932001

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30 November 2004

Mr. Michael Resh
Manager of Environmental Remediation
BOC Gases
100 Mountain Avenue
Murray Hill, New Jersey 07974

RE: Bi-Annual 2004 Monitoring Event Letter Report, Site No. 932001, Airco Properties Inc.,
Airco Parcel, Niagara Falls, New York
EA Project No. 12040.87

Dear Mr. Resh:

EA Engineering, P.C. and its affiliate EA Science and Technology are pleased to provide the Bi-Annual 2004 Monitoring Event Letter Report. During December 2000, the post-closure monitoring and facility maintenance program was initiated at the Airco Parcel located in Niagara Falls, New York. Post-closure monitoring and facility maintenance is required by New York State Solid Waste Management Facilities Regulations (6 NYCRR Part 360-2.15[k][4]) and stipulated in Order on Consent No. B9-0470-94-12. The purpose of this monitoring event letter report is to summarize the analytical results of the first bi-annual 2004 groundwater monitoring event that was completed at this site in April 2004, and to summarize operation and maintenance activities completed through July 2004.

OBJECTIVES

In accordance with the Revised Final Post-Closure Monitoring and Facility Maintenance Plan (EA 2004)[1], environmental monitoring points will be maintained and sampled during the post-closure monitoring period. This includes collection of groundwater, surface water, and leachate samples. The Post-Closure Monitoring and Facility Maintenance Plan documents sampling locations and sampling parameters and methods, in addition to other required maintenance activities, such as landfill cap inspections and the operation and maintenance plan for the groundwater collection and treatment system (GCTS). Following the first 5 years of post-closure monitoring, the original Revised Final Post-Closure Monitoring and Facility Maintenance Plan (EA 2001)[2] plan was re-evaluated based on the data collected at the site so that the monitoring plan will be focused to address site-specific issues that may be identified.

In accordance with the updated Post-Closure Monitoring and Facility Maintenance Program, the following activities must be completed:

1. EA Engineering, P.C. and its Affiliate EA Science and Technology. 2004. Post-Closure Monitoring and Facility Maintenance Plan for the Airco Parcel, Niagara Falls, New York. September.
2. EA Engineering, P.C. and its Affiliate EA Science and Technology. 2001a. Interim Remedial Measure Report Documenting Closure of the Witmer Road Landfill, Niagara Falls, New York. Appendix A – Revised Final Post-Closure Monitoring and Facility Maintenance Plan. January.

- Environmental monitoring points must be maintained and sampled during the post-closure period. Bi-annual summary reports must be submitted to the New York State Department of Environmental Conservation (NYSDEC) Division of Solid and Hazardous Materials, Region 9; the New York State Department of Health in Albany, New York; BOC Gases; and the document repository located at the Town of Niagara Town's Clerk's Office.

- Routine inspections must be conducted of sediment ponds and the engineered wetlands to assess the presence of mosquito larvae.

- Drainage structures and ditches must be maintained to prevent ponding of water and erosion of the landfill soil cap.

- Soil cover integrity, slopes, cover vegetation, drainage structures, and the perimeter road must be maintained during the post-closure monitoring and maintenance period.

- A vegetative cover must be maintained on all exposed final cover material, and adequate measures must be taken to ensure the integrity of the final vegetated cover, topsoil layer, and underlying barrier protection layer.

- The GCTS must be operated and maintained to effectively mitigate the discharge of groundwater recharging to surface water in the southwest corner of the Airco Parcel.

- Records must be maintained of all sampling and analytical results.

As noted above, the results of the bi-annual sampling events will be summarized in a letter report detailing the findings of the environmental sampling. Monitoring event letter reports will be limited to documenting the results of each sampling round. This letter report summarizes the findings of the first bi-annual post-closure monitoring event completed at this site, along with a summary of operation and maintenance activities performed at the this site through July 2004.

BACKGROUND

The Airco Parcel is part of the Vanadium Corporation of America site that is located in the Town of Niagara Falls, New York (Figure 1). The Vanadium site is approximately 150 acres. This bi-annual sampling event focuses on the 25-acre Airco Parcel operated by BOC Gases. The site contains waste material from the operation of onsite and nearby production facilities.

An Immediate Investigative Work Assignment was conducted by NYSDEC for a portion of the 150-acre parcel in August 1997. Approximately 70 acres from the Niagara Mohawk Power Corporation and New York Power Authority parcel were investigated. During the investigation, NYSDEC determined that the site had been used by Vanadium Corporation of America (the owners of the site from 1924 to 1964) to dispose of wood, brick, ash, lime slag, ferrochromium silicon slag, and ferrochromium silicon dust. According to the Immediate Investigative Work Assignment, much of the surface material consisted of fill, including fly ash, dust, slag, and cinder materials.

Analysis of site groundwater during the Immediate Investigative Work Assignment indicated that surface water and groundwater standards were exceeded for hexavalent chromium and pH. Based on the Immediate Investigative Work Assignment and other investigations, the facility has been listed as a Class 2 Hazardous Waste Site in the New York State Registry of Inactive Hazardous Waste Sites (Site No. 932001). A Class 2 listing indicates a significant threat to public health and the environment, and requires remedial action.

The Airco site remedial measures were completed as a capped landfill in 2000. A complete description of the history of the site, and the construction details of the landfill capping system, are provided in the Interim Remedial Measure Report (EA 2001b)[3]. During construction of the capping system, a relief pipe system was installed to allow perched water to exit from under the cap without causing slope instability. Flow monitoring and quarterly sampling were initiated as part of post-closure operations and facility maintenance. The data collected since December 2000 indicated that the leachate was actually shallow groundwater discharging to surface water. The data also indicated that the discharge of groundwater at the site was seasonal. The data further indicated that elevated hexavalent chromium concentrations and pH in groundwater, upon mixing with surface water, remained in excess of the ambient water quality criteria.

The GCTS was designed to implement additional remedial actions, which have been deemed necessary to meet the goals of the interim remedial measures program. The main portion of the GCTS is located on the northwest corner of the site and contains the main control panel, carbon dioxide storage tank, carbon dioxide aeration system, two sediment ponds, duplex pump house, zero valence iron (ZVI) reaction tanks, manhole collection sump, engineered wetland, and an effluent pump station. At the southwest corner of the site, there is an influent wetwell pump station. The GCTS located at the site is presented on Figure 2.

MONITORING EVENT FIELD ACTIVITIES

Monitoring Well Gauging

The site monitoring wells (MW-1B through MW-8B) were gauged prior to sampling on 26-27 April 2004. The depth to water ranged from 2.64 ft at MW-6B to 11.89 ft at MW-2B. Gauging data are summarized in the table below:

Monitoring Well	Depth to Water (ft btoc)	Well Elevation (ft AMSL)	Water Elevation (ft AMSL)
MW-1B	8.59	617.77	609.18
MW-2B	11.89	615.88	603.99
MW-3B	8.28	611.22	602.94
MW-4B	5.67	606.68	601.01
MW-5B	5.24	605.48	600.24
MW-6B	2.64	603.47	600.83
MW-7B	7.88	609.48	601.60
MW-8B	4.35	611.62	607.27

NOTE: btoc = Below top of casing.
AMSL = Above mean sea level.

3. EA Engineering, P.C. and its Affiliate EA Science and Technology. 2001b. Interim Remedial Measure Report Documenting Closure of the Witmer Road Landfill, Niagara Falls, New York. January.

An interpretation of the water table surface is illustrated on Figure 3.

Groundwater Sampling Procedures

Monitoring wells were sampled on 26-27 April 2004. Eight groundwater samples were collected from the site monitoring wells. Monitoring wells MW-4B, MW-5B, and MW-7B were purged using dedicated bailers due to slow recharge and limited well volume. These wells were bailed dry and allowed to recharge prior to sample collection. Monitoring wells MW-1B, MW-2B, MW-3B, MW-6B, and MW-8B had adequate recharge rates; consequently, 4 well volumes were removed and water quality readings allowed to stabilize prior to sample collection. One surface water sample was also collected southwest of monitoring well MW-6B. Samples were submitted to Life Science Laboratories, Inc. of East Syracuse, New York for analysis of phenolics by U.S. Environmental Protection Agency (EPA) Method 420.2, sulfate by EPA Method 375.3, ammonia (expressed as nitrogen) by EPA Method 350.2, and Target Analyte List metals by EPA Series 6010/6020, including hexavalent chromium.

Groundwater sampling results were compared to NYSDEC Ambient Water Quality Standards (AWQS) (NYSDEC 1999)[4] and guidance values for Class GA waters. Class GA groundwater is used as a source of drinking water. Leachate samples were compared to NYSDEC AWQS for Class D surface waters. Class D waters are used for fishing but are not conducive to fish propagation. If no Class D standards were applicable for a particular compound, analytical results were compared to the more stringent Class C standards. Class C waters are suitable for fishing and fish propagation. Analytical results are summarized on the table provided in Attachment A. Copies of the field notebook, including the results for well gauging, purging, and sampling, are provided in Attachment B. Laboratory chain-of-custody records are provided in Attachment C. Laboratory Form I analytical results are included in Attachment D.

ANALYTICAL RESULTS

Based on the analytical results collected during the Fourth Quarter 2000 and First Quarter 2001, NYSDEC approved a reduction in the sampling requirements. As per a letter to NYSDEC dated 5 June 2000, samples were analyzed for water quality parameters (ammonia, phenolics, and sulfate) and total (unfiltered) metals.

Summary tables listing analytical results compared to applicable NYSDEC AWQS are included in Attachment A, and a tag map is provided as Figure 4. Notable results of chemical analyses are as follows.

Metals

Unfiltered metals samples were collected from 8 of the site monitoring wells. Notable results included the following:

4. New York State Department of Environmental Conservation. 1999. Water Quality Regulations – Surface Water and Groundwater Classifications and Standards New York State Codes, Rules and Regulations Title 6, Chapter X Parts 700-706.

- Chromium, hexavalent chromium, iron, magnesium, manganese, selenium, and sodium were detected in one or more of the groundwater samples at concentrations in excess of NYSDEC AWQS.

- Hexavalent chromium was detected in excess of the NYSDEC AWQS in MW-2B, MW-4B, MW-8B, and the surface water sample. Selenium was also detected in excess of the NYSDEC AWQS in MW-4B and MW-8B.

Water Quality Parameters

Water quality parameters, including pH, temperature, conductivity, dissolved oxygen, turbidity, and salinity, were collected in the field. In addition, water quality parameters, including ammonia (expressed as N), phenolics, and sulfate, were also analyzed by the laboratory. Notable results included the following:

- Sulfate was detected in excess of NYSDEC AWQS in the sample collected from monitoring well MW-8B

- Ammonia and phenolics were detected in excess of NYSDEC AWQS in the sample collected from monitoring well MW-2B, as well as phenolics in monitoring well MW-7B

- pH measurements exceeded the NYSDEC AWQS of 6.5 to 8.5 standard pH units in monitoring wells MW-2B (12.38-12.45), MW-3B (9.97-10.72), and MW-7B (8.64-8.65) as well as the surface water sample (11.66) (Attachment B).

LANDFILL INSPECTION

A landfill cap inspection was conducted on 27 April 2004. The Landfill Cap Inspection Checklist is provided as Attachment E. No deterioration, damage, or erosion to the landfill cap were noted during the engineering inspection. The access roads were in good order, and vegetation was observed growing in many areas of the road. A defoliant should be used to remove the vegetation in the roadways. Drainage swales are clear with the exception of the southwest swale where soils and vegetation have covered the stone swale. The inspections suggest that the soil should be removed and new stone installed.

GROUNDWATER COLLECTION AND TREATMENT SYSTEM OPERATIONS AND MAINTENANCE MONITORING ACTIVITIES

The GCTS is part of the Airco Parcel located near Witmer Road in Niagara Falls, New York. The GCTS was designed to implement additional remedial actions, which have been deemed necessary to meet the goals of the interim remedial measures program. The main portion of the GCTS is located on the northwest corner of the site and contains the main control panel, carbon dioxide storage tank, carbon dioxide aeration system, two sediment ponds, duplex pump house, ZVI reaction tanks, engineered wetland, and an effluent pump station. At the southwest corner

of the site, there is an influent wetwell pump station. The GCTS located at the site is presented on Figure 2. The complete operation and maintenance manual is presented as an appendix to the Post-Closure Monitoring and Facility Maintenance Plan (EA 2004).

System Operations and Maintenance

The GCTS began discharging water on 20 November 2003 when the first compliance samples were collected and sent for offsite laboratory analysis. The system operated on average at approximately 20 gpm during the winter months, December 2003 through March 2004. Carbon dioxide consumption during those months was 12,000 lb every 21-24 days or approximately 535 lb per day. Monthly site visits were conducted through April 2004. During the monthly site visits, an EA technician completed field sampling analysis utilizing the HACH DR/4000 spectrophotometer. Field analyses were conducted at three different stages of the treatment process. Influent water was collected from the discharge of Pump P4A (prior to initial aeration), from discharge of Pump P4B (after ZVI reaction), and from discharge of Pump P7 (prior to discharge to southwest corner wetland). Field data collected during the monthly site visits were recorded and are provided in Attachment F. Along with field sampling activities, pH meters and pressure transducers were cleaned, dry wells were checked, the carbon dioxide tank pressures and capacity were recorded, and the ZVI box was visually inspected. The GCTS operated with minor adjustments through April 2004.

The GCTS sampling occurred weekly for the first 8 weeks of operation and monthly after that until April 2004. Samples were collected at various locations to evaluate treatment system performance and compliance with discharge criteria. Samples were collected prior to (Sediment Pond No. 1) and after treatment via the ZVI tank (Sediment Pond No. 2), and after the engineered wetland (EFF7). The samples were analyzed in the field for total chromium and hexavalent chromium using a HACH DR4000 spectrophotometer. The HACH DR4000 spectrophotometer is EPA approved for reporting water and wastewater analyses within a detection limit of 0.006 and 0.005 mg/L for hexavalent chromium, and 0.003 mg/L for total chromium. The engineered wetland discharge samples were analyzed in the field as well as separate samples taken for offsite laboratory analysis at Life Science Laboratories, East Syracuse, New York, for a full list of discharge criteria.

Field sampling results for total and hexavalent chromium are provided in Table 1, and results of the engineered wetland discharge samples are provided in Table 2. Hexavalent chromium removal rates were 98.7 percent and chromium removal rates were 95.2 percent during the monitoring period. Total suspended solids and iron analytical results were continuously above NYSDEC discharge criteria throughout the monitoring period. The correlation between the two analyses indicates that the suspended solids were iron. Measures to reduce iron and total suspended solids in the effluent have been incorporated to the system with the planting of the wetland in August 2004. Hexavalent chromium (0.013 mg/L) was above the NYSDEC discharge criteria (0.011 mg/L) in samples collected 16 April 2004, although total chromium (<0.01) results indicate that no chromium was present in the discharged water. This difference of 3 µg/L can be the result of a small fluctuation in digestion procedure, or low-level turbidity. The full set of laboratory analytical data for the GCTS discharge sampling can be found in Attachment G.

During the monthly site visit in April 2004, it was noted that the dry well pump station containing Pumps P4A and P4B was inundated with water, and that the ZVI box was releasing treated water over the top end of the box. It was also observed that water had seeped between the liner and berm of Sediment Pond Nos. 1 and 2. A French drain was installed on the northeast side of the ponds from the dry well pump station to relieve water retention in the soil.

In May 2004, it was observed that the southwest corner was inundated by groundwater which was discharging to the surface, indicating that the discharge flow rate had increased. The GCTS was shut down to reassess the flow rates from the collection system. Flow rates ranged between 35 and 40 gpm from the collection system. After determining the new flow rates, the appropriate modifications and upgrades were designed for the GCTS.

Groundwater Collection and Treatment System Upgrades and Modifications (June-July 2004)

GCTS upgrades and modification began on 17 June 2004. The flow/treatment process of the GCTS was not altered during the modification phase. The major system components that were upgraded and/or modified were the ZVI box; suction Pumps P4A, P4B, and P7; carbon dioxide aeration chamber; duplex pump station; and the addition of a manhole collection sump. The following describes component adjustments to meet increased flow rates:

- ***ZVI Box***—The ZVI box was no longer capable of handling the increased flow rates. This component was removed and replaced with four separate concrete ZVI vaults. The new ZVI vaults were located northeast of the sediment ponds. The ZVI vault dimensions are 7 ft width × 13 ft length × 4 ft height (outside dimensions); each vault was pre-fabricated with an influent line opening at the base and an effluent line outlet opposite the influent side at the top of the vault. The vaults were filled with 12-16 in. of pea stone and 12-16 in. of ZVI filings. All four ZVI vaults gravity drain to a manhole collection sump equipped with a submersible pump.

- ***Pumps P4A, P4B, and P7***—The three original pumps, Goulds Model No. SSH 1×2-6 closed coupled pumps were replaced with three Goulds Model No. SSH 1½ × 2½ -6 closed coupled pumps each with a 1-hp, totally enclosed fan cooled 1,750-rpm motor rated for 3-phase, 60-hertz, 460-volt power. The new pumps are rated for 60 gpm at 30 ft of total discharge head to handle the increased flow capacities. Pump designations remained unchanged.

- ***Carbon Dioxide Reaction Chamber***—The carbon dioxide reaction chamber was removed from the GCTS due to its inability to manage the increase in flow rates. The collection water now pumps directly to Sediment Pond No. 1, where it is aerated with carbon dioxide in the first channel of the baffle system.

- ***Duplex Pump Station***—The duplex pump station was removed from in between the sediment ponds and replaced with an aboveground pump house located between the sediment ponds and the ZVI vaults.

- ***Manhole Collection Sump***—A manhole collection sump equipped with a Goulds Model 3885 submersible pump, rated for 60 gpm at 20 ft of total discharge head, and controlled by an ON/OFF float switch, was added to the GCTS. The collection sump conveys water from the ZVI vaults to Sediment Pond No. 2.

The modifications and upgrades were completed during the period June-July 2004. The GCTS was re-started on 29 July 2004, and the first compliance sample was collected for offsite laboratory analysis at that time.

If you have any questions regarding the results of this Bi-Annual 2004 Monitoring Event Letter Report, please do not hesitate to contact Charles McLeod at (845) 565-8100, Ext. 1008.

Sincerely,

EA ENGINEERING, P.C.

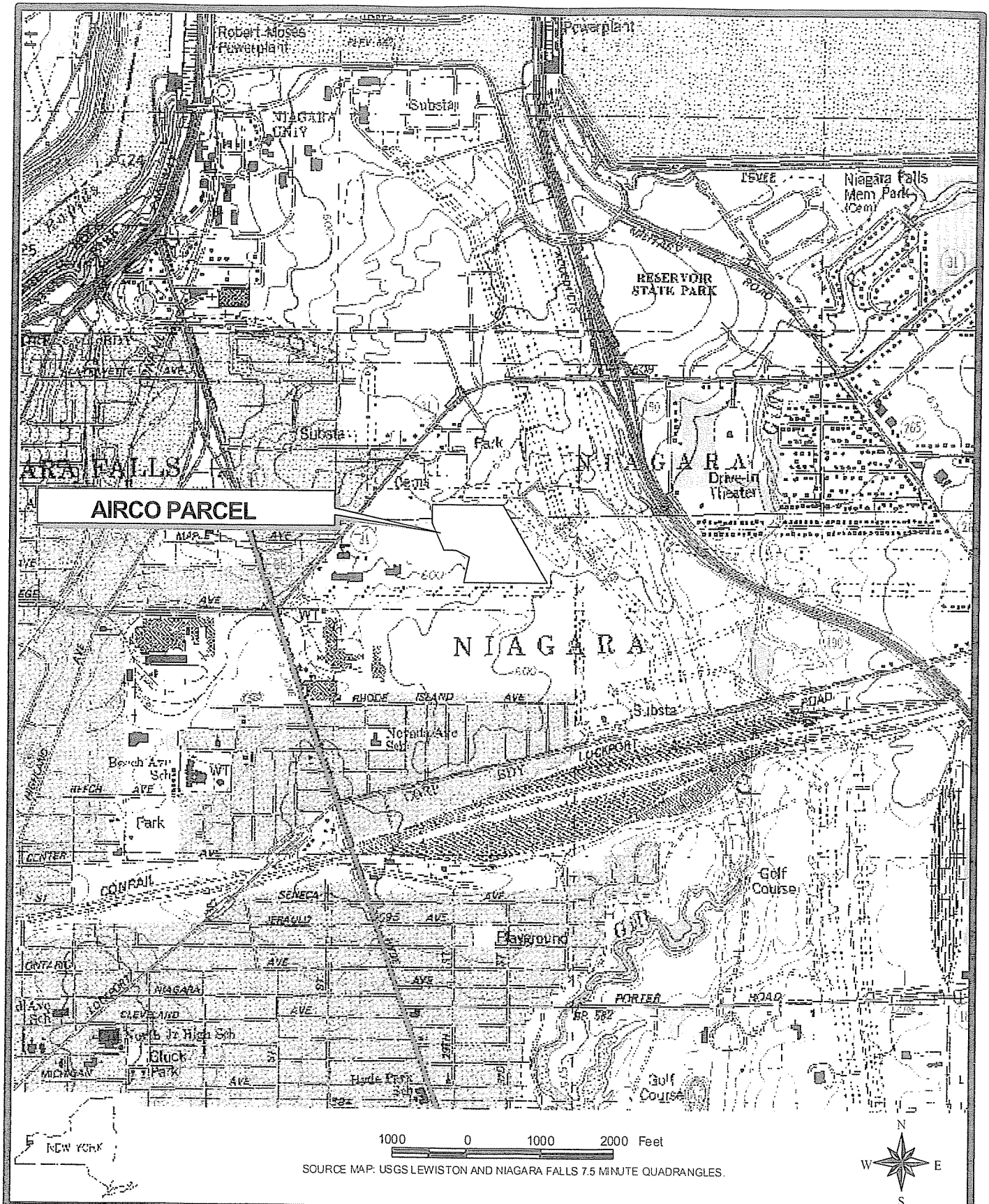
Charles E. McLeod, Jr., P.E.
Vice President

EA SCIENCE AND TECHNOLOGY

Scott Graham, CPG, P.G.
Project Geologist

CEM/cam
Attachments

cc: M. Hinton (NYSDEC)
M. Forcucci (NYSDOH)
Town of Niagara Falls (Town Clerk)



	AIRCO PARCEL NIAGARA FALLS, NEW YORK	FIGURE 1 SITE LOCATION MAP

PROJECT MGR	DESIGNED BY	DRAWN BY	CHECKED BY	SCALE	DATE	PROJECT No	FILE No
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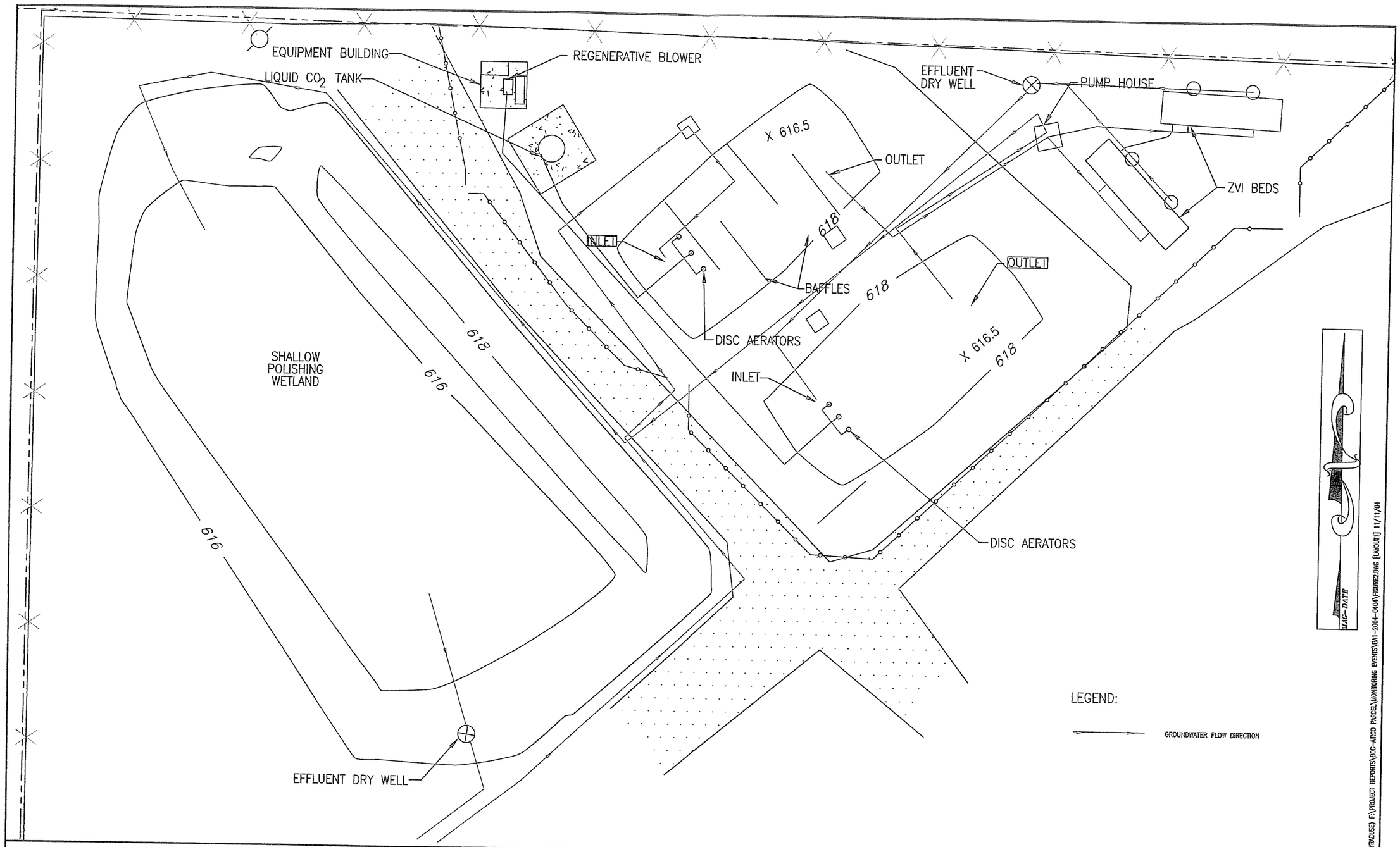
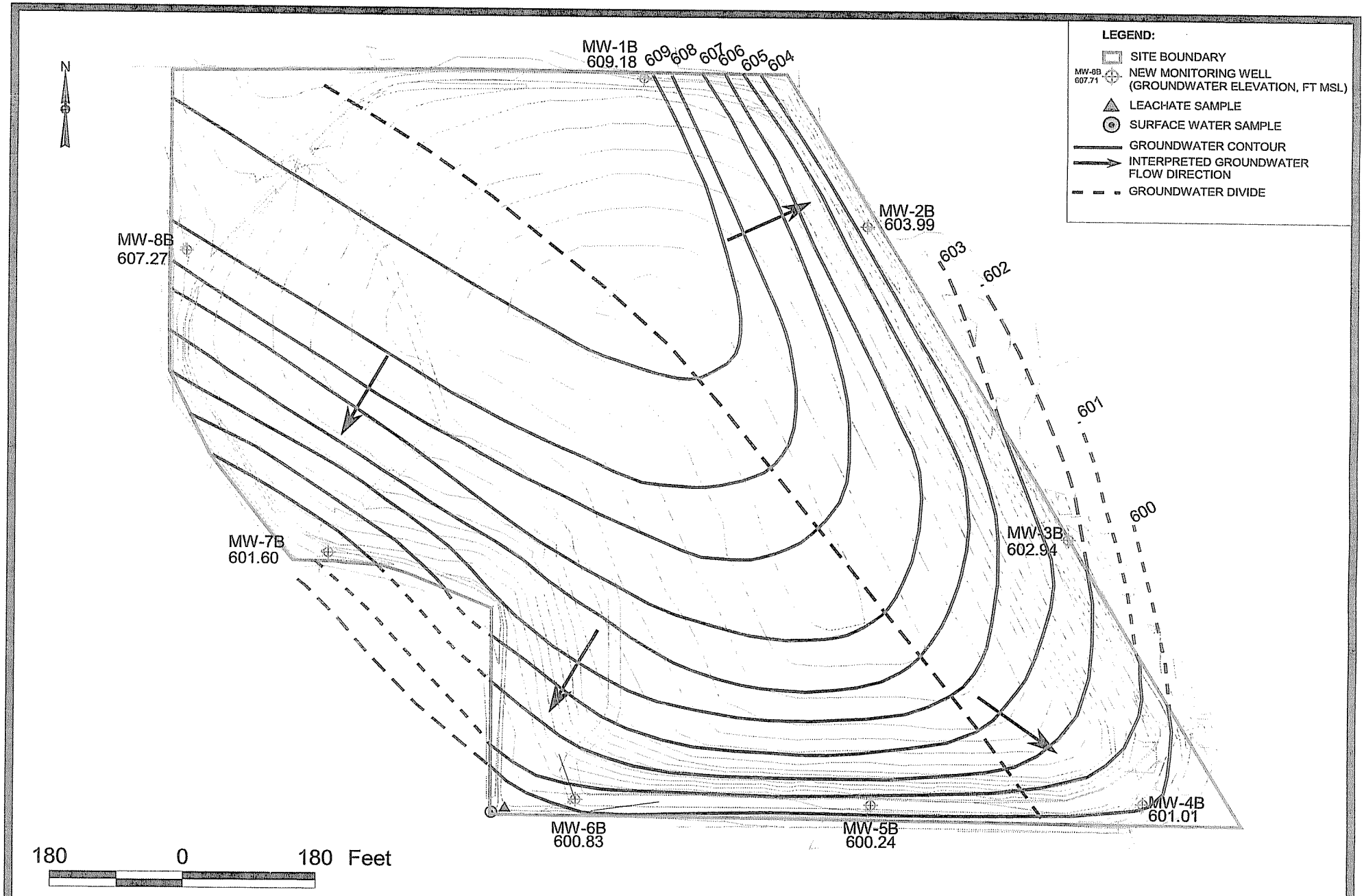


