RECEIVED
JUL 19
BUREAU OF
CONSTRUCTION

APRIL 2002
OPERATION AND MAINTENANCE
MONTHLY REPORT

JULY 10, 2002

ACTIVE INDUSTRIAL UNIFORM SITE
67 WEST MONTAUK HIGHWAY
VILLAGE OF LINDENHURST, NEW YORK

NYSDEC CONTRACT NO. D004134

File on eDOCs X Yes ____ No
Site Name Active Industrial
Site No. 152125
County Suffolk
Town Babylon
Foilable X Yes ____ No
File Name report.hw152125.2002-07-10.OMReportAPR.pdf
Scanned & eDOC ____

APRIL 2002
OPERATION AND MAINTENANCE
MONTHLY REPORT

JULY 10, 2002

PREPARED FOR

New York State Department of
Environmental Conservation
(NYSDEC)

PREPARED BY

Blue Water Environmental, Inc.
1610 New Highway
Farmingdale, New York
11735

Mark P. Soliman, Project Manager/Engineer

Michael J. Posillico, President

Table of Contents

1. INTRODUCTION

This is the 4th monthly report prepared for the New York State Department of Environmental Conservation (NYSDEC) in accordance with NYSDEC contract no. D004134 for the operation of the groundwater treatment system at the Active Industrial Site located at 67 West Montauk Highway in Lindenhurst, New York. On May 21, 2002 Blue Water Environmental, Inc. (Blue Water) completed the monthly Operation and Maintenance (O&M) monitoring and sample collection of the Active Industrial groundwater pump and treatment system in accordance with the referenced contract. The following sections briefly describe the groundwater treatment system operation during the April 2002 operation period.

2. OPERATIONAL DESCRIPTION

The groundwater treatment system was in operation for 37 days during the April 2002 reporting period (April 5, 2002 to May 21, 2002). During this operation period, both wells (RW-1 and RW-2) and both air stripping towers (in-series) were on-line and the vapor phase granular activated carbon units were not changed-out.

The discharge flow meter recorded approximately 8,450,166 gallons of water treated by the system during the April 2002 reporting period with an average system flow of 180 gallons per minute (gpm). The RW-1 and RW-2 flow meters recorded an average recovery flow of 80 gpm and 100 gpm, respectively.

The following is a summary of system operation to date:

- **Total Water Treated to Date:** **33,158,338 gallons**
- **Total Mass of VOCs Recovered to Date:** **102 pounds**
- **Mass of VOCs Removed in April 2002 Period:** **32 pounds**

3. SUMMARY OF ON-SITE MONTHLY ACTIVITIES

During the month of April 2002, the following tasks were performed:

- April 30, 2002: On Tuesday, April 30, 2002, a high pressure well alarm triggered a system shutdown. Blue Water personnel visited the site and troubleshooting activities were conducted without being able to re-start the system. On May 1, 2002, additional troubleshooting activities identified three fuses that needed replacement. After the fuses were replaced, two additional fuses blew in the RW-2 pump controller. On May 6, Blue Water and R&R Electric personnel continued troubleshooting activities. It was found that the RW-2 electrical connector was shorted and was then replaced with a chemically bound

connection. The system was re-started on May 6, 2002 with minor adjustments to the stripper tower alarm floats.

- May 17, 2002: On May 17, 2002, a high pressure well alarm triggered a system shutdown. Blue Water personnel reprogrammed the Variable Frequency Drive Number 2 (VFD-2), balanced flow across the system, and re-started the system on Monday, May 20, 2002. Additionally, the air stripper intake screen was cleaned.

- May 21, 2002: Influent and Effluent water samples were collected and analyzed for volatile organic compounds (VOCs). Effluent water samples were also collected and analyzed for RCRA Metals, alkalinity, residual chlorine, pH, chemical oxygen demand (COD), total dissolved solids (TDS), and total suspended solids (TSS). The samples were submitted to Environmental Testing Laboratory, Inc. of Farmingdale, New York. Carbon influent and midfluent air samples were collected and analyzed for VOCs under method 6021 by Microseeps and discharge air samples were collected and analyzed for VOCs under TO-14 by Air Toxics Ltd.

4. SUMMARY OF FIELD DATA AND ANALYTICAL RESULTS

The April ground-water influent analytical results indicate that the system is successfully recovering and treating approximately 0.037 pounds per hour of volatile organic compounds (VOCs). The in-series tower air stripping system is removing approximately 100% of the contaminant mass from the water into the vapor stream. The system cumulative mass removal since startup is approximately 102 pounds of VOCs.

