	Clari	ity After:				Artifacts:
nts		············					

ab Name	: ADIRONDACE	C_ENVIRONME	NTAL Contra	act	:		MW-18
			DE_0501 SAS	No	.:		SDG No.: MW-6
atrix (soil/water)	WATER_			Lab Sar	mple	ID: MW-18
evel (lo	ow/med):	LOW			Date Re	eceiv	ed: 04/01/05
Solids	:						
	Concentrat:	ion Units (lg/L or mg/kg (dry	weight	:): 	UG/L
	CAS No.	Analyte	Concentration	c	Q	М	
	7429-90-5	Aluminum		-		NR	
		Antimony		-		NR	
		Arsenic		-		NR	
	7440-39-3		1420	-		P	
	7440-41-7			-		NR	
	7440-43-9		42.2	-		P	
	7440-70-2			-		NR	
	7440-47-3			-		NR	
	7440-48-4			-		NR	
	7440-50-8			-		NR	
	7439-89-6					NR	•
	7439-92-1		2.9	ਹਿ		P	
	7439-95-4					NR	
	7439-96-5					NR	
	7439-97-6			1-1		NR	
	7440-02-0			-		NR	
	7440-09-7			-		NR	••
	7782-49-2			-		NR	
	7440-22-4			-		NR	
	7440-23-5			-		NR	
	7440-28-0			-		NR	
	7440-62-2	Vanadium		-		NR	
	7440-66-6	Zinc		-1		NR	
	7440-42-8	Boron				NR	
				-		-	
	1					'	•
				•			
olor Be	fore:	Clar	ity Before:				Texture:
olor Af	ter:	Clar	ity After:				Artifacts:
omments	:						
						<u> </u>	<u> </u>
							

1 INORGANIC ANALYSIS DATA SHEET

EDZ	SAMPLE	NO

			DE_0501 SAS				
x (s	oil/water)	: WATER_			Lab Sai	mbre	ID: X-1
(10	w/med):	LOW			Date R	eceiv	red: 04/01/05
ids:							
Tus:							
	Concentrat	ion Units (ug/L or mg/kg (dry	weight	t):	UG/L
		· · · · · · · · · · · · · · · · · · ·		1 1		 1	
	CAS No.	Analyte	Concentration	C	Q	М	
				_		_	
	_			_		NR	
	7440-36-0_			1-1		NR	
		Arsenic		_		NR	
	7440-39-3_	Barium	11.9_	B		P_NR	
	_	Beryllium_		ᆔᆔ			
	7440-43-9_		0.30_	ا با		P_NR	
	7440-70-2_	Calcium					
	7440-47-3_			1-1		NR	
	7440-48-4_			_		NR NR	
	7440-50-8_	Copper		_		NR	
	7439-89-6_	Iron		_		_ NR	
	7439-92-1_	Lead	2.9	ਹ		P_NR	
		Magnesium_		_			
	7439-96-5_	Manganese_		_		NR	
1	7439-97-6_	Mercury		_		NR	
	7440-02-0_	Nickel		_		NR	
		Potassium_		_		NR	
	7782-49-2_	Selenium_		-		NR NR	
	7440-22-4_	Silver		_		_ NR	
	7440-23-5_	Sodium		_		_ NR	
	7440-28-0_	Thallium				NR	
	7440-62-2	Vanadium				- NR	
	7440-66-6	Zinc		-		NR NR	
1	7440-42-8_	Boron		-		- 1012	
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							•
Bef	ore:	Clar	ity Before:				Texture:
							
Aft	er:	Clar	ty After:				Artifacts:
							

1 CONVENTIONALS ANALYSIS DATA SHEET

MW-6

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0501 SAS No.:

SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 050401035-001

Level (Low/Med): Low

Date Received: 04/01/05

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Bromide				EPA 300.0
Fluoride	2360			EPA 300.0
Specific Conductance		•		EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.2
Hexavalent Chromium				SW 7196

Comments		

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CONVENTIONALS ANALYSIS DATA SHEET

LAB NAME: Adirondack Environmental

CONTRACT:

MW-7

LAB CODE: AES Case No.: DE 0501 SAS No.:

SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 050401035-002

Level (Low/Med):

Low

Date Received: 04/01/05

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Bromide				EPA 300.0
Fluoride	6440			EPA 300.0
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.2
Hexavalent Chromium				SW 7196

Comments	 · · · · · · · · · · · · · · · · · · ·	
	 	

CONVENTIONALS ANALYSIS DATA SHEET

MW-8

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0501 SAS No.:

SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 050401035-003

Level (Low/Med):

Low

Date Received: 04/01/05

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	C	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Bromide				EPA 300.0
Fluoride	5320			EPA 300.0
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.2
Hexavalent Chromium			7	SW 7196

Comments								
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CONVENTIONALS ANALYSIS DATA SHEET

MW-9

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES Case No.: DE 0501 SAS No.: SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 050401035-004

Level (Low/Med):

Low

Date Received: 04/01/05

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Bromide				EPA 300.0
Fluoride	5180			EPA 300.0
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
PH				EPA 150.1
Turbidity		•		EPA 180.1
Color				EPA 110.2
Hexavalent Chromium				SW 7196