(SYRACUSE) F:\PROJECT REPORTS\SOC-AIRCO PARCEL\MONITORING EVENTS\DA1-2004-0404\FIGURE2.DWG [LAYOUT] 11/11/04

	GROUNDWATER COLLECTION AND TREATMENT SYSTEM AIRCO PARCEL NIAGARA FALLS, NEW YORK	SYSTEM LAYOUT FIGURE 2	DESIGNED BY DOK	DRAWN BY DOK	DATE 11-05-04	PROJECT NO. 12040.87	FILE NAME –
			CHECKED BY GJG	PROJECT MGR. CC	SCALE 1" = 20'	DRAWING NO. –	FIGURE FIGURE 2



EA	AIRCO PARCEL NIAGARA FALLS, NEW YORK				FIGURE 3 INTERPRETED GROUNDWATER CONTOUR MAP APRIL 2004		
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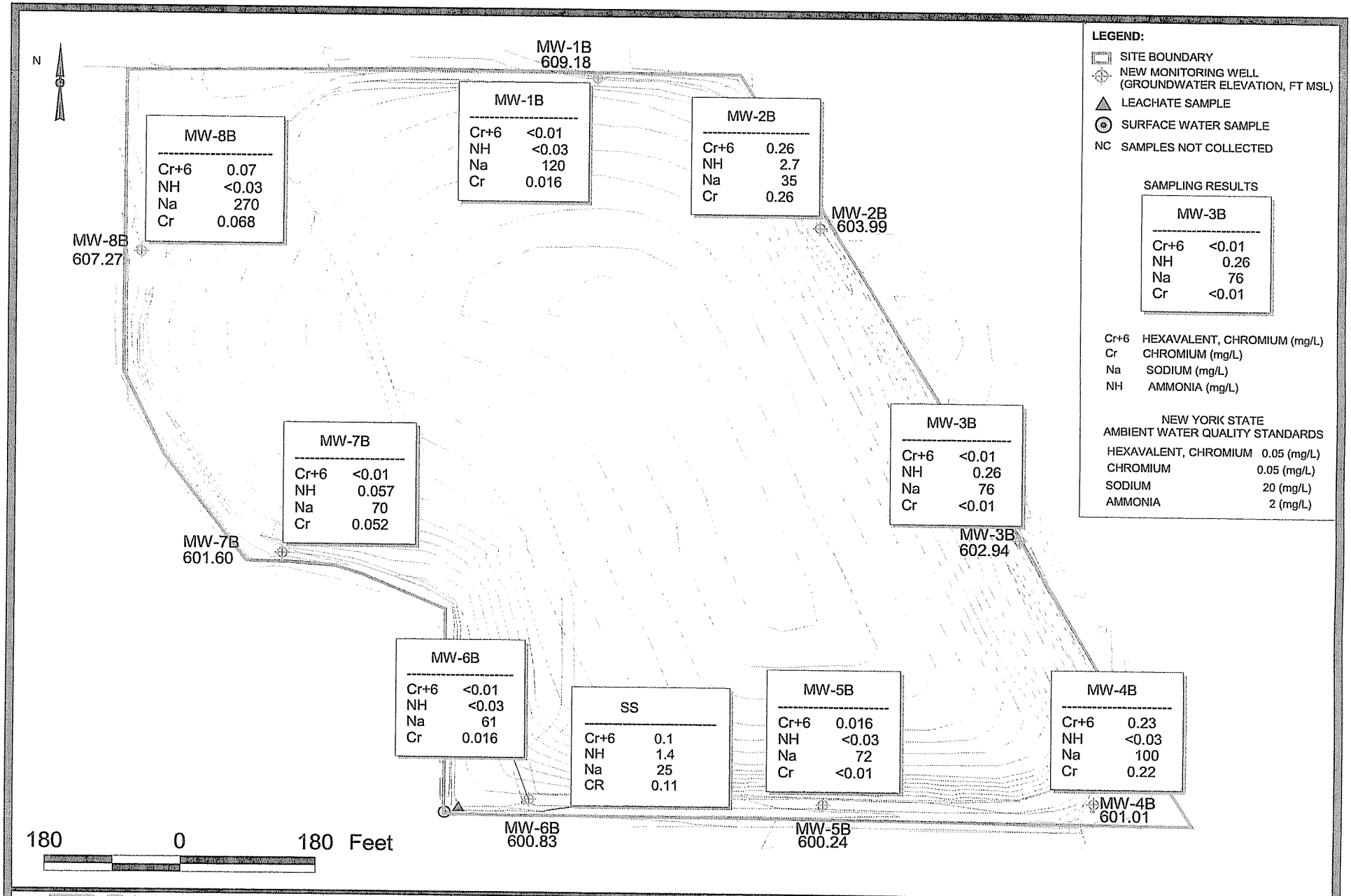

AIRCO PARCEL
NIAGARA FALLS, NEW YORK

FIGURE 4
SAMPLE RESULTS TAG MAP
APRIL 2004

PROJECT MGR	DESIGNED BY	DRAWN BY	CHECKED BY	SCALE	DATE	PROJECT No	FILE No
CEM	RSC	RSC	SLG	AS SHOWN	26-27 APRIL 2004	12040.87.0004	I:\BOC-NIAGARA-GIS\ FINAL.APR 02

TABLE 1 SUMMARY OF WEEKLY FIELD SAMPLING RESULTS 20 NOVEMBER 2003 – 16 MARCH 2004

Date	Sediment Pond No. 1		Sediment Pond No. 2		Wetland Discharge	
	Total Chromium (µg/L)	Hexavalent Chromium (µg/L)	Total Chromium (µg/L)	Hexavalent Chromium (µg/L)	Total Chromium (µg/L)	Hexavalent Chromium (µg/L)
20 NOV 2003						
25 NOV 2003	250	180	120	100	30	20
02 DEC 2003	190	150	40	30	10	10
09 DEC 2003	290	250	140	130	10	0
16 DEC 2003	260	120	150	70	10	0
23 DEC 2003	240	150	160	90	10	0
30 DEC 2003	250	170	20	10	10	0
07 JAN 2004	310	200	30	20	10	0
15 JAN 2004	250	120	20	10	10	0
17 FEB 2004	190	160	30	20	10	0
16 MAR 2004	200	180	10	0	10	0

NOTE: Field samples were analyzed using a HACH DR4000 Spectrophotometer, Methods 8023 (hexavalent chromium) and 8084 (total chromium).

TABLE 2 SUMMARY OF WEEKLY DISCHRAGE SAMPLING
20 NOVEMBER 2003 – 16 APRIL 2004

Parameter	2003							2004				NYSDEC Discharge Criteria
	20 NOV	25 NOV	2 DEC	9 DEC	16 DEC	23 DEC	30 DEC	7 JAN	17 FEB	25 MAR	16 APR	
pH	**2.1**[a]	7.7	**8.1**	6.3	7.0	6.8	7.2	7.5	6.3	7.4	7.8	6- 8 NTU
Total suspended solids	**12**	<4	7	**160**	**43**	10	**30**	**22**	**110**	**14**	9.5	10 mg/L
Ammonia as N	2.9	2.1	2.6	3.1	4.3	3.6	3.0	3.3	4.7	3.0	1.8	9.2 mg/L
Total Kjeldahl nitrogen	2.3	3.3	2.1	4.8	5.0	3.2	2.3	4.2	6.0	6.4	3.2	Monitor
Biochemical oxygen demand	4	<4	<4	**70**	**7.6**	<4	**8.0**	**8.4**	**16**	**12**	<4	5.0 mg/L
1,1-Dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	5.0 µg/L
Trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	5.0 µg/L
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.07 mg/L
Copper	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0147 mg/L
Barium	<0.01	<0.2	<0.2	<0.2	<0.01	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	2 mg/L
Total chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	<0.01	<0.01	0.1 mg/L
Hexavalent chromium	NA	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.013**	0.011 mg/L
Iron	**1.7**	0.22	**1.6**	**150**	**24**	**7.8**	**21**	**6.5**	**64**	**7.6**	**0.38**	0.3 mg/L
Selenium	<0.01	**0.012**	**0.014**	<0.01	<0.01	<0.01	<0.01	**0.012**	<0.01	**0.015**	<0.01	0.0046 mg/L
Thallium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.012**	<0.01	0.004 mg/L
Zinc	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	0.016	0.011	0.016	<0.01	0.014	0.115 mg/L
Nitrate as N	0.83	<0.1	<0.1	0.17	0.34	0.25	0.26	0.20	<0.1	<0.1	0.23	Monitor
Nitrite as N	<0.1	0.88	0.89	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Monitor
Chemical oxygen demand	14	3.8	4.0	36	20	23	21	10	40	14	12	40 mg/L
Total dissolved solids	480	NA	NA	660	890	730	450	690	NA	850	470	Monitor

(a) Laboratory error; sample diluted with acid.

NOTE: NA = Sample not analyzed for parameter.
Values in bold indicate an excess of discharge criteria.

Attachment A

Summary of Analytical Results of Groundwater and Surface Water Samples April 2004

ATTACHMENT A
SUMMARY OF ANALYTICAL RESULTS OF GROUNDWATER, AND SURFACE WATER SAMPLES
COLLECTED IN APRIL 2004,
AIRCO PARCEL, NIAGARA FALLS, NEW YORK

Ground Water

Baseline Metals by EPA Method 6010/6020 (mg/L)

Total (Unfiltered)

		MW-1B	MW-2B	MW-3B	MW-4B	MW-5B	MW-6B	MW-6B (Dup)	MW-7B	MW-8B
Compound/Element	**AWQS**									
Chromium	0.05	0.016	**0.26**	(<0.01U)	**0.23**	(<0.01U)	0.016	0.015	**0.052**	**0.068**
Chromium, Hexavalent	0.05	(<0.01U)	**0.26**	(<0.01U)	**0.22**	0.016	(<0.01U)	0.011	(<0.01U)	**0.07**
Iron	0.3	**2.9**	**0.37**	0.2	**2.2**	**0.62**	**0.6**	**0.61**	**6**	**1.1**
Lead	0.025	0.022	0.01	(<0.01U)	0.014	(<0.01U)	(<0.01U)	(<0.01U)	0.01	0.011
Magnesium	35*	**63**	(<0.01U)	0.87	**42**	**65**	**78**	**82**	11	**37**
Manganese	0.3	**0.82**	0.017	(<0.01U)	0.04	0.066	0.14	0.14	0.14	0.1
Selenium	0.01	(<0.01U)	(<0.01U)	(<0.01U)	**0.013**	(<0.01U)	(<0.01U)	(<0.01U)	(<0.01U)	**0.043**
Silicon	---	9.9	1.3	8.8	8.2	8.3	6.4	6.9	10	7.9
Sodium	20	**120**	**35**	**76**	**100**	**72**	**58**	**61**	**70**	**270**
Thallium	0.0005*	(<0.01U)	**0.027**	(<0.01U)	(<0.01U)	(<0.01U)	(<0.01U)	(<0.01U)	(<0.01U)	(<0.01U)
Zinc	2*	0.61	0.051	0.034	0.06	0.072	0.017	0.021	0.075	0.056

Water Quality Parameters (mg/L)

Total (Unfiltered)

		MW-1B	MW-2B	MW-3B	MW-4B	MW-5B	MW-6B	MW-6B (Dup)	MW-7B	MW-8B
Compound/Element	**AWQS**									
Ammonia (expressed as N)	2	(<0.03U)	**2.7**	0.26	(<0.03U)	(<0.03U)	(<0.03U)	(<0.03U)	0.057	(<0.03U)
Phenolics	0.001	(<0.002U)	**0.0047**	(<0.002U)	(<0.002U)	(<0.002U)	(<0.002U)	(<0.002U)	**0.011**	(<0.002U)
Sulfate	250	180	29	120	150	160	190	200	99	**300**

Surface Water

Baseline Metals by EPA Method 6010/6020 (mg/L)

Total (Unfiltered)

		SS
Compound/Element	**AWQS**	
Chromium	---	0.11
Chromium, Hexavalent	0.016	0.1
Iron	0.3	(<0.05U)
Lead	---	(<0.01U)
Magnesium	---	2.5
Manganese	---	(<0.01U)
Selenium	0.0046	(<0.01U)
Silicon	---	1.8
Sodium	---	25
Thallium	0.02	(<0.01U)
Zinc	---	(<0.01U)

Water Quality Parameters (mg/L)

Total (Unfiltered)

		SS
Compound/Element	**AWQS**	
Ammonia (expressed as N)	---	1.4
Phenolics	---	0.018
Sulfate	---	71

QA/QC

Baseline Metals by EPA Method 6010/6020 (mg/L)

Total (Unfiltered)

		Rinse Blank	Source Water Blank
Compound/Element	**AWQS**		
Chromium	---	(<0.01U)	(<0.01U)
Chromium, Hexavalent	---	(<0.01U)	(<0.01U)
Iron	---	(<0.05U)	(<0.05U)
Lead	---	(<0.01U)	(<0.01U)
Magnesium	---	2.2	2.2
Manganese	---	(<0.01U)	(<0.01U)
Selenium	---	(<0.01U)	(<0.01U)
Silicon	---	(<0.5U)	(<0.5U)
Sodium	---	4.3	4.4
Thallium	---	(<0.01U)	(<0.01U)
Zinc	---	(<0.01U)	0.011

Water Quality Parameters (mg/L)

		Rinse Blank	Source Water Blank
Compound/Element	**AWQS**		
Ammonia (expressed as N)	---	(<0.03U)	(<0.03U)
Phenolics	---	(<0.002U)	(<0.002U)
Sulfate	---	12	12

TABLE NOTES

AWQS	=	New York State Ambient Water Quality Standards and Guidance Values from Water Quality Regulations, Title 6, Chapter X Parts 700-706 August 1999.
*	=	Indicates guidance value.
---	=	Indicates no standard or guidance value exists.
U	=	Not detected. Sample quantitation limits shown as (<__U).

Only those analytes detected in at least one of the samples is shown on this table.
Results shaded and in boldface indicate concentrations in excess of New York State Ambient Water Quality Standards or Guidance Values.

Analytical Methods for Water Quality Parameters

Ammonia (expressed as Nitrogen)	=	EPA 350.2
Phenolics	=	EPA 420.2
Sulfate	=	EPA 375.3

Attachment B

Groundwater Sampling
Purge Forms and Field Notes
April 2004

EA Engineering PC and its Affiliate
EA Science and Technology

GROUNDWATER SAMPLING
PURGE FORM

Well I.D.:	EA Personnel:	Client:
AP-MW1B	R.CASEY	BOC GASES
Location:	**Well Condition:**	**Weather:**
NIAGARA FALLS	LOCKED	OVERCAST, COOL, 50s
Sounding Method:	**Gauge Date:**	**Measurement Ref:**
WLI	4/26/2004	TOC
Stick Up/Down (ft):	**Gauge Time:**	**Well Diameter (in):**
UP		4"

Purge Date:	4/27/2004	**Purge Time:**	930
Purge Method:	2" SUB/LOW FLOW	**Field Technician:**	R.CASEY

Well Volume

A. Well Depth (ft):	**D. Well Volume (ft):**	**Depth/Height of Top of PVC:**
B. Depth to Water (ft): 8.59	**E. Well Volume (gal) C*D):**	**Pump Type:** GRUNDFOS REDI-FLO 2
C. Liquid Depth (ft) (A-B):	**F. Five Well Volumes (gal) (E3):**	**Pump Designation:**

Water Quality Parameters

Time (hours)	DTW (ft btoc)	Volume (liters)	Rate (Lpm)	pH (pH units)	ORP (mV)	Temperature (oC)	Conductivity (uS/cm)	DO (ug/L)	Turbidity (ntu)
944	8.42	0	0.25	7.09	160	8.95	1.79	5.58	326
948	9.25	1	0.25	6.97	86	9.88	1.82	2.45	317
952	9.34	2	0.25	6.93	68	10.89	1.82	1.44	199
956	NC	3	0.25	6.90	59	11.41	1.83	1.13	167
1000	9.40	4	0.25	6.89	53	11.54	1.83	1.00	99
1004	9.40	5	0.25	6.88	52	11.42	1.82	0.87	97.6
1008	9.41	6	0.25	6.88	52	11.40	1.82	0.90	98

Total Quantity of Water Removed (gal):	~2 gal	**Sampling Time:**	1010
Samplers:	R.CASEY	**Split Sample With:**	
Sampling Date:	27-Apr-04	**Sample Type:**	GRAB

COMMENTS AND OBSERVATIONS:

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EA Engineering PC and its Affliate
EA Science and Technology

GROUNDWATER SAMPLING
PURGE FORM

Well I.D.: AP-MW2B	**EA Personnel:** R.CASEY	**Client:** BOC GASES
Location: NIAGARA FALLS	**Well Condition:** LOCKED	**Weather:** OVERCAST, COOL, 50s
Sounding Method: WLI	**Gauge Date:** 4/26/2004	**Measurement Ref:** TOC
Stick Up/Down (ft): UP	**Gauge Time:**	**Well Diameter (in):** 4"

Purge Date:	4/27/2004	**Purge Time:**	1020
Purge Method:	2" SUB/LOW FLOW	**Field Technician:**	R.CASEY

Well Volume

A. Well Depth (ft):	**D. Well Volume (ft):**	**Depth/Height of Top of PVC:**
B. Depth to Water (ft): 11.89	**E. Well Volume (gal) C*D):**	**Pump Type:**
C. Liquid Depth (ft) (A-B):	**F. Five Well Volumes (gal) (E3):**	**Pump Designation:**

Water Quality Parameters

Time (hours)	DTW (ft btoc)	Volume (liters)	Rate (Lpm)	pH (pH units)	ORP (mV)	Temperature (oC)	Conductivity (uS/cm)	DO (ug/L)	Turbidity (ntu)
1029	11.41	0	0.25	12.38	-138	8.48	4.04	4.22	606
1033	11.78	1	0.25	12.45	-141	7.80	4.11	1.96	266
1037	12.24	2	0.25	12.42	-133	8.43	4.03	1.76	281
1041	12.29	3	0.25	12.41	-131	8.67	4.05	1.80	269
1045	12.34	4	0.25	12.41	-130	8.55	3.94	1.88	238
*note									

Total Quantity of Water Removed (gal): ~1.5 gal.
Samplers: R.CASEY
Sampling Date: 27-Apr-04
Sampling Time: 1110
Split Sample With:
Sample Type: GRAB

COMMENTS AND OBSERVATIONS: *NOTE: WELL PUMPED DRY, ALLOWED TO RECHARGE THEN SAMPLED.
SAMPLED ON 05 JUN 03.

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EA Engineering PC and its Affliate
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GROUNDWATER SAMPLING
PURGE FORM

Well I.D.:	EA Personnel:	Client:
AP-MW3B	R.CASEY	BOC GASES
Location:	**Well Condition:**	**Weather:**
NIAGARA FALLS	LOCKED	OVERCAST, COOL, 50s
Sounding Method:	**Gauge Date:**	**Measurement Ref:**
WLI	4/26/2004	TOC
Stick Up/Down (ft):	**Gauge Time:**	**Well Diameter (in):**
UP		4"

Purge Date:	4/27/2004	**Purge Time:**	1120
Purge Method:	2" SUB/LOW FLOW	**Field Technician:**	R.CASEY

Well Volume		
A. Well Depth (ft): 8.28	**D. Well Volume (ft):**	**Depth/Height of Top of PVC:**
B. Depth to Water (ft):	**E. Well Volume (gal) C*D):**	**Pump Type:** GRUNDFOS REDI-FLO 2
C. Liquid Depth (ft) (A-B):	**F. Five Well Volumes (gal) (E3):**	**Pump Designation:**

Water Quality Parameters

Time (hours)	DTW (ft btoc)	Volume (liters)	Rate (Lpm)	pH (pH units)	ORP (mV)	Temperature (oC)	Conductivity (uS/cm)	DO (ug/L)	Turbidity (ntu)
1125	7.36	0	0.25	10.72	8	8.64	0.625	0.94	82.9
1129	9.73	1	0.25	10.69	2	9.16	0.610	0.63	83.7
1133	9.76	2	0.25	10.57	-17	10.21	0.587	0.44	85.2
1137	NC	3	0.25	10.47	-42	10.89	0.560	0.48	64
1141	9.81	4	0.25	10.29	-95	11.49	0.536	0.40	62.7
1145	9.82	5	0.25	9.97	-98	12.10	0.533	0.47	60.3
1149	9.85	6	0.25	9.97	-97	12.31	0.534	0.48	55.4

Total Quantity of Water Removed (gal):	~2 gal	**Sampling Time:**	1155
Samplers:	R.CASEY	**Split Sample With:**	
Sampling Date:	27-Apr-04	**Sample Type:**	GRAB

COMMENTS AND OBSERVATIONS:

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EA Engineering PC and its Affliate
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GROUNDWATER SAMPLING
PURGE FORM

Well I.D.: AP-MW4B	**EA Personnel:** R.CASEY	**Client:** BOC GASES
Location: NIAGARA FALLS	**Well Condition:** LOCKED	**Weather:** OVERCAST, COOL, 50s
Sounding Method: WLI	**Gauge Date:** 4/26/2004	**Measurement Ref:** TOC
Stick Up/Down (ft): UP	**Gauge Time:**	**Well Diameter (in):** 4"

Purge Date:	4/26/2004	**Purge Time:**	1500
Purge Method:	HAND BAIL	**Field Technician:**	R.CASEY

Well Volume

A. Well Depth (ft):	**D. Well Volume (ft):**	**Depth/Height of Top of PVC:**
B. Depth to Water (ft): 5.67	**E. Well Volume (gal) C*D):**	**Pump Type:** DEDICATED BAILER
C. Liquid Depth (ft) (A-B):	**F. Five Well Volumes (gal) (E3):**	**Pump Designation:**

Water Quality Parameters

Time (hours)	DTW (ft btoc)	Volume (liters)	Rate (Lpm)	pH (pH units)	ORP (mV)	Temperature (oC)	Conductivity (uS/cm)	DO (ug/L)	Turbidity (ntu)
INITIAL	5.67			7.54	169	10.46	1.19	14.75	141
ENDING		~2		7.63	138	10.08	1.12	13.59	999

Total Quantity of Water Removed (gal): ~2 gal
Samplers: R.CASEY
Sampling Date: 27-Apr-04
Sampling Time: 1520
Split Sample With:
Sample Type: GRAB

COMMENTS AND OBSERVATIONS:

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GROUNDWATER SAMPLING
PURGE FORM

Well I.D.: AP-MW5B	**EA Personnel:** R.CASEY	**Client:** BOC GASES
Location: NIAGARA FALLS	**Well Condition:** LOCKED	**Weather:** OVERCAST, COOL, 50s
Sounding Method: WLI	**Gauge Date:** 9/10/2003	**Measurement Ref:** TOC
Stick Up/Down (ft): UP	**Gauge Time:**	**Well Diameter (in):** 4"

Purge Date:	4/26/2004	**Purge Time:**	1520
Purge Method:	HAND BAIL	**Field Technician:**	R.CASEY

Well Volume

A. Well Depth (ft):	**D. Well Volume (ft):**	**Depth/Height of Top of PVC:**
B. Depth to Water (ft): 5.24	**E. Well Volume (gal) C*D):**	**Pump Type:** DEDICATED BAILER
C. Liquid Depth (ft) (A-B):	**F. Five Well Volumes (gal) (E3):**	**Pump Designation:**

Water Quality Parameters

Time (hours)	DTW (ft btoc)	Volume (liters)	Rate (Lpm)	pH (pH units)	ORP (mV)	Temperature (oC)	Conductivity (uS/cm)	DO (ug/L)	Turbidity (ntu)
INITIAL	5.24			7.19	164	12.39	1.25	12.39	92.4
ENDING		~2.5		7.25	165	12.62	1.27	12.62	999

Total Quantity of Water Removed (gal): ~2.5 gal
Samplers: R.CASEY
Sampling Date: 27-Apr-04

Sampling Time: 1530
Split Sample With:
Sample Type: GRAB

COMMENTS AND OBSERVATIONS:

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EA Science and Technology

GROUNDWATER SAMPLING
PURGE FORM

Well I.D.: AP-MW6B	**EA Personnel:** R.CASEY	**Client:** BOC GASES
Location: NIAGARA FALLS	**Well Condition:** LOCKED	**Weather:** OVERCAST, COOL, 50s
Sounding Method: WLI	**Gauge Date:** 4/26/2004	**Measurement Ref:** TOC
Stick Up/Down (ft): UP	**Gauge Time:**	**Well Diameter (in):** 4"

Purge Date:	4/27/2004	**Purge Time:**	1200
Purge Method:	2" SUB/LOW FLOW	**Field Technician:**	R.CASEY

Well Volume

A. Well Depth (ft):	**D. Well Volume (ft):**	**Depth/Height of Top of PVC:**
B. Depth to Water (ft): 2.63	**E. Well Volume (gal) C*D):**	**Pump Type:** GRUNDFOS REDI-FLO 2
C. Liquid Depth (ft) (A-B):	**F. Five Well Volumes (gal) (E3):**	**Pump Designation:**

Water Quality Parameters

Time (hours)	DTW (ft btoc)	Volume (liters)	Rate (Lpm)	pH (pH units)	ORP (mV)	Temperature (oC)	Conductivity (uS/cm)	DO (ug/L)	Turbidity (ntu)
1210	1.43	0	0.25	7.25	48	9.21	1.36	1.61	311
1214	4.03	1	0.25	7.12	35	8.83	1.37	0.61	262
1218	5.11	2	0.25	7.07	26	9.39	1.33	0.39	161
1222	9.82	3	0.25	7.07	20	9.73	1.35	0.36	133
1226	9.88	4	0.25	7.07	16	9.68	1.34	0.31	112
1230	9.94	5	0.25	7.08	15	9.25	1.36	0.30	64
1234	NC	6	0.25	7.08	16	9.23	1.36	0.32	58

Total Quantity of Water Removed (gal): ~2 gal
Samplers: R.CASEY
Sampling Date: 27-Apr-04
Sampling Time: 1240
Split Sample With:
Sample Type: GRAB

COMMENTS AND OBSERVATIONS: AP-DUP-0404 ALSO COLLECTED FROM MW6B.