There was an exceedance of manganese at 2.37 milligrams per liter (mg/L) in the treated water discharge vs. the NYSDEC effluent limit of 2.0 mg/L. There was an exceedance of c-1,2-Dichloroethene at 0.0038 lbs/hr in the treated vapor discharge vs. NYSDEC permitted emission limit of 0.003 lbs/hr. Blue Water changed the primary vapor phase carbon bed on Friday June 17, 2002, which was within 4 days of receipt of the May 21, 2002 analytical data. The carbon influent and midfluent chain of custody was inadvertently dated for May 15, 2002 instead of May 21, 2002.

Table 1 summarizes the process water analytical data, Table 2 summarizes the process air analytical data, Table 3 summarizes operational parameters collected during the April 2002 O&M monitoring and sampling event, Table 4 summarizes the TO-14 effluent vapor sample data, and Table 5 summarizes the VOC effluent discharge rates. Laboratory analytical data has been included in Appendices A and B.

Table 1. Summary of Process Water Analytical Data, April 2002 Sampling Event, Active Industrial Uniform Site, 67 West Montauk Lindenhurst, New York, NYSDEC Contract No. D004134.

Constituent: Units as noted	Cas No.	Detection Limit	**NYSDEC Effluent Limits**	Sample ID/Port: Sample Location: Date Collected:	INFLUENT INF. HEADER 5/21/2002	EFFLUENT DISCHARGE 5/21/2002
Volatile Organic Compounds (ug/L)						
Trichloroethene	79-01-6	0.72	10		58.7	ND
Tetrachloroethene	127-18-4	0.22	4		193	ND
c-1,2-Dichloroethene	156-59-2	0.48	10		146	ND
1,1-Dichloroethene	75-35-4	0.54			ND	ND
1,1,1-Trichloroethane	71-55-6	0.52	5		1.8	ND
Total Xylene	--	--	5		ND	ND
Vinyl Chloride	75-01-4	0.46	10		ND	ND
1,1-Dichloroethane	75-34-3	0.6	NL		ND	ND
Methyl t-butyl ether	75-34-3	0.36	NL		8.2	ND
Sum of VOC Constituents					407.7	0
Inorganic Compounds mg/L						
Iron	7439-89-6	0.24	4		--	ND
Manganese	7439-96-5	0.0012	2		--	**2.37**
TDS	--	9.92	Monitor		--	3100
TSS	--	4.58	20		--	7
Aluminum	7429-90-5	0.091	4		--	ND
Arsenic	7440-38-2	0.0034	0.14		--	0.009
Cadmium	7440-43-9	0.001	0.03		--	ND
Copper	7440-50-8	0.001	0.038		--	ND
Nickel	7440-02-0	0.0017	0.065		--	0.0033
Silver	7440-22-4	0.0019	0.009		--	0.0089
Zinc	7440-66-6	0.0012	0.37		--	0.029
Residual Chlorine	--	NA	NA		--	ND
Antimony	7440-36-0	0.0051	NL		--	ND
Barium	7440-39-3	0.0037	NL		--	0.025
Calcium	7440-70-2	0.33	NL		--	86.7
Chromium	7440-47-3	0.001	NL		--	ND
Cobalt	7440-48-4	0.001	NL		--	ND

Table 1. Summary of Process Water Analytical Data, April 2002 Sampling Event, Active Industrial Uniform Site, 67 West Montauk Lindenhurst, New York, NYSDEC Contract No. D004134.

Constituent: Units as noted	Cas No.	Detection Limit	**NYSDEC Effluent Limits**	Sample ID/Port: Sample Location: Date Collected:	INFLUENT INF. HEADER 5/21/2002	EFFLUENT DISCHARGE 5/21/2002
Lead	7439-92-1	0.0013	NL		--	ND
Magnesium	7439-95-4	0.3	NL		--	106
Mercury	7439-97-6	0.0001	NL		--	ND
Potassium	7440-09-7	1.18	NL		--	31.7
Selenium	7782-49-2	0.0018	NL		--	ND
Sodium	7440-23-5	0.36	NL		--	940
Thallium	7440-28-0	0.00018	NL		--	ND
Vanadium	7440-62-2	0.001	NL		--	ND
General Chemistry						
COD, dissolved (mg/L)		4.8	NA		--	67.6
Conductivity, dissolved at 25°C (ms/cm)		NA	NA		5.61	5.6
Turbidity (NTU)		NA	NA		0	0
pH (s.u.)		0.01	6 to 9		6.15	6.78
Alkalinity (mg/L)		0.28	NA		--	52
Dissolved Oxygen (mg/L)		NA	NA		2.11	6.5

* Only parameters that are required for effluent monitoring and parameters that have concentrations exceeding the detection lir
A complete list of parameters is included in the Analytical Reports located in Appendix A.

** Analysis was performed by Environmental Testing Laboratories, Inc. of Farmingdale, New York

ug/L Micrograms per liter.

mg/L Milligrams per liter.

s.u. Standard pH units.

