



6 December 2001

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DEC 07 2001

NYSDEC - REG. 9
FOIL
X REL UNREL

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

RE: Third Quarter Year 2001 Monitoring Event Letter Report, Site No. 932001,
 Airco Properties Inc., Witmer Road Landfill, Niagara Falls, New York
 EA Project No. 12040.69

Dear Mr. Hinton:

EA Engineering, P.C. and its affiliate EA Engineering, Science, and Technology are pleased to provide three copies of the Third Quarter Year 2001 Monitoring Event Letter Report. During December 2000, the post-closure monitoring and facility maintenance program was initiated at the Witmer Road Landfill 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 third quarter Year 2001 ground-water monitoring event that was completed at this site in September 2001.

OBJECTIVES

In accordance with the Revised Final Post-Closure Monitoring and Facility Maintenance Plan (EA 2001a)¹, environmental monitoring points will be maintained and sampled during the post-closure monitoring period. This includes collection of ground-water, surface water, and leachate samples. The Revised Final Post-Closure Monitoring and Facility Maintenance Plan (EA 2001, Appendix A) documents sampling locations and sampling parameters and methods, in addition to other required maintenance activities, such as landfill cap inspections. It is anticipated that within 5 years of the start of post-closure monitoring, this Plan will be re-evaluated based on the data collected at the site so that the Plan will be focused to address site-specific issues that may be identified.

The objectives of the Post-Closure Monitoring and Facility Maintenance Program are to:

- Collect representative ground-water and surface water samples in order to monitor any potential leachate migration from the landfill, and to document the effectiveness of the recently installed landfill capping system.

1. EA Engineering, Science, and Technology. 2001. Interim Remedial Measure Report Documenting Closure of the Witmer Road Landfill, Niagara Falls, New York. January.

- Evaluate these data to determine whether any potential impacts may be occurring that could affect human health or the environment
- Provide this information to the BOC Group and the New York State Department of Environmental Conservation (NYSDEC).

As noted in the Revised Final Post-Closure Monitoring and Facility Maintenance Plan (EA 2001a), the results of the quarterly 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 event. This letter report summarizes the findings of the fourth post-closure monitoring event completed at this site. Beginning with calendar year 2001, an annual report will be issued that will provide an assessment of site analytical data trends, other findings, conclusions, and recommendations. No annual report for 2000 was prepared as only one round of data was collected for post-closure monitoring during 2000. Therefore, the first annual report will document findings for quarterly monitoring events during the 2001 calendar year, plus the one sampling event conducted in December 2000.

BACKGROUND

The Witmer Road Landfill 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 covers approximately 150 acres and is comprised of smaller parcels. This quarterly sampling event focused on the 25-acre Airco parcel operated by the BOC Group on which the Witmer Road Landfill is located. 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 ground water during the Immediate Investigative Work Assignment indicated that surface water and ground-water 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.

Interim remedial measures were completed at the Witmer Road Landfill during 2000, which included completion of an impermeable cap and leachate relief system. A complete description of the history of the site, and the construction details of the landfill capping system, can be found in the Interim Remedial Measure Report (EA 2001).

MONITORING EVENT FIELD ACTIVITIES

The third quarter 2001 monitoring event included the following activities:

- Relief pipe flow monitoring
- Monitoring well gauging
- Ground-water sampling
- Leachate sampling
- Landfill engineering inspection.

No surface water sampling was conducted during the monitoring event as surface water sampling locations were dry during this event. Further detail on the above activities is discussed below.

Relief Pipe Flow Monitoring

On 1 August 2001, EA personnel installed flow monitoring equipment onto the relief pipe to assess the flow rate of the discharge from the relief pipe. The equipment logged flow data every 30 minutes from 1 August to 24 October 2001. The equipment was removed at that time to prevent potential damage due to inclement weather. Presentation and discussion of the data will be included in the annual report. Flow monitoring will commence in Spring 2002 to obtain additional flow data prior to preparation of final conclusions.

Monitoring Well Gauging

The site monitoring wells (MW-1B through MW-8B) were gauged on 18 September 2001 prior to sampling. The depth to water ranged from 7.17 ft at MW-6B to 17.40 ft at MW-2B. Gauging data are summarized in the table below:

Well ID	Gauging Date	Depth to Water (ft MSL)	Well Elevation (ft above MSL)	Water Elevation (ft MSL)
MW-1B	18 SEP 01	16.42	617.77	601.35
MW-2B	18 SEP 01	17.40	615.88	598.48
MW-3B	18 SEP 01	13.48	611.22	597.74
MW-4B	18 SEP 01	14.36	606.68	592.32
MW-5B	18 SEP 01	13.48	605.48	592.00
MW-6B	18 SEP 01	7.17	603.47	596.30
MW-7B	18 SEP 01	12.67	609.48	596.81
MW-8B	18 SEP 01	10.73	611.62	600.89

NOTE: MSL = Mean sea level.

Figure 2 provides the interpreted ground-water potentiometric surface contour map based on gauging data collected on 18 September 2001.

Ground-Water and Leachate Sampling Procedures

Monitoring wells were sampled on 19 September 2001. Six ground-water samples were collected from the site monitoring wells. Two of the monitoring wells (MW-4B and MW-5B) contained less than 1 ft of standing water each, and this could not produce sufficient water to enable purging and

sampling. Monitoring wells MW-3B, MW-7B, and MW-8B were purged using dedicated bailers due to low recharge and well volume. These wells were bailed dry at least once and allowed to recharge prior to sample collection. Monitoring wells MW-1B, MW-2B, and MW-6B yielded adequate recharge rates; consequently, 4 well volumes were purged and water quality indicator parameters allowed to stabilize prior to sample collection. One leachate sample was also collected. Although no flow was observed from the relief pipe, the sample was collected from inside the riser pipe. Samples were submitted to Environmental Laboratory Services of North 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.

Ground-water sampling results were compared to NYSDEC Ambient Water Quality Standards (AWQS) (NYSDEC 1999)² and guidance values for GA waters. Leachate samples were compared to NYSDEC AWQS for Class D waters. If no Class D standards were applicable for a particular analyte, analytical results were compared to the more stringent Class C standards. 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 has approved a reduction in the sampling requirements for the remaining 2001 sampling event. As per a letter to NYSDEC dated 5 June 2000, samples will be 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. Notable results of chemical analyses are as follows.

Metals

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

- Chromium, hexavalent chromium, iron, lead, magnesium, manganese, selenium, and sodium were detected in one or more of the ground-water samples at concentrations in excess of NYSDEC AWQS.
- Hexavalent chromium was detected in excess of the NYSDEC AWQS in the leachate sample. However, no discharge was observed from this location at the time of sample collection.

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

Water Quality Parameters

Water quality parameters, including ammonia (expressed as N), phenolics, and sulfate, were also analyzed. Notable results included the following:

- Phenolics were detected above AWQS in the sample collected from monitoring well MW-2B.
- Sulfate was detected in excess of AWQS in samples collected from monitoring wells MW-6B and the associated duplicate, and MW-8B.

LANDFILL INSPECTION

A landfill cap inspection was conducted on 18 September 2001. The Landfill Cap Inspection Checklist is provided as Attachment E. No deterioration or damage to the landfill, cap, drainage swales, or access roads was noted during the engineering inspection.

If you have any questions regarding the results of this Third Quarter 2001 Monitoring Event, please do not hesitate to contact Charles McLeod at (845) 565-8100.

Sincerely,

EA ENGINEERING, P.C.