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EA Science and Technology

GROUNDWATER SAMPLING
PURGE FORM

Well I.D.:	EA Personnel:	Client:
AP-MW7B	R.CASEY	BOC GASES
Location:	**Well Condition:**	**Weather:**
NIAGARA FALLS	LOCKED	OVERCAST, COOL, 50s
Sounding Method:	**Gauge Date:**	**Measurement Ref:**
WLI	4/26/2004	TOC
Stick Up/Down (ft):	**Gauge Time:**	**Well Diameter (in):**
UP		4"

Purge Date:	4/26/2004	**Purge Time:**	1535
Purge Method:	HAND BAIL	**Field Technician:**	R.CASEY

Well Volume

A. Well Depth (ft):	**D. Well Volume (ft):**	**Depth/Height of Top of PVC:**
B. Depth to Water (ft): 7.88	**E. Well Volume (gal) C*D):**	**Pump Type:** DEDICATED BAILER
C. Liquid Depth (ft) (A-B):	**F. Five Well Volumes (gal) (E3):**	**Pump Designation:**

Water Quality Parameters

Time (hours)	DTW (ft btoc)	Volume (liters)	Rate (Lpm)	pH (pH units)	ORP (mV)	Temperature (oC)	Conductivity (uS/cm)	DO (ug/L)	Turbidity (ntu)
INITIAL	7.88			8.64	121	10.17	0.415	12.97	95.2
ENDING		~3		8.66	112	10.67	0.392	11.97	999

Total Quantity of Water Removed (gal): ~3 gal
Samplers: R.CASEY
Sampling Date: 27-Apr-04
Sampling Time: 1545
Split Sample With:
Sample Type: GRAB

COMMENTS AND OBSERVATIONS:

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EA Science and Technology

GROUNDWATER SAMPLING
PURGE FORM

Well I.D.:	EA Personnel:	Client:
AP-MW8B	R.CASEY	BOC GASES
Location:	**Well Condition:**	**Weather:**
NIAGARA FALLS	LOCKED	OVERCAST, COOL, 50s
Sounding Method:	**Gauge Date:**	**Measurement Ref:**
WLI	4/26/2004	TOC
Stick Up/Down (ft):	**Gauge Time:**	**Well Diameter (in):**
UP		4"

Purge Date:	4/27/2004	**Purge Time:**	1350
Purge Method:	2" SUB/LOW FLOW	**Field Technician:**	R.CASEY

Well Volume		
A. Well Depth (ft):	**D. Well Volume (ft):**	**Depth/Height of Top of PVC:**
B. Depth to Water (ft): 4.35	**E. Well Volume (gal) C*D):**	**Pump Type:** GRUNDFOS REDI-FLO 2
C. Liquid Depth (ft) (A-B):	**F. Five Well Volumes (gal) (E3):**	**Pump Designation:**

Water Quality Parameters

Time (hours)	DTW (ft btoc)	Volume (liters)	Rate (Lpm)	pH (pH units)	ORP (mV)	Temperature (oC)	Conductivity (uS/cm)	DO (ug/L)	Turbidity (ntu)
1404	4.61	0	0.25	7.94	121	9.17	1.62	2.76	999
1408	5.18	1	0.25	7.47	122	9.14	1.61	0.86	999
1412	5.52	2	0.25	7.40	119	9.62	1.60	0.68	741
1416	5.72	3	0.25	7.33	113	10.31	1.59	0.64	432
1420	5.81	4	0.25	7.32	113	10.36	1.59	0.63	447
1424	5.93	5	0.25	7.32	113	10.50	1.55	0.65	342

Total Quantity of Water Removed (gal):	~1.5 gal	**Sampling Time:**	1430
Samplers:	R.CASEY	**Split Sample With:**	
Sampling Date:	27-Apr-04	**Sample Type:**	GRAB

COMMENTS AND OBSERVATIONS:

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CONTENTS

PAGE NO.	REFERENCE	DATE
	• AIRCO PARCEL	
	4201 · WITMER RD.	
	• EA ENGINEERING,	
	SCIENCE & TECH.	
	6731 COLLAMER RD	
	E. SYRACUSE NY	
	13057	
	• SAMPLE BOTTLES	
	1-AMBER LITER; T. Phenols; H_2SO_4	
	1-PLASTIC 500-mL; Cr+6, SO_4; NONE	
	1-PLASTIC 250-mL; NH_3; H_2SO_4	
	1-PLASTIC 250mL; Metals; HNO_3	
	• UPS ACCOUNT: F02748	

26 APR 2004

BIANNUAL SAMPLING

- R. CASEY ONSITE @ 1430 FOR SAMPLING, ENGINEERING INSPECTION

- MONITORING WELL GAUGING

	DTW	PURGE METHOD
MW-1B	8.59	PUMP
MW-2B	11.89	PUMP
MW-3B	8.28	PUMP
MW-4B	5.67	BAIL
MW-5B	5.24	BAIL
MW-6B	2.64	PUMP
MW-7B	7.88	BAIL
MW-8B	4.35	PUMP

HORIBA CALIBRATION BY: R. JENNINGS 4/23/04
PINE # 920 SERIAL NO. 928073

pH: 4.00 COND 4.49
DO: NA Turb 0

26APR2004

AP-MW4B-0404

	INITIAL	ENDING
pH	7.54	7.63
COND	1.19	1.12
TURB	141	999
DO	14.75	13.59
TEMP	10.46	10.08
ORP	169	138

- READINGS TAKEN @ 1500
- WILL ALLOW WELL TO RECHARGE AND SAMPLE TOMORROW.

PURG VOL: ~ 2gal.

- AP-MW4B-0404 SAMPLE COLLECTION TIME 1520 ON 27APR2004.

26 APR2004

AP-MW5B-0404

	INITIAL	ENDING
pH	7.19	7.25
COND	1.26	1.27
TURB	92.4	999
DO	12.39	12.62
TEMP	11.05	9.76
ORP	164	165

- READINGS TAKEN @ 1520
- WILL BAIL DRY AND ALLOW TO RECHARGE, SAMPLE TOMORROW.

PURG VOL: ~ 2½ gal

- AP-MW5B-0404 SAMPLE COLLECTION TIME 1530 ON 27APR2004.

26APR2004

AP-MW7B-0404

	INITIAL	ENDING
pH	8.64	8.66
COND	0.415	0.392
TURB	95.2	999
DO	12.97	11.97
TEMP	10.19	10.67
ORP	121	112

- READINGS TAKEN @ 1535
- PURGED WELL DRY, WILL ALLOW TO RECHARGE & SAMPLE TOMORROW.

PURG VOL: ~3 gal

AP-MW7B-0404 SAMPLE COLLECTION
TIME 1545 ON 27APR2004.

27APR2004

AP-MW1B-0404

TIME: 0930 DTW: 8.59
METHOD: 2" SUB VOL PURG ~2 gal

TIME	0944	0948	0952	0956	1000	1004	1008
PARAM	(1)	(1)	(2)	(3)	(4)	(5)	(6)
VOL PURG	-	1	2	3	4	5	6
PURG RATE	0.25 mpm	→					
pH	7.04	6.97	6.93	6.90	6.89	6.88	6.88
COND	1.79	1.82	1.82	1.83	1.83	1.82	1.82
TURB	326	317	199	167	99	97.6	98
DO	5.58	2.45	1.44	1.13	1.00	0.87	0.90
TEMP	8.95	9.88	10.89	11.41	11.54	11.42	11.40
ORP	160	86	68	59	53	52	52
DTW	8.42	9.25	9.34	-	9.40	9.40	9.41

- AP-MW1B-0404 SAMPLE COLLECTION TIME 1018.

27 APR 2004

AP-MW2B-0404

TIME: 1020
METHOD: 2" SUB

DTW: 11.89
Vol Purge: ~1.5 gal

TIME	1029	1033	1037	1041	1045		
PARAM	①	①	②	③	④	⑤	⑥
VOL PURG	—	1	2	3	4	*	
PURGE RATE	0.25	→	→	→	→		
pH	12.38	12.45	12.42	12.41	12.41		
COND	4.04	4.11	4.03	4.05	3.94		
TURB	600	266	291	269	238		
DO	4.22	1.96	1.76	1.80	1.83		
TEMP	8.48	7.80	8.43	8.67	8.55		
ORP	-138	-141	-133	-131	-130		
DTW	11.41	11.78	12.24	12.29	12.34		

· AP-MW2B-0404 SAMPLE COLLECTION TIME 1110.

* WELL PUMPED DRY WILL ALLOW RECHARGE THEN SAMPLE.

27 APR 2004

AP-MW3B-0404

TIME: 1120
METHOD: 2" SUB

DTW: 8.28
Vol Purge: ~2 gal

TIME	1125	1129	1133	1137	1141	1145	1149
PARAM	④	①	②	③	④	⑤	⑥
VOL PURG	—	1	2	3	4	5	6
PURGE RATE	0.25	→	→	→	→	→	→
pH	10.72	10.69	10.57	10.47	10.29	9.97	9.97
COND	0.625	0.610	0.587	0.560	0.536	0.533	0.534
TURB	82.9	83.7	85.2	64.0	62.7	60.3	55.4
DO	0.94	0.63	0.44	0.48	0.49	0.47	0.48
TEMP	8.64	9.16	10.21	10.89	11.49	12.10	12.31
ORP	8	2	-17	-42	-95	-98	-97
DTW	7.36	9.73	9.76	—	9.81	9.82	9.85

· AP-MW3B-0404 SAMPLE COLLECTION TIME 1155.

27 APR 2004

AP-MW6B-0404

TIME: 1200
METHOD: 2" SUB

DTW: 2.64
Vol Purged: ~2 gal.

TIME	1210	1214	1218	1222	1226	1230	1234
PARAM	①	②	③	④	⑤	⑥	⑦
VOL PURGED	–	1	2	3	4	5	6
PURGE RATE	0.25	→	→	→	→	→	→
pH	7.25	7.12	7.07	7.07	7.07	7.08	7.08
COND	1.36	1.37	1.33	1.35	1.34	1.36	1.36
TURB	311	262	161	133	112	64	58
DO	1.61	0.61	0.39	0.36	0.31	0.30	0.32
TEMP	9.21	8.83	9.39	9.73	9.68	9.25	9.23
ORP	48	35	26	20	16	15	16
DTW	1.43	4.03	5.11	9.82	9.88	9.94	–

- AP-MW6B-0404 SAMPLE COLLECTION TIME 1240.
- AP-DUP-0404 COLLECTED HERE.

27 APR 2004

AP-SS-0404

WATER QUALITY

TIME	1245
pH	11.66
COND	1.33
TURB	131.0
DO	9.86
TEMP	10.12
ORP	-86

- AP-SS-0404 SAMPLE COLLECTION TIME 1255.
- SURFACE SAMPLE COLLECTED SW OF MW6B IN THE SWALE.

27APR2004

AP-MW8B-0404

TIME: 1350 DTW: 4.35

METHOD: 2" SUB VOL PURG: ~1½ gal.

TIME	1404	1408	1412	1416	1420	1424	
PARAM	①	②	③	④	⑤	⑥	⑥
VOL PURG	—	1	2	3	4	5	
PURG RATE	0.25	→	→	→	→	→	
pH	7.94	7.47	7.40	7.33	7.32	7.32	
COND	1.62	1.61	1.60	1.59	1.59	1.55	
TURB	999	999	741	432	447	342	
DO	2.76	0.86	0.68	0.64	0.63	0.45	
TEMP	9.17	9.14	9.62	10.31	10.36	10.50	
ORP	121	122	119	113	113	113	
DTW	4.61	5.18	5.52	5.72	5.81	5.93	

- AP-MW8B-0404 SAMPLE COLLECTION TIME 1430.

27APR2004

- AP-RB-0404 SAMPLE COLLECTION TIME 1445 ON 27APR2004.
- AP-SWB-0404 SAMPLE COLLECTION TIME 1450 ON 27APR2004

Attachment C

Chain-of-Custody Records
April 2004

LSL

Life Science Laboratori[es]
CHAIN OF CUSTODY RECORD

0406259
BAEng

LSL Central Lab
5854 Butternut Drive
E. Syracuse, N.Y. 13057
Phone: (315)445-1105
Fax: (315)445-1301

LSL North Lab
131 St. Lawrence Ave.
Waddington, N.Y. 13694
Phone: (315)388-4476
Fax: (315)388-4061

Wayland, N.Y. 14572
Phone: (585)728-3320
Fax: (585)728-2711

LSL Southern Tier Lab
30 East Main St.
Cuba, N.Y. 14727
Phone: (585)968-2640
Fax: (585)968-0906

Turnaround Time
Normal: 14 DAY [X]
Pre-Authorized: Next Day* [ ] 2-Day* [ ] 3-Day* [ ] 7-Day* [ ]
*Additional Charges may apply

Report Address:
Name: ROBERT CASEY
Company: EA ENGINEERING, SCIENCE & TECHNOLOGY
Street: 6731 COLLAMER ROAD
City/State: E. SYRACUSE, NY
Zip: 13057
Phone: 315 431 4610
Fax: 315 431 4280
Email:

Date Needed or Special Instructions:

Authorization or P.O. # 12040.87.0003

LSL Project Number:

Client Project ID/Client Site ID: AIRCO PARCEL

Client's Sample Identifications	Sample Date	Sample Time	Type grab/comp	Matrix	Preserv Added	Containers #	Containers size/type	Analyses	Preserv Check	LSL ID#
AP-MW1B-0404	27 APR 2004	1010	grab	GW	H_2SO_4	1	AMBER LITER	T. Phenols		001A
↓	↓	↓	↓	↓	NONE	1	500 mL	Cr+6, SO_4		001B
↓	↓	↓	↓	↓	H_2SO_4	1	250 mL	NH_3		001C
↓	↓	↓	↓	↓	HNO_3	1	250 mL	Metals		001D
AP-MW2B-0404	27 APR 2004	1110	grab	GW	H_2SO_4	1	AMBER LITER	T. Phenols		002A
↓	↓	↓	↓	↓	NONE	1	500mL	Cr+6, SO_4		002B
↓	↓	↓	↓	↓	H_2SO_4	1	250mL	NH_3		002C
↓	↓	↓	↓	↓	HNO_3	1	250mL	Metals		002D
								(Tl, Na, Se, silicon, Mn, Mg		
								Fe, Cd, Cr, Pb, Zn)		

LSL use only: Airco Parcel is the same site on Witmer Rd per Scott C. 4-28

Containers this C-O-C

Custody Transfers

		Date	Time
Sampled By:	Received By:		
Relinquished By:	Received By:		
Relinquished By:	Rec'd for Lab By: 04-28-04 10:09 RCVD		
Shipment Method:	Received Intact: (Y) N	Sample Temp 6.8°C on ice	

...samples in a timely manner IN PEN ONLY

0406259

Life Science Laboratories, Inc.

CHAIN OF CUSTODY RECORD

LSL Central Lab
5854 Butternut Drive
E. Syracuse, N.Y. 13057
Phone: (315)445-1105
Fax: (315)445-1301

LSL North Lab
131 St. Lawrence Ave.
Waddington, N.Y. 13694
Phone: (315)388-4476
Fax: (315)388-4061

LSL Finger Lakes Lab
16 N. Main St.
Wayland, N.Y. 14572
Phone: (585)728-3320
Fax: (585)728-2711

LSL Southern Tier Lab
30 East Main St.
Cuba, N.Y. 14727
Phone: (585)968-2640
Fax: (585)968-0908

Turnaround Time
Normal: 14 DAY [X] | Pre-Authorized: Next Day* [ ] 2-Day* [ ] 3-Day* [ ] 7-Day* [ ] | *Additional Charges may apply

Report Address:
Name: Robert Casey
Company: EA ENGINEERING, SCIENCE & TECHNOLOGY
Street: 6731 COLLAMER ROAD
City/State: E. SYR, NY
Zip: 13057
Phone: 315 431 4610
Fax: 315 431 4280
Email:

Date Needed or Special Instructions:

Authorization or P.O. # 12040.87.0003

LSL Project Number:

Client Project ID/Client Site ID AIRCO PARCEL

Client's Sample Identifications	Sample Date	Sample Time	Type grab/comp	Matrix	Preserv Added	Containers #	Containers size/type	Analyses	Preserv Check	LSL ID#
AP-MW3B-0404	27 APR 2004	1155	Grab	GW		4		T. Phenols, Metals, SO_4, NH_3, Cr+6		003A,B,C,D
AP-MW4B-0404		1520				4				004A,B,C,D
AP-MW5B-0404		1530				4				005A,B,C,D
AP-MW6B-0404		1240				4				006
AP-MW7B-0404		1545				4				007
AP-MW8B-0404		1430				4				008
AP-DUP-0404		—				4				009
AP-RB-0404		1445				4				010
AP-SS-0404		1255				4				011
AP-SWB-0404	↓	1460	↓	↓		4		↓		012

LSL use only:

Containers this C-O-C

Custody Transfers

	Date	Time
Sampled By: Robert S. Casey		
Relinquished By:		
Relinquished By:		
Shipment Method: UPS		
Received By:		
Received By:		
Rec'd for Lab By: 04-28-04 10:09 RCVD		
Received Intact: (Y) N	Sample Temp 6.8°C	

In order to process samples in a timely manner IN PEN ONLY

Office

05/21/04 12:30 FAX 315 445 1301 LSL 016/016

Attachment D

Laboratory Analytical Results
April 2004

LSL

Scott Graham
EA Engineering, Science and Technology
6731 Collamer Road
East Syracuse, NY 13057-9759

Phone: (315) 431-4610
FAX: (315) 431-4280
Authorization: PO#12040.87.0003

Laboratory Analysis Report

For

EA Engineering, Science and Technology

Client Project ID:

Airco Parcel

LSL Project ID: **0406259**

Receive Date/Time: 04/28/04 10:09

Project Received by: ALH

Life Science Laboratories, Inc.

LSL Central Lab
5854 Butternut Drive
East Syracuse, NY 13057
Tel. (315) 445-1105
Fax (315) 445-1301
NYS DOH ELAP #10248
PA DEP #68-2556

LSL North Lab
131 St. Lawrence Avenue
Waddington, NY 13694
Tel. (315) 388-4476
Fax (315) 388-4061
NYS DOH ELAP #10900

LSL Finger Lakes Lab
16 N. Main St., PO Box 424
Wayland, NY 14572
Tel. (585) 728-3320
Fax (585) 728-2711
NYS DOH ELAP #11667

LSL Southern Tier Lab
30 East Main Street
Cuba, NY 14727
Tel. (585) 968-2640
Fax (585) 968-0906
NYS DOH ELAP #10760

LSL MidLakes Lab
699 South Main Street
Canandaigua, NY 14424
Tel. (585) 396-0270
Fax (585) 396-0377
NYS DOH ELAP #11369

This report was reviewed by: Linda Waters QC *Date:* 5/21/04

Life Science Laboratories, Inc.

A copy of this report was sent to:

Date Printed: 5/20/04

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: AP-MW1B-0404 **LSL Sample ID:** 0406259-001

Location: Airco Parcel

Sampled: 04/27/04 10:10 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 350.1 Ammonia					
Ammonia as N	<0.03	mg/l		5/7/04	DRB
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable	<0.002	mg/l	5/4/04	5/4/04	DWK
(1) EPA 6010 Total Metals					
Cadmium	<0.01	mg/l	4/29/04	4/29/04	PEF
Chromium	0.016	mg/l	4/29/04	4/29/04	PEF
Iron	2.9	mg/l	4/29/04	4/29/04	PEF
Lead	0.022	mg/l	4/29/04	4/29/04	PEF
Magnesium	63	mg/l	4/29/04	4/29/04	PEF
Manganese	0.82	mg/l	4/29/04	4/29/04	PEF
Selenium	<0.01	mg/l	4/29/04	4/29/04	PEF
Silicon	9.9	mg/l	4/29/04	4/29/04	PEF
Sodium	120	mg/l	4/29/04	4/29/04	PEF
Thallium	<0.01	mg/l	4/29/04	4/29/04	PEF
Zinc	0.61	mg/l	4/29/04	4/29/04	PEF
(1) EPA Method 300.0 A					
Sulfate	180	mg/l		5/7/04	RAF
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	<0.01	mg/l		4/28/04 10:10	DWK

Life Science Laboratories, Inc.

Date Printed: 5/20/04

Analysis performed at: *(1) LSL Central, (2) LSL North, (3) LSL Finger Lakes, (4) LSL Southern Tier, (5) LSL MidLakes*

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: AP-MW2B-0404 **LSL Sample ID:** 0406259-002

Location: Airco Parcel

Sampled: 04/27/04 11:10 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 350.1 Ammonia					
Ammonia as N	2.7	mg/l		5/7/04	DRB
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable	0.0047	mg/l	5/4/04	5/4/04	DWK
(1) EPA 6010 Total Metals					
Cadmium	<0.01	mg/l	4/29/04	4/29/04	PEF
Chromium	0.26	mg/l	4/29/04	4/29/04	PEF
Iron	0.37	mg/l	4/29/04	4/29/04	PEF
Lead	0.010	mg/l	4/29/04	4/29/04	PEF
Magnesium	<0.01	mg/l	4/29/04	4/29/04	PEF
Manganese	0.017	mg/l	4/29/04	4/29/04	PEF
Selenium	<0.01	mg/l	4/29/04	4/29/04	PEF
Silicon	1.3	mg/l	4/29/04	4/29/04	PEF
Sodium	35	mg/l	4/29/04	4/29/04	PEF
Thallium	0.027	mg/l	4/29/04	4/29/04	PEF
Zinc	0.051	mg/l	4/29/04	4/29/04	PEF
(1) EPA Method 300.0 A					
Sulfate	29	mg/l		4/28/04	RAF
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	0.26	mg/l		4/28/04 10:59	DWK

Life Science Laboratories, Inc.

Date Printed: 5/20/04

Analysis performed at: *(1) LSL Central, (2) LSL North, (3) LSL Finger Lakes, (4) LSL Southern Tier, (5) LSL MidLakes*

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: AP-MW3B-0404 **LSL Sample ID:** 0406259-003

Location: Airco Parcel

Sampled: 04/27/04 11:55 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 350.1 Ammonia					
Ammonia as N	0.26	mg/l		5/7/04	DRB
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable	<0.002	mg/l	5/4/04	5/4/04	DWK
(1) EPA 6010 Total Metals					
Cadmium	<0.01	mg/l	4/29/04	4/29/04	PEF
Chromium	<0.01	mg/l	4/29/04	4/29/04	PEF
Iron	0.20	mg/l	4/29/04	4/29/04	PEF
Lead	<0.01	mg/l	4/29/04	4/29/04	PEF
Magnesium	0.87	mg/l	4/29/04	4/29/04	PEF
Manganese	<0.01	mg/l	4/29/04	4/29/04	PEF
Selenium	<0.01	mg/l	4/29/04	4/29/04	PEF
Silicon	8.8	mg/l	4/29/04	4/29/04	PEF
Sodium	76	mg/l	4/29/04	4/29/04	PEF
Thallium	<0.01	mg/l	4/29/04	4/29/04	PEF
Zinc	0.034	mg/l	4/29/04	4/29/04	PEF
(1) EPA Method 300.0 A					
Sulfate	120	mg/l		5/7/04	RAF
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	<0.01	mg/l		4/28/04 10:59	DWK

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: AP-MW4B-0404 **LSL Sample ID:** 0406259-004

Location: Airco Parcel

Sampled: 04/27/04 15:20 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 350.1 Ammonia					
Ammonia as N	<0.03	mg/l		5/7/04	DRB
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable	<0.002	mg/l	5/4/04	5/4/04	DWK
(1) EPA 6010 Total Metals					
Cadmium	<0.01	mg/l	4/29/04	4/29/04	PEF
Chromium	0.23	mg/l	4/29/04	4/29/04	PEF
Iron	2.2	mg/l	4/29/04	4/29/04	PEF
Lead	0.014	mg/l	4/29/04	4/29/04	PEF
Magnesium	42	mg/l	4/29/04	4/29/04	PEF
Manganese	0.040	mg/l	4/29/04	4/29/04	PEF
Selenium	0.013	mg/l	4/29/04	4/29/04	PEF
Silicon	8.2	mg/l	4/29/04	4/29/04	PEF
Sodium	100	mg/l	4/29/04	4/29/04	PEF
Thallium	<0.01	mg/l	4/29/04	4/29/04	PEF
Zinc	0.060	mg/l	4/29/04	4/29/04	PEF
(1) EPA Method 300.0 A					
Sulfate	150	mg/l		5/7/04	RAF
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	0.22	mg/l		4/28/04 13:33	DWK

Life Science Laboratories, Inc.

Date Printed: 5/20/04

Analysis performed at: *(1) LSL Central, (2) LSL North, (3) LSL Finger Lakes, (4) LSL Southern Tier, (5) LSL MidLakes*

- - LABORATORY ANALYSIS REPORT - -

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: AP-MW5B-0404 **LSL Sample ID:** 0406259-005

Location: Airco Parcel

Sampled: 04/27/04 15:30 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 350.1 Ammonia					
Ammonia as N	<0.03	mg/l		5/7/04	DRB
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable	<0.002	mg/l	5/4/04	5/4/04	DWK
(1) EPA 6010 Total Metals					
Cadmium	<0.01	mg/l	4/29/04	4/29/04	PEF
Chromium	<0.01	mg/l	4/29/04	4/29/04	PEF
Iron	0.62	mg/l	4/29/04	4/29/04	PEF
Lead	<0.01	mg/l	4/29/04	4/29/04	PEF
Magnesium	65	mg/l	4/29/04	4/29/04	PEF
Manganese	0.066	mg/l	4/29/04	4/29/04	PEF
Selenium	<0.01	mg/l	4/29/04	4/29/04	PEF
Silicon	8.3	mg/l	4/29/04	4/29/04	PEF
Sodium	72	mg/l	4/29/04	4/29/04	PEF
Thallium	<0.01	mg/l	4/29/04	4/29/04	PEF
Zinc	0.072	mg/l	4/29/04	4/29/04	PEF
(1) EPA Method 300.0 A					
Sulfate	160	mg/l		5/7/04	RAF
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	0.016	mg/l		4/28/04 13:33	DWK

Life Science Laboratories, Inc.

Date Printed: 5/20/04

Analysis performed at: *(1) LSL Central, (2) LSL North, (3) LSL Finger Lakes, (4) LSL Southern Tier, (5) LSL MidLakes*

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: AP-MW6B-0404 **LSL Sample ID:** 0406259-006

Location: Airco Parcel

Sampled: 04/27/04 12:40 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 350.1 Ammonia					
Ammonia as N	<0.03	mg/l		5/7/04	DRB
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable	<0.002	mg/l	5/4/04	5/4/04	DWK
(1) EPA 6010 Total Metals					
Cadmium	<0.01	mg/l	4/29/04	4/29/04	PEF
Chromium	0.016	mg/l	4/29/04	4/29/04	PEF
Iron	0.60	mg/l	4/29/04	4/29/04	PEF
Lead	<0.01	mg/l	4/29/04	4/29/04	PEF
Magnesium	78	mg/l	4/29/04	4/29/04	PEF
Manganese	0.14	mg/l	4/29/04	4/29/04	PEF
Selenium	<0.01	mg/l	4/29/04	4/29/04	PEF
Silicon	6.4	mg/l	4/29/04	4/29/04	PEF
Sodium	58	mg/l	4/29/04	4/29/04	PEF
Thallium	<0.01	mg/l	4/29/04	4/29/04	PEF
Zinc	0.017	mg/l	4/29/04	4/29/04	PEF
(1) EPA Method 300.0 A					
Sulfate	190	mg/l		5/7/04	RAF
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	<0.01	mg/l		4/28/04 10:59	DWK

Life Science Laboratories, Inc.