TDS Total Dissolved Solids

TSS Total Suspended Solids

ms/cm Millisiemens per centimeter.

ND Not detected above detection limits

-- Sample not analyzed for specific parameter

Table 2. Summary of Process Vapor Analytical Data, April 2002 Sampling Event, Active Industrial Uniform Site, 67 West Montauk Highway, Lindenhurst, New York, NYSDEC Contract No. D004134

Constituent: Units as noted	Detection Limit	Sample ID/Port: Sample Location: Date Collected:	INFLUENT TO CARBON 5/21/2002	MIDFLUENT B/W CARBON 5/21/2002
VOCs - 601/602 (ppm_v):				
1,1-Dichloroethane	0.01		ND	ND
cis-1,2-Dischloroethene	0.01		**0.34**	**0.033**
1,1,1-Trichloroethane	0.005		ND	ND
Toluene	0.1		**0.45**	**0.4**
Tetrachloroethene	0.005		**0.16**	ND
Trichloroethene	0.005		**0.068**	ND

Notes:

* Only parameters that have concentrations exceeding the detection limits have been included above. A complete list of parameters is included in the Analytical Reports located in Appendix A.

** Analysis was performed by Microseeps, Inc. of Pittsburgh, Pennsylvania

ppm_v Parts per million by volume

ND Not detected over method detection limits.

Table 3. OPERATION & MAINTENANCE FORM, Active Industrial Uniform Site, Lindenhurst, New York, NYSDEC Contract No. D004134.

DATE:	12/21/2001	1/30/2002	3/4/2002	4/5/2002	5/21/2002	
TECHNICIAN:	M-SOLIMAN	M-SOLIMAN	M-SOLIMAN	M-SOLIMAN	M-SOLIMAN	
WATER						
RW-1 Flow (gpm)	90	80	79.4	81	80.6	
RW-1 Total (gallons)	36,300	3,972,000	7,739,697	10,843,349	15,129,285	
RW-2 Flow (gpm)	115	100	102	100.7	100.18	
RW-2 Total (gallons)	40,810	4,959,775	9,718,481	13,679,048	17,852,170	
RW-1 Pressure (psi)	16.5	21	20	21	22	
RW-2 Pressure (psi)	17	32	30	32	33	
Combined Pressure (psi)	14	13.5	14	14	14	
P-1 Pressure (psi)	14	14	14	14	13	
P-2 Pressure (psi)	24	12	27	14	12	
Filter in Pressure (psi)	---	---	28	28	27	
Filter out Pressure (psi)	---	---	11	11	12	
Effluent Flow (gpm)	197	182	184	192	180.4	
Effluent Total (gallons)	---	8,980,610	17,577,514	24,708,172	33,158,338	
AIR						
Midfluent Vacuum (IWC)	5.5	0	0	0	0	
Blower Influent Vacuum (IWC)	10.5	13	13	12	12	
Blower Effluent Pressure (IWC)	---	5	5	3	8	
Carbon 1 Pressure (IWC)	7	5	4	4	6	
Carbon 1 Temperature (F)	65	70	60	64	79	
Carbon 2 Pressure (IWC)	4	3	5	2	3	
Carbon 2 Temperature (F)	65	65	60	58	79	
NOTES						
Cartridge Filter Bypassed	N	Y	N	N	N	
Lead Carbon Changeout	N	N	N	Y	N	
Lag Carbon Changeout	N	N	N	N	N	
Water in Sump	Y	Y	Y	N	N	
Acid Wash Performed	N	N	N	N	N	
Air Samples Collected	Y	Y	Y	Y	Y	
Water Samples Collected	Y	Y	Y	Y	Y	
Well Samples Collected	N	N	N	N	N	

Table 4. Summary of TO-14 Effluent Vapor Sample Data, April 2002 Sampling Event, Active Industrial Uniform Site
67 West Montauk Highway, Lindenhurst, New York, NYSDEC Contract No. D004134