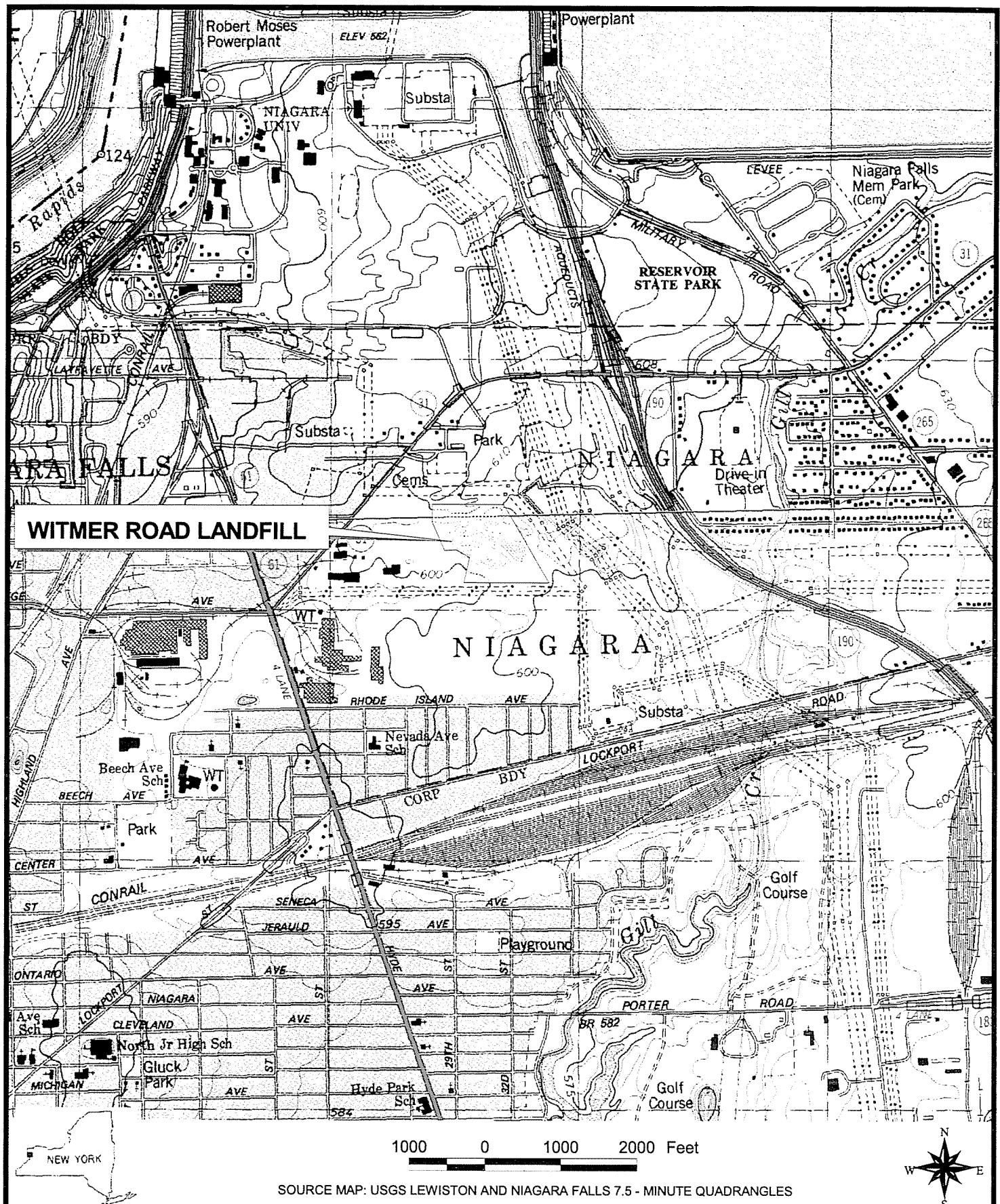
Charles E. McLeod, Jr., P.E.
Vice President

EA ENGINEERING, SCIENCE,
AND TECHNOLOGY

Scott Graham/mhp
Scott Graham
Project Geologist

CEM/caw
Attachments

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

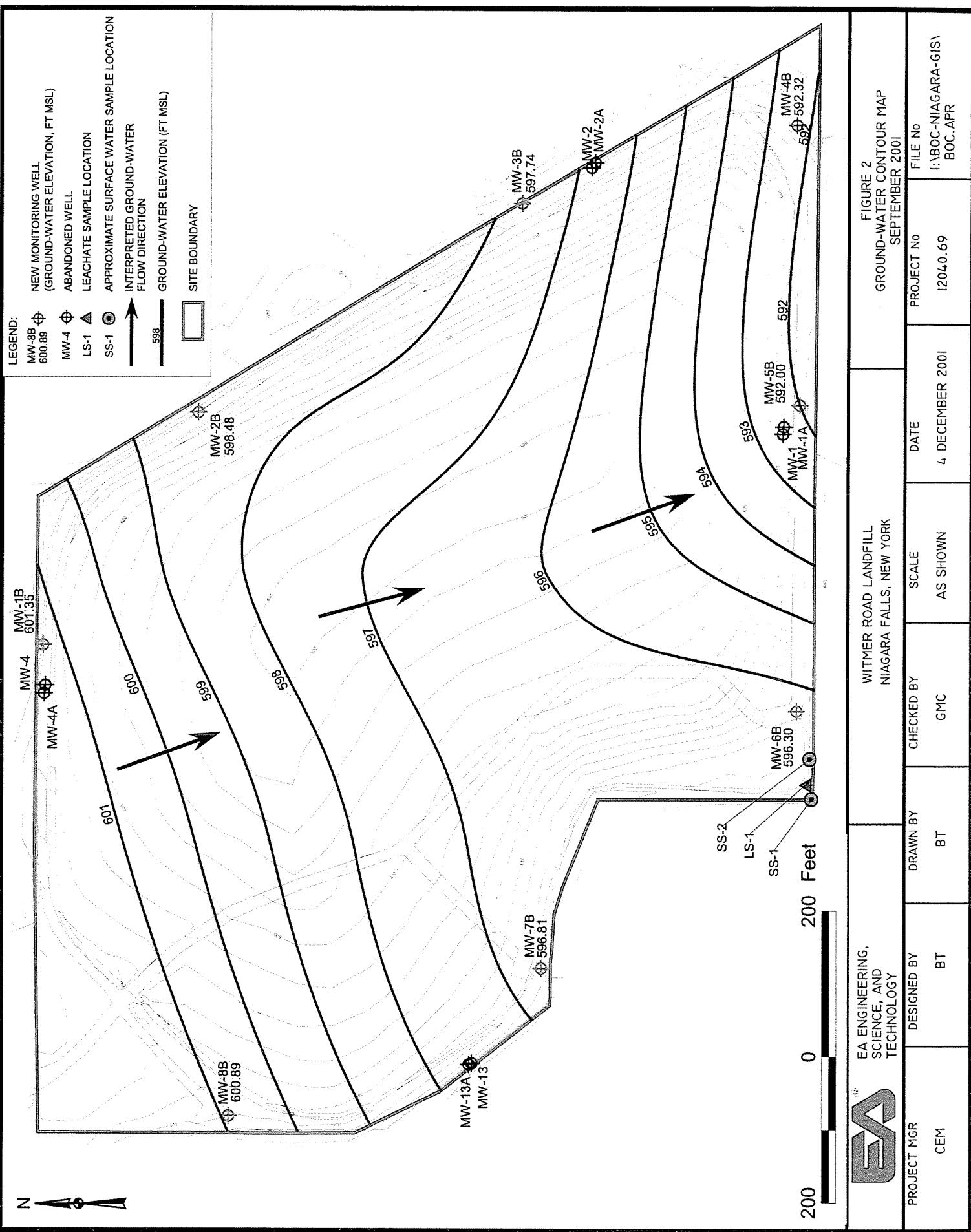


EA ENGINEERING,
SCIENCE, AND
TECHNOLOGY

WITMER ROAD LANDFILL
NIAGARA FALLS, NEW YORK

FIGURE I
SITE LOCATION MAP

PROJECT MGR	DESIGNED BY	DRAWN BY	CHECKED BY	SCALE	DATE	PROJECT No	FILE No
CEM	BT	BT	CEM	AS SHOWN	24 JULY 2001	I2040.69	I:\BOC-NIAGARA-GIS\BOC.APR



Attachment A

Summary of Analytical Data

ATTACHMENT A SUMMARY OF ANALYTICAL RESULTS OF GROUND-WATER, SURFACE WATER,
AND LEACHATE SAMPLES COLLECTED 19-20 SEPTEMBER 2001,
WITMER ROAD LANDFILL, NIAGARA FALLS, NEW YORK

Ground Water

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

Total (Unfiltered)

	AWQS	WRL MW1B	WRL MW2B	WRL MW3B	WRL MW6B	WRL MW6B (Dup)	WRL MW7B	WRL MW8B
Compound/Element	AWQS							
Chromium	0.05	0.011	0.333	(<0.005U)	0.007	(<0.005U)	0.231	0.136
Chromium, Hexavalent	0.05	(<0.01U)	0.299	(<0.01U)	(<0.01U)	(<0.01U)	0.18	0.146
Iron	0.3		3.4	0.98	0.26	0.186	0.103	6
Lead	0.025	0.015	0.039	(<0.005U)	(<0.005U)	(<0.005U)	(<0.005U)	(<0.005U)
Magnesium	35*	61.3	1.4	10.9	69.2	67.6	10.4	62.1
Manganese	0.3	0.672	0.03	0.008	0.079	0.067	0.151	0.19
Selenium	0.01	(<0.005U)	0.008	(<0.005U)	(<0.005U)	(<0.005U)	(<0.005U)	0.125
Silica	---	21	2.91	13.4	12.1	12.3	19.1	15.3
Sodium	20	137	57.1	44.9	66.8	65.2	56.8	174
Zinc	2*	0.27	0.023	(<0.005U)	(<0.005U)	(<0.005U)	0.011	0.021

Water Quality Parameters (mg/L)

	AWQS	WRL MW1B	WRL MW2B	WRL MW3B	WRL MW6B	WRL MW6B (Dup)	WRL MW7B	WRL MW8B
Compound/Element	AWQS							
Ammonia (expressed as N)	2	(<1U)	2	(<1U)	(<1U)	(<1U)	(<1U)	(<1U)
Phenolics	1	(<2U)	13.6	(<2U)	(<2U)	(<2U)	(<2U)	(<2U)
Sulfate	250	209	13.9	23.1	252	270	37	419

Leachate

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

Total (Unfiltered)

	WRL L1
Compound/Element	AWQS
Chromium	---
Chromium, Hexavalent	0.016
Iron	0.3
Lead	---
Magnesium	---
Manganese	---
Selenium	---
Silica	---
Sodium	---
Zinc	---