Date Printed: 5/20/04

Analysis performed at: *(1) LSL Central, (2) LSL North, (3) LSL Finger Lakes, (4) LSL Southern Tier, (5) LSL MidLakes*

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: AP-MW7B-0404 **LSL Sample ID:** 0406259-007

Location: Airco Parcel

Sampled: 04/27/04 15:45 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 350.1 Ammonia					
Ammonia as N	0.057	mg/l		5/7/04	DRB
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable	0.011	mg/l	5/6/04	5/12/04	DWK
(1) EPA 6010 Total Metals					
Cadmium	<0.01	mg/l	4/29/04	4/29/04	PEF
Chromium	0.052	mg/l	4/29/04	4/29/04	PEF
Iron	6.0	mg/l	4/29/04	4/29/04	PEF
Lead	0.010	mg/l	4/29/04	4/29/04	PEF
Magnesium	11	mg/l	4/29/04	4/29/04	PEF
Manganese	0.14	mg/l	4/29/04	4/29/04	PEF
Selenium	<0.01	mg/l	4/29/04	4/29/04	PEF
Silicon	10	mg/l	4/29/04	4/29/04	PEF
Sodium	70	mg/l	4/29/04	4/29/04	PEF
Thallium	<0.01	mg/l	4/29/04	4/29/04	PEF
Zinc	0.075	mg/l	4/29/04	4/29/04	PEF
(1) EPA Method 300.0 A					
Sulfate	99	mg/l		4/28/04	RAF
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	<0.01	mg/l		4/28/04 13:33	DWK

Life Science Laboratories, Inc.

Date Printed: 5/20/04

Analysis performed at: *(1) LSL Central, (2) LSL North, (3) LSL Finger Lakes, (4) LSL Southern Tier, (5) LSL MidLakes*

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: AP-MW8B-0404 **LSL Sample ID:** 0406259-008

Location: Airco Parcel

Sampled: 04/27/04 14:30 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 350.1 Ammonia					
Ammonia as N	<0.03	mg/l		5/7/04	DRB
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable	<0.002	mg/l	5/6/04	5/12/04	DWK
(1) EPA 6010 Total Metals					
Cadmium	<0.01	mg/l	4/29/04	4/29/04	PEF
Chromium	0.068	mg/l	4/29/04	4/29/04	PEF
Iron	1.1	mg/l	4/29/04	4/29/04	PEF
Lead	0.011	mg/l	4/29/04	4/29/04	PEF
Magnesium	37	mg/l	4/29/04	4/29/04	PEF
Manganese	0.10	mg/l	4/29/04	4/29/04	PEF
Selenium	0.043	mg/l	4/29/04	4/29/04	PEF
Silicon	7.9	mg/l	4/29/04	4/29/04	PEF
Sodium	270	mg/l	4/29/04	4/29/04	PEF
Thallium	<0.01	mg/l	4/29/04	4/29/04	PEF
Zinc	0.056	mg/l	4/29/04	4/29/04	PEF
(1) EPA Method 300.0 A					
Sulfate	300	mg/l		5/7/04	RAF
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	0.070	mg/l		4/28/04 13:33	DWK

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: AP-DUP-0404 **LSL Sample ID:** 0406259-009

Location: Airco Parcel

Sampled: 04/27/04 0:00 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 350.1 Ammonia					
Ammonia as N	<0.03	mg/l		5/7/04	DRB
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable	<0.002	mg/l	5/6/04	5/12/04	DWK
(1) EPA 6010 Total Metals					
Cadmium	<0.01	mg/l	4/29/04	4/29/04	PEF
Chromium	0.015	mg/l	4/29/04	4/29/04	PEF
Iron	0.61	mg/l	4/29/04	4/29/04	PEF
Lead	<0.01	mg/l	4/29/04	4/29/04	PEF
Magnesium	82	mg/l	4/29/04	4/29/04	PEF
Manganese	0.14	mg/l	4/29/04	4/29/04	PEF
Selenium	<0.01	mg/l	4/29/04	4/29/04	PEF
Silicon	6.9	mg/l	4/29/04	4/29/04	PEF
Sodium	61	mg/l	4/29/04	4/29/04	PEF
Thallium	<0.01	mg/l	4/29/04	4/29/04	PEF
Zinc	0.021	mg/l	4/29/04	4/29/04	PEF
(1) EPA Method 300.0 A					
Sulfate	200	mg/l		5/7/04	RAF
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	0.011	mg/l		4/28/04 13:33	DWK

Life Science Laboratories, Inc.

Date Printed: 5/20/04

Analysis performed at: *(1) LSL Central, (2) LSL North, (3) LSL Finger Lakes, (4) LSL Southern Tier, (5) LSL MidLakes*

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: AP-RB-0404 **LSL Sample ID:** 0406259-010

Location: Airco Parcel

Sampled: 04/27/04 14:45 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 350.1 Ammonia					
Ammonia as N	<0.03	mg/l		5/7/04	DRB
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable	<0.002	mg/l	5/6/04	5/12/04	DWK
(1) EPA 6010 Total Metals					
Cadmium	<0.01	mg/l	4/29/04	4/29/04	PEF
Chromium	<0.01	mg/l	4/29/04	4/29/04	PEF
Iron	<0.05	mg/l	4/29/04	4/29/04	PEF
Lead	<0.01	mg/l	4/29/04	4/29/04	PEF
Magnesium	2.2	mg/l	4/29/04	4/29/04	PEF
Manganese	<0.01	mg/l	4/29/04	4/29/04	PEF
Selenium	<0.01	mg/l	4/29/04	4/29/04	PEF
Silicon	<0.5	mg/l	4/29/04	4/29/04	PEF
Sodium	4.3	mg/l	4/29/04	4/29/04	PEF
Thallium	<0.01	mg/l	4/29/04	4/29/04	PEF
Zinc	<0.01	mg/l	4/29/04	4/29/04	PEF
(1) EPA Method 300.0 A					
Sulfate	12	mg/l		4/28/04	RAF
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	<0.01	mg/l		4/28/04 13:33	DWK

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: AP-SS-0404 **LSL Sample ID:** 0406259-011

Location: Airco Parcel

Sampled: 04/27/04 12:55 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 350.1 Ammonia					
Ammonia as N	1.4	mg/l		5/7/04	DRB
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable	0.018	mg/l	5/6/04	5/12/04	DWK
(1) EPA 6010 Total Metals					
Cadmium	<0.01	mg/l	4/29/04	4/29/04	PEF
Chromium	0.11	mg/l	4/29/04	4/29/04	PEF
Iron	<0.05	mg/l	4/29/04	4/29/04	PEF
Lead	<0.01	mg/l	4/29/04	4/29/04	PEF
Magnesium	2.5	mg/l	4/29/04	4/29/04	PEF
Manganese	<0.01	mg/l	4/29/04	4/29/04	PEF
Selenium	<0.01	mg/l	4/29/04	4/29/04	PEF
Silicon	1.8	mg/l	4/29/04	4/29/04	PEF
Sodium	25	mg/l	4/29/04	4/29/04	PEF
Thallium	<0.01	mg/l	4/29/04	4/29/04	PEF
Zinc	<0.01	mg/l	4/29/04	4/29/04	PEF
(1) EPA Method 300.0 A					
Sulfate	71	mg/l		4/28/04	RAF
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	0.10	mg/l		4/28/04 10:59	DWK

Life Science Laboratories, Inc.

Date Printed: 5/20/04

Analysis performed at: *(1) LSL Central, (2) LSL North, (3) LSL Finger Lakes, (4) LSL Southern Tier, (5) LSL MidLakes*

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: AP-SWB-0404 **LSL Sample ID:** 0406259-012

Location: Airco Parcel

Sampled: 04/27/04 14:50 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 350.1 Ammonia					
Ammonia as N	<0.03	mg/l		5/7/04	DRB
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable	<0.002	mg/l	5/6/04	5/12/04	DWK
(1) EPA 6010 Total Metals					
Cadmium	<0.01	mg/l	4/29/04	4/29/04	PEF
Chromium	<0.01	mg/l	4/29/04	4/29/04	PEF
Iron	<0.05	mg/l	4/29/04	4/29/04	PEF
Lead	<0.01	mg/l	4/29/04	4/29/04	PEF
Magnesium	2.2	mg/l	4/29/04	4/29/04	PEF
Manganese	<0.01	mg/l	4/29/04	4/29/04	PEF
Selenium	<0.01	mg/l	4/29/04	4/29/04	PEF
Silicon	<0.5	mg/l	4/29/04	4/29/04	PEF
Sodium	4.4	mg/l	4/29/04	4/29/04	PEF
Thallium	<0.01	mg/l	4/29/04	4/29/04	PEF
Zinc	0.011	mg/l	4/29/04	4/29/04	PEF
(1) EPA Method 300.0 A					
Sulfate	12	mg/l		4/28/04	RAF
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	<0.01	mg/l		4/28/04 13:33	DWK

Life Science Laboratories, Inc.

Date Printed: 5/20/04

Analysis performed at: *(1) LSL Central, (2) LSL North, (3) LSL Finger Lakes, (4) LSL Southern Tier, (5) LSL MidLakes*

Attachment E

Landfill Cap Inspection Checklist
April 2004

LANDFILL CAP INSPECTION CHECKLIST
AIRCO PARCEL, NIAGARA FALLS, NEW YORK

EA Personnel:	Chip McLeod, Robert Casey
Date:	29 April 2004
Weather:	Overcast, light rain, windy, mid-60s

1. **Inspection of ground surface for exposure of geotextile cover (cap erosion):**
   No erosion observed.

2. **Inspection of ground surface for differential settlement resulting in soil cracking or ponded water:**
   One area located at the top and east of the access road which cuts across the center of landfill; will have a better idea when grass is cut.

3. **Identification of stressed vegetation:**
   Vegetation on landfill (grass), approximately 0.5-ft high; no stressed vegetation observed.

4. **Identification of seeps, rooted vegetation (trees), and/or animal burrows:**
   Observed some small rodent burrows in topsoil throughout the site. Rodents are most likely a type of field mice. Groundwater flow structure located along the southwest side of landfill.

5. **Identification of deteriorating equipment (i.e., monitoring wells, fencing, or drainage structures):**
   Monitoring wells show some rusting of the steel protective casings. May choose to grind rust, prime, and paint before rust gets too far into the metal.

6. **Inspection of stormwater drainage swales for erosion, sloughing, or flow-through:**
   Drainage swales are clear with the exception of the one located at the southwest edge, where soils and vegetation have covered the stone swale. Should be cleaned and new stone installed.

7. **Inspection of east side of the landfill (Niagara Mohawk Power Corporation parcel) along the intermittent stream for the presence of erosion or sloughing:**
   No deficiencies observed.

8. **Inspection of access roads:**
   Access roads were in good shape. Vegetation was observed growing in many areas of the road. Defoliant should be used to remove the vegetation in the roadways.

Attachment F

Groundwater Collection and Treatment System Field Forms

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Checklist

Yes / No Wet Well Pump Station Checked

Yes / No T3 Pressure Transducer Cleaned

Yes / No T3 pH Probe Cleaned

P4A / P4B Pump Station

Yes / No Water in Station

Yes / No Pumped out?

Yes / No P6 Pressure Transducer Cleaned

Yes / No P7 Pressure Transducer Cleaned

Zero Valance Tank

Yes / No Outlet Structure Checked

Yes / No Water Level OK

Sed Pond Manifold

NA Sed Pond A Flow (scfh)

NA Sed Pond B Flow (scfh)

date: 10 NOV 2003
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Treatment System Checklist

233 CO2 Storage Tank Pressure (Normal Range = 220 - 235psi)

10,550 CO2 Storage Liquid Level (Normal Range = 2,000 - 12,000lbs)
***Note: call for refill @ 2,000 - 3,000lbs**

ON P1 Running Status (on/off)

615.8 T3 Water Elevation

6.8 T3 pH

49.6 T3 Temperature

ON P4A Running Status (on/off)

4psi P4A Pressure Gauge (normal range = 10psi)

616.0 T6 Water Elevation

ON P4B Running Status (on/off)

614.3 T7 Water Elevation

ON P7 Running Status (on/off)

date: 18 NOV 2003
personnel: R CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Checklist

Yes / No Wet Well Pump Station Checked

Yes / No T3 Pressure Transducer Cleaned

Yes / No T3 pH Probe Cleaned

P4A / P4B Pump Station

Yes / No Water in Station

Yes / No Pumped out?

Yes / No P6 Pressure Transducer Cleaned

Yes / No P7 Pressure Transducer Cleaned

Zero Valance Tank

Yes / No Outlet Structure Checked

Yes / No Water Level OK

Sed Pond Manifold

7 Sed Pond A Flow (scfh)

10 Sed Pond B Flow (scfh)

date: 25 NOV 2003
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Treatment System Checklist

221 CO2 Storage Tank Pressure (Normal Range = 220 - 235psi)

8,200 CO2 Storage Liquid Level (Normal Range = 2,000 - 12,000lbs)
***Note: call for refill @ 2,000 - 3,000lbs**

OFF P1 Running Status (on/off)

616.8 T3 Water Elevation

7.0 T3 pH

47.6 T3 Temperature

OFF P4A Running Status (on/off)

3 psi P4A Pressure Gauge (normal range = 10psi)

615.9 T6 Water Elevation

OFF P4B Running Status (on/off)

614.2 T7 Water Elevation

OFF P7 Running Status (on/off)

date: 25 NOV 2003
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Field sampling

		Standard
0.18	P4A Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.25	P4A Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.10	P4B Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.12	P4B Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.02	P7 Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.03	P7 Total Chromium Concentration (mg/L)	(0.05 mg/L)

pH Sed Pond A

pH Sed Pond B

pH Wetland

date: 26 NOV 2003
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Checklist

Yes / No Wet Well Pump Station Checked

Yes / No T3 Pressure Transducer Cleaned

Yes / No T3 pH Probe Cleaned

P4A / P4B Pump Station

Yes / No Water in Station

Yes / No Pumped out?

Yes / No P6 Pressure Transducer Cleaned

Yes / No P7 Pressure Transducer Cleaned

Zero Valance Tank

Yes / No Outlet Structure Checked

Yes / No Water Level OK

Sed Pond Manifold

7 Sed Pond A Flow (scfh)

10 Sed Pond B Flow (scfh)

date: 2 DEC 2003
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Treatment System Checklist

222 CO2 Storage Tank Pressure (Normal Range = 220 - 235psi)

5,200 CO2 Storage Liquid Level (Normal Range = 2,000 - 12,000lbs)
***Note: call for refill @ 2,000 - 3,000lbs**

OFF P1 Running Status (on/off)

616.7 T3 Water Elevation

6.6 T3 pH

42.3 T3 Temperature

OFF P4A Running Status (on/off)

2.5 P4A Pressure Gauge (normal range = 10psi)

616.2 T6 Water Elevation

ON P4B Running Status (on/off)

614.3 T7 Water Elevation

OFF P7 Running Status (on/off)

date: 2 DEC 2003
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Field sampling

		Standard
0.15	P4A Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.19	P4A Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.03	P4B Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.04	P4B Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.01	P7 Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.01	P7 Total Chromium Concentration (mg/L)	(0.05 mg/L)

pH Sed Pond A

pH Sed Pond B

pH Wetland

date: 3 DEC 2003
personnel: R. LATEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Checklist

Yes / No Wet Well Pump Station Checked

Yes / No T3 Pressure Transducer Cleaned

Yes / No T3 pH Probe Cleaned

P4A / P4B Pump Station

Yes / No Water in Station

Yes / No Pumped out?

Yes / No P6 Pressure Transducer Cleaned

Yes / No P7 Pressure Transducer Cleaned

Zero Valance Tank

Yes / No Outlet Structure Checked

Yes / No Water Level OK

Sed Pond Manifold

6 Sed Pond A Flow (scfh)
9 Sed Pond B Flow (scfh)
} reset to 7 & 10 scfh

date: 9 DEC 2003
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Field sampling

		Standard
0.25	P4A Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.29	P4A Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.13	P4B Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.14	P4B Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.00	P7 Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.01	P7 Total Chromium Concentration (mg/L)	(0.05 mg/L)

pH Sed Pond A

pH Sed Pond B

pH Wetland

date: 9 DEC 2003
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Checklist

Yes / No Wet Well Pump Station Checked

Yes / No T3 Pressure Transducer Cleaned

Yes / No T3 pH Probe Cleaned

P4A / P4B Pump Station

Yes / No Water in Station

Yes / No Pumped out?

Yes / No P6 Pressure Transducer Cleaned

Yes / No P7 Pressure Transducer Cleaned

Zero Valance Tank

Yes / No Outlet Structure Checked

Yes / No Water Level OK

Sed Pond Manifold

7 Sed Pond A Flow (scfh)

10 Sed Pond B Flow (scfh)

date: 16 DEC 2003
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Treatment System Checklist

230 CO2 Storage Tank Pressure (Normal Range = 220 - 235psi)

8,900 CO2 Storage Liquid Level (Normal Range = 2,000 - 12,000lbs)
***Note: call for refill @ 2,000 - 3,000lbs**

OFF P1 Running Status (on/off)

616.7 T3 Water Elevation

6.54 T3 pH

43.5 T3 Temperature

OFF P4A Running Status (on/off)

3 P4A Pressure Gauge (normal range = 10psi)

616.1 T6 Water Elevation

OFF P4B Running Status (on/off)

614.2 T7 Water Elevation

OFF P7 Running Status (on/off)

date: 16 DEC 2003
personnel: R CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Field sampling

		Standard
0.12	P4A Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.26	P4A Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.07	P4B Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.16	P4B Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.00	P7 Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.01	P7 Total Chromium Concentration (mg/L)	(0.05 mg/L)

pH Sed Pond A

pH Sed Pond B

pH Wetland

date: 16 DEC 2003
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Checklist

Yes / No Wet Well Pump Station Checked

Yes / No T3 Pressure Transducer Cleaned

Yes / No T3 pH Probe Cleaned

P4A / P4B Pump Station

Yes / No Water in Station

Yes / No Pumped out?

Yes / No P6 Pressure Transducer Cleaned

Yes / No P7 Pressure Transducer Cleaned

Zero Valance Tank

Yes / No Outlet Structure Checked

Yes / No Water Level OK

Sed Pond Manifold

7 Sed Pond A Flow (scfh) → turned up to 20 scfh

10 Sed Pond B Flow (scfh)

date: 23 DEC 2003
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Treatment System Checklist

234 CO2 Storage Tank Pressure (Normal Range = 220 - 235psi)

5,550 CO2 Storage Liquid Level (Normal Range = 2,000 - 12,000lbs)
*Note: call for refill @ 2,000 - 3,000lbs

ON P1 Running Status (on/off)

615.8 T3 Water Elevation

6.98 T3 pH

41.7 T3 Temperature

ON P4A Running Status (on/off)

3 P4A Pressure Gauge (normal range = 10psi)

615.9 T6 Water Elevation

OFF P4B Running Status (on/off)

614.2 T7 Water Elevation

OFF P7 Running Status (on/off)

date: 23 DEC 2003
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Field sampling

		Standard
0.15	P4A Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.24	P4A Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.09	P4B Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.16	P4B Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.00	P7 Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.01	P7 Total Chromium Concentration (mg/L)	(0.05 mg/L)

pH Sed Pond A

pH Sed Pond B

pH Wetland

date: 23 DEC 2003
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Checklist

Yes / No Wet Well Pump Station Checked

Yes / No T3 Pressure Transducer Cleaned

Yes / No T3 pH Probe Cleaned

P4A / P4B Pump Station

Yes / No Water in Station

Yes / No Pumped out?

Yes / No P6 Pressure Transducer Cleaned

Yes / No P7 Pressure Transducer Cleaned

Zero Valance Tank

Yes / No Outlet Structure Checked

Yes / No Water Level OK

Sed Pond Manifold

7 Sed Pond A Flow (scfh)

Sed Pond B Flow (scfh)

date: 30 DEC 2003
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Treatment System Checklist

225 CO2 Storage Tank Pressure (Normal Range = 220 - 235psi)

2,300 CO2 Storage Liquid Level (Normal Range = 2,000 - 12,000lbs)
*Note: call for refill @ 2,000 - 3,000lbs

OFF P1 Running Status (on/off)

615.8 T3 Water Elevation

6.60 T3 pH

45.1 T3 Temperature

ON P4A Running Status (on/off)

2.5 P4A Pressure Gauge (normal range = 10psi)

615.8 T6 Water Elevation

ON P4B Running Status (on/off)

614.5 T7 Water Elevation

ON P7 Running Status (on/off)

date: 30 DEC 2003
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Field sampling

		Standard
0.17	P4A Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.25	P4A Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.01	P4B Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.02	P4B Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.00	P7 Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.01	P7 Total Chromium Concentration (mg/L)	(0.05 mg/L)

6.74	pH Sed Pond A
7.07	pH Sed Pond B
7.35	pH Wetland

date: 30 DEC 2003
personnel: R CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Checklist

(Yes) / No Wet Well Pump Station Checked

(Yes) / No T3 Pressure Transducer Cleaned

(Yes) / No T3 pH Probe Cleaned

P4A / P4B Pump Station

(Yes) / No Water in Station

(Yes) / No Pumped out?

(Yes) / No P6 Pressure Transducer Cleaned

(Yes) / No P7 Pressure Transducer Cleaned

Zero Valance Tank

(Yes) / No Outlet Structure Checked

(Yes) / No Water Level OK

Sed Pond Manifold

10 Sed Pond A Flow (scfh)

Sed Pond B Flow (scfh)

date: 7 JAN 2003
personnel: R. CASEY

- T7 alarm, well pumped out.
- wetland pond level high, completely frozen
- Sed pond B frozen as well as sample ports 4A & 4B

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Treatment System Checklist

230 CO2 Storage Tank Pressure (Normal Range = 220 - 235psi)

8,900 CO2 Storage Liquid Level (Normal Range = 2,000 - 12,000lbs)
***Note: call for refill @ 2,000 - 3,000lbs**

OFF P1 Running Status (on/off)

615.8 T3 Water Elevation

6.9 T3 pH

34.1 T3 Temperature

ON P4A Running Status (on/off)

3 P4A Pressure Gauge (normal range = 10psi)

615.8 T6 Water Elevation

OFF P4B Running Status (on/off)

615.2 T7 Water Elevation

ON P7 Running Status (on/off)

date: 7 JAN 2003
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Field sampling

		Standard
0.20	P4A Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.31	P4A Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.02	P4B Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.03	P4B Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.00	P7 Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.01	P7 Total Chromium Concentration (mg/L)	(0.05 mg/L)

6.97	pH Sed Pond A
7.31	pH Sed Pond B
7.77	pH Wetland

date: 7 JAN 2003
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Checklist

Yes / No Wet Well Pump Station Checked

Yes / No T3 Pressure Transducer Cleaned

Yes / No T3 pH Probe Cleaned

3 per Chap

P4A / P4B Pump Station

Yes / No Water in Station

Yes / No Pumped out?

Yes / No P6 Pressure Transducer Cleaned

Yes / No P7 Pressure Transducer Cleaned

3 per Chap

Zero Valance Tank

Yes / No Outlet Structure Checked

Yes / No Water Level OK

Sed Pond Manifold

10 Sed Pond A Flow (scfh)

10 Sed Pond B Flow (scfh)

date: 15 JAN 2004
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Treatment System Checklist

225 CO2 Storage Tank Pressure (Normal Range = 220 - 235psi)

5,100 CO2 Storage Liquid Level (Normal Range = 2,000 - 12,000lbs)
***Note: call for refill @ 2,000 - 3,000lbs**

OFF P1 Running Status (on/off)

615.8 T3 Water Elevation

6.5 T3 pH

41.9 T3 Temperature

ON P4A Running Status (on/off)

3.5 P4A Pressure Gauge (normal range = 10psi)

615.9 T6 Water Elevation

ON P4B Running Status (on/off)

615.2 T7 Water Elevation

ON P7 Running Status (on/off)

date: 15 JAN 2004
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Field sampling

		Standard
0.12	P4A Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.25	P4A Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.01	P4B Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.02	P4B Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.00	P7 Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.01	P7 Total Chromium Concentration (mg/L)	(0.05 mg/L)

6.86	pH Sed Pond A
7.01	pH Sed Pond B
6.99	pH Wetland

date: 15 JAN 2004
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Checklist

(Yes) / No Wet Well Pump Station Checked

Yes / (No) T3 Pressure Transducer Cleaned

Yes / (No) T3 pH Probe Cleaned

P4A / P4B Pump Station

Yes / (No) Water in Station

Yes / (No) Pumped out?

Yes / (No) P6 Pressure Transducer Cleaned

Yes / (No) P7 Pressure Transducer Cleaned

Zero Valance Tank

(Yes) / No Outlet Structure Checked

(Yes) / No Water Level OK

Sed Pond Manifold

10 Sed Pond A Flow (scfh)

10 Sed Pond B Flow (scfh)

date: 22 JAN 2004
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Treatment System Checklist

224 CO2 Storage Tank Pressure (Normal Range = 220 - 235psi)

1,900 CO2 Storage Liquid Level (Normal Range = 2,000 - 12,000lbs)
***Note: call for refill @ 2,000 - 3,000lbs**

OFF P1 Running Status (on/off)

615.7 T3 Water Elevation

6.7 T3 pH

38.1 T3 Temperature

OFF P4A Running Status (on/off)

3.0 P4A Pressure Gauge (normal range = 10psi)

615.9 T6 Water Elevation

OFF P4B Running Status (on/off)

615.0 T7 Water Elevation

ON P7 Running Status (on/off)

date: 22 JAN 2004
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Checklist

(Yes) / No Wet Well Pump Station Checked

Yes / (No) T3 Pressure Transducer Cleaned

Yes / (No) T3 pH Probe Cleaned

P4A / P4B Pump Station

(Yes) / No Water in Station

(Yes) / No Pumped out?

Yes / (No) P6 Pressure Transducer Cleaned

Yes / (No) P7 Pressure Transducer Cleaned

Zero Valance Tank

(Yes) / No Outlet Structure Checked

(Yes) / No Water Level OK

Sed Pond Manifold

10 Sed Pond A Flow (scfh)

10 Sed Pond B Flow (scfh)

date: 17 FEB 2004
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Treatment System Checklist

225 CO2 Storage Tank Pressure (Normal Range = 220 - 235psi)

4,500 CO2 Storage Liquid Level (Normal Range = 2,000 - 12,000lbs)
***Note: call for refill @ 2,000 - 3,000lbs**

OFF P1 Running Status (on/off)

615.8 T3 Water Elevation

6.65 T3 pH

41.0 T3 Temperature

OFF P4A Running Status (on/off)

2.5 P4A Pressure Gauge (normal range = 10psi)

615.9 T6 Water Elevation

OFF P4B Running Status (on/off)

615.1 T7 Water Elevation

ON P7 Running Status (on/off)

date: 17 FEB 2004
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Field sampling

		Standard
0.16	P4A Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.19	P4A Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.02	P4B Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.03	P4B Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.00	P7 Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.01	P7 Total Chromium Concentration (mg/L)	(0.05 mg/L)

pH Sed Pond A

pH Sed Pond B

pH Wetland

date: 16 FEB 2004
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Checklist

Yes / No Wet Well Pump Station Checked

Yes / No T3 Pressure Transducer Cleaned

Yes / No T3 pH Probe Cleaned

P4A / P4B Pump Station

Yes / No Water in Station

Yes / No Pumped out?

Yes / No P6 Pressure Transducer Cleaned

Yes / No P7 Pressure Transducer Cleaned

Zero Valance Tank

Yes / No Outlet Structure Checked

Yes / No Water Level OK

Sed Pond Manifold

10 Sed Pond A Flow (scfh)

10 Sed Pond B Flow (scfh)

} Both turned down to 7 scfh

date: 26 FEB 2004
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Treatment System Checklist

233	CO2 Storage Tank Pressure (Normal Range = 220 - 235psi)
1,600	CO2 Storage Liquid Level (Normal Range = 2,000 - 12,000lbs) ***Note: call for refill @ 2,000 - 3,000lbs**
OFF	P1 Running Status (on/off)
615.7	T3 Water Elevation
6.5	T3 pH
40.5	T3 Temperature
OFF	P4A Running Status (on/off)
3	P4A Pressure Gauge (normal range = 10psi)
616.1	T6 Water Elevation
OFF	P4B Running Status (on/off)
615.0	T7 Water Elevation
ON	P7 Running Status (on/off)

date: 26 FEB 2004
personnel: R. CASEY

* TANKED FILLED TO 12,000 lbs.