Comments		
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CONVENTIONALS ANALYSIS DATA SHEET

MW-10

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES

Case No.: DE 0501 SAS No.:

SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 050401035-005

Level (Low/Med):

Low

Date Received: 04/01/05

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	C	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Bromide				EPA 300.0
Fluoride	6160			EPA 300.0
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рн				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.2
Hexavalent Chromium				SW 7196

Comments		 		
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CONVENTIONALS ANALYSIS DATA SHEET

MW-12

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES Case No.: DE 0501 SAS No.: SDG No.: MW-6

Matrix (soil/water): Water

Level (Low/Med):

Lab Sample ID: 050401035-014

Low

Date Received: 04/01/05

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols			·	EPA 420.1
Chloride				EPA 300.0
Bromide				EPA 300.0
Fluoride	170			EPA 300.0
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
pH				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.2
Hexavalent Chromium				SW 7196

Comments	· <u> </u>	

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CONVENTIONALS ANALYSIS DATA SHEET

MW-13

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0501 SAS No.:

SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 050401035-006

Level (Low/Med):

Low

Date Received: 04/01/05

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)			,	EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Bromide				EPA 300.0
Fluoride	100	ช		EPA 300.0
Specific Conductance				EPA 120,1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.2
Hexavalent Chromium				SW 7196

Comments	 	 	

CONVENTIONALS ANALYSIS DATA SHEET

MW-14

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0501 SAS No.: SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 050401035-008

Level (Low/Med): Low

Date Received: 04/01/05

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Bromide				EPA 300.0
Fluoride	6590			EPA 300.0
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
Йq				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.2
Hexavalent Chromium				SW 7196

Comments		·	· · · · · · · · · · · · · · · · · · ·		
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CONVENTIONALS ANALYSIS DATA SHEET

MW-15

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0501 SAS No.: SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 050401035-009

Level (Low/Med): Low

Date Received: 04/01/05

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Bromide				EPA 300.0
Fluoride	100	Ŭ		EPA 300.0
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.2
Hexavalent Chromium				SW 7196

Comments	

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CONVENTIONALS ANALYSIS DATA SHEET

MW-16

LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES Case No.: DE 0501 SAS No.: SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 050401035-010

Level (Low/Med): Low

Date Received: 04/01/05

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Bromide				EPA 300.0
Fluoride	100	ប		EPA 300.0
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.2
Hexavalent Chromium				SW 7196

Comments	

CONVENTIONALS ANALYSIS DATA SHEET

MW-17

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0501 SAS No.:

SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 050401035-011

Level (Low/Med):

Low

Date Received: 04/01/05

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N	,			EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)	·			EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Bromide				EPA 300.0
Fluoride	2120			EPA 300.0
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рН				EPA 150.1
Turbidity				EPA 180.1
Color			•	EPA 110.2
Hexavalent Chromium				SW 7196

Comments	

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CONVENTIONALS ANALYSIS DATA SHEET

MW-17A

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0501 SAS No.:

SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 050401035-012

Level (Low/Med): Low

Date Received: 04/01/05

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	С	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Bromide				EPA 300.0
Fluoride	100	U		EPA 300.0
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
рH				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.2
Hexavalent Chromium				SW 7196

Comments	

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CONVENTIONALS ANALYSIS DATA SHEET

MW-18

LAB NAME: Adirondack Environmental

CONTRACT:

LAB CODE: AES

Case No.: DE 0501 SAS No.:

SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 050401035-013

Level (Low/Med): Low

Date Received: 04/01/05

% Solids:

0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	C	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)	•			EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Bromide				EPA 300.0
Fluoride	10400			EPA 300.0
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
pН				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.2
Hexavalent Chromium				SW 7196

Comments	

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CONVENTIONALS	ANALYSIS	DATA	SHEET

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LAB NAME: Adirondack Environmental CONTRACT:

LAB CODE: AES

Case No.: DE 0501 SAS No.: SDG No.: MW-6

Matrix (soil/water): Water

Lab Sample ID: 050401035-007

Level (Low/Med): Low

Date Received: 04/01/05

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Concentration	O	Q	Method
Total Kjeldahl Nitrogen, as N				EPA 351.3
Ammonia, as N				EPA 350.1
Nitrate				EPA 300.0
Chemical Oxygen Demand (COD)				EPA 410.4
Biochemical Oxygen Demand (BOD 5)				EPA 405.1
Total Organic Carbon (TOC)				EPA 415.2
Total Dissolved Solids (TDS)				EPA 160.1
Sulfate				EPA 300.0
Alkalinity				EPA 310.1
Total Phenols				EPA 420.1
Chloride				EPA 300.0
Bromide				EPA 300.0
Fluoride	100	U		EPA 300.0
Specific Conductance				EPA 120.1
Cyanide				EPA 335.3
Н				EPA 150.1
Turbidity				EPA 180.1
Color				EPA 110.2
Hexavalent Chromium				SW 7196

comments	

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