Water Quality Parameters (mg/L)

	WRL L1
Compound/Element	AWQS
Ammonia (expressed as N)	---
Phenolics	---
Sulfate	---

ATTACHMENT A (CONTINUED)

QA/QC**Baseline Metals by EPA Method 6010/6020 (mg/L)****Total (Unfiltered)**

Compound/Element	AWQS	Rinse Blank	Source Water Blank
Chromium	---	(<0.005U)	(<0.005U)
Chromium, Hexavalent	---	(<0.01U)	(<0.01U)
Iron	---	(<0.025U)	(<0.025U)
Lead	---	(<0.005U)	(<0.005U)
Magnesium	---	(<1U)	(<1U)
Manganese	---	(<0.005U)	(<0.005U)
Selenium	---	(<0.005U)	(<0.005U)
Silica	---	(<0.21U)	(<0.21U)
Sodium	---	(<1U)	(<1U)
Zinc	---	(<0.005U)	(<0.005U)

Water Quality Parameters (mg/L)

Compound/Element	AWQS	Rinse Blank	Source Water Blank
Ammonia (expressed as N)	---	(<1U)	(<1U)
Phenolics	---	(<2U)	(<2U)
Sulfate	---	(<2U)	(<2U)

Attachment B

**Field Monitoring and
Sampling Notes**

W19 SEP01

- ON SITE @ 0900 (T HAYWARD, J. CLARK)
- SUNNY 70°
- UNLOCK MULKS, SET UP TO SAMPLE
- MEET JOHN @ 1030

- MW - 3, 7, 8 → Ball
- MW - 1, 2, 6 → Pump
- MW - 4, 5 = DRY ∵ NO SAMPLES

WATER QUALITY AND SAMPLING DATA

MWL-B

DTW: 16.42

TIME: 11:30

PARAM	INIT.	1	2	3	4
TIME	11:30	11:30	11:30	11:30	11:30
SH	0.57	7.90	7.02	7.02	7.03
TEMP	12.26	12.10	12.20	12.54	12.73
PHD	11.25	1.34	1.37	1.42	1.43
DO	5.62	4.63	3.66	3.18	3.16
TURB	500.0	114.6	73.2	27.0	23.9
SHL	0.1	0.1	0.1	0.1	0.1
DTW	16.17	-	18.94	18.97	-
RATE	0.25 m	-	-	-	-

WRL-MWL-B-0901 CONDUCTED @ 1155

WATER QUALITY AND SAMPLING DATA
WRL-0901 CONCRETE @ 1255

MW-7B
DTW: 1240 TIME: 1230

PARAM.	INITIAL	1	2	3	4
TIME	12:30	12:41	12:42	12:46	
pH	13.37	13.55	13.57	13.50	13.46
TEMP	13.24	13.55	17.95	17.33	19.36
COND	4.70	4.55	4.45	4.45	4.43
DO	5.39	2.86	2.96	3.19	3.22
TURB	62.3	32.0	22.7	27.4	21.6
SAL	0.2	0.2	0.2	0.2	0.2
DTW	-	26.75	-	-	-
RATE	0.25dm	-	-	-	→

WRL- MWB-0901 CONCRETE @ 1255

WRL - MW-3B-0901 CONCRETE @ ~~1255~~ ^{see 2000} notes

MW-3B
DTW: 1248 TIME: 1208

PARAM.	INITIAL	1	2	3	4
TIME	12:00	12:20	12:20	12:20	
pH	9.74	9.74	10.26		
TEMP	2.47	19.92			
COND	0.511	0.459			
DO	5.62	5.39			
TURB	0	0	15.1		
SAL	0	0	0		
DTW	-	-	13.80		
RATE	1.0	3.0			

W19 SEP 01
WATER QUALITY AND SAMPLING DATA

MW - 6B

TIME: 1320
DTW: 7.17

TIME: 1320

INT.	1	2	3	4
TIME	1320	1320	1332	1338
pH	8.10	8.09	8.09	8.03
TEMP	13.98	15.44	16.00	17.12
COND	1.06	1.04	1.05	1.05
DO	6.56	3.78	3.55	2.68
TDS	116.0	78.6	73.0	61.4
SAL	0	0	0	0

WRL = MW6B - 0901...@. 1345

BALD PRT @ 1245

" " 3 gal
② 1432, ~2 gal

NOTE:

SAMPLE TO BE COLLECTED IMMEDIATELY!

W19 SEP 01
WATER QUALITY AND SAMPLING DATA

MW - 7B

TIME: 1150

TIME: 1245

INT.	1	2	3	4
TIME	1150	1150	1150	1150
pH	9.32			
TEMP	18.11			
COND	0.371			
DO	6.10			
TDS	14.1			
SAL	0.0			

BALD PRT @ 1245

" " 3 gal
② 1432, ~2 gal

NOTE:

SAMPLE TO BE COLLECTED IMMEDIATELY!

17.25 FT @ 1245

58 60

W19SE01

WATER QUALITY AND SAMPLES, DELTA

MW-8B

DTE: 10.7.3 TIME: 11:40

ITEM	INIT.	1	2	3	4
TIME	11:40	12:22	④		
pH	8.32				
TEMP	20.0				
CHL	1.54				
DO	7.39				
TDS	17.2				
CAL	0.1				

BALD DAY @ 1250, ~ 3 gal
BAKED DAY @ 1445, ~ 2 galNOTE: SAMPLE TO BE COLLECTED
TOMORROWTURB: 19.6
SAL: 0.1PH: 13.64
TEMP: 12.47
COND: 2.26
DO: 10.76* NO SURFACE H₂O AVAIL. FOR SAMPLING

R20001

61

WEATHER: 70°, CLOUDY
 PERSONNEL: J. CLARK
 ON SITE @ 0745 TO COLLECT SAMPLES
 FROM MW2B, MW1B, MW0B. ALSO
 TO COLLECT LEACHATE, RINSATE AND
 SOURCE WATER SAMPLES.

WRL - MW3B - 0901 COLLECTED @ 0920
 WRL - MW1B - 0901 COLLECTED @ 0920
 WRL - MW3B - 0901 COLLECTED @ 0940
 WRL - L1 - 0901 COLLECTED @ 0955
 WRL - RB - 0901 COLLECTED @ 0915
 WRL - SWB - 0901 COLLECTED @ 0930

LEACHATE WATER QUALITY

INTERROGATE FLOW LOGGER @ 0950.

- DRAINAGE PIPE COMPLETED DAY
NO H₂O BEING DISCHARGED
- LOGGER INDICATE Open
OF H₂O DISCHARGED SINCE
LAST INTERROGATION
- CHECK DESSICANTS → OK
- CHECK BATTERIES → OK

TIBSEP01

230AUG01

WEATHER: 75°, SUN

PERSONNEL: J. HAYWARD

FLOW

ONSITE FOR LANDFILL INSPECTION

- ARRIVED @ 1315, GATES LOCKED

- GAUGE ALL MWS DTS

MW 1B 16.42 (21.90)

2B 17.40 (22.58)

3B 13.48 (18.35)

4B 14.36 (15.08)

5B 13.48 (14.17)

6B 7.17 (22.98)

7B 12.67 (21.72)

8B 10.73 (15.60)

1530 LOCK UP, GO TO KSMART FOR
SUPPLIES

CJ Ck 9/18/01

Attachment C

**Laboratory Chain-of-Custody
Documents**



**Environmental
LABORATORY SERVICES**
20780 Caswell Street, Hancock Air Park
(315) 488-8033 FAX (315) 458-0249
North Syracuse, NY 13212 (800) 843-8265

10 Caswell Street, Hancock Air Park North Syracuse, NY 13212
5) 458-8033 FAX (315) 458-0249 (800) 843-8265

CHAIN OF CUSTODY RECORD

and Authorization for Analysis



Environmental LABORATORY SERVICES

7280 Caswell Street, Hancock Air Park North Syracuse, NY 13212
(315) 458-8033 FAX (315) 458-0249 (800) 843-8265

CHAINS OF CUSTODY RECORD and Authorization for Analysis

and Authorization for Analysis

Name	Scot Graham	Title	Container Type/Preservative		Analyses Required, Remarks, and/or Special Instructions	
Company	E.A. Engineering	Dept.				
Address	737 Fly Rd.	Job/PO No.				
City, State, Zip	East Syracuse, NY 13057					
The following services may result in additional charges:						
<input type="checkbox"/> Telephone Results	Telephone No. _____	431-4280	<input type="checkbox"/> Advance Agreement Required			
<input type="checkbox"/> Fax Results	Fax No. _____		<input type="checkbox"/> 1 Week	<input checked="" type="checkbox"/> 48 Hour		
To be completed by Sampler: Please remember to record this information on the container label.						
ELS Number	*Date	*Time	*Comp.	*Grab	*Matrix	*Sampling Location
24115	202001005		X	WRL - MWB-C01	Amber	51st & 4th
24116					Plastic	12504
24117					Plastic	4 NO 3
24118					Plastic/NO Pres	51st & 4th
Containers Dispensed by: <u>SC</u>						
Relinquished by:	Date	Time	Container(s) Received by:		Date	Time
Relinquished by:	Date	Time	Received by:		Date	Time
Relinquished by:	Date	Time	Received by:		Date	Time
Relinquished by:	Date	Time	Received at Lab by:		Date	Time
White - LABORATORY						
Canary - COMPANIES RESULTS						
Please return completed form and all sample containers to Environmental Laboratory Services						
Print - CLIENT						
2007 ELS Form						