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Field sampling

	Standard
P4A Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
P4A Total Chromium Concentration (mg/L)	(0.05 mg/L)
P4B Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
P4B Total Chromium Concentration (mg/L)	(0.05 mg/L)
P7 Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
P7 Total Chromium Concentration (mg/L)	(0.05 mg/L)

pH Sed Pond A

pH Sed Pond B

pH Wetland

date: 26 FEB 2004
personnel: R. CAREY

NO FIELD DATA COLLECTED

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Checklist

Yes / No Wet Well Pump Station Checked

Yes / No T3 Pressure Transducer Cleaned

Yes / No T3 pH Probe Cleaned

P4A / P4B Pump Station

Yes / No Water in Station

Yes / No Pumped out?

Yes / No P6 Pressure Transducer Cleaned

Yes / No P7 Pressure Transducer Cleaned

Zero Valance Tank

Yes / No Outlet Structure Checked

Yes / No Water Level OK

Sed Pond Manifold

7 Sed Pond A Flow (scfh)

7 Sed Pond B Flow (scfh)

> turned back up to 10 scfh due to elevated pH

date: 16 MARCH 2004
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Treatment System Checklist

225	CO2 Storage Tank Pressure (Normal Range = 220 - 235psi)
4,500	CO2 Storage Liquid Level (Normal Range = 2,000 - 12,000lbs) ***Note: call for refill @ 2,000 - 3,000lbs**
OFF	P1 Running Status (on/off)
615.8	T3 Water Elevation
6.7	T3 pH
39.6	T3 Temperature
OFF	P4A Running Status (on/off)
2.5	P4A Pressure Gauge (normal range = 10psi)
615.7	T6 Water Elevation
OFF	P4B Running Status (on/off)
615.0	T7 Water Elevation
ON	P7 Running Status (on/off)

date: 16 MARCH 2004
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Field sampling

		Standard
0.18	P4A Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.20	P4A Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.00	P4B Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.01	P4B Total Chromium Concentration (mg/L)	(0.05 mg/L)
0.00	P7 Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
0.01	P7 Total Chromium Concentration (mg/L)	(0.05 mg/L)

6.88	pH Sed Pond A
7.89	pH Sed Pond B
8.48	pH Wetland

date: 16 MARCH 2004
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Checklist

Yes / No Wet Well Pump Station Checked

Yes / No T3 Pressure Transducer Cleaned

Yes / No T3 pH Probe Cleaned

P4A / P4B Pump Station

Yes / No Water in Station

Yes / No Pumped out?

Yes / No P6 Pressure Transducer Cleaned

Yes / No P7 Pressure Transducer Cleaned

Zero Valance Tank

Yes / No Outlet Structure Checked

Yes / No Water Level OK

Sed Pond Manifold

0 Sed Pond A Flow (scfh)

Sed Pond B Flow (scfh)

date: 25 MAR 2004
personnel: R. CASEY

- System down due to low CO_2 level

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Treatment System Checklist

0	CO2 Storage Tank Pressure (Normal Range = 220 - 235psi)
	CO2 Storage Liquid Level (Normal Range = 2,000 - 12,000lbs) ***Note: call for refill @ 2,000 - 3,000lbs**
OFF	P1 Running Status (on/off)
616.7	T3 Water Elevation
7.0	T3 pH
	T3 Temperature
OFF	P4A Running Status (on/off)
2.5	P4A Pressure Gauge (normal range = 10psi)
615.6	T6 Water Elevation
ON	P4B Running Status (on/off)
615.0	T7 Water Elevation
ON	P7 Running Status (on/off)

date: R Casey
personnel: 25 MAR 2004

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Field sampling

	Standard
P4A Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
P4A Total Chromium Concentration (mg/L)	(0.05 mg/L)
P4B Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
P4B Total Chromium Concentration (mg/L)	(0.05 mg/L)
P7 Hexavalent, Chromium Concentration (mg/L)	(0.011 mg/L)
P7 Total Chromium Concentration (mg/L)	(0.05 mg/L)

pH Sed Pond A

pH Sed Pond B

6.41 pH Wetland

date: 25MAR2004
personnel: R. CASEY

* NO FIELD DATA COLLECTED SAMPLES FOR LABORATORY ANALYSIS COLLECTED @ 1140!

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Treatment System Checklist

_____	CO2 Storage Tank Pressure (Normal Range = 220 - 235psi)
3,200lb	CO2 Storage Liquid Level (Normal Range = 2,000 - 12,000lbs) → tank filled to 12,000 lbs *Note: call for refill @ 2,000 - 3,000lbs
ON	P1 Running Status (on/off)
6178	T3 Water Elevation
7.0	T3 pH
50.0	T3 Temperature
OFF	P4A Running Status (on/off)
NA	P4A Pressure Gauge (normal range = 10psi)
605.6	T6 Water Elevation
OFF	P4B Running Status (on/off)
616.3	T7 Water Elevation
ON	P7 Running Status (on/off)

date: 16 APR 2004
personnel: R. CASEY

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Checklist

Yes / No Wet Well Pump Station Checked

Yes / No T3 Pressure Transducer Cleaned

Yes / No T3 pH Probe Cleaned

P4A / P4B Pump Station

Yes / No Water in Station → 12" from top.

Yes / No Pumped out?

Yes / No P6 Pressure Transducer Cleaned

Yes / No P7 Pressure Transducer Cleaned

Zero Valance Tank

Yes / No Outlet Structure Checked

Yes / No Water Level OK

Sed Pond Manifold

5 / 7 Sed Pond A Flow (scfh) → turned up to 7

Sed Pond B Flow (scfh)

date:
personnel:

Airco Parcel
Groundwater Collection and Treatment System
Niagara Falls, New York

Treatment System Checklist

221	CO2 Storage Tank Pressure (Normal Range = 220 - 235psi)
1,750	CO2 Storage Liquid Level (Normal Range = 2,000 - 12,000lbs) ***Note: call for refill @ 2,000 - 3,000lbs**
ON	P1 Running Status (on/off)
615.8	T3 Water Elevation
6.49	T3 pH
45.1	T3 Temperature
OFF	P4A Running Status (on/off)
30 psi	P4A Pressure Gauge (normal range = 10psi)
616.0	T6 Water Elevation
ON	P4B Running Status (on/off)
612.7	T7 Water Elevation
OFF	P7 Running Status (on/off)

date: 9 DEC 2003
personnel: R. CASEY

Attachment G

Laboratory Analytical Results for Groundwater Collection and Treatment System Discharge Sampling

LSL

Scott Graham
EA Engineering, Science and Technology
6731 Collamer Road
East Syracuse, NY 13057-9759

Phone: (315) 431-4610
FAX: (315) 431-4280

Laboratory Analysis Report

For

EA Engineering, Science and Technology

Client Project ID:

Witmer Rd. Landfill

LSL Project ID: **0405657**

Receive Date/Time: 04/16/04 16:47

Project Received by: ALH

Life Science Laboratories, Inc.

LSL Central Lab
5854 Butternut Drive
East Syracuse, NY 13057
Tel. (315) 445-1105
Fax (315) 445-1301
NYS DOH ELAP #10248
PA DEP #68-2556

LSL North Lab
131 St. Lawrence Avenue
Waddington, NY 13694
Tel. (315) 388-4476
Fax (315) 388-4061
NYS DOH ELAP #10900

LSL Finger Lakes Lab
16 N. Main St., PO Box 424
Wayland, NY 14572
Tel. (585) 728-3320
Fax (585) 728-2711
NYS DOH ELAP #11667

LSL Southern Tier Lab
30 East Main Street
Cuba, NY 14727
Tel. (585) 968-2640
Fax (585) 968-0906
NYS DOH ELAP #10760

LSL MidLakes Lab
699 South Main Street
Canandaigua, NY 14424
Tel. (585) 396-0270
Fax (585) 396-0377
NYS DOH ELAP #11369

This report was reviewed by: Wanda Water QC *Date:* 5/4/04

Life Science Laboratories, Inc.

A copy of this report was sent to:

Date Printed: 5/4/04

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: WRL-EFF1 - 041604 **LSL Sample ID:** 0405657-001

Location: Witmer Rd. Landfill

Sampled: 04/16/04 13:15 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 150.1 pH					
pH	7.8	Std Units		5/3/04 16:55	GIS
pH Measurement Temperature	25	Degrees C			
(1) EPA 160.2 Total Suspended Solids					
Total Suspended Solids @ 103-105 C	9.5	mg/l		4/20/04	MM
(1) EPA 200.7 Total Metals					
Barium	<0.2	mg/l	4/22/04	4/20/04	PEF
Chromium	<0.01	mg/l	4/22/04	4/20/04	PEF
Copper	<0.01	mg/l	4/22/04	4/20/04	PEF
Iron	0.38	mg/l	4/22/04	4/20/04	PEF
Nickel	<0.01	mg/l	4/22/04	4/20/04	PEF
Selenium	<0.01	mg/l	4/22/04	4/20/04	PEF
Thallium	<0.01	mg/l	4/22/04	4/20/04	PEF
Zinc	0.014	mg/l	4/22/04	4/20/04	PEF
(1) EPA 350.1 Ammonia					
Ammonia as N	1.8	mg/l		4/28/04	DRB
(1) EPA 351.2 TKN as N					
Total Kjeldahl Nitrogen	3.2	mg/l	4/26/04	4/27/04	DRB
(1) EPA 405.1 BOD-5					
Biochemical Oxygen Demand, 5 Day	<4	mg/l		4/16/04 21:05	MM
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable	0.0045	mg/l	4/22/04	4/27/04	DWK
(1) EPA 601 Halocarbons by 624(Partial List)					
1,1-Dichloroethane	<1	ug/l		4/25/04	BD
Trichloroethene	<1	ug/l		4/25/04	BD
Surrogate (Tol-d8)	117	%R		4/25/04	BD
Surrogate (4-BFB)	116	%R		4/25/04	BD
Surrogate (1,2-DCA-d4)	96	%R		4/25/04	BD
(1) EPA Method 300.0 A					
Nitrate as N	0.23	mg/l		4/16/04 19:54	RAF
Nitrite as N	<0.1	mg/l		4/16/04 19:54	RAF
(1) HACH 8000 COD					
Chemical Oxygen Demand	12	mg/l		4/26/04	DWK
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	0.013	mg/l		4/16/04 21:30	KBB
(1) SM18-2540C Total Dissolved Solids					
Total Dissolved Solids @ 180 C	470	mg/l		4/20/04	MM

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: Trip Blank
Location: Witmer Rd. Landfill
LSL Sample ID: 0405657-002
Sampled: 04/16/04 0:00 **Sampled By:** RSC
Sample Matrix: TB

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 601 Halocarbons by 624(Partial List)					
1,1-Dichloroethane	<1	ug/l		4/25/04	BD
Trichloroethene	<1	ug/l		4/25/04	BD
Surrogate (Tol-d8)	117	%R		4/25/04	BD
Surrogate (4-BFB)	117	%R		4/25/04	BD
Surrogate (1,2-DCA-d4)	98	%R		4/25/04	BD

SURROGATE RECOVERY CONTROL LIMITS FOR ORGANIC METHODS

8/14/02

Method	Surrogate(s)	Water Limits, %R	SHW Limits, %R
EPA 504	TCMX	80-120	NA
EPA 508	DCB	70-130	NA
EPA 515.4	DCAA	70-130	NA
EPA 524.2	1,2-DCA-d4, 4-BFB	80-120	NA
EPA 525.2	1,3-DM-2-NB, TPP, Per-d12	70-130	NA
EPA 526	1,3-DM-2-NB, TPP	70-130	NA
EPA 528	2-CP-3,4,5,6-d4, 2,4,6-TBP	70-130	NA
EPA 551.1	Decafluorobiphenyl	80-120	NA
EPA 552.2	2,3-DBPA	80-120	NA
EPA 601	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 602	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 608	DCB	30-150	NA
EPA 624	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 625, AE	2-Fluorophenol	21-110	NA
EPA 625, AE	Phenol-d5	10-110	NA
EPA 625, AE	2,4,6-Tribromophenol	10-123	NA
EPA 625, BN	Nitrobenzene-d5	35-114	NA
EPA 625, BN	2-Fluorobiphenyl	43-116	NA
EPA 625, BN	Terphenyl-d14	33-141	NA
EPA 8010	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8020	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8021	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8081	TCMX, DCB	30-150	30-150
EPA 8082	DCB	30-150	30-150
EPA 8151	DCAA	30-130	30-120
EPA 8260	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8270, AE	2-Fluorophenol	21-110	25-121
EPA 8270, AE	Phenol-d5	10-110	24-113
EPA 8270, AE	2,4,6-Tribromophenol	10-123	19-122
EPA 8270, BN	Nitrobenzene-d5	35-114	23-120
EPA 8270, BN	2-Fluorobiphenyl	43-116	30-115
EPA 8270, BN	Terphenyl-d14	33-141	18-137
DOH 310-13	Dodecane	40-110	40-110
DOH 310-14	Dodecane	40-110	40-110
DOH 310-15	Dodecane	40-110	40-110
DOH 310-34*	4-BFB	50-150	50-150
8015M_GRO*	4-BFB	50-150	50-150
8015M_DRO*	Terphenyl-d14	50-150	50-150

*Run by GC/MS.

Units Key:	ug/l = microgram per liter ug/kg = microgram per kilogram mg/l = milligram per liter mg/kg = milligram per kilogram %R = Percent Recovery

LSL Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Phone # (315) 445-1105 Telefax # (315) 445-1301

Chain of Custody Record

040567
EAEng

Client: EA Engineering Science & Tech. Phone # 431-4610
Address: 6731 Collamer Rd. Telefax # 431-4280
E. Syracuse, NY 13057

Authorization:

Contact Person: Scott Graham

LSL Project #:

Client's Site I.D.: Witmer Rd. Landfill

Client's Project I.D.:

LSL Sample Number	Client's Sample Identifications	Sample Date	Sample Time	Type grab	Type comp.	Matrix	Preserv. Added	Containers #	Containers size/type	Analyses	Preserv. Check
	WRL-EFF1-041604	4/16/04	1315	X		GW	H_2SO_4	1	500 ml	TKN,NH3,COD	001A
	↓	↓	↓	↓		↓	None	1	500 ml	BOD,TSS,pH,NO3,NO2,Cr+6, TDS	001B
							HNO_3	1	500 ml	Ba,Cr,Cu,Fe,Ni,Ni,Se,Tl,Zn	001C
							HCL	2	40 ml	601/602	001D
						↓	H_2SO_4	1	Liter(g)	Phenols	001E
							HCL	2	40 ml	Trip Blank	~~001F~~ 002 A,B

Notes and Hazard identifications:

Custody Transfers

		Date	Time
Sampled By: Robert S Eabey	Received By:		
Relinquished By:	Received By:		
Relinquished By:	Received for Lab By: 04-16-04 16:47 RCVD		

Shipment Method: DRIP OFF

Samples Received Intact: Y

Scott Graham
EA Engineering, Science and Technology
6731 Collamer Road
East Syracuse, NY 13057-9759

Phone: (315) 431-4610
FAX: (315) 431-4280

Laboratory Analysis Report
For
EA Engineering, Science and Technology

LSL Project ID: **0404327**

Receive Date/Time: 03/26/04 8:54

Project Received by: GS

Life Science Laboratories, Inc.

LSL Central Lab
5854 Butternut Drive
East Syracuse, NY 13057
Tel. (315) 445-1105
Fax (315) 445-1301
NYS DOH ELAP #10248
PA DEP #68-2556

LSL North Lab
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Fax (315) 388-4061
NYS DOH ELAP #10900

LSL Finger Lakes Lab
16 N. Main St., PO Box 424
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LSL MidLakes Lab
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Tel. (585) 396-0270
Fax (585) 396-0377
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This report was reviewed by: Linda Waters QC **Date:** 4/9/04

Life Science Laboratories, Inc.

A copy of this report was sent to:

Date Printed: 4/9/04

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: WRL-EFF7 032504 **LSL Sample ID:** 0404327-001

Location: Witmer Rd. Landfill

Sampled: 03/25/04 11:40 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) Electronic Report Generation					
Report Fee					
(1) EPA 150.1 pH					
pH	7.4	Std. Units		3/26/04 09:45	DSB
pH Measurement Temperature	25	Degrees C		3/26/04 09:45	DSB
NYS DOH ELAP specifications require pH to be measured within one hour of sample collection.					
(1) EPA 160.2 Total Suspended Solids					
Total Suspended Solids @ 103-105 C	14	mg/l		3/29/04	MM
(1) EPA 200.7 Total Metals					
Barium	<0.2	mg/l	3/28/04	3/30/04	PEF
Chromium	<0.01	mg/l	3/28/04	3/30/04	PEF
Copper	<0.01	mg/l	3/28/04	3/30/04	PEF
Iron	7.6	mg/l	3/28/04	3/30/04	PEF
Nickel	<0.01	mg/l	3/28/04	3/30/04	PEF
Selenium	0.015	mg/l	3/28/04	3/30/04	PEF
Thallium	0.012	mg/l	3/28/04	3/30/04	PEF
Zinc	<0.01	mg/l	3/28/04	3/30/04	PEF
(1) EPA 350.1 Ammonia					
Ammonia as N	3.0	mg/l		4/7/04	DRB
(1) EPA 351.2 TKN as N					
Total Kjeldahl Nitrogen	6.4	mg/l	4/7/04	4/8/04	DRB
(1) EPA 405.1 BOD-5					
Biochemical Oxygen Demand, 5 Day	12	mg/l		3/26/04 20:02	MM/KB
(1) EPA 420.1 Recoverable Phenolics LL					B
Phenolics, Total Recoverable	0.013	mg/l	4/8/04	4/8/04	DWK
(1) EPA 601/602 Volatiles by 624					
Benzene	<1	ug/l		4/2/04	BD
Bromodichloromethane	<1	ug/l		4/2/04	BD
Bromoform	<1	ug/l		4/2/04	BD
Bromomethane	<1	ug/l		4/2/04	BD
Carbon tetrachloride	<1	ug/l		4/2/04	BD
Chlorobenzene	<1	ug/l		4/2/04	BD
Chloroethane	<1	ug/l		4/2/04	BD
2-Chloroethylvinyl ether	<10	ug/l		4/2/04	BD
Chloroform	<1	ug/l		4/2/04	BD
Chloromethane	<1	ug/l		4/2/04	BD
Dibromochloromethane	<1	ug/l		4/2/04	BD
1,2-Dichlorobenzene	<1	ug/l		4/2/04	BD
1,3-Dichlorobenzene	<1	ug/l		4/2/04	BD
1,4-Dichlorobenzene	<1	ug/l		4/2/04	BD
Dichlorodifluoromethane	<1	ug/l		4/2/04	BD
1,1-Dichloroethane	<1	ug/l		4/2/04	BD
1,2-Dichloroethane	<1	ug/l		4/2/04	BD
1,1-Dichloroethene	<1	ug/l		4/2/04	BD

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: WRL-EFF7 032504 **LSL Sample ID:** 0404327-001

Location: Witmer Rd. Landfill

Sampled: 03/25/04 11:40 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 601/602 Volatiles by 624					
trans-1,2-Dichloroethene	<1	ug/l		4/2/04	BD
1,2-Dichloropropane	<1	ug/l		4/2/04	BD
cis-1,3-Dichloropropene	<1	ug/l		4/2/04	BD
trans-1,3-Dichloropropene	<1	ug/l		4/2/04	BD
Ethyl benzene	<1	ug/l		4/2/04	BD
Methylene chloride	<1	ug/l		4/2/04	BD
Vinyl chloride	<1	ug/l		4/2/04	BD
Tetrachloroethene	<1	ug/l		4/2/04	BD
Toluene	<1	ug/l		4/2/04	BD
1,1,1-Trichloroethane	<1	ug/l		4/2/04	BD
Trichloroethene	<1	ug/l		4/2/04	BD
Trichlorofluoromethane (Freon 11)	<1	ug/l		4/2/04	BD
1,1,1,2-Tetrachloroethane	<1	ug/l		4/2/04	BD
Surrogate (1,2-DCA-d4)	83	%R		4/2/04	BD
Xylenes (Total)	<1	ug/l		4/2/04	BD
Surrogate (Tol-d8)	103	%R		4/2/04	BD
Surrogate (4-BFB)	97	%R		4/2/04	BD
(1) EPA Method 300.0 A					
Nitrate as N	<0.1	mg/l		3/26/04 16:02	RAF
Nitrite as N	<0.1	mg/l		3/26/04 16:02	RAF
(1) HACH 8000 COD					
Chemical Oxygen Demand	14	mg/l		4/7/04	DWK
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	<0.01	mg/l		3/26/04 09:10	DWK
(1) SM18-2540C Total Dissolved Solids					
Total Dissolved Solids @ 180 C	850	mg/l		3/30/04	MM

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: Trip Blank **LSL Sample ID:** 0404327-002

Location:

Sampled: 03/25/04 0:00 **Sampled By:** RSC

Sample Matrix: TB

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 601/602 Volatiles by 624					
Benzene	<1	ug/l		4/2/04	BD
Bromodichloromethane	2.4	ug/l		4/2/04	BD
Laboratory contamination is suspected.					
Bromoform	<1	ug/l		4/2/04	BD
Bromomethane	<1	ug/l		4/2/04	BD
Carbon tetrachloride	<1	ug/l		4/2/04	BD
Chlorobenzene	<1	ug/l		4/2/04	BD
Chloroethane	<1	ug/l		4/2/04	BD
2-Chloroethylvinyl ether	<10	ug/l		4/2/04	BD
Chloroform	3.9	ug/l		4/2/04	BD
Laboratory contamination is suspected.					
Chloromethane	<1	ug/l		4/2/04	BD
Dibromochloromethane	1.1	ug/l		4/2/04	BD
Laboratory contamination is suspected.					
1,2-Dichlorobenzene	<1	ug/l		4/2/04	BD
1,3-Dichlorobenzene	<1	ug/l		4/2/04	BD
1,4-Dichlorobenzene	<1	ug/l		4/2/04	BD
Dichlorodifluoromethane	<1	ug/l		4/2/04	BD
1,1-Dichloroethane	<1	ug/l		4/2/04	BD
1,2-Dichloroethane	<1	ug/l		4/2/04	BD
1,1-Dichloroethene	<1	ug/l		4/2/04	BD
trans-1,2-Dichloroethene	<1	ug/l		4/2/04	BD
1,2-Dichloropropane	<1	ug/l		4/2/04	BD
cis-1,3-Dichloropropene	<1	ug/l		4/2/04	BD
trans-1,3-Dichloropropene	<1	ug/l		4/2/04	BD
Ethyl benzene	<1	ug/l		4/2/04	BD
Methylene chloride	<1	ug/l		4/2/04	BD
Vinyl chloride	<1	ug/l		4/2/04	BD
Tetrachloroethene	<1	ug/l		4/2/04	BD
Toluene	<1	ug/l		4/2/04	BD
1,1,1-Trichloroethane	<1	ug/l		4/2/04	BD
Trichloroethene	<1	ug/l		4/2/04	BD
Trichlorofluoromethane (Freon 11)	<1	ug/l		4/2/04	BD
1,1,1,2-Tetrachloroethane	<1	ug/l		4/2/04	BD
Surrogate (1,2-DCA-d4)	83	%R		4/2/04	BD
Xylenes (Total)	<1	ug/l		4/2/04	BD
Surrogate (Tol-d8)	105	%R		4/2/04	BD
Surrogate (4-BFB)	96	%R		4/2/04	BD

SURROGATE RECOVERY CONTROL LIMITS FOR ORGANIC METHODS

8/14/02

Method	Surrogate(s)	Water Limits, %R	SHW Limits, %R
EPA 504	TCMX	80-120	NA
EPA 508	DCB	70-130	NA
EPA 515.4	DCAA	70-130	NA
EPA 524.2	1,2-DCA-d4, 4-BFB	80-120	NA
EPA 525.2	1,3-DM-2-NB, TPP, Per-d12	70-130	NA
EPA 526	1,3-DM-2-NB, TPP	70-130	NA
EPA 528	2-CP-3,4,5,6-d4, 2,4,6-TBP	70-130	NA
EPA 551.1	Decafluorobiphenyl	80-120	NA
EPA 552.2	2,3-DBPA	80-120	NA
EPA 601	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 602	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 608	DCB	30-150	NA
EPA 624	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 625, AE	2-Fluorophenol	21-110	NA
EPA 625, AE	Phenol-d5	10-110	NA
EPA 625, AE	2,4,6-Tribromophenol	10-123	NA
EPA 625, BN	Nitrobenzene-d5	35-114	NA
EPA 625, BN	2-Fluorobiphenyl	43-116	NA
EPA 625, BN	Terphenyl-d14	33-141	NA
EPA 8010	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8020	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8021	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8081	TCMX, DCB	30-150	30-150
EPA 8082	DCB	30-150	30-150
EPA 8151	DCAA	30-130	30-120
EPA 8260	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8270, AE	2-Fluorophenol	21-110	25-121
EPA 8270, AE	Phenol-d5	10-110	24-113
EPA 8270, AE	2,4,6-Tribromophenol	10-123	19-122
EPA 8270, BN	Nitrobenzene-d5	35-114	23-120
EPA 8270, BN	2-Fluorobiphenyl	43-116	30-115
EPA 8270, BN	Terphenyl-d14	33-141	18-137
DOH 310-13	Dodecane	40-110	40-110
DOH 310-14	Dodecane	40-110	40-110
DOH 310-15	Dodecane	40-110	40-110
DOH 310-34*	4-BFB	50-150	50-150
8015M_GRO*	4-BFB	50-150	50-150
8015M_DRO*	Terphenyl-d14	50-150	50-150

*Run by GC/MS.

Units Key:	ug/l = microgram per liter ug/kg = microgram per kilogram mg/l = milligram per liter mg/kg = milligram per kilogram %R = Percent Recovery

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Phone # (315) 445-1105 Telefax # (315) 445-1301

Chain of Custody Record

Client: EA Engineering Science & Tech. Phone # 431-4610
Address: 6731 Collamer Rd. Telefax # 431-4280
E. Syracuse, NY 13057

Authorization:

Contact Person: Scott Graham

LSL Project #: 0404327 EAEng

Client's Site I.D.: Witmer Rd. Landfill

Client's Project I.D.:

LSL Sample Number	Client's Sample Identifications	Sample Date	Sample Time	Type grab	Type comp.	Matrix	Preserv. Added	Containers #	Containers size/type	Analyses	Preserv. Check
001 A	WRL-EFF7-032504	25MAR.04	1140	X		GW	H_2SO_4	1	500 ml	TKN,NH3,COD	
B	↓	↓	↓	↓		↓	None	1	500 ml	BOD,TSS,pH,NO3,NO2,Cr+6	
C							HNO_3	1	500 ml	Ba,Cr,Cu,Fe,Ni,Ni,Se,Tl,Zn	
D E							HCL	2	40 ml	601/602	
F						↓	H_2SO_4	1	Liter(g)	Phenols	
002 AB											
							HCL	1	40 ml	Trip Blank	

Notes and Hazard identifications:

Custody Transfers

		Date	Time
Sampled By: Robert S. Curry	Received By:		
Relinquished By:	Received By:		
Relinquished By:	Received for Lab By:	03-26-04	08:54 RCVD

Shipment Method: Drop off

Scott Graham
EA Engineering, Science and Technology
6731 Collamer Road
East Syracuse, NY 13057-9759

Phone: (315) 431-4610
FAX: (315) 431-4280

Laboratory Analysis Report

For

EA Engineering, Science and Technology

Client Project ID:

12040.87.0003

LSL Project ID: **0402253**

Receive Date/Time: 02/17/04 13:08

Project Received by: DSB

Life Science Laboratories, Inc.