Environmental LABORATORY SERVICES

77280 Caswell Street, Hancock Air Park North Syracuse, NY 13212
(315) 458-8033 FAX (315) 458-0249 (800) 843-8265

CHAIN OF CUSTODY RECORD

and Authorization for Analysis

and Authorization for Analysis

77280 Caswell Street, Hancock Air Park North Syracuse, NY 13212
(315) 458-8033 FAX (315) 458-0249 (800) 843-8265

Name	Graham	Title	Container Type/Preservative	
Company	E.A. Engineering	Dept.		
Address	737 FLY Rd.	Job/PO No.		
City, State, Zip	East Syracuse, NY 13057			
The following services may result in additional charges: <input type="checkbox"/> Telephone Results Telephone No. <u>431-4230</u> Advance Agreement Required <input type="checkbox"/> Fax Results Fax No. <u> </u> <input type="checkbox"/> 1 Week <input checked="" type="checkbox"/> 48 Hour				
To be completed by Sampler. Please remember to record this information on the container label. ELS Number *Date *Time *Comp. *Grab *Matrix *Sampling Location <u>11111111111111111111</u> <u>0800</u> <u>X</u> <u>WATER</u> <u>MN3B-OHD</u>				
Number of Containers <input type="checkbox"/> Plastic/No Preservatives <input type="checkbox"/> Plastic/HNO ₃ <input type="checkbox"/> Plastic/H ₂ SO ₄ <input type="checkbox"/> Plastic/NaOH+Ascorbic Acid <input type="checkbox"/> Plastic/NaOH+Zinc Acetate <input type="checkbox"/> Glass/No Preservative <input type="checkbox"/> Glass/Sodium Thiosulfate <input type="checkbox"/> Amber Glass/No Pres. <input type="checkbox"/> Amber Glass/H ₂ SO ₄ , Ambar Glass/H ₂ SO ₄ , Other: (specify)				
Analyses Required, Remarks, and/or Special Instructions <small>Indicate which analyses are required. Check all applicable boxes.</small>				



**Environmental
LABORATORY SERVICES**
7280 Caswell Street, Hancock All-Park
(315) 458-6033
FAX (315) 458-0249
North Syracuse, NY 13212
(800) 843-9265

EDUCATIONAL SERVICES
7280 Caswell Street, Hancock Air Park North Syracuse, NY 13212
(315) 458-8033 FAX (315) 458-0249 (800) 843-8265

CHAIN OF CUSTODY RECORD

and Authorization for Analysis



Environmental

LABORATORY SERVICES

7280 Caswell Street, Hancock Air Park North Syracuse, NY 13212
(315) 458-8033 FAX (315) 458-0249

FAX (315) 458-8033 FAX (315) 458-0249

Canary OFFICES, OJD, RECOR

and Authorization for Analysis

Name	Sample Origin	Title	Container Type/Preservative		Analyses Required, Remarks, and/or Special Instructions		
Company	C.A. Engineering	Dept.					
Address	737 Flury Rd.	Job/PO No.					
City, State, Zip	Ridge Syracuse, NY 13057						
The following services may result in additional charges: <input type="checkbox"/> Telephone Results Telephone No. <u>431-4280</u> Advance Agreement Required <input type="checkbox"/> Fax Results Fax No. <u> </u> <input type="checkbox"/> 1 Week <input checked="" type="checkbox"/> 48 Hour							
To be completed by Sampler. Please remember to record this information on the container label. ELS Number *Date *Time *Comp. *Grab *Matrix *Sampling Location 144185 10/26/01 00:40 X WDL - MURKIE 0001 1 Ambler 51255 WDL 144186 10/26/01 00:40 X WDL - MURKIE 0001 1 Ambler 51255 WDL 144187 10/26/01 00:40 X WDL - MURKIE 0001 1 Ambler 51255 WDL 144188 10/26/01 00:40 X WDL - MURKIE 0001 1 Ambler 51255 WDL							
Number of Containers Preservative Plastic/HNO ₃ Plastic/H ₂ SO ₄ Plastic/NaOH Plastic/NaOH+Zinc Acetate Plastic/Ascorbic Acid Glass/No Preservative Plastic/Glass/NaOH+Zinc Acetate Glass/Sodium Thiosulfate Amber Glass/No Pres. Amber Glass/H ₂ SO ₄ Other (specify) Other (specify)							
Canary - ACCOMPANIES RESULTS Please return completed form and all sample containers to Environmental Laboratory Services. Plnk - CLIENT Date 10/26/01 Time 12:40 Date 10/26/01 Time 12:40							
Containers Dispensed by: Relinquished by: Relinquished by: Relinquished by: Relinquished by: Sampler Signature:		Date	Time	Container(s) Received by:		Date	Time
<u>D.S.</u> Date Date Date Date Date		<u>10/26/01</u>	<u>12:40</u>	Received by:		<u>10/26/01</u>	<u>12:40</u>
		Date	Time	Received by:		Date	Time
		Date	Time	Received by:		Date	Time
		Date	Time	Received at Lab by:		Date	Time



Environmental LABORATORY SERVICES

LABORATORY SERVICES
80 Caswell Street, Hancock Air Park
(15) 458-8033 FAX (315) 458-0249
North Syracuse, NY 13212 (800) 843-8265

CHAIN OF CUSTODY RECORD

and Authorization for Analysis

and Authorization for Analysis



Environmental LABORATORY SERVICES

7280 Caswell Street, Hancock Air Park **North Syracuse, NY 13212**
(315) 458-8033 **FAX (315) 458-0249** **(800) 843-8265**

CHAIN OF CUSTODY RECORD

and Authorization for Analysis

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LABORATORY SERVICES

7280 Caswell Street, Hancock Air Park North Syracuse, NY 13212
(800) 843-9265

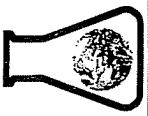
FAX (315) 458-0249

(315) 458-8033

CHAIN OF CUSTODY RECOR

and Authorization for Analysis

Name	Title	Container Type/Preservative												Analyses Required, Remarks, and/or Special Instructions	
		Plastic/NaOH/HNO ₃	Plastic/H ₂ SO ₄	Plastic/NaOH+Ascorbic Acid	Glass/NaOH+Zinc Acetate	Glass/No Preservative	Glass/Sodium Thiosulfate	Glass/H ₂ SO ₄	Amber Glass/No Pres.	Amber Glass/H ₂ SO ₄	Other: (specify)				
Robert J. Sartain															
Company	E.A. Engle Testing	Dept.													
Address	7280 Caswell Rd.	Job/PO No.													
City, State, Zip	East Syracuse, NY 13057														
The following services may result in additional charges:			Express Service			Advance Agreement Required			48 Hour						
<input type="checkbox"/> Telephone Results	Telephone No.	431-4200	<input type="checkbox"/>	1 Week	<input type="checkbox"/>	48 Hour	<input type="checkbox"/>	Not Required	<input type="checkbox"/>	24	<input type="checkbox"/>	Preserve	<input type="checkbox"/>		
<input type="checkbox"/> Fax Results	Fax No.														
To be completed by Sampler. Please remember to record this information on the container label.															
ELS Number	*Date	*Time	*Comp.	*Grab	*Matrix	*Sampling Location	Number of Containers								
10001	10/20/1345		X		MRI - MRI-B-0101		1	Plastic	1	23	4	Plastic	1		
10002							1	Plastic	1	24	4	Plastic	1		
10003							1	Plastic	1	24	4	Plastic	1		
10004							1	Plastic	1	24	4	Plastic	1		
10005							1	Plastic	1	24	4	Plastic	1		
10006							1	Plastic	1	24	4	Plastic	1		
10007							1	Plastic	1	24	4	Plastic	1		
10008							1	Plastic	1	24	4	Plastic	1		
10009							1	Plastic	1	24	4	Plastic	1		
10010							1	Plastic	1	24	4	Plastic	1		
10011							1	Plastic	1	24	4	Plastic	1		
10012							1	Plastic	1	24	4	Plastic	1		
10013							1	Plastic	1	24	4	Plastic	1		
10014							1	Plastic	1	24	4	Plastic	1		
10015							1	Plastic	1	24	4	Plastic	1		
10016							1	Plastic	1	24	4	Plastic	1		
10017							1	Plastic	1	24	4	Plastic	1		
10018							1	Plastic	1	24	4	Plastic	1		
10019							1	Plastic	1	24	4	Plastic	1		
10020							1	Plastic	1	24	4	Plastic	1		
10021							1	Plastic	1	24	4	Plastic	1		
10022							1	Plastic	1	24	4	Plastic	1		
10023							1	Plastic	1	24	4	Plastic	1		
10024							1	Plastic	1	24	4	Plastic	1		
10025							1	Plastic	1	24	4	Plastic	1		
10026							1	Plastic	1	24	4	Plastic	1		
10027							1	Plastic	1	24	4	Plastic	1		
10028							1	Plastic	1	24	4	Plastic	1		
10029							1	Plastic	1	24	4	Plastic	1		
10030							1	Plastic	1	24	4	Plastic	1		
10031							1	Plastic	1	24	4	Plastic	1		
10032							1	Plastic	1	24	4	Plastic	1		
10033							1	Plastic	1	24	4	Plastic	1		
10034							1	Plastic	1	24	4	Plastic	1		
10035							1	Plastic	1	24	4	Plastic	1		
10036							1	Plastic	1	24	4	Plastic	1		
10037							1	Plastic	1	24	4	Plastic	1		
10038							1	Plastic	1	24	4	Plastic	1		
10039							1	Plastic	1	24	4	Plastic	1		
10040							1	Plastic	1	24	4	Plastic	1		
10041							1	Plastic	1	24	4	Plastic	1		
10042							1	Plastic	1	24	4	Plastic	1		
10043							1	Plastic	1	24	4	Plastic	1		
10044							1	Plastic	1	24	4	Plastic	1		
10045							1	Plastic	1	24	4	Plastic	1		
10046							1	Plastic	1	24	4	Plastic	1		
10047							1	Plastic	1	24	4	Plastic	1		
10048							1	Plastic	1	24	4	Plastic	1		
10049							1	Plastic	1	24	4	Plastic	1		
10050							1	Plastic	1	24	4	Plastic	1		
10051							1	Plastic	1	24	4	Plastic	1		
10052							1	Plastic	1	24	4	Plastic	1		
10053							1	Plastic	1	24	4	Plastic	1		
10054							1	Plastic	1	24	4	Plastic	1		
10055							1	Plastic	1	24	4	Plastic	1		
10056							1	Plastic	1	24	4	Plastic	1		
10057							1	Plastic	1	24	4	Plastic	1		
10058							1	Plastic	1	24	4	Plastic	1		
10059							1	Plastic	1	24	4	Plastic	1		
10060							1	Plastic	1	24	4	Plastic	1		
10061							1	Plastic	1	24	4	Plastic	1		
10062							1	Plastic	1	24	4	Plastic	1		
10063							1	Plastic	1	24	4	Plastic	1		
10064							1	Plastic	1	24	4	Plastic	1		
10065							1	Plastic	1	24	4	Plastic	1		
10066							1	Plastic	1	24	4	Plastic	1		
10067							1	Plastic	1	24	4	Plastic	1		
10068							1	Plastic	1	24	4	Plastic	1		
10069							1	Plastic	1	24	4	Plastic	1		
10070							1	Plastic	1	24	4	Plastic	1		
10071							1	Plastic	1	24	4	Plastic	1		
10072							1	Plastic	1	24	4	Plastic	1		
10073							1	Plastic	1	24	4	Plastic	1		
10074							1	Plastic	1	24	4	Plastic	1		
10075							1	Plastic	1	24	4	Plastic	1		
10076							1	Plastic	1	24	4	Plastic	1		
10077							1	Plastic	1	24	4	Plastic	1		
10078							1	Plastic	1	24	4	Plastic	1		
10079							1	Plastic	1	24	4	Plastic	1		
10080							1	Plastic	1	24	4	Plastic	1		
10081							1	Plastic	1	24	4	Plastic	1		
10082							1	Plastic	1	24	4	Plastic	1		
10083							1	Plastic	1	24	4	Plastic	1		
10084							1	Plastic	1	24	4	Plastic	1		
10085							1	Plastic	1	24	4	Plastic	1		
10086							1	Plastic	1	24	4	Plastic	1		
10087							1	Plastic	1	24	4	Plastic	1		
10088							1	Plastic	1	24	4	Plastic	1		
10089							1	Plastic	1	24	4	Plastic	1		
10090							1	Plastic	1	24	4	Plastic	1		
10091							1	Plastic	1	24	4	Plastic	1		
10092							1	Plastic	1	24	4	Plastic	1		
10093							1	Plastic	1	24	4	Plastic	1		
10094							1	Plastic	1	24	4	Plastic	1		
10095							1	Plastic	1	24	4	Plastic	1		
10096							1	Plastic	1	24	4	Plastic	1		
10097							1	Plastic	1	24	4	Plastic	1		
10098							1	Plastic	1	24	4	Plastic	1		
10099							1	Plastic	1	24	4	Plastic	1		
10100							1	Plastic	1	24	4	Plastic	1		
10101							1	Plastic	1	24	4	Plastic	1		
10102							1	Plastic	1	24	4	Plastic	1		
10103							1	Plastic	1	24	4	Plastic	1		
10104							1	Plastic	1	24	4	Plastic	1		
10105							1	Plastic	1	24	4	Plastic	1		
10106							1	Plastic	1	24	4	Plastic	1		
10107							1	Plastic	1	24	4	Plastic	1		
10108							1	Plastic	1	24	4	Plastic	1		
10109							1	Plastic	1	24	4	Plastic	1		
10110							1	Plastic	1	24	4	Plastic	1		
10111							1	Plastic	1	24	4	Plastic	1		
10112							1	Plastic	1	24	4	Plastic	1		
10113							1	Plastic	1	24	4	Plastic	1		
10114							1	Plastic	1	24	4	Plastic	1		
10115							1	Plastic	1	24	4	Plastic	1		



Environmental LABORATORY SERVICES

2280 Caswell Street, Hancock Air Park North Syracuse, NY 13212
(315) 458-8033 FAX (315) 458-0249 (800) 843-8265

CHAIN OF CUSTODY RECORD

and Authorization for Analysis

and Authorization for Analysis

280 Caswell Street, Hancock Air Park North Syracuse, NY 13212
(315) 458-8033 FAX (315) 458-0249 (800) 843-8265



Environmental LABORATORY SERVICES

77280 Caswell Street, Hancock Air Park North Syracuse, NY 13212
(315) 458-8033 FAX (315) 458-0249 (800) 843-8265

CHAIN OF CUSTODY RECORD

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LABORATORY SERVICES

7280 Caswell Street, Hancock Air Park North Syracuse, NY 13212
(315) 458-8033 FAX (315) 458-0249

CHAIN OF CUSTODY RECORD

and Authorization for Analysis

Name	Scott Bryshawn	Title	Container Type/Preservative	Analyses Required, Remarks, and/or Special Instructions	
Company	E.A. Engineering	Dept.			
Address	737 Fly Rd.	Job/PO No.			
City, State, Zip		East Syracuse, NY 13057			
The following services may result in additional charges: <input type="checkbox"/> Telephone Results Telephone No. <u>431-4280</u> Advance Agreement Required <input type="checkbox"/> Fax Results Fax No. <u>431-4280</u> <input checked="" type="checkbox"/> 1 Week <input type="checkbox"/> 48 Hour					
To be completed by Sampler. Please remember to record this information on the container label. ELS Number *Date *Time *Comp. *Grab *Matrix *Sampling Location 114301 11/20/01 12:55 X NPL - MW 2.6 - C0101					
Number of Containers Container(s) Received by: Plastic/HNO ₃ Date Time Plastic/NaOH+Ascorbic Acid Date Time Plastic/NaOH+Zinc Acetate Date Time Glass/NaO Preservative Date Time Glass/Sodium Thiosulfate Date Time Amber/Glass/No Pres. Date Time Amber/Glass/H ₂ SO ₄ Date Time Other: (Specify) Date Time					
Container Dispensed by: Relinquished by: Date Time Received by: Sampler Signature: <u>John H. Bryshawn</u> Date <u>11/20/01</u> Time <u>1750</u> Received at Lab by: <u>John H. Bryshawn</u>					
Canary - ACCOMPANIES RESULTS White LABORATORY Please return complete form and sample to Environmental Laboratory Services Your signature authorizes ELS to analyze the sample(s) as indicated. Relinquished by: <u>John H. Bryshawn</u> Date <u>11/20/01</u> Time <u>1750</u> Received at Lab by: <u>John H. Bryshawn</u>					
Pink - CLIENT 227 ELI < 202.93 m Environmental Laboratory Services Your signature authorizes ELS to analyze the sample(s) as indicated. Relinquished by: <u>John H. Bryshawn</u> Date <u>11/20/01</u> Time <u>1750</u> Received at Lab by: <u>John H. Bryshawn</u>					



Environmental LABORATORY SERVICES

77280 Caswell Street, Hancock Air Park North Syracuse, NY 13212
(315) 458-8033 FAX (315) 458-0249 (800) 843-8265

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and Authorization for Analysis



Environmental LABORATORY SERVICES

7280 Caswell Street, Hancock Air Park North Syracuse, NY 13212
(315) 458-8033 FAX (315) 458-0249 (800) 843-8265

CHAIN OF CUSTODY RECORD

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7280 Caswell Street, Hancock Air Park (315) 458-8033 FAX (315) 458-0249 North Syracuse, NY 13212 (800) 843-8265