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NYS DOH ELAP #11667

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NYS DOH ELAP #11369

This report was reviewed by: galeg sutton QAO *Date:* 3-3-04

Life Science Laboratories, Inc

A copy of this report was sent to:

Date Printed: 3/3/04

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: WRL-EFF7-0204 **LSL Sample ID:** 0402253-001

Location: Witmer Rd. Landfill

Sampled: 02/17/04 10:00 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 150.1 pH					
pH	6.3	Std. Units		2/18/04 09:00	DSB
pH Measurement Temperature	25	Degrees C		2/18/04 09:00	DSB
NYS DOH ELAP specifications require pH to be measured within one hour of sample collection.					
(1) EPA 160.2 Total Suspended Solids					
Total Suspended Solids @ 103-105 C	110	mg/l		2/19/04	MM
(1) EPA 200.7 Total Metals					
Barium	<0.2	mg/l	2/20/04	2/20/04	PEF
Chromium	0.012	mg/l	2/20/04	2/20/04	PEF
Copper	<0.01	mg/l	2/20/04	2/20/04	PEF
Iron	64	mg/l	2/20/04	2/20/04	PEF
Nickel	<0.01	mg/l	2/20/04	2/20/04	PEF
Selenium	<0.01	mg/l	2/20/04	2/20/04	PEF
Thallium	<0.01	mg/l	2/20/04	2/20/04	PEF
Zinc	0.016	mg/l	2/20/04	2/20/04	PEF
(1) EPA 350.1 Ammonia					
Ammonia as N	4.7	mg/l		2/23/04	DRB
(1) EPA 351.2 TKN as N					
Total Kjeldahl Nitrogen	6.0	mg/l	2/25/04	2/26/04	DRB
(1) EPA 405.1 BOD-5					
Biochemical Oxygen Demand, 5 Day	16	mg/l		2/18/04 15:50	MM
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable	0.022	mg/l	3/1/04	3/2/04	DWK
(1) EPA 601/602 Volatiles by 624					
Benzene	<1	ug/l		2/23/04	BD
Bromodichloromethane	<1	ug/l		2/23/04	BD
Bromoform	<1	ug/l		2/23/04	BD
Bromomethane	<1	ug/l		2/23/04	BD
Carbon tetrachloride	<1	ug/l		2/23/04	BD
Chlorobenzene	<1	ug/l		2/23/04	BD
Chloroethane	<1	ug/l		2/23/04	BD
2-Chloroethylvinyl ether	<10	ug/l		2/23/04	BD
Chloroform	<1	ug/l		2/23/04	BD
Chloromethane	<1	ug/l		2/23/04	BD
Dibromochloromethane	<1	ug/l		2/23/04	BD
1,2-Dichlorobenzene	<1	ug/l		2/23/04	BD
1,3-Dichlorobenzene	<1	ug/l		2/23/04	BD
1,4-Dichlorobenzene	<1	ug/l		2/23/04	BD
Dichlorodifluoromethane	<1	ug/l		2/23/04	BD
1,1-Dichloroethane	<1	ug/l		2/23/04	BD
1,2-Dichloroethane	<1	ug/l		2/23/04	BD
1,1-Dichloroethene	<1	ug/l		2/23/04	BD
trans-1,2-Dichloroethene	<1	ug/l		2/23/04	BD
1,2-Dichloropropane	<1	ug/l		2/23/04	BD
cis-1,3-Dichloropropene	<1	ug/l		2/23/04	BD

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: WRL-EFF7-0204 **LSL Sample ID:** 0402253-001

Location: Witmer Rd. Landfill

Sampled: 02/17/04 10:00 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 601/602 Volatiles by 624					
trans-1,3-Dichloropropene	<1	ug/l		2/23/04	BD
Ethyl benzene	<1	ug/l		2/23/04	BD
Methylene chloride	<1	ug/l		2/23/04	BD
Vinyl chloride	<1	ug/l		2/23/04	BD
Tetrachloroethene	<1	ug/l		2/23/04	BD
Toluene	<1	ug/l		2/23/04	BD
1,1,1-Trichloroethane	<1	ug/l		2/23/04	BD
Trichloroethene	<1	ug/l		2/23/04	BD
Trichlorofluoromethane (Freon 11)	<1	ug/l		2/23/04	BD
1,1,1,2-Tetrachloroethane	<1	ug/l		2/23/04	BD
Surrogate (1,2-DCA-d4)	102	%R		2/23/04	BD
Xylenes (Total)	<1	ug/l		2/23/04	BD
Surrogate (Tol-d8)	110	%R		2/23/04	BD
Surrogate (4-BFB)	120	%R		2/23/04	BD
(1) EPA Method 300.0 A					
Nitrate as N	<0.1	mg/l		2/17/04 23:59	AMW
Nitrite as N	<0.1	mg/l		2/17/04 23:59	AMW
(1) HACH 8000 COD					
Chemical Oxygen Demand	40	mg/l		2/24/04	DWK
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	<0.01	mg/l		2/17/04 14:55	DWK

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: Trip Blank **LSL Sample ID:** 0402253-002

Location:

Sampled: 02/17/04 0:00 **Sampled By:** RSC

Sample Matrix: TB

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 601/602 Volatiles by 624					
Benzene	<1	ug/l		2/23/04	BD
Bromodichloromethane	3.6	ug/l		2/23/04	BD
Bromoform	<1	ug/l		2/23/04	BD
Bromomethane	<1	ug/l		2/23/04	BD
Carbon tetrachloride	<1	ug/l		2/23/04	BD
Chlorobenzene	<1	ug/l		2/23/04	BD
Chloroethane	<1	ug/l		2/23/04	BD
2-Chloroethylvinyl ether	<10	ug/l		2/23/04	BD
Chloroform	3.3	ug/l		2/23/04	BD
Chloromethane	<1	ug/l		2/23/04	BD
Dibromochloromethane	2.0	ug/l		2/23/04	BD
1,2-Dichlorobenzene	<1	ug/l		2/23/04	BD
1,3-Dichlorobenzene	<1	ug/l		2/23/04	BD
1,4-Dichlorobenzene	<1	ug/l		2/23/04	BD
Dichlorodifluoromethane	<1	ug/l		2/23/04	BD
1,1-Dichloroethane	<1	ug/l		2/23/04	BD
1,2-Dichloroethane	<1	ug/l		2/23/04	BD
1,1-Dichloroethene	<1	ug/l		2/23/04	BD
trans-1,2-Dichloroethene	<1	ug/l		2/23/04	BD
1,2-Dichloropropane	<1	ug/l		2/23/04	BD
cis-1,3-Dichloropropene	<1	ug/l		2/23/04	BD
trans-1,3-Dichloropropene	<1	ug/l		2/23/04	BD
Ethyl benzene	<1	ug/l		2/23/04	BD
Methylene chloride	<1	ug/l		2/23/04	BD
Vinyl chloride	<1	ug/l		2/23/04	BD
Tetrachloroethene	<1	ug/l		2/23/04	BD
Toluene	<1	ug/l		2/23/04	BD
1,1,1-Trichloroethane	<1	ug/l		2/23/04	BD
Trichloroethene	<1	ug/l		2/23/04	BD
Trichlorofluoromethane (Freon 11)	<1	ug/l		2/23/04	BD
1,1,1,2-Tetrachloroethane	<1	ug/l		2/23/04	BD
Surrogate (1,2-DCA-d4)	102	%R		2/23/04	BD
Xylenes (Total)	<1	ug/l		2/23/04	BD
Surrogate (Tol-d8)	109	%R		2/23/04	BD
Surrogate (4-BFB)	121	%R		2/23/04	BD

Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057
Phone # (315) 445-1105 Telefax # (315) 445-1301

Chain of Custody Record

Client: EA Engineering Science & Tech. Phone # 431-4610
Address: 6731 Collamer Rd. Telefax # 431-4280
E. Syracuse, NY 13057

Authorization:

Contact Person: Scott Graham

LSL Project #: ~~0402253~~ EAEng

Client's Site I.D.: Witmer Rd. Landfill

Client's Project I.D.: 12040.87.0003

LSL Sample Number	Client's Sample Identifications	Sample Date	Sample Time	Type grab	Type comp.	Matrix	Preserv. Added	Containers #	Containers size/type	Analyses	Preserv. Check
001 A	WRL-EFF7-0204	17FEB04	1000	X		GW	H_2SO_4	1	500 ml	TKN,NH3,COD	
B	↓	↓	↓	↓		↓	None	1	500 ml	BOD,TSS,pH,NO3,NO2,Cr+6	
C							HNO_3	1	500 ml	Ba,Cr,Cu,Fe,Ni,Ni,Se,Tl,Zn	
D E							HCL	2	40 ml	601/602	
F								1		Phenolics	
002							HCL	~~2~~ 3	40 ml	Trip Blank	

Notes and Hazard identifications:

Custody Transfers		Date	Time
Sampled By: Robert S. Casey	Received By:		
Relinquished By:	Received By:		
Relinquished By: Robert S Casey	Received for Lab By: D G F Z	02-17-04	13:08 RCVD

Shipment Method: DROP OFF Samples Received Intact: (Y) N 19°C

LSL

QUICK RESPONSE FAX OF LABORATORY RESULTS

1-22-04
Today's Date

PROJECT ID: **BOC Witmer Road**

TO:

Robert S. Casey
EA Engineering, Science and Technology
(315) 431-4280

COPY TO:

FROM: **LIFE SCIENCE LABORATORIES, INC.**

LSL PROJECT ID: 0400285

NUMBER OF PAGES TRANSMITTED: (INCLUDING COVER PAGE) 6

COMMENTS:

Thank you for the opportunity to be of service to you. We appreciate your business. If you need further assistance, please don't hesitate to contact us.

Need help with ...	Please Ask For ...
Questions About Your Results	The Quality Department
Price Quotations	The Client Services Department
Requests for Sample Kits or Scheduling Pickup of Samples	The Field Services Department
Status of Samples Currently Being Analyzed	The Technical Services Department

If you did not receive all of the pages please contact us immediately at (315) 445-1105.

LIFE SCIENCE LABORATORIES, INC.
5854 Butternut Drive, E. Syracuse, NY 13057

Robert S. Casey
EA Engineering, Science and Technology
6731 Collamer Road
East Syracuse, NY 13057-9759

Phone: (315) 431-4610
FAX: (315) 431-4280
Authorization: 12040.87.0003

Laboratory Analysis Report

For

EA Engineering, Science and Technology

Client Project ID:

BOC Witmer Road

LSL Project ID: **0400285**

Receive Date/Time: 01/08/04 9:45

Project Received by: DSB

Life Science Laboratories, Inc.

LSL Central Lab
5854 Butternut Drive
East Syracuse, NY 13057
Tel. (315) 445-1105
Fax (315) 445-1301
NYS DOH ELAP #10248

LSL North Lab
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Fax (585) 728-2711
NYS DOH ELAP #11667

LSL Southern Tier Lab
30 East Main St.
Cuba, NY 14727
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Fax (585) 968-0906
NYS DOH ELAP #10760

LSL Middlesex Lab
5611 Water St.
Middlesex, NY 14507
Tel. (585) 554-5347
Fax. (585) 554-6743
NYS DOH ELAP #11369

This report was reviewed by: gale a sutton QAO *Date:* 1-22-04

Life Science Laboratories, Inc

A copy of this report was sent to:

Date Printed: 1/22/04

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: WRL-EFF7-010703 **LSL Sample ID:** 0400285-001

Location:

Sampled: 01/07/04 13:40 **Sampled By:** RC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 150.1 pH					
pH	7.5	Std. Units		1/8/04 12:30	DSB
pH Measurement Temperature	25	Degrees C		1/8/04 12:30	DSB
NYS DOH ELAP specifications require pH to be measured within one hour of sample collection.					
(1) EPA 160.2 Total Suspended Solids					
Total Suspended Solids @ 103-105 C	22	mg/l		1/12/04	MM
(1) EPA 200.7 Total Metals					
Barium	<0.2	mg/l	1/8/04	1/9/04	PEF
Chromium	<0.01	mg/l	1/8/04	1/9/04	PEF
Copper	<0.01	mg/l	1/8/04	1/9/04	PEF
Iron	6.5	mg/l	1/8/04	1/9/04	PEF
Nickel	<0.01	mg/l	1/8/04	1/9/04	PEF
Selenium	0.012	mg/l	1/8/04	1/9/04	PEF
Thallium	<0.01	mg/l	1/8/04	1/9/04	PEF
Zinc	0.011	mg/l	1/8/04	1/9/04	PEF
(1) EPA 350.1 Ammonia					
Ammonia as N	3.3	mg/l		1/16/04	DRB
(1) EPA 351.2 TKN as N					
Total Kjeldahl Nitrogen	4.2	mg/l	1/19/04	1/21/04	DRB
(1) EPA 405.1 BOD-5					
Biochemical Oxygen Demand, 5 Day	8.4	mg/l		1/9/04 11:31	MM/ASH
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable	0.013	mg/l	1/15/04	1/16/04	DWK
A trace amount of this analyte was detected in the laboratory blank.					
(1) EPA 601 Halocarbons by 624(Partial List)					
1,1-Dichloroethane	<1	ug/l		1/10/04	BD
Trichloroethene	<1	ug/l		1/10/04	BD
Surrogate (Tol-d8)	108	%R		1/10/04	BD
Surrogate (4-BFB)	118	%R		1/10/04	BD
Surrogate (1,2-DCA-d4)	107	%R		1/10/04	BD
(1) EPA Method 300.0 A					
Nitrate as N	0.20	mg/l		1/8/04 18:22	AMW
Nitrite as N	<0.1	mg/l		1/8/04 18:22	AMW
(1) HACH 8000 COD					
Chemical Oxygen Demand	10	mg/l		1/22/04	DWK
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	<0.01	mg/l		1/8/04 08:14	DWK
(1) SM18-2540C Total Dissolved Solids					
Total Dissolved Solids @ 180 C	690	mg/l		1/13/04	MM

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology East Syracuse, NY

Sample ID: Trip Blank **LSL Sample ID:** 0400285-002
Location:
Sampled: 01/07/04 0:00 **Sampled By:** RC
Sample Matrix: TB

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 601 Halocarbons by 624(Partial List)					
1,1-Dichloroethane	<1	ug/l		1/10/04	BD
Trichloroethene	<1	ug/l		1/10/04	BD
Surrogate (Tol-d8)	108	%R		1/10/04	BD
Surrogate (4-BFB)	122	%R		1/10/04	BD
Surrogate (1,2-DCA-d4)	107	%R		1/10/04	BD

SURROGATE RECOVERY CONTROL LIMITS FOR ORGANIC METHODS

6/14/02

Method	Surrogate(s)	Water Limits, %R	SHW Limits, %R
EPA 504	TCMX	80-120	NA
EPA 508	DCB	70-130	NA
EPA 515.4	DCAA	70-130	NA
EPA 524.2	1,2-DCA-d4, 4-BFB	80-120	NA
EPA 525.2	1,3-DM-2-NB, TPP, Per-d12	70-130	NA
EPA 526	1,3-DM-2-NB, TPP	70-130	NA
EPA 528	2-CP-3,4,5,6-d4, 2,4,6-TBP	70-130	NA
EPA 551.1	Decafluorobiphenyl	80-120	NA
EPA 552.2	2,3-DBPA	80-120	NA
EPA 601	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 602	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 608	DCB	30-150	NA
EPA 624	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 625, AE	2-Fluorophenol	21-110	NA
EPA 625, AE	Phenol-d5	10-110	NA
EPA 625, AE	2,4,6-Tribromophenol	10-123	NA
EPA 625, BN	Nitrobenzene-d5	35-114	NA
EPA 625, BN	2-Fluorobiphenyl	43-116	NA
EPA 625, BN	Terphenyl-d14	33-141	NA
EPA 8010	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8020	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8021	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8081	TCMX, DCB	30-150	30-150
EPA 8082	DCB	30-150	30-150
EPA 8151	DCAA	30-130	30-120
EPA 8260	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8270, AE	2-Fluorophenol	21-110	25-121
EPA 8270, AE	Phenol-d5	10-110	24-113
EPA 8270, AE	2,4,6-Tribromophenol	10-123	19-122
EPA 8270, BN	Nitrobenzene-d5	35-114	23-120
EPA 8270, BN	2-Fluorobiphenyl	43-116	30-115
EPA 8270, BN	Terphenyl-d14	33-141	18-137
DOH 310-13	Dodecane	40-110	40-110
DOH 310-14	Dodecane	40-110	40-110
DOH 310-15	Dodecane	40-110	40-110
DOH 310-34*	4-BFB	50-150	50-150
8015M_GRO*	4-BFB	50-150	50-150
8015M_DRO*	Terphenyl-d14	50-150	50-150

*Run by GC/MS.

Units Key:	ug/l = microgram per liter ug/kg = microgram per kilogram mg/l = milligram per liter mg/kg = milligram per kilogram %R = Percent Recovery

Life Science Laborat

CHAIN OF CUSTODY REC(

0400285
EAEng

LSL Central Lab
5854 Butternut Drive
E. Syracuse, N.Y. 13057
Phone: (315)445-1105
Fax: (315)445-1301

LSL North Lab
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Fax: (585)728-2711

LSL Southern Tier Lab
30 East Main St.
Cuba, N.Y. 14727
Phone: (585)968-2640
Fax: (585)968-0906

Report Address:
Name: ROBERT S. CASEY
Company: EA SCIENCE & TECHNOLOGY
Street: 6711 COLLAMER RD.
City/State: EAST SYRACUSE, NY
Zip: 13057
Phone: 315 431 4610
Fax: 315 431 4280
Email: rcasey@eaest.com
Client Project ID/Client Site ID: 30C WITMER ROAD

Turnaround Time
Normal: 14 DAY ☐
Pre-Authorized: Next Day* ☐, 2-Day* ☐, 3-Day* ☐, 7-Day* ☑ Standard TAT
*Additional Charges may apply
Date Needed or Special Instructions:
Authorization or P.O. #: 12040.87.0003
LSL Project Number:

Client's Sample Identifications	Sample Date	Sample Time	Type grab/comp	Matrix	Preserv Added	Containers #	Containers size/type	Analyses	Preserv Check	LSL ID#
WRL-EFF7-010703	7 JAN 2003	1340	GRAB	GW	HCl	2	40 ml	608/608.		001AB
					H_2SO_4	1	500 ml	TKN, NH_3, COD		001C
					NONE	1	500ml	BOD, TSS, TDS		d
					HNO_3	1	500ml	METALS: Ba, Cr, Se, Zn, Cu Fe, Ni, Tl		e
					NONE	1	8 oz.	pH.		f
					NONE	1	8 oz.	Cr+6, Nitrate, Nitrite		G
					H_2SO_4	1	AMBER	phenolics		H
TRIP BLANK					HCL	2	40ml			002AB

LSL use only:
Client left with original Y8-DSB

Containers this C-O-C

Custody Transfers

		Date	Time
Sampled By: Robert S. Casey	Received By:		
Relinquished By:	Received By:		
Relinquished By: Robert S. Casey	Rec'd for Lab By: [signature]	01-08-04	09:45 RCVD
Shipment Method: DROP OFF	Received Intact: Y N	Sample Temp	0.1°C

*** All areas of this Chain of Custody Record MUST be filled out in order to process samples in a timely manner IN PEN ONLY***

Reg COC

Robert S. Casey
EA Engineering, Science and Technology
6731 Collamer Road
East Syracuse, NY 13057-9759

Phone: (315) 431-4610
FAX: (315) 431-4280
Authorization: PO# 12040.87

Laboratory Analysis Report
For
EA Engineering, Science and Technology

LSL Project ID: **0320451**

Receive Date/Time: 12/31/03 8:54

Project Received by: CDG

Life Science Laboratories, Inc.

LSL Central Lab
5854 Butternut Drive
East Syracuse, NY 13057
Tel. (315) 445-1105
Fax (315) 445-1301
NYS DOH ELAP #10248

LSL North Lab
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Waddington, NY 13694
Tel. (315) 388-4476
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NYS DOH ELAP #10900

LSL Finger Lakes Lab
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Wayland, NY 14572
Tel. (585) 728-3320
Fax (585) 728-2711
NYS DOH ELAP #11667

LSL Southern Tier Lab
30 East Main St.
Cuba, NY 14727
Tel. (585) 968-2640
Fax (585) 968-0906
NYS DOH ELAP #10760

LSL Middlesex Lab
5611 Water St.
Middlesex, NY 14507
Tel. (585) 554-5347
Fax (585) 554-6743
NYS DOH ELAP #11369

This report was reviewed by: Linda Water QC *Date:* 1/15/04

Life Science Laboratories, Inc

A copy of this report was sent to:

Date Printed: 1/14/04

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: WRL-EFF7-123003 **LSL Sample ID:** 0320451-001

Location: Witmer Rd. (BOC)

Sampled: 12/30/03 12:30 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 150.1 pH					
pH	7.2	Std. Units		12/31/03 09:48	DSB
pH Measurement Temperature	25	Degrees C		12/31/03 09:48	DSB
NYS DOH ELAP specifications require pH to be measured within one hour of sample collection.					
(1) EPA 160.2 Total Suspended Solids					
Total Suspended Solids @ 103-105 C	30	mg/l		1/5/04	MM
(1) EPA 200.7 Total Metals					
Barium	<0.2	mg/l	1/5/04	1/5/04	PEF
Chromium	<0.01	mg/l	1/5/04	1/5/04	PEF
Copper	<0.01	mg/l	1/5/04	1/5/04	PEF
Iron	21	mg/l	1/5/04	1/5/04	PEF
Nickel	<0.01	mg/l	1/5/04	1/5/04	PEF
Selenium	<0.01	mg/l	1/5/04	1/5/04	PEF
Thallium	<0.01	mg/l	1/5/04	1/5/04	PEF
Zinc	0.016	mg/l	1/5/04	1/5/04	PEF
(1) EPA 350.1 Ammonia					
Ammonia as N	3.0	mg/l		1/9/04	DRB
(1) EPA 351.2 TKN as N					
Total Kjeldahl Nitrogen	2.3	mg/l	1/6/04	1/8/04	DRB
(1) EPA 405.1 BOD-5					
Biochemical Oxygen Demand, 5 Day	8.0	mg/l		12/31/03 15:31	MM
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable	0.011	mg/l	1/13/04	1/14/04	DWK
A trace amount of this analyte was detected in the laboratory blank.					
(1) EPA 601 Halocarbons by 624(Partial List)					
1,1-Dichloroethane	<1	ug/l		1/8/04	BD
Trichloroethene	<1	ug/l		1/8/04	BD
Surrogate (Tol-d8)	112	%R		1/8/04	BD
Surrogate (4-BFB)	87	%R		1/8/04	BD
Surrogate (1,2-DCA-d4)	84	%R		1/8/04	BD
(1) EPA Method 300.0 A					
Nitrate as N	0.26	mg/l		12/31/03 17:57	AMW
Nitrite as N	<0.1	mg/l		12/31/03 17:57	AMW
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	<0.01	mg/l		12/31/03 11:31	DWK

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: Trip Blank **LSL Sample ID:** 0320451-002

Location:

Sampled: 12/30/03 0:00 **Sampled By:**

Sample Matrix: TB

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 601 Halocarbons by 624(Partial List)					
1,1-Dichloroethane	<1	ug/l		1/8/04	BD
Trichloroethene	<1	ug/l		1/8/04	BD
Surrogate (Tol-d8)	112	%R		1/8/04	BD
Surrogate (4-BFB)	86	%R		1/8/04	BD
Surrogate (1,2-DCA-d4)	83	%R		1/8/04	BD

SURROGATE RECOVERY CONTROL LIMITS FOR ORGANIC METHODS

8/14/02

Method	Surrogate(s)	Water Limits, %R	SHW Limits, %R
EPA 504	TCMX	80-120	NA
EPA 508	DCB	70-130	NA
EPA 515.4	DCAA	70-130	NA
EPA 524.2	1,2-DCA-d4, 4-BFB	80-120	NA
EPA 525.2	1,3-DM-2-NB, TPP, Per-d12	70-130	NA
EPA 526	1,3-DM-2-NB, TPP	70-130	NA
EPA 528	2-CP-3,4,5,6-d4, 2,4,6-TBP	70-130	NA
EPA 551.1	Decafluorobiphenyl	80-120	NA
EPA 552.2	2,3-DBPA	80-120	NA
EPA 601	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 602	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 608	DCB	30-150	NA
EPA 624	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 625, AE	2-Fluorophenol	21-110	NA
EPA 625, AE	Phenol-d5	10-110	NA
EPA 625, AE	2,4,6-Tribromophenol	10-123	NA
EPA 625, BN	Nitrobenzene-d5	35-114	NA
EPA 625, BN	2-Fluorobiphenyl	43-116	NA
EPA 625, BN	Terphenyl-d14	33-141	NA
EPA 8010	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8020	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8021	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8081	TCMX, DCB	30-150	30-150
EPA 8082	DCB	30-150	30-150
EPA 8151	DCAA	30-130	30-120
EPA 8260	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8270, AE	2-Fluorophenol	21-110	25-121
EPA 8270, AE	Phenol-d5	10-110	24-113
EPA 8270, AE	2,4,6-Tribromophenol	10-123	19-122
EPA 8270, BN	Nitrobenzene-d5	35-114	23-120
EPA 8270, BN	2-Fluorobiphenyl	43-116	30-115
EPA 8270, BN	Terphenyl-d14	33-141	18-137
DOH 310-13	Dodecane	40-110	40-110
DOH 310-14	Dodecane	40-110	40-110
DOH 310-15	Dodecane	40-110	40-110
DOH 310-34*	4-BFB	50-150	50-150
8015M_GRO*	4-BFB	50-150	50-150
8015M_DRO*	Terphenyl-d14	50-150	50-150

*Run by GC/MS.

Units Key:	ug/l = microgram per liter ug/kg = microgram per kilogram mg/l = milligram per liter mg/kg = milligram per kilogram %R = Percent Recovery

Life Science Laboratories, Inc.

CHAIN OF CUSTODY RECORD

LSL Central Lab
5854 Butternut Drive
E. Syracuse, N.Y. 13057
Phone: (315)445-1105
Fax: (315)445-1301

LSL North Lab
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Waddington, N.Y. 13694
Phone: (315)388-4476
Fax: (315)388-4061

LSL Fin: 0320451
18 N. Ma
Wayland
Phone:
Fax: (585)728-2711

rm Tier Lab
n St.
4727
)968-2540
Fax: (585)968-0906

Report Address:
Name: Robert S. Casey
Company: EA Science
Street: 6731 Collamer Rd.
City/State: East Syracuse, NY
Zip: 13057
Phone: 315 431 4610
Fax: 315 431 4280
Email: rcasey@eaestream

Turnaround Time
Normal: 14 DAY ☐
Pre-Authorized: Next Day* ☐ 2-Day* ☐ 3-Day* ☐ 7-Day* ☐
*Additional Charges may apply

Date Needed or Special Instructions:

Authorization or P.O. # 12040.87.

LSL Project Number: [redacted]

Client Project ID/Client Site ID BOC / Witmer Road.

Client's Sample Identifications	Sample Date	Sample Time	Type grab/comp	Matrix	Preserv Added	Containers #	Containers size/type	Analyses	Preserv Check	LSL ID#
WRL-EFF7-123003	30 DEC 2003	1230	Grab	gw	HCL	2	40 ml	610/020		01AB
					NONE	1	8 oz.	pH		c
					NONE	1	8 oz	Cr+6, Nitrate, Nitrite		d
					NONE	1	500ml	BOD, TSS		e
					H_2SO_4	1	amber	phenolics		f
					HNO_3	1	500ml	metals		G
					H_2SO_4	1	500ml	TKN, NH_3		H
Top Blank										02AD

LSL use only:

Containers this C-O-C

Custody Transfers

		Date	Time
Sampled By:	Robert S. Casey		
Relinquished By:	[signature]	Received By:	
Relinquished By:	[signature]	Received By:	
Shipment Method:	Prof Off	Rec'd for Lab By: [signature]	12-31-03 08:54 RCVD
		Received Intact: Y N	Sample Temp

*** All areas of this Chain of Custody Record MUST be filled out in order to process samples in a timely manner IN PEN ONLY***

Reg COC

01/15/04 15:55 FAX 315 445 1301 LSL 006/006

LSL

Robert Casey
EA Engineering, Science and Technology
6731 Collamer Road
East Syracuse, NY 13057-9759

Phone: (315) 431-4610
FAX: (315) 431-4280
Authorization: PO# 12040.69

Laboratory Analysis Report
For
EA Engineering, Science and Technology

LSL Project ID: **0320265**
Receive Date/Time: 12/24/03 8:45
Project Received by: GS

Life Science Laboratories, Inc.

LSL Central Lab
5854 Butternut Drive
East Syracuse, NY 13057
Tel. (315) 445-1105
Fax (315) 445-1301
NYS DOH ELAP #10248

LSL North Lab
131 St. Lawrence Avenue
Waddington, NY 13694
Tel. (315) 388-4476
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NYS DOH ELAP #10900

LSL Finger Lakes Lab
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Wayland, NY 14572
Tel. (585) 728-3320
Fax (585) 728-2711
NYS DOH ELAP #11667

LSL Southern Tier Lab
30 East Main St.
Cuba, NY 14727
Tel. (585) 968-2640
Fax (585) 968-0906
NYS DOH ELAP #10760

LSL Middlesex Lab
5611 Water St.
Middlesex, NY 14507
Tel. (585) 554-5347
Fax. (585) 554-6743
NYS DOH ELAP #11369

This report was reviewed by: [signature] Date: 1-16-04
Life Science Laboratories, Inc

A copy of this report was sent to:

Date Printed: 1/16/04

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: WRL-EFF7-122303 **LSL Sample ID:** 0320265-001

Location:

Sampled: 12/23/03 12:50 **Sampled By:** RC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 150.1 pH					
pH	6.8	Std. Units		12/24/03 09:57	DSB
pH Measurement Temperature	25	Degrees C		12/24/03 09:57	DSB
NYS DOH ELAP specifications require pH to be measured within one hour of sample collection.					
(1) EPA 160.2 Total Suspended Solids					
Total Suspended Solids @ 103-105 C	10	mg/l		12/29/03	MM
(1) EPA 200.7 Total Metals					
Barium	<0.2	mg/l	12/31/03	12/31/03	PEF
Chromium	<0.01	mg/l	12/31/03	12/31/03	PEF
Copper	<0.01	mg/l	12/31/03	12/31/03	PEF
Iron	7.8	mg/l	12/31/03	12/31/03	PEF
Nickel	<0.01	mg/l	12/31/03	12/31/03	PEF
Selenium	<0.01	mg/l	12/31/03	12/31/03	PEF
Thallium	<0.01	mg/l	12/31/03	12/31/03	PEF
Zinc	<0.01	mg/l	12/31/03	12/31/03	PEF
(1) EPA 350.1 Ammonia					
Ammonia as N	3.6	mg/l		1/7/04	DRB
(1) EPA 351.2 TKN as N					
Total Kjeldahl Nitrogen	3.2	mg/l	1/6/04	1/8/04	DRB
(1) EPA 405.1 BOD-5					
Biochemical Oxygen Demand, 5 Day	<10	mg/l		12/24/03 12:51	MM
This result should be considered an estimate due to low oxygen depletion.					
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable			1/5/04		DWK
Due to unexpectedly high carry over from a sample associated with this analytical batch, a result could not be quantitated. Subsequent analysis was not possible due to inadequate sample quantity					
(1) EPA 601 Halocarbons by 624(Partial List)					
1,1-Dichloroethane	<1	ug/l		1/2/04	BD
Trichloroethene	<1	ug/l		1/2/04	BD
Surrogate (Tol-d8)	111	%R		1/2/04	BD
Surrogate (4-BFB)	110	%R		1/2/04	BD
Surrogate (1,2-DCA-d4)	102	%R		1/2/04	BD
(1) EPA Method 300.0 A					
Nitrate as N	0.25	mg/l		12/24/03 11:34	RAF
Nitrite as N	<0.1	mg/l		12/24/03 11:34	RAF
(1) HACH 8000 COD					
Chemical Oxygen Demand	23	mg/l		1/2/04	DWK
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	<0.01	mg/l		12/24/03 10:18	DWK

Life Science Laboratories, Inc. **Date Printed:** 1/16/04

Analysis performed at NYS DOH ELAP Number: *(1) 10248, (2) 10900, (3) 11667, (4) 10760, (5) 11369*

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: Trip Blank **LSL Sample ID:** 0320265-002

Location:

Sampled: 12/23/03 0:00 **Sampled By:**

Sample Matrix: TB

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 601 Halocarbons by 624(Partial List)					
1,1-Dichloroethane	<1	ug/l		1/2/04	BD
Trichloroethene	<1	ug/l		1/2/04	BD
Surrogate (Tol-d8)	111	%R		1/2/04	BD
Surrogate (4-BFB)	109	%R		1/2/04	BD
Surrogate (1,2-DCA-d4)	103	%R		1/2/04	BD

Life Science Laboratories, Inc.

Date Printed: 1/16/04

Analysis performed at NYS DOH ELAP Number: *(1) 10248, (2) 10900, (3) 11667, (4) 10760, (5) 11369*

SURROGATE RECOVERY CONTROL LIMITS FOR ORGANIC METHODS

8/14/02

Method	Surrogate(s)	Water Limits, %R	SHW Limits, %R
EPA 504	TCMX	60-120	NA
EPA 508	DCB	70-130	NA
EPA 515.4	DCAA	70-130	NA
EPA 524.2	1,2-DCA-d4, 4-BFB	60-120	NA
EPA 525.2	1,3-DM-2-NB, TPP, Per-d12	70-130	NA
EPA 526	1,3-DM-2-NB, TPP	70-130	NA
EPA 528	2-CP-3,4,5,6-d4, 2,4,6-TBP	70-130	NA
EPA 551.1	Decafluorobiphenyl	60-120	NA
EPA 552.2	2,3-DBPA	60-120	NA
EPA 601	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 602	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 608	DCB	30-150	NA
EPA 624	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 625, AE	2-Fluorophenol	21-110	NA
EPA 625, AE	Phenol-d5	10-110	NA
EPA 625, AE	2,4,6-Tribromophenol	10-123	NA
EPA 625, BN	Nitrobenzene-d5	35-114	NA
EPA 625, BN	2-Fluorobiphenyl	43-116	NA
EPA 625, BN	Terphenyl-d14	33-141	NA
EPA 8010	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8020	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8021	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8081	TCMX, DCB	30-150	30-150
EPA 8082	DCB	30-150	30-150
EPA 8151	DCAA	30-130	30-120
EPA 8260	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8270, AE	2-Fluorophenol	21-110	25-121
EPA 8270, AE	Phenol-d5	10-110	24-113
EPA 8270, AE	2,4,6-Tribromophenol	10-123	19-122
EPA 8270, BN	Nitrobenzene-d5	35-114	23-120
EPA 8270, BN	2-Fluorobiphenyl	43-116	30-115
EPA 8270, BN	Terphenyl-d14	33-141	18-137
DOH 310-13	Dodecane	40-110	40-110
DOH 310-14	Dodecane	40-110	40-110
DOH 310-15	Dodecane	40-110	40-110
DOH 310-34*	4-BFB	50-150	50-150
8015M_GRO*	4-BFB	50-150	50-150
8015M_DRO*	Terphenyl-d14	50-150	50-150

*Run by GC/MS.

Units Key:	ug/l = microgram per liter ug/kg = microgram per kilogram mg/l = milligram per liter mg/kg = milligram per kilogram %R = Percent Recovery

Life Science Laboratories, Inc.

CHAIN OF CUSTODY RECORD

LSL Central Lab
5854 Buttermut Drive
E. Syracuse, N.Y. 13057
Phone: (315)445-1105
Fax: (315)445-1301

LSL North Lab
131 St. Lawrence Blvd.
Waddington, N.Y. 13694
Phone: (315)388-4476
Fax: (315)388-4061

LSL Finger Lakes Lab

0320265
EAEng

Northern Tier Lab
Main St.
Y. 14727
(585)968-2640
(585)968-0908

Turnaround:
Normal 14 DAY ☐
Pre-Authorized
Next Day* ☐ 3-Day* ☐
2-Day* ☐ 7-Day* ☐
*Additional Charges may apply

Report Address:
Name: Robert Casey
Company: EA Science
Street: 6723 Collamer RD.
City/State: E. Syr.
Phone: 315 431 4610
Email: rlcasey@eaest.com
Zip: 13057
Fax: 315 431 4630

Date Needed or Special Instructions:

Authorization or P.O. #: 12040.69

LSL Project Number:

Client Project ID/Client Site ID

Client's Sample Identifications	Sample Date	Sample Time	Type grab/comp	Matrix	Preserv Added	Containers #	Containers size/type	Analyses	Preserv Check	LSL ID#
WRL-EFF7-122303	23 DEC 2003	1250	Grab	GW	HCl	2	40ml	610/620		001AB
					H_2SO_4	1	500ml	TKN, NH_3, COD		C
					NONE	1	500ml	BOD, TSS		d
					HNO_3	1	500 ml	metals: Ba, Cr, Se, Zn, Ca Fe, Ni, Tl		E
					NONE	1	8oz	pH		F
					NONE	1	8oz	Cr+6, Nitrate, Nitrite		G
					H_2SO_4	1	Amber	Phenolics.		H
↓										002AB
Trip Blank										

Custody Transfers

	Date	Time
Sampled By: Robert Casey		
Relinquished By: Robert Casey		
Relinquished By: DELIVERED		
Shipment Method:		

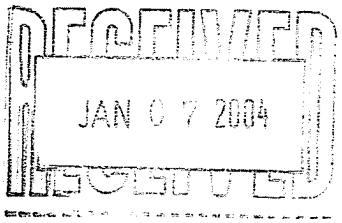
Received By:
Received By:
Rec'd for Lab By: 12-24-03 08:45 RCVD
Received Intact: Y N
Sample Temp 7.7 °C

LSL use only:
Containers this C-O-C

All areas of this Chain of Custody Record MUST be filled out in order to process samples in a timely manner IN PEN ONLY

Reg COC

LSL



Robert Casey
EA Engineering, Science and Technology
6731 Collamer Road
East Syracuse, NY 13057-9759

Phone: (315) 431-4610
FAX: (315) 431-4280
Authorization: 12040.69

Laboratory Analysis Report

For

EA Engineering, Science and Technology

Client Project ID:

12040.69

LSL Project ID: **0319895**

Receive Date/Time: 12/17/03 9:50

Project Received by: GS

Life Science Laboratories, Inc.

LSL Central Lab
5854 Butternut Drive
East Syracuse, NY 13057
Tel. (315) 445-1105
Fax (315) 445-1301
NYS DOH ELAP #10248

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NYS DOH ELAP #10900

LSL Finger Lakes Lab
16 N. Main St., PO Box 424
Wayland, NY 14572
Tel. (585) 728-3320
Fax (585) 728-2711
NYS DOH ELAP #11667

LSL Southern Tier Lab
30 East Main St.
Cuba, NY 14727
Tel. (585) 968-2640
Fax (585) 968-0906
NYS DOH ELAP #10760

LSL Middlesex Lab
5611 Water St.
Middlesex, NY 14507
Tel. (585) 554-5347
Fax. (585) 554-6743
NYS DOH ELAP #11369

This report was reviewed by: Linda Waters QC ***Date:*** 1/2/04

Life Science Laboratories, Inc

A copy of this report was sent to:

Date Printed: 1/2/04

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: WRL-EFF7-121603 **LSL Sample ID:** 0319895-001

Location: Witmer Road

Sampled: 12/16/03 13:30 **Sampled By:** RC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time		Analyst Initials
(1) EPA 150.1 pH						
pH	7.0	Std. Units		12/16/03	12:14	CDG
pH Measurement Temperature	25	Degrees C		12/16/03	12:14	CDG
NYS DOH ELAP specifications require pH to be measured within one hour of sample collection.						
(1) EPA 160.2 Total Suspended Solids						
Total Suspended Solids @ 103-105 C	48	mg/l		12/22/03		MM
(1) EPA 350.1 Ammonia						
Ammonia as N	4.3	mg/l		12/31/03		DRB
(1) EPA 351.2 TKN as N						
Total Kjeldahl Nitrogen	5.0	mg/l	12/29/03	12/30/03		DRB
(1) EPA 405.1 BOD-5						
Biochemical Oxygen Demand, 5 Day	7.6	mg/l		12/17/03	19:00	MM/ASH
(1) EPA 420.1 Recoverable Phenolics ML						
Phenolics, Total Recoverable	<0.05	mg/l	12/23/03	12/24/03		DWK
(1) EPA 601 Halocarbons by 624(Partial List)						
1,1-Dichloroethane	<1	ug/l		12/25/03		BD
Trichloroethene	<1	ug/l		12/25/03		BD
Surrogate (Tol-d8)	124	%R		12/25/03		BD
Surrogate (4-BFB)	131	%R		12/25/03		BD
Surrogate (1,2-DCA-d4)	124	%R		12/25/03		BD
(1) EPA 6010 Total Metals						
Iron	24	mg/l	12/19/03	12/19/03		PEF
Nickel	<0.01	mg/l	12/19/03	12/19/03		PEF
Barium	<0.01	mg/l	12/19/03	12/19/03		PEF
Copper	<0.01	mg/l	12/19/03	12/19/03		PEF
Chromium	<0.01	mg/l	12/19/03	12/19/03		PEF
Selenium	<0.01	mg/l	12/19/03	12/19/03		PEF
Thallium	<0.01	mg/l	12/19/03	12/19/03		PEF
(1) EPA Method 300.0 A						
Nitrate as N	0.34	mg/l		12/18/03	06:16	RAF
Nitrite as N	<0.1	mg/l		12/18/03	06:16	RAF
(1) HACH 8000 COD						
Chemical Oxygen Demand	20	mg/l		12/22/03		DWK
(1) SM 18 3500Cr-D Hexavalent Chromium						
Chromium, Hexavalent	<0.01	mg/l		12/17/03	12:22	DWK
(1) SM18-2540C Total Dissolved Solids						
Total Dissolved Solids @ 180 C	890	mg/l		12/18/03		MM

Analysis performed at NYS DOH ELAP Number: *(1) 10248, (2) 10900, (3) 11667, (4) 10760, (5) 11369*

SURROGATE RECOVERY CONTROL LIMITS FOR ORGANIC METHODS

8/14/02

Method	Surrogate(s)	Water Limits, %R	SHW Limits, %R
EPA 504	TCMX	80-120	NA
EPA 508	DCB	70-130	NA
EPA 515.4	DCAA	70-130	NA
EPA 524.2	1,2-DCA-d4, 4-BFB	80-120	NA
EPA 525.2	1,3-DM-2-NB, TPP, Per-d12	70-130	NA
EPA 526	1,3-DM-2-NB, TPP	70-130	NA
EPA 528	2-CP-3,4,5,6-d4, 2,4,6-TBP	70-130	NA
EPA 551.1	Decafluorobiphenyl	80-120	NA
EPA 552.2	2,3-DBPA	80-120	NA
EPA 601	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 602	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 608	DCB	30-150	NA
EPA 624	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 625, AE	2-Fluorophenol	21-110	NA
EPA 625, AE	Phenol-d5	10-110	NA
EPA 625, AE	2,4,6-Tribromophenol	10-123	NA
EPA 625, BN	Nitrobenzene-d5	35-114	NA
EPA 625, BN	2-Fluorobiphenyl	43-116	NA
EPA 625, BN	Terphenyl-d14	33-141	NA
EPA 8010	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8020	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8021	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8081	TCMX, DCB	30-150	30-150
EPA 8082	DCB	30-150	30-150
EPA 8151	DCAA	30-130	30-120
EPA 8260	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8270, AE	2-Fluorophenol	21-110	25-121
EPA 8270, AE	Phenol-d5	10-110	24-113
EPA 8270, AE	2,4,6-Tribromophenol	10-123	19-122
EPA 8270, BN	Nitrobenzene-d5	35-114	23-120
EPA 8270, BN	2-Fluorobiphenyl	43-116	30-115
EPA 8270, BN	Terphenyl-d14	33-141	18-137
DOH 310-13	Dodecane	40-110	40-110
DOH 310-14	Dodecane	40-110	40-110
DOH 310-15	Dodecane	40-110	40-110
DOH 310-34*	4-BFB	50-150	50-150
8015M_GRO*	4-BFB	50-150	50-150
8015M_DRO*	Terphenyl-d14	50-150	50-150

*Run by GC/MS.

Units Key:	ug/l = microgram per liter ug/kg = microgram per kilogram mg/l = milligram per liter mg/kg = milligram per kilogram %R = Percent Recovery

Life Science Laboratories, Inc.

CHAIN OF CUSTODY RECORD

LSL Central Lab
5854 Butternut Drive
E. Syracuse, N.Y. 13057
Phone: (315)445-1105
Fax: (315)445-1301

LSL North Lab
131 St. Lawrence Ave.
Waddington, N.Y. 13694
Phone: (315)388-4476
Fax: (315)388-4061

LSL Southern Tier Lab
30 East Main St.
Cuba, N.Y. 14727
Phone: (585)968-2640
Fax: (585)968-0906

0319805
EAEng

Turnaround Time

Normal	Pre-Authorized				
14 DAY ☐	Next Day* ☐	3-Day * ☐	*Additional Charges may apply
	2-Day * ☐	7-Day* ☐	

Report Address:
Name: Robert Casey
Company: EA
Street: 6731 COLLAMER RD.
City/State: E. SYRACUSE, NY
Zip: 13057
Phone: 315 431 4610
Fax: 315 431 4280
Email: rcasey@eaest.com

Date Needed or Special Instructions:

Authorization or P.O. # 12040.49

Client Project ID/Client Site ID Witmer Road

LSL Project Number:

Client's Sample Identifications	Sample Date	Sample Time	Type grab/comp	Matrix	Preserv Added	Containers #	Containers size/type	Analyses	Preserv Check	LSL ID#
WRL-EFF7-121603	16 DEC 2003	1330	GRAB	GW	HCL	2	40ml	6010/6020		(A)
					NONE	1	500 ml	BOD, TSS		C
					HNO_3	1	500 ml	METALS: Se, Ba, Tl, Ni, Cu, Fe, Cr		d
					H_2SO_4	1	50 ml	TKN, NH_3, COD		E
					NONE	1	8 oz	Cr+6, Nitrate, Nitrite		f
					NONE	1	8 oz	pH		G
					H_2SO_4	1	AMBER	Phenolics		H
					NONE	1	500ml	TDS		G

LSL use only:

Containers this C-O-C

Custody Transfers

		Date	Time
Sampled By: Robert Casey	Received By:		
Relinquished By:	Received By:		
Relinquished By: Robert S Casey	Rec'd for Lab By:	12-17-03	09:50 RCVD
Shipment Method: DROP OFF	Received Intact: Y N	Sample Temp	

*** All areas of this Chain of Custody Record MUST be filled out in order to process samples in a timely manner IN PEN ONLY***

Robert Casey
EA Engineering, Science and Technology
6731 Collamer Road
East Syracuse, NY 13057-9759

Phone: (315) 431-4610
FAX: (315) 431-4280

Laboratory Analysis Report

For

EA Engineering, Science and Technology

Client Project ID:

12040.87.0003

LSL Project ID: **0319517**

Receive Date/Time: 12/10/03 8:02

Project Received by: CDG

Life Science Laboratories, Inc.

LSL Central Lab
5854 Butternut Drive
East Syracuse, NY 13057
Tel. (315) 445-1105
Fax (315) 445-1301
NYS DOH ELAP #10248

LSL North Lab
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Tel. (315) 388-4476
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Fax (585) 728-2711
NYS DOH ELAP #11667

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Cuba, NY 14727
Tel. (585) 968-2640
Fax (585) 968-0906
NYS DOH ELAP #10760

LSL Middlesex Lab
5611 Water St.
Middlesex, NY 14507
Tel. (585) 554-5347
Fax. (585) 554-6743
NYS DOH ELAP #11369

This report was reviewed by: Linda Water QC *Date:* 12/24/03

Life Science Laboratories, Inc

A copy of this report was sent to:

Date Printed: 12/23/03

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology | *East Syracuse, NY*

Sample ID: WRL-EFF7-120903 **LSL Sample ID:** 0319517-001

Location:

Sampled: 12/09/03 16:20 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 150.1 pH					
pH	6.3	Std. Units		12/10/03 13:36	DSB
pH Measurement Temperature	25	Degrees C		12/10/03 13:36	DSB
NYS DOH ELAP specifications require pH to be measured within one hour of sample collection.					
(1) EPA 160.2 Total Suspended Solids					
Total Suspended Solids @ 103-105 C	160	mg/l		12/11/03	MM/GS
(1) EPA 200.7 Total Metals					
Barium	<0.2	mg/l	12/11/03	12/11/03	PEF
Chromium	<0.01	mg/l	12/11/03	12/11/03	PEF
Copper	<0.01	mg/l	12/11/03	12/11/03	PEF
Iron	150	mg/l	12/11/03	12/11/03	PEF
Nickel	<0.01	mg/l	12/11/03	12/11/03	PEF
Selenium	<0.01	mg/l	12/11/03	12/11/03	PEF
Thallium	<0.01	mg/l	12/11/03	12/11/03	PEF
Zinc	<0.01	mg/l	12/11/03	12/11/03	PEF
(1) EPA 350.1 Ammonia					
Ammonia as N	3.1	mg/l		12/19/03	DRB
(1) EPA 351.2 TKN as N					
Total Kjeldahl Nitrogen	4.8	mg/l	12/18/03	12/19/03	DRB
(1) EPA 405.1 BOD-5					
Biochemical Oxygen Demand, 5 Day	70	mg/l		12/10/03 16:06	TER
(1) EPA 420.1 Recoverable Phenolics LL					
Phenolics, Total Recoverable	0.028	mg/l	12/17/03	12/19/03	DWK
A trace amount of this analyte was detected in the laboratory blank.					
(1) EPA 601/602 Volatiles by 624					
Benzene	<1	ug/l		12/15/03	BD
Bromodichloromethane	<1	ug/l		12/15/03	BD
Bromoform	<1	ug/l		12/15/03	BD
Bromomethane	<1	ug/l		12/15/03	BD
Carbon tetrachloride	<1	ug/l		12/15/03	BD
Chlorobenzene	<1	ug/l		12/15/03	BD
Chloroethane	<1	ug/l		12/15/03	BD
2-Chloroethylvinyl ether	<10	ug/l		12/15/03	BD
Chloroform	<1	ug/l		12/15/03	BD
Chloromethane	<1	ug/l		12/15/03	BD
Dibromochloromethane	<1	ug/l		12/15/03	BD
1,2-Dichlorobenzene	<1	ug/l		12/15/03	BD
1,3-Dichlorobenzene	<1	ug/l		12/15/03	BD
1,4-Dichlorobenzene	<1	ug/l		12/15/03	BD
Dichlorodifluoromethane	<1	ug/l		12/15/03	BD
1,1-Dichloroethane	<1	ug/l		12/15/03	BD
1,2-Dichloroethane	<1	ug/l		12/15/03	BD
1,1-Dichloroethene	<1	ug/l		12/15/03	BD
trans-1,2-Dichloroethene	<1	ug/l		12/15/03	BD
1,2-Dichloropropane	<1	ug/l		12/15/03	BD

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: WRL-EFF7-120903 **LSL Sample ID:** 0319517-001

Location:

Sampled: 12/09/03 16:20 **Sampled By:** RSC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 601/602 Volatiles by 624					
cis-1,3-Dichloropropene	<1	ug/l		12/15/03	BD
trans-1,3-Dichloropropene	<1	ug/l		12/15/03	BD
Ethyl benzene	<1	ug/l		12/15/03	BD
Methylene chloride	<1	ug/l		12/15/03	BD
Vinyl chloride	<1	ug/l		12/15/03	BD
Tetrachloroethene	<1	ug/l		12/15/03	BD
Toluene	<1	ug/l		12/15/03	BD
1,1,1-Trichloroethane	<1	ug/l		12/15/03	BD
Trichloroethene	<1	ug/l		12/15/03	BD
Trichlorofluoromethane (Freon 11)	<1	ug/l		12/15/03	BD
1,1,1,2-Tetrachloroethane	<1	ug/l		12/15/03	BD
Surrogate (1,2-DCA-d4)	78	%R		12/15/03	BD
Xylenes (Total)	<1	ug/l		12/15/03	BD
Surrogate (Tol-d8)	102	%R		12/15/03	BD
Surrogate (4-BFB)	91	%R		12/15/03	BD
(1) EPA Method 300.0 A					
Nitrate as N	0.17	mg/l		12/10/03 19:55	RAF
Nitrite as N	<0.1	mg/l		12/10/03 19:55	RAF
(1) HACH 8000 COD					
Chemical Oxygen Demand	36	mg/l		12/12/03	DWK
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	<0.01	mg/l		12/10/03 13:37	DWK

Analysis performed at NYS DOH ELAP Number: *(1) 10248, (2) 10900, (3) 11667, (4) 10760, (5) 11369*

SURROGATE RECOVERY CONTROL LIMITS FOR ORGANIC METHODS

8/14/02

Method	Surrogate(s)	Water Limits, %R	SHW Limits, %R
EPA 504	TCMX	80-120	NA
EPA 508	DCB	70-130	NA
EPA 515.4	DCAA	70-130	NA
EPA 524.2	1,2-DCA-d4, 4-BFB	80-120	NA
EPA 525.2	1,3-DM-2-NB, TPP, Per-d12	70-130	NA
EPA 526	1,3-DM-2-NB, TPP	70-130	NA
EPA 528	2-CP-3,4,5,6-d4, 2,4,6-TBP	70-130	NA
EPA 551.1	Decafluorobiphenyl	80-120	NA
EPA 552.2	2,3-DBPA	80-120	NA
EPA 601	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 602	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 608	DCB	30-150	NA
EPA 624	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 625, AE	2-Fluorophenol	21-110	NA
EPA 625, AE	Phenol-d5	10-110	NA
EPA 625, AE	2,4,6-Tribromophenol	10-123	NA
EPA 625, BN	Nitrobenzene-d5	35-114	NA
EPA 625, BN	2-Fluorobiphenyl	43-116	NA
EPA 625, BN	Terphenyl-d14	33-141	NA
EPA 8010	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8020	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8021	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8081	TCMX, DCB	30-150	30-150
EPA 8082	DCB	30-150	30-150
EPA 8151	DCAA	30-130	30-120
EPA 8260	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8270, AE	2-Fluorophenol	21-110	25-121
EPA 8270, AE	Phenol-d5	10-110	24-113
EPA 8270, AE	2,4,6-Tribromophenol	10-123	19-122
EPA 8270, BN	Nitrobenzene-d5	35-114	23-120
EPA 8270, BN	2-Fluorobiphenyl	43-116	30-115
EPA 8270, BN	Terphenyl-d14	33-141	18-137
DOH 310-13	Dodecane	40-110	40-110
DOH 310-14	Dodecane	40-110	40-110
DOH 310-15	Dodecane	40-110	40-110
DOH 310-34*	4-BFB	50-150	50-150
8015M_GRO*	4-BFB	50-150	50-150
8015M_DRO*	Terphenyl-d14	50-150	50-150

*Run by GC/MS.

Units Key:	ug/l = microgram per liter ug/kg = microgram per kilogram mg/l = milligram per liter mg/kg = milligram per kilogram %R = Percent Recovery

Life Science Laboratories, Inc.