Environmental

LABORATORY SERVICES

7280 Caswell Street, Hancock Air Park
North Syracuse, NY 13212
(315) 458-0333 FAX (315) 458-0249

Canary OF CUSIJD, REJORU[®]

and Authorization for Analysis

Name	Title	Container Type/Preservative											
Company	Eng. Manager	Dept.											
Address	737 Fly Rd.	Job/PO No.											
City, State, Zip	East Syracuse, NY 13057	Analyses Required, Remarks, and/or Special Instructions											
The following services may result in additional charges:													
<input type="checkbox"/> Telephone Results	Telephone No.	431-4280	Express Service										
<input type="checkbox"/> Fax Results	Fax No.	431-4280	Advance Agreement Required										
Number of Containers													
ELS Number	*Date	*Time	*Comp.	*Grab	*Matrix	*Sampling Location							
211(8)15	2025-01	0920	X			WIFI - SWAB OBDI							
211(8)16													
211(8)17													
211(8)18													
To be completed by Sampler. Please remember to record this information on the container label.													
Containers Dispensed by:	Date	Time	Container(s) Received by:										
Relinquished by:	Date	Time	Received by:										
Relinquished by:	Date	Time	Received by:										
Relinquished by:	Date	Time	Received by:										
Relinquished by:	Date	Time	Received at Lab by:										
Sampler Signature:												Date	Time
Canary - ACCOMPANIES RESULTS												Plnk - CLIENT	
Please return completed form and all sample containers to Environmental Laboratory Services.												2017-ELS..202.930	



Environmental

LABORATORY SERVICES

7280 Caswell Street, Hancock Air Park North Syracuse, NY 13212
(315) 458-8033 FAX (315) 458-0249

CanAll OFFICES, ODI, RECOR

and Authorization for Analysis

Name	Title	Container Type/Preservative		Analyses Required, Remarks, and/or Special Instructions	
Company	E. A. Engineering	Dept.			
Address	232 Fly Rd.	Job/PO No.			
City, State, Zip	Ridge, NY 13057				
The following services may result in additional charges: <input type="checkbox"/> Telephone Results Telephone No. <u>431-4280</u> Advance Service Required <input type="checkbox"/> Fax Results Fax No. <u> </u> <input type="checkbox"/> 1 Week <input type="checkbox"/> 48 Hour					
To be completed by Sampler. Please remember to record this information on the container label. Number of Containers Container Type/Preservative					
ELS Number	*Date	*Time	*Comp.	*Grab	*Sampling Location
211525	20 SEP 01	0855	X		WBL-L1-O901
211526					
211527					
211528					
Containers Dispensed by: Relinquished by: <u>J. A. Engg</u> Date <u>2001</u> Time <u>12:00</u> Received by: Relinquished by: Date <u> </u> Time <u> </u> Received by: Relinquished by: Date <u> </u> Time <u> </u> Received by: Relinquished by: Date <u> </u> Time <u> </u> Received at Lab by: <u> </u>					
White - LABORATORY Date <u> </u> Time <u> </u> Container(s) Received by: Canary - ACCOMPANIES RESULTS Date <u> </u> Time <u> </u> <small>Please return completed form and all sample containers to Environmental Laboratory Services</small>					
Sampler Signature: <u> </u> Date <u> </u> Time <u> </u> <small>Pink - CLIENT</small> <small>2217 ELS..202.9310</small>					



Environmental

LABORATORY SERVICES North Syracuse, NY 13212
77280 Caswell Street, Hancock Air Park (800) 843-8265
(315) 458-8033 FAX (315) 458-0249

CONTINENTAL
SERVICES

VEHICLE
North Syracuse, NY 13212
49 (800) 843-8265

CHAIN OF CUSTODY RECORD
and Authorization for Analysis

and Authorization for Analysis

Attachment D

Laboratory Form I Documents



Environmental
LABORATORY SERVICES

7280 Caswell Street, Hancock Air Park, North Syracuse, NY 13212
(315) 458-8033, FAX (315) 458-0249, (800) 842-4667

Certified in:
• Connecticut
• Delaware
• Maryland
• Massachusetts
• New Hampshire
• New Jersey
• New York
• Pennsylvania
• Rhode Island

E.A. ENGINEERING & SCIENCE TECHNOLOGY
737 FLY RD.

PROJECT #: 997629
RECEIVED: 09/20/01

EAST SYRACUSE NY 13057
ATTN: MR. SCOTT GRAHAM

P.O. #
CLIENT JOB NUMBER:

RECEIVED NOV 18 2001

TEST PERFORMED	RESULTS	UNITS	DATE PERFORMED	METHOD NUMBER	PERFORMED BY
SAMPLE #: 214770	CLIENT SAMPLE ID: WRL-MW1B-0901				DATE SAMPLED: 09/19/01
PHENOLICS	<2	UG/L	09/20/01	EPA 420.2	DMP
SAMPLE #: 214771	CLIENT SAMPLE ID: WRL-MW1B-0901				DATE SAMPLED: 09/19/01
NITROGEN, AMMONIA	<1	MG/L	09/24/01	EPA 350.2	DMP
SAMPLE #: 214772	CLIENT SAMPLE ID: WRL-MW1B-0901				DATE SAMPLED: 09/19/01
CADMIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
CHROMIUM	0.011	MG/L	09/28/01	EPA 6020	NS
IRON	3.4	MG/L	09/25/01	EPA 6010	NS
LEAD	0.015	MG/L	09/28/01	EPA 6020	NS
MAGNESIUM	61.3	MG/L	09/25/01	EPA 6010	NS
MANGANESE	0.672	MG/L	09/28/01	EPA 6020	NS
METALS DIGESTION	YES		09/21/01	EPA 3005	BRD
SELENIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
SILICA	21.0	MG/L	11/01/01	EPA 200.7	25-067 (NY)
SODIUM	137	MG/L	09/25/01	EPA 6010	NS
THALLIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
ZINC	0.270	MG/L	09/28/01	EPA 6020	NS

E.A. ENGINEERING & SCIENCE TECHNOLOGY
737 FLY RD.

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RECEIVED: 09/20/01

EAST SYRACUSE NY 13057
ATTN: MR. SCOTT GRAHAM

P.O. #
CLIENT JOB NUMBER:

TEST PERFORMED	RESULTS	UNITS	DATE PERFORMED	METHOD NUMBER	PERFORMED BY
SAMPLE #: 214773	CLIENT SAMPLE ID: WRL-MW1B-0901				DATE SAMPLED: 09/19/01
SULFATE	209	MG/L	10/03/01	EPA 375.2	DMP
SAMPLE #: 214774	CLIENT SAMPLE ID: WRL-MW1B-0901				DATE SAMPLED: 09/19/01
CHROMIUM, HEXAVALENT	<10	UG/L @ 10:30	09/20/01	SM18 3500-CR D	DMP
SAMPLE #: 214775	CLIENT SAMPLE ID: WRL-MW3B-0901				DATE SAMPLED: 09/20/01
PHENOLICS	<2	UG/L	09/20/01	EPA 420.2	DMP
SAMPLE #: 214776	CLIENT SAMPLE ID: WRL-MW3B-0901				DATE SAMPLED: 09/20/01
NITROGEN, AMMONIA	<1	MG/L	09/24/01	EPA 350.2	DMP
SAMPLE #: 214777	CLIENT SAMPLE ID: WRL-MW3B-0901				DATE SAMPLED: 09/20/01
CADMIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
CHROMIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
IRON	0.260	MG/L	09/25/01	EPA 6010	NS
LEAD	<0.005	MG/L	09/28/01	EPA 6020	NS
MAGNESIUM	10.9	MG/L	09/25/01	EPA 6010	NS
MANGANESE	0.008	MG/L	09/28/01	EPA 6020	NS
METALS DIGESTION	YES		09/21/01	EPA 3005	BRD
SELENIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
SILICA	13.4	MG/L	11/01/01	EPA 200.7	25-067 (NY)



E.A. ENGINEERING & SCIENCE TECHNOLOGY
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P.O. #
CLIENT JOB NUMBER:

TEST PERFORMED	RESULTS	UNITS	DATE PERFORMED	METHOD NUMBER	PERFORMED BY
SAMPLE #: 214777	CLIENT SAMPLE ID: WRL-MW3B-0901			DATE SAMPLED: 09/20/01	
SODIUM	44.9	MG/L	09/25/01	EPA 6010	NS
THALLIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
ZINC	<0.005	MG/L	09/28/01	EPA 6020	NS
SAMPLE #: 214778	CLIENT SAMPLE ID: WRL-MW3B-0901			DATE SAMPLED: 09/20/01	
SULFATE	23.1	MG/L	10/03/01	EPA 375.2	DMP
SAMPLE #: 214779	CLIENT SAMPLE ID: WRL-MW3B-0901			DATE SAMPLED: 09/20/01	
CHROMIUM, HEXAVALENT	<10	UG/L @ 16:15	09/20/01	SM18 3500-CR D	DMP
SAMPLE #: 214780	CLIENT SAMPLE ID: WRL-MW7B-0901			DATE SAMPLED: 09/20/01	
PHENOLICS	<2	UG/L	09/20/01	EPA 420.2	DMP
SAMPLE #: 214781	CLIENT SAMPLE ID: WRL-MW7B-0901			DATE SAMPLED: 09/20/01	
NITROGEN, AMMONIA	<1	MG/L	09/24/01	EPA 350.2	DMP
SAMPLE #: 214782	CLIENT SAMPLE ID: WRL-MW7B-0901			DATE SAMPLED: 09/20/01	
CADMIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
CHROMIUM	0.231	MG/L	09/28/01	EPA 6020	NS
IRON	6.0	MG/L	09/25/01	EPA 6010	NS
LEAD	<0.005	MG/L	09/28/01	EPA 6020	NS



E.A. ENGINEERING & SCIENCE TECHNOLOGY
737 FLY RD.