CHAIN OF CUSTODY RECORD

LSL-Central Lab
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Fax: (315)445-1301

LSL North Lab
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Waddington, N.Y. 13694
Phone: (315)388-4476
Fax: (315)388-4061

LSL Fing
16 N. Main
Wayland,
Phone: (5
Fax: (5

Lab
AD
Fax: (585)968-0906

0319517
EAEng

Turnaround Time

Normal	Pre-Authorized			
14 DAY ☐	Next Day* ☐	3-Day * ☐	*Additional Charges may apply
	2-Day * ☐	7-Day* ☐	

Report Address:
Name: ROBERT CASEY
Company: EA SCIENCE & TECHNOLOGY
Street: 6731 COLLAMER RD.
City/State: E. SYRACUSE, NY
Zip: 13057
Phone: 315 431 4610
Fax: 315 431 4280
Email: rcasey@eaest.com
Client Project ID/Client Site ID

Date Needed or Special Instructions:

Authorization or P.O. #
12040.07.0003

LSL Project Number

Client's Sample Identifications	Sample Date	Sample Time	Type grab/comp	Matrix	Preserv Added	Containers #	Containers size/type	Analyses	Preserv Check	LSL ID#
WRL-EFF 7 - 120903	4 DEC 2003	1620	GRAB	GW	HCl	2	40 ml	610/620		001 AB
					H_2SO_4	1	500 ml	TKN, NH3, COD		C
					NONE	1	500 ml	BOD, TSS		d
					HNO_3	1	500 ml	Metals: Barium, Chromium, Total; Copper, Total; IRON, Total; Nickel, Total; Selenium, Total; Zinc, Total; Thallium, Total		E
					NONE	1	8 oz.	pH		f
					NONE	1	8 oz	Cr+6, Nitrate, Nitrite		G
					H_2SO_4	1	AMBER	phenolics.		H

Custody Transfers

		Date	Time
Sampled By: RSC	Received By:		
Relinquished By:	Received By:	12-10-03	08:02 RCVD
Relinquished By:	Rec'd for Lab By:		
Shipment Method:	Received Intact: Y N	Sample Temp	

LSL use only:
Containers this C-O-C

*** All areas of this Chain of Custody Record MUST be filled out in order to process samples in a timely manner IN PEN ONLY***

Reg COC

8.4

12/31/03 11:22 FAX 315 445 1301 LSL 006

Robert Casey
EA Engineering, Science and Technology
6731 Collamer Road
East Syracuse, NY 13057-9759

Phone: (315) 431-4610
FAX: (315) 431-4280

Laboratory Analysis Report

For

EA Engineering, Science and Technology

Client Project ID:

12040.83.0005

LSL Project ID: **0319068**

Receive Date/Time: 12/03/03 9:06

Project Received by: CDG

Life Science Laboratories, Inc.

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NYS DOH ELAP #10760

LSL Middlesex Lab
5611 Water St.
Middlesex, NY 14507
Tel. (585) 554-5347
Fax. (585) 554-6743
NYS DOH ELAP #11369

This report was reviewed by: Life Science Laboratories, Inc *Date:* 12-15-03

A copy of this report was sent to:

Date Printed: 12/15/03

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: WRL-EFF7-120203
Location: Witmer Road Landfill
LSL Sample ID: 0319068-001
Sampled: 12/02/03 13:30 **Sampled By:** RC
Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) Electronic Report Generation					
Report Fee					
(1) EPA 150.1 pH					
pH	8.1	Std. Units		12/4/03 14:31	DSB
pH Measurement Temperature	25	Degrees C		12/4/03 14:31	DSB
NYS DOH ELAP specifications require pH to be measured within one hour of sample collection.					
(1) EPA 160.2 Total Suspended Solids					
Total Suspended Solids @ 103-105 C	7.0	mg/l		12/4/03	MM
(1) EPA 200.7 Total Metals					
Barium	<0.2	mg/l	12/5/03	12/5/03	PEF
Chromium	<0.01	mg/l	12/5/03	12/5/03	PEF
Copper	<0.01	mg/l	12/5/03	12/5/03	PEF
Iron	1.6	mg/l	12/5/03	12/5/03	PEF
Nickel	<0.01	mg/l	12/5/03	12/5/03	PEF
Selenium	0.014	mg/l	12/5/03	12/5/03	PEF
Thallium	<0.01	mg/l	12/5/03	12/5/03	PEF
Zinc	0.013	mg/l	12/5/03	12/5/03	PEF
(1) EPA 350.1 Ammonia					
Ammonia as N	2.6	mg/l		12/12/03	DRB
(1) EPA 351.2 TKN as N					
Total Kjeldahl Nitrogen	2.1	mg/l	12/10/03	12/11/03	DRB
(1) EPA 405.1 BOD-5					
Biochemical Oxygen Demand, 5 Day	<4	mg/l		12/3/03 14:59	MM/AS H
(1) EPA 601 Halocarbons by 624(Partial List)					
1,1-Dichloroethane	<1	ug/l		12/6/03	BD
Trichloroethene	<1	ug/l		12/6/03	BD
Surrogate (Tol-d8)	106	%R		12/6/03	BD
Surrogate (4-BFB)	92	%R		12/6/03	BD
Surrogate (1,2-DCA-d4)	88	%R		12/6/03	BD
(1) EPA Method 300.0 A					
Nitrate as N	<0.1	mg/l		12/3/03 17:57	RAF
Nitrite as N	0.89	mg/l		12/3/03 17:57	RAF
(1) HACH 8000 COD					
Chemical Oxygen Demand	4.0	mg/l		12/12/03	DWK
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	<0.01	mg/l		12/3/03 13:00	DWK

Analysis performed at NYS DOH ELAP Number: *(1) 10248, (2) 10900, (3) 11667, (4) 10760, (5) 11369*

SURROGATE RECOVERY CONTROL LIMITS FOR ORGANIC METHODS

8/14/02

Method	Surrogate(s)	Water Limits, %R	SHW Limits, %R
EPA 504	TCMX	80-120	NA
EPA 508	DCB	70-130	NA
EPA 515.4	DCAA	70-130	NA
EPA 524.2	1,2-DCA-d4, 4-BFB	80-120	NA
EPA 525.2	1,3-DM-2-NB, TPP, Per-d12	70-130	NA
EPA 526	1,3-DM-2-NB, TPP	70-130	NA
EPA 528	2-CP-3,4,5,6-d4, 2,4,6-TBP	70-130	NA
EPA 551.1	Decafluorobiphenyl	80-120	NA
EPA 552.2	2,3-DBPA	80-120	NA
EPA 601	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 602	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 608	DCB	30-150	NA
EPA 624	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 625, AE	2-Fluorophenol	21-110	NA
EPA 625, AE	Phenol-d5	10-110	NA
EPA 625, AE	2,4,6-Tribromophenol	10-123	NA
EPA 625, BN	Nitrobenzene-d5	35-114	NA
EPA 625, BN	2-Fluorobiphenyl	43-116	NA
EPA 625, BN	Terphenyl-d14	33-141	NA
EPA 8010	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8020	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8021	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8081	TCMX, DCB	30-150	30-150
EPA 8082	DCB	30-150	30-150
EPA 8151	DCAA	30-130	30-120
EPA 8260	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8270, AE	2-Fluorophenol	21-110	25-121
EPA 8270, AE	Phenol-d5	10-110	24-113
EPA 8270, AE	2,4,6-Tribromophenol	10-123	19-122
EPA 8270, BN	Nitrobenzene-d5	35-114	23-120
EPA 8270, BN	2-Fluorobiphenyl	43-116	30-115
EPA 8270, BN	Terphenyl-d14	33-141	18-137
DOH 310-13	Dodecane	40-110	40-110
DOH 310-14	Dodecane	40-110	40-110
DOH 310-15	Dodecane	40-110	40-110
DOH 310-34*	4-BFB	50-150	50-150
8015M_GRO*	4-BFB	50-150	50-150
8015M_DRO*	Terphenyl-d14	50-150	50-150

*Run by GC/MS.

Units Key:	ug/l = microgram per liter ug/kg = microgram per kilogram mg/l = milligram per liter mg/kg = milligram per kilogram %R = Percent Recovery

Life Science Laboratories, Inc.

0319069
EAEng

CHAIN OF CUSTODY RECORD

LSL Central Lab
5854 Butternut Drive
E. Syracuse, N.Y. 13057
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LSL North Lab
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LSL Finger Lakes I
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Wayland, N.Y. 14572
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Fax: (585)728-2711

Cuba, N.Y. 14727
Phone: (585)968-2640
Fax: (585)968-0908

Turnaround Time

Normal	Pre-Authorized			
14 DAY ☐	Next Day* ☐	3-Day * ☐	*Additional Charges may apply
	2-Day * ☐	7-Day* ☐	

Date Needed or Special Instructions:

Report Address:
Name: Robert S. Casey
Company: EA SCIENCE & TECHNOLOGY
Street: 6731 COLLAMER RD
City/State: E. SYRACUSE, NY
Zip: 13057
Phone: 315 431 4610
Fax: 315 431 4280
Email: rcasey@eaest.com

Authorization or P.O. # 120460.83.0005

Client Project ID/Client Site ID WITMER ROAD LANDFILL

LSL Project Number

Client's Sample Identifications	Sample Date	Sample Time	Type grab/comp	Matrix	Preserv Added	Containers #	Containers size/type	Analyses	Preserv Check	LSL ID#
WRL-EFF-120203	20DEC03	1330	grab	GW	H_2SO_4	1	500mL	TKN, NH_3, COD		001A
					NONE	1	500mL	BOD, TSS		B
					HNO_3	1	500mL	METALS		C
					NONE	1	8 oz	pH		d
					NONE	1	8 oz	Cr+6 Nitrate, Nitrite		E
					HCl	2	40mL	610/620		FG

Custody Transfers

		Date	Time
Sampled By: Robert S. Casey	Received By:		
Relinquished By:	Received By:		
Relinquished By:	Rec'd for Lab By:	12-03-03	09:06 RCVD
Shipment Method: DROP OFF	Received Intact: Y N	Sample Temp	

LSL use only:

Containers this COC

*** All areas of this Chain of Custody Record MUST be filled out in order to process samples in a timely manner IN PEN ONLY ***

Reg COC

0.3°c

Robert Casey
EA Engineering, Science and Technology
6731 Collamer Road
East Syracuse, NY 13057-9759

Phone: (315) 431-4610
FAX: (315) 431-4280

Laboratory Analysis Report

For

EA Engineering, Science and Technology

Client Project ID:

12040.83.0005

LSL Project ID: **0318812**

Receive Date/Time: 11/26/03 8:45

Project Received by: CDG

Life Science Laboratories, Inc.

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East Syracuse, NY 13057
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Tel. (585) 728-3320
Fax (585) 728-2711
NYS DOH ELAP #11667

LSL Southern Tier Lab
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Cuba, NY 14727
Tel. (585) 968-2640
Fax (585) 968-0906
NYS DOH ELAP #10760

LSL Middlesex Lab
5611 Water St.
Middlesex, NY 14507
Tel. (585) 554-5347
Fax. (585) 554-6743
NYS DOH ELAP #11369

This report was reviewed by: Lynda M. Kent *Date:* 12-15-03

Life Science Laboratories, Inc

A copy of this report was sent to:

Date Printed: 12/12/03

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: WRL-Eff7-1103 **LSL Sample ID:** 0318812-001

Location: Witmer Road Landfill

Sampled: 11/25/03 14:00 **Sampled By:**

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 150.1 pH					
pH	7.7	Std. Units		11/26/03 12:41	DSB
pH Measurement Temperature	25	Degrees C		11/26/03 12:41	DSB
NYS DOH ELAP specifications require pH to be measured within one hour of sample collection.					
(1) EPA 160.2 Total Suspended Solids					
Total Suspended Solids @ 103-105 C	<4	mg/l		12/1/03	MM
(1) EPA 350.1 Ammonia					
Ammonia as N	2.1	mg/l		12/9/03	DRB
(1) EPA 351.2 TKN as N					
Total Kjeldahl Nitrogen	3.3	mg/l	12/8/03	12/9/03	DRB
(1) EPA 405.1 BOD-5					
Biochemical Oxygen Demand, 5 Day	<4	mg/l		11/26/03 16:57	MM
(1) EPA 601 Halocarbons by 624(Partial List)					
1,1-Dichloroethane	<1	ug/l		12/6/03	BD
Trichloroethene	<1	ug/l		12/6/03	BD
Surrogate (Tol-d8)	106	%R		12/6/03	BD
Surrogate (4-BFB)	92	%R		12/6/03	BD
Surrogate (1,2-DCA-d4)	86	%R		12/6/03	BD
(1) EPA 6010 Total Metals					
Barium	<0.2	mg/l	12/1/03	12/1/03	PEF
Copper	<0.01	mg/l	12/1/03	12/1/03	PEF
Nickel	<0.01	mg/l	12/1/03	12/1/03	PEF
Cadmium	<0.01	mg/l	12/1/03	12/1/03	PEF
Chromium	<0.01	mg/l	12/1/03	12/1/03	PEF
Iron	0.22	mg/l	12/1/03	12/1/03	PEF
Lead	<0.01	mg/l	12/1/03	12/1/03	PEF
Magnesium	8.1	mg/l	12/1/03	12/1/03	PEF
Manganese	0.12	mg/l	12/1/03	12/1/03	PEF
Selenium	0.012	mg/l	12/1/03	12/1/03	PEF
Silicon	2.5	mg/l	12/1/03	12/1/03	PEF
Sodium	42	mg/l	12/1/03	12/1/03	PEF
Thallium	<0.01	mg/l	12/1/03	12/1/03	PEF
Zinc	<0.01	mg/l	12/1/03	12/1/03	PEF
(1) EPA Method 300.0 A					
Nitrate as N	<0.1	mg/l		12/3/03 11:51	RAF
This analysis was performed beyond the holding time limit.					
Nitrite as N	0.88	mg/l		12/3/03 11:51	RAF
This analysis was performed beyond the holding time limit.					
(1) HACH 8000 COD					
Chemical Oxygen Demand	3.8	mg/l		12/12/03	DWK
(1) SM 18 3500Cr-D Hexavalent Chromium					
Chromium, Hexavalent	<0.01	mg/l		11/26/03 11:23	DWK

Analysis performed at NYS DOH ELAP Number: *(1) 10248, (2) 10900, (3) 11667, (4) 10760, (5) 11369*

SURROGATE RECOVERY CONTROL LIMITS FOR ORGANIC METHODS

8/14/02

Method	Surrogate(s)	Water Limits, %R	SHW Limits, %R
EPA 504	TCMX	60-120	NA
EPA 508	DCB	70-130	NA
EPA 515.4	DCAA	70-130	NA
EPA 524.2	1,2-DCA-d4, 4-BFB	60-120	NA
EPA 525.2	1,3-DM-2-NB, TPP, Per-d12	70-130	NA
EPA 526	1,3-DM-2-NB, TPP	70-130	NA
EPA 528	2-CP-3,4,5,6-d4, 2,4,6-TBP	70-130	NA
EPA 551.1	Decafluorobiphenyl	60-120	NA
EPA 552.2	2,3-DBPA	60-120	NA
EPA 601	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 602	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 608	DCB	30-150	NA
EPA 624	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 625, AE	2-Fluorophenol	21-110	NA
EPA 625, AE	Phenol-d5	10-110	NA
EPA 625, AE	2,4,6-Tribromophenol	10-123	NA
EPA 625, BN	Nitrobenzene-d5	35-114	NA
EPA 625, BN	2-Fluorobiphenyl	43-116	NA
EPA 625, BN	Terphenyl-d14	33-141	NA
EPA 8010	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8020	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8021	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8081	TCMX, DCB	30-150	30-150
EPA 8082	DCB	30-150	30-150
EPA 8151	DCAA	30-130	30-120
EPA 8260	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8270, AE	2-Fluorophenol	21-110	25-121
EPA 8270, AE	Phenol-d5	10-110	24-113
EPA 8270, AE	2,4,6-Tribromophenol	10-123	19-122
EPA 8270, BN	Nitrobenzene-d5	35-114	23-120
EPA 8270, BN	2-Fluorobiphenyl	43-116	30-115
EPA 8270, BN	Terphenyl-d14	33-141	18-137
DOH 310-13	Dodecane	40-110	40-110
DOH 310-14	Dodecane	40-110	40-110
DOH 310-15	Dodecane	40-110	40-110
DOH 310-34*	4-BFB	50-150	50-150
8015M_GRO*	4-BFB	50-150	50-150
8015M_DRO*	Terphenyl-d14	50-150	50-150

*Run by GC/MS.

Units Key:	ug/l = microgram per liter ug/kg = microgram per kilogram mg/l = milligram per liter mg/kg = milligram per kilogram %R = Percent Recovery

Life Science Laboratories, Inc.

CHAIN OF CUSTODY RECORD

0318812
EAEng

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LSL Finger Lakes
16 N. Main St.
Wayland, N.Y. 14572
Phone: (585)728-33
Fax: (585)728-2711

Fax: (585)668-0906

Turnaround Time

Normal	Pre-Authorized			
14 DAY ☐	Next Day* ☐	2-Day* ☐	3-Day* ☐	7-Day* ☐

*Additional Charges may apply

Report Address:
Name: Robert Casey
Company: EA SCIENCE & TECH
Street: 6731 COLLAMER RD
City/State: E. SYRACUSE
Phone: 315 431 4610
Email: rcasey@eaest.com
Zip: 13057
Fax: 315 431 4280

Date Needed or Special Instructions:

Authorization or P.O. # 12040.83.0005

LSL Project Number:

Client Project ID/Client Site ID WITMER ROAD LANDFILL

Client's Sample Identifications	Sample Date	Sample Time	Type grab/comp	Matrix	Preserv Added	Containers #	Containers size/type	Analyses	Preserv Check	LSL ID#
WRL-EFF7-1103	25NOV03	1400	GRAB	GW	H_2SO_4	1	500mL	TKN, NH_3, COD		001 A
					NONE	1	500mL	BOD, TSS		B
					HNO_3	1	500mL	Metals		C
					NONE	1	8oz	pH		d
					NONE	1	8oz	Cr+6, Nitrate, Nitrite		E
					HCL	2	40mL	610/620		FG

Custody Transfers

		Date	Time
Sampled By:	Received By:		
Relinquished By:	Received By:	11-26-03	08:45 RCVD
Relinquished By:	Rec'd for Lab By:		
Shipment Method: DROP OFF	Received Intact: Y/N		Sample Temp 2.7°C

LSL use only:
Containers this C-O-C

*** All areas of this Chain of Custody Record MUST be filled out in order to process samples in a timely manner IN PEN ONLY***

Reg COC

Robert Casey
EA Engineering, Science and Technology
6731 Collamer Road
East Syracuse, NY 13057-9759

Phone: (315) 431-4610
FAX: (315) 431-4280

Laboratory Analysis Report

For

EA Engineering, Science and Technology

Client Project ID:

12040.83.0005

LSL Project ID: **0318613**

Receive Date/Time: 11/21/03 11:35

Project Received by: GS

Life Science Laboratories, Inc.

LSL Central Lab
5854 Butternut Drive
East Syracuse, NY 13057
Tel. (315) 445-1105
Fax (315) 445-1301
NYS DOH ELAP #10248

LSL North Lab
131 St. Lawrence Avenue
Waddington, NY 13694
Tel. (315) 388-4476
Fax (315) 388-4061
NYS DOH ELAP #10900

LSL Finger Lakes Lab
16 N. Main St., PO Box 424
Wayland, NY 14572
Tel. (585) 728-3320
Fax (585) 728-2711
NYS DOH ELAP #11667

LSL Southern Tier Lab
30 East Main St.
Cuba, NY 14727
Tel. (585) 968-2640
Fax (585) 968-0906
NYS DOH ELAP #10760

LSL Middlesex Lab
5611 Water St.
Middlesex, NY 14507
Tel. (585) 554-5347
Fax. (585) 554-6743
NYS DOH ELAP #11369

This report was reviewed by: Lynda M Hunt *Date:* 12-10-03

Life Science Laboratories, Inc

A copy of this report was sent to:

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: WRL-Eff7-1103 **LSL Sample ID:** 0318613-001

Location: BOC Gases

Sampled: 11/20/03 9:30 **Sampled By:** RC

Sample Matrix: NPW

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 150.1 pH					
pH	2.1	Std. Units		11/21/03 14:49	DSB
pH Measurement Temperature	25	Degrees C		11/21/03 14:49	DSB
NYS DOH ELAP specifications require pH to be measured within one hour of sample collection.					
(1) EPA 160.2 Total Suspended Solids					
Total Suspended Solids @ 103-105 C	12	mg/l		11/25/03	MM
(1) EPA 350.1 Ammonia					
Ammonia as N	2.9	mg/l		12/5/03	DRB
(1) EPA 351.2 TKN as N					
Total Kjeldahl Nitrogen	2.3	mg/l	12/2/03	12/3/03	DRB
(1) EPA 405.1 BOD-5					
Biochemical Oxygen Demand, 5 Day	<4	mg/l		11/21/03 15:21	MM/JRG
(1) EPA 601 Halocarbons by 624(Partial List)					
1,1-Dichloroethane	<1	ug/l		12/4/03	BD
Trichloroethene	<1	ug/l		12/4/03	BD
Surrogate (Tol-d8)	115	%R		12/4/03	BD
Surrogate (4-BFB)	114	%R		12/4/03	BD
Surrogate (1,2-DCA-d4)	109	%R		12/4/03	BD
(1) EPA 6010 Total Metals					
Nickel	<0.01	mg/l	11/24/03	11/24/03	PEF
Copper	<0.01	mg/l	11/24/03	11/24/03	PEF
Barium	<0.01	mg/l	11/24/03	11/24/03	PEF
Cadmium	<0.01	mg/l	11/24/03	11/24/03	PEF
Chromium	<0.01	mg/l	11/24/03	11/24/03	PEF
Iron	1.7	mg/l	11/24/03	11/24/03	PEF
Lead	<0.01	mg/l	11/24/03	11/24/03	PEF
Magnesium	5.8	mg/l	11/24/03	11/24/03	PEF
Manganese	0.30	mg/l	11/24/03	11/24/03	PEF
Selenium	<0.01	mg/l	11/24/03	11/24/03	PEF
Silicon	3.0	mg/l	11/24/03	11/24/03	PEF
Sodium	41	mg/l	11/24/03	11/24/03	PEF
Thallium	<0.01	mg/l	11/24/03	11/24/03	PEF
Zinc	<0.01	mg/l	11/24/03	11/24/03	PEF
(1) EPA Method 300.0 A					
Nitrate as N	0.83	mg/l		11/21/03 18:39	RAF
Nitrite as N	<0.1	mg/l		11/21/03 18:39	RAF
(1) HACH 8000 COD					
Chemical Oxygen Demand	14	mg/l		12/4/03	DWK
(1) SM18-2540C Total Dissolved Solids					
Total Dissolved Solids @ 180 C	480	mg/l		11/25/03	MM

Analysis performed at NYS DOH ELAP Number: *(1) 10248, (2) 10900, (3) 11667, (4) 10760, (5) 11369*

-- LABORATORY ANALYSIS REPORT --

EA Engineering, Science and Technology *East Syracuse, NY*

Sample ID: Trip Blank **LSL Sample ID:** 0318613-002

Location: BOC Gases

Sampled: 11/20/03 0:00 **Sampled By:**

Sample Matrix: TB

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 601 Halocarbons by 624(Partial List)					
1,1-Dichloroethane	<1	ug/l		12/4/03	BD
Trichloroethene	<1	ug/l		12/4/03	BD
Surrogate (Tol-d8)	113	%R		12/4/03	BD
Surrogate (4-BFB)	116	%R		12/4/03	BD
Surrogate (1,2-DCA-d4)	115	%R		12/4/03	BD

SURROGATE RECOVERY CONTROL LIMITS FOR ORGANIC METHODS
8/14/02

Method	Surrogate(s)	Water Limits, %R	SHW Limits, %R
EPA 504	TCMX	80-120	NA
EPA 508	DCB	70-130	NA
EPA 515.4	DCAA	70-130	NA
EPA 524.2	1,2-DCA-d4, 4-BFB	80-120	NA
EPA 525.2	1,3-DM-2-NB, TPP, Per-d12	70-130	NA
EPA 526	1,3-DM-2-NB, TPP	70-130	NA
EPA 528	2-CP-3,4,5,6-d4, 2,4,6-TBP	70-130	NA
EPA 551.1	Decafluorobiphenyl	80-120	NA
EPA 552.2	2,3-DBPA	80-120	NA
EPA 601	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 602	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 608	DCB	30-150	NA
EPA 624	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 625, AE	2-Fluorophenol	21-110	NA
EPA 625, AE	Phenol-d5	10-110	NA
EPA 625, AE	2,4,6-Tribromophenol	10-123	NA
EPA 625, BN	Nitrobenzene-d5	35-114	NA
EPA 625, BN	2-Fluorobiphenyl	43-116	NA
EPA 625, BN	Terphenyl-d14	33-141	NA
EPA 8010	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8020	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8021	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8081	TCMX, DCB	30-150	30-150
EPA 8082	DCB	30-150	30-150
EPA 8151	DCAA	30-130	30-120
EPA 8260	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8270, AE	2-Fluorophenol	21-110	25-121
EPA 8270, AE	Phenol-d5	10-110	24-113
EPA 8270, AE	2,4,6-Tribromophenol	10-123	19-122
EPA 8270, BN	Nitrobenzene-d5	35-114	23-120
EPA 8270, BN	2-Fluorobiphenyl	43-116	30-115
EPA 8270, BN	Terphenyl-d14	33-141	18-137
DOH 310-13	Dodecane	40-110	40-110
DOH 310-14	Dodecane	40-110	40-110
DOH 310-15	Dodecane	40-110	40-110
DOH 310-34*	4-BFB	50-150	50-150
8015M_GRO*	4-BFB	50-150	50-150
8015M_DRO*	Terphenyl-d14	50-150	50-150

*Run by GC/MS.

Units Key:	ug/l = microgram per liter ug/kg = microgram per kilogram mg/l = milligram per liter mg/kg = milligram per kilogram %R = Percent Recovery

Life Science Laboratories, Inc.
CHAIN OF CUSTODY RECORD

LSL North Lab.
131 St. Lawrence Ave.
Waddington, N.Y. 13694
Phone: 315-388-4476
Fax: 315-388-4061

LSL Central Lab.
5854 Butternut Drive
E. Syracuse, N.Y. 13057
Phone: 315-445-1105
Fax: 315-445-1301

LSL Finger Lakes Lab.

0318613
EAEng

Report Address:
Name: Robert Scasey
Company: EA Sciences & Technology
Street: 6731 Collamer Road
City/State: E. Syracuse, NY
Zip: 13057
Phone: 431 4610
Fax: 431.4280
Email: rcasey @ easust.com
Client Project ID/Client Site ID: 12040.83.0005 BOL GASES

Turnaround: Normal 14 DAY ☐ Pre-Authorized: Next Day* ☐ 2-Day* ☐ 3-Day* ☐ 7-Day* ☐ *Additional Charges may apply

Date Needed or Special Instructions:

Authorization or P.O. #

LSL Project Number:

Client's Sample Identifications	Sample Date	Sample Time	Type grab/comp	Matrix	Preserv Added	Containers #	Containers size/type	Analyses	Preserv Check	LSL ID#
WEL-EFFT-1103	20 NOV 2003	0930	GRAB	GW	NONE	1	500mL	BOD, TSS, TDS		001 A
↓	↓	↓	↓	↓	H_2SO_4	1	500mL	TKN, NH_3, COD		B
					HNO_3	1	500ml	Metals Cd, Cr, Fe, Pb, Mg, Mn,	Ti, Zn, Si, Se, Na	C
					NONE	1	Amber	pH		d
					Hcl	2	4mL	EPA 610/620		EF
					NONE	1	250ml	Nitrate, Nitrite.		G
Trip Blank										002 AB

LSL use only:

Containers this C-O-C

Custody Transfers

				Date	Time
Sampled By:	Robert S. Casey	Received By:			
Relinquished By:		Received By:			
Relinquished By:	Robert S. Casey	Rec'd for Lab By:	[signature]	11-21-03	11:35 RCV
Shipment Method:	Drop off	Received Intact:	Y (N)	Sample Temp	

*** All areas of this Chain of Custody Record MUST be filled out in order to process samples in a timely manner IN PEN ONLY***

Coc

4.3°C on Ia