PROJECT #: 997629
RECEIVED: 09/20/01

EAST SYRACUSE NY 13057
ATTN: MR. SCOTT GRAHAM

P.O. #
CLIENT JOB NUMBER:

TEST PERFORMED	RESULTS	UNITS	DATE PERFORMED	METHOD NUMBER	PERFORMED BY
SAMPLE #: 214782	CLIENT SAMPLE ID: WRL-MW7B-0901			DATE SAMPLED: 09/20/01	
MAGNESIUM	10.4	MG/L	09/25/01	EPA 6010	NS
MANGANESE	0.151	MG/L	09/28/01	EPA 6020	NS
METALS DIGESTION	YES		09/21/01	EPA 3005	BRD
SELENIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
SILICA	19.1	MG/L	11/01/01	EPA 200.7	25-067 (NY)
SODIUM	56.8	MG/L	09/25/01	EPA 6010	NS
THALLIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
ZINC	0.011	MG/L	09/28/01	EPA 6020	NS
SAMPLE #: 214783	CLIENT SAMPLE ID: WRL-MW7B-0901			DATE SAMPLED: 09/20/01	
SULFATE	37.0	MG/L	10/03/01	EPA 375.2	DMP
SAMPLE #: 214784	CLIENT SAMPLE ID: WRL-MW7B-0901			DATE SAMPLED: 09/20/01	
CHROMIUM, HEXAVALENT	180	UG/L @ 16:15	09/20/01	SM18 3500-CR D	DMP
SAMPLE #: 214785	CLIENT SAMPLE ID: WRL-MW8B-0901			DATE SAMPLED: 09/20/01	
PHENOLICS	<2	UG/L	10/04/01	EPA 420.2	DMP
SAMPLE #: 214786	CLIENT SAMPLE ID: WRL-MW8B-0901			DATE SAMPLED: 09/20/01	
NITROGEN, AMMONIA	<1	MG/L	09/24/01	EPA 350.2	DMP



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TEST PERFORMED	RESULTS	UNITS	DATE PERFORMED	METHOD NUMBER	PERFORMED BY
SAMPLE #: 214787	CLIENT SAMPLE ID: WRL-MW8B-0901			DATE SAMPLED: 09/20/01	
CADMIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
CHROMIUM	0.136	MG/L	09/28/01	EPA 6020	NS
IRON	1.3	MG/L	09/25/01	EPA 6010	NS
LEAD	<0.005	MG/L	09/28/01	EPA 6020	NS
MAGNESIUM	62.1	MG/L	09/25/01	EPA 6010	NS
MANGANESE	0.190	MG/L	09/28/01	EPA 6020	NS
METALS DIGESTION	YES		09/21/01	EPA 3005	BRD
SELENIUM	0.125	MG/L	09/28/01	EPA 6020	NS
SILICA	15.3	MG/L	11/01/01	EPA 200.7	25-067 (NY)
SODIUM	174	MG/L	09/25/01	EPA 6010	NS
THALLIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
ZINC	0.021	MG/L	09/28/01	EPA 6020	NS
SAMPLE #: 214788	CLIENT SAMPLE ID: WRL-MW8B-0901			DATE SAMPLED: 09/20/01	
SULFATE	419	MG/L	10/03/01	EPA 375.2	DMP
SAMPLE #: 214789	CLIENT SAMPLE ID: WRL-MW8B-0901			DATE SAMPLED: 09/20/01	
CHROMIUM, HEXAVALENT	146	UG/L @ 16:15	09/20/01	SM18 3500-CR D	DMP



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TEST PERFORMED	RESULTS	UNITS	DATE PERFORMED	METHOD NUMBER	PERFORMED BY
SAMPLE #: 214790	CLIENT SAMPLE ID: WRL-DUP-0901				DATE SAMPLED: 09/19/01
PHENOLICS	<2	UG/L	09/20/01	EPA 420.2	DMP
SAMPLE #: 214791	CLIENT SAMPLE ID: WRL-DUP-0901				DATE SAMPLED: 09/19/01
NITROGEN, AMMONIA	<1	MG/L	09/24/01	EPA 350.2	DMP
SAMPLE #: 214792	CLIENT SAMPLE ID: WRL-DUP-0901				DATE SAMPLED: 09/19/01
CADMIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
CHROMIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
IRON	0.103	MG/L	09/25/01	EPA 6010	NS
LEAD	<0.005	MG/L	09/28/01	EPA 6020	NS
MAGNESIUM	67.6	MG/L	09/25/01	EPA 6010	NS
MANGANESE	0.067	MG/L	09/28/01	EPA 6020	NS
METALS DIGESTION	YES		09/21/01	EPA 3005	BRD
SELENIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
SILICA	12.3	MG/L	11/01/01	EPA 200.7	25-067 (NY)
SODIUM	65.2	MG/L	09/25/01	EPA 6010	NS
THALLIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
ZINC	<0.005	MG/L	09/28/01	EPA 6020	NS



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TEST PERFORMED	RESULTS	UNITS	DATE PERFORMED	METHOD NUMBER	PERFORMED BY
SAMPLE #: 214793	CLIENT SAMPLE ID: WRL-DUP-0901			DATE SAMPLED: 09/19/01	
SULFATE	270	MG/L	10/03/01	EPA 375.2	DMP
SAMPLE #: 214794	CLIENT SAMPLE ID: WRL-DUP-0901			DATE SAMPLED: 09/19/01	
CHROMIUM, HEXAVALENT	<10	UG/L @ 10:30	09/20/01	SM18 3500-CR D	DMP
SAMPLE #: 214795	CLIENT SAMPLE ID: WRL-MW6B-0901			DATE SAMPLED: 09/19/01	
PHENOLICS	<2	UG/L	09/20/01	EPA 420.2	DMP
SAMPLE #: 214796	CLIENT SAMPLE ID: WRL-MW6B-0901			DATE SAMPLED: 09/19/01	
NITROGEN, AMMONIA	<1	MG/L	09/24/01	EPA 350.2	DMP
SAMPLE #: 214797	CLIENT SAMPLE ID: WRL-MW6B-0901			DATE SAMPLED: 09/19/01	
CADMIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
CHROMIUM	0.007	MG/L	09/28/01	EPA 6020	NS
IRON	0.186	MG/L	09/25/01	EPA 6010	NS
LEAD	<0.005	MG/L	09/28/01	EPA 6020	NS
MAGNESIUM	69.2	MG/L	09/25/01	EPA 6010	NS
MANGANESE	0.079	MG/L	09/28/01	EPA 6020	NS
METALS DIGESTION	YES		09/21/01	EPA 3005	BRD
SELENIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
SILICA	12.1	MG/L	11/01/01	EPA 200.7	25-067 (NY)



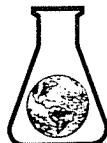
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TEST PERFORMED	RESULTS	UNITS	DATE PERFORMED	METHOD NUMBER	PERFORMED BY
SAMPLE #: 214797	CLIENT SAMPLE ID: WRL-MW6B-0901				DATE SAMPLED: 09/19/01
SODIUM	66.8	MG/L	09/25/01	EPA 6010	NS
THALLIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
ZINC	<0.005	MG/L	09/28/01	EPA 6020	NS
SAMPLE #: 214798	CLIENT SAMPLE ID: WRL-MW6B-0901				DATE SAMPLED: 09/19/01
SULFATE	252	MG/L	10/03/01	EPA 375.2	DMP
SAMPLE #: 214799	CLIENT SAMPLE ID: WRL-MW6B-0901				DATE SAMPLED: 09/19/01
CHROMIUM, HEXAVALENT	<10	UG/L @ 10:30	09/20/01	SM18 3500-CR D	DMP
SAMPLE #: 214800	CLIENT SAMPLE ID: WRL-MW2B-0901				DATE SAMPLED: 09/19/01
PHENOLICS	13.6	UG/L	09/20/01	EPA 420.2	DMP
SAMPLE #: 214801	CLIENT SAMPLE ID: WRL-MW2B-0901				DATE SAMPLED: 09/19/01
NITROGEN, AMMONIA	2.0	MG/L	09/24/01	EPA 350.2	DMP
SAMPLE #: 214802	CLIENT SAMPLE ID: WRL-MW2B-0901				DATE SAMPLED: 09/19/01
CADMIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
CHROMIUM	0.333	MG/L	09/28/01	EPA 6020	NS
IRON	0.980	MG/L	09/25/01	EPA 6010	NS
LEAD	0.039	MG/L	09/28/01	EPA 6020	NS



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TEST PERFORMED	RESULTS	UNITS	DATE PERFORMED	METHOD NUMBER	PERFORMED BY
SAMPLE #: 214802	CLIENT SAMPLE ID: WRL-MW2B-0901			DATE SAMPLED: 09/19/01	
MAGNESIUM	1.4	MG/L	09/25/01	EPA 6010	NS
MANGANESE	0.030	MG/L	09/28/01	EPA 6020	NS
METALS DIGESTION	YES		09/21/01	EPA 3005	BRD
SELENIUM	0.008	MG/L	09/28/01	EPA 6020	NS
SILICA	2.91	MG/L	11/01/01	EPA 200.7	25-067 (NY)
SODIUM	57.1	MG/L	09/25/01	EPA 6010	NS
THALLIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
ZINC	0.023	MG/L	09/28/01	EPA 6020	NS
SAMPLE #: 214803	CLIENT SAMPLE ID: WRL-MW2B-0901			DATE SAMPLED: 09/19/01	
SULFATE	13.9	MG/L	10/03/01	EPA 375.2	DMP
SAMPLE #: 214804	CLIENT SAMPLE ID: WRL-MW2B-0901			DATE SAMPLED: 09/19/01	
CHROMIUM, HEXAVALENT	299	UG/L @ 10:30	09/20/01	SM18 3500-CR D	DMP
SAMPLE #: 214810	CLIENT SAMPLE ID: WRL-RB-0901			DATE SAMPLED: 09/20/01	
PHENOLICS	<2	UG/L	09/20/01	EPA 420.2	DMP
SAMPLE #: 214811	CLIENT SAMPLE ID: WRL-RB-0901			DATE SAMPLED: 09/20/01	
NITROGEN, AMMONIA	<1	MG/L	09/24/01	EPA 350.2	DMP



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TEST PERFORMED	RESULTS	UNITS	DATE PERFORMED	METHOD NUMBER	PERFORMED BY
SAMPLE #: 214812	CLIENT SAMPLE ID: WRL-RB-0901			DATE SAMPLED: 09/20/01	
CADMIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
CHROMIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
IRON	<0.025	MG/L	09/25/01	EPA 6010	NS
LEAD	<0.005	MG/L	09/28/01	EPA 6020	NS
MAGNESIUM	<1.0	MG/L	09/25/01	EPA 6010	NS
MANGANESE	<0.005	MG/L	09/28/01	EPA 6020	NS
METALS DIGESTION	YES		09/21/01	EPA 3005	BRD
SELENIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
SILICA	<0.21	MG/L	11/01/01	EPA 200.7	25-067 (NY)
SODIUM	<1.0	MG/L	09/25/01	EPA 6010	NS
THALLIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
ZINC	<0.005	MG/L	09/28/01	EPA 6020	NS
SAMPLE #: 214813	CLIENT SAMPLE ID: WRL-RB-0901			DATE SAMPLED: 09/20/01	
SULFATE	<2	MG/L	10/03/01	EPA 375.2	DMP
SAMPLE #: 214814	CLIENT SAMPLE ID: WRL-RB-0901			DATE SAMPLED: 09/20/01	
CHROMIUM, HEXAVALENT	<10	UG/L @ 16:15	09/20/01	SM18 3500-CR D	DMP



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TEST PERFORMED	RESULTS	UNITS	DATE PERFORMED	METHOD NUMBER	PERFORMED BY
SAMPLE #: 214815	CLIENT SAMPLE ID: WRL-SWB-0901			DATE SAMPLED: 09/20/01	
PHENOLICS	<2	UG/L	09/20/01	EPA 420.2	DMP
SAMPLE #: 214816	CLIENT SAMPLE ID: WRL-SWB-0901			DATE SAMPLED: 09/20/01	
NITROGEN, AMMONIA	<1	MG/L	09/24/01	EPA 350.2	DMP
SAMPLE #: 214817	CLIENT SAMPLE ID: WRL-SWB-0901			DATE SAMPLED: 09/20/01	
CADMIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
CHROMIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
IRON	<0.025	MG/L	09/25/01	EPA 6010	NS
LEAD	<0.005	MG/L	09/28/01	EPA 6020	NS
MAGNESIUM	<1.0	MG/L	09/25/01	EPA 6010	NS
MANGANESE	<0.005	MG/L	09/28/01	EPA 6020	NS
METALS DIGESTION	YES		09/21/01	EPA 3005	BRD
SELENIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
SILICA	<0.21	MG/L	11/01/01	EPA 200.7	25-067 (NY)
SODIUM	<1.0	MG/L	09/25/01	EPA 6010	NS
THALLIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
ZINC	<0.005	MG/L	09/28/01	EPA 6020	NS



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TEST PERFORMED	RESULTS	UNITS	DATE PERFORMED	METHOD NUMBER	PERFORMED BY
SAMPLE #: 214818	CLIENT SAMPLE ID: WRL-SWB-0901			DATE SAMPLED: 09/20/01	
SULFATE	<2	MG/L	10/03/01	EPA 375.2	DMP
SAMPLE #: 214819	CLIENT SAMPLE ID: WRL-SWB-0901			DATE SAMPLED: 09/20/01	
CHROMIUM, HEXAVALENT	<10	UG/L @ 16:15	09/20/01	SM18 3500-CR D	DMP
SAMPLE #: 214825	CLIENT SAMPLE ID: WRL-L1-0901			DATE SAMPLED: 09/20/01	
PHENOLICS	109	UG/L	09/20/01	EPA 420.2	DMP
SAMPLE #: 214826	CLIENT SAMPLE ID: WRL-L1-0901			DATE SAMPLED: 09/20/01	
NITROGEN, AMMONIA	4.9	MG/L	09/24/01	EPA 350.2	DMP
SAMPLE #: 214827	CLIENT SAMPLE ID: WRL-L1-0901			DATE SAMPLED: 09/20/01	
CADMIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
CHROMIUM	0.413	MG/L	09/28/01	EPA 6020	NS
IRON	0.044	MG/L	09/25/01	EPA 6010	NS
LEAD	<0.005	MG/L	09/28/01	EPA 6020	NS
MAGNESIUM	<1.0	MG/L	09/25/01	EPA 6010	NS
MANGANESE	<0.005	MG/L	09/28/01	EPA 6020	NS
METALS DIGESTION	YES		09/21/01	EPA 3005	BRD
SELENIUM	0.022	MG/L	09/28/01	EPA 6020	NS
SILICA	0.77	MG/L	11/01/01	EPA 200.7	25-067 (NY)



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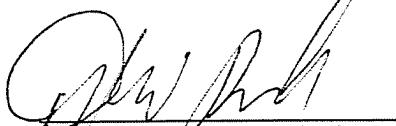
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TEST PERFORMED	RESULTS	UNITS	DATE PERFORMED	METHOD NUMBER	PERFORMED BY
SAMPLE #: 214827	CLIENT SAMPLE ID: WRL-L1-0901				DATE SAMPLED: 09/20/01
SODIUM	79.2	MG/L	09/25/01	EPA 6010	NS
THALLIUM	<0.005	MG/L	09/28/01	EPA 6020	NS
ZINC	<0.005	MG/L	09/28/01	EPA 6020	NS
SAMPLE #: 214828	CLIENT SAMPLE ID: WRL-L1-0901				DATE SAMPLED: 09/20/01
SULFATE	14.1*	MG/L	10/03/01	EPA 375.2	DMP

* Low spike recovery due to sample matrix interference.

SAMPLE #: 214829	CLIENT SAMPLE ID: WRL-L1-0901			DATE SAMPLED: 09/20/01
CHROMIUM, HEXAVALENT	448	UG/L @ 16:15	09/20/01	SM18 3500-CR D DMP


Douglas W. Mendrala
Laboratory Director

10/22/01
Date

All tests performed under NYS ELAP Laboratory Certification # 11375 unless otherwise stated.



Attachment E

Engineering Inspection Checklist

LANDFILL CAP INSPECTION CHECKLIST
WITMER ROAD LANDFILL, NIAGARA FALLS, NEW YORK

EA Personnel:

HAYWARD

Date:

9/15/01

Weather:

SUNNY 75°F

1. Inspection of ground surface for exposure of geotextile cover (cap erosion):

No cap erosion or exposed geotextile noted.

2. Inspection of ground surface for differential settlement resulting in soil cracking or ponded water:

None noted.

3. Identification of stressed vegetation:

None noted. Grass has been mowed.

4. Identification of seeps, rooted vegetation (trees), and/or animal burrows:

None noted.

5. Identification of deteriorating equipment (i.e., monitoring wells, fencing, or drainage structures):

Green marking stake at MW-4B was bent,

apparently by mower - no damage to well.

Straightened stake. No other deterioration noted.

6. Inspection of stormwater drainage swales for erosion, sloughing, or flow-through:

None noted.

7. Inspection of east side of the landfill (Niagara Mohawk Power Corporation parcel) along the intermittent stream for the presence of erosion or sloughing:

None noted.

8. Inspection of access roads:

No issues or deficiencies noted