Compound	5/21/02 [Effluent] (ppb_v)	Reporting Limit (ppb_v)
Freon 12	**0.84**	0.67
Freon 114	ND	0.67
Chloromethane	ND	0.67
Vinyl Chloride	**16**	0.67
Bromomethane	ND	0.67
Chloroethane	ND	0.67
Freon 11	ND	0.67
1,1-Dichloroethene	ND	0.67
Freon 113	ND	0.67
Methylene Chloride	ND	0.67
1,1-Dichloroethane	**1.0**	0.67
cis-1,2-Dichloroethene	**190**	0.67
Chloroform	ND	0.67
1,1,1-Trichloroethane	**1.9**	0.67
Carbon Tetrachloride	ND	0.67
Benzene	ND	0.67
1,2-Dichloroethane	ND	0.67
Trichloroethene	ND	0.67
1,2-Dichloropropane	ND	0.67
cis-1,3-Dichloropropene	ND	0.67
Toluene	ND	0.67
trans-1,3-Dichloropropene	ND	0.67
1,1,2-Trichloroethane	ND	0.67
Tetrachloroethene	ND	0.67
Ethylene Dibromide	ND	0.67
Chlorobenzene	ND	0.67
Ethyl Benzene	ND	0.67
m,p-Xylene	ND	0.67
o-Xylene	ND	0.67
Styrene	ND	0.67
1,1,2,2-Tetrachloroethane	ND	0.67
1,3,5-Trimethylbenzene	ND	0.67
1,2,4-Trimethylbenzene	ND	0.67
1,3-Dichlorobenzene	ND	0.67
1,4-Dichlorobenzene	ND	0.67
Chlorotoluene	ND	0.67
1,2-Dichlorobenzene	ND	0.67
1,2,4-Trichlorobenzene	ND	0.67
Hexachlorobutadiene	ND	0.67

Table 4. Summary of TO-14 Effluent Vapor Sample Data, April 2002 Sampling Event, Active Industrial Uniform Site
67 West Montauk Highway, Lindenhurst, New York, NYSDEC Contract No. D004134

Compound	5/21/02 [Effluent] (ppb_v)	Reporting Limit (ppb_v)
Propylene	ND	2.7
1,3 Butadiene	ND	2.7
Acetone	ND	2.7
Carbon Disulfide	ND	2.7
2-Propanol	ND	2.7
trans-1,2-Dichloroethene	ND	2.7
Vinyl Acetate	ND	2.7
2-Butanone (Methyl Ethyl Ketone)	ND	2.7
Hexane	ND	2.7
Tetrahydrofuran	ND	2.7
Cyclohexane	ND	2.7
1,4-Dioxane	ND	2.7
Bromodichloromethane	ND	2.7
4-Methyl-2-pentanone	ND	2.7
2-Hexanone	ND	2.7
Dibromochloromethane	ND	2.7
Bromoform	ND	2.7
4-Ethyltoluene	ND	2.7
Ethanol	ND	2.7
Methyl tert-butyl Ether	ND	2.7
Heptane	ND	2.7
TOTAL VOCS:	**209.74 ppb_v** **0.210 ppm_v**	

ND	Compound not detected.
ppb_v	Parts per billion by volume.
ppm_v	Parts per million by volume.
VOCs	Volatile organic compounds.

Table 5. Summary of Vapor Effluent Discharge Rates, April 2002 Sampling Event, Active Industrial Uniform Site, 67 West Montauk Highway, Lindenhurst, New York, NYSDEC Contract No. D004134.

Compound	Cas. No	Detection Limit (ppb_v)	**NYSDEC Permitted Effluent Limits (lbs/hr)**	4/5/02 Effluent Concentration (ppb_v)	Air Flow Rate (cfm)	VOC Emission Rate (lbs/hr)
Trichloroethene	79-01-6	0.67	0.006	ND	1326	---
Tetrachloroethene	127-18-4	0.67	0.007	ND	1326	---
c-1,2-Dichloroethene	156-59-2	0.67	0.003	190	1326	**0.003860**
1,1,1-Trichloroethane	71-55-6	0.67	0.001	1.9	1326	0.000053
m-Xylene	108-38-3	0.67	0.001	ND	1326	---
p-Xylene	106-42-3	0.67	0.001	ND	1326	---
o-Xylene	95-47-6	0.67	0.001	ND	1326	---
Vinyl Chloride	75-01-4	0.67	0.014	16	1326	0.000210
1,1-Dichloroethene	75-35-4	0.67	NL	0	1326	---
1,1-Dichloroethane	75-34-3	0.67	NL	1.0	1326	0.000021
Acetone	67-64-1	2.7	NL	0	1326	---
2-Butanone	78-93-3	2.7	NL	0	1326	---
Freon 12	NA	0.67	NL	0.84	1326	NA
Ethanol	NA	2.7	NL	0	1326	---
Total			0.034	209.740		0.004143

ND	Compound not detected.
ppb_v	Parts per billion by volume.
VOCs	Volatile organic compounds.
NL	No limit specified in permit application.
NA	Not available.

Appendix A

Laboratory Analytical Results of
Process Vapor Samples
Active Industrial Uniform Site
67 West Montauk Highway
Lindenhurst, New York, NYSDEC
Contract No. D004134

MICROSEEPS

Client Name: Blue Water Environmental
Contact: Mark Soliman
Address: 1610 New Highway

Farmington, NY 11735

Order #: P0205522
Report Date: 06/06/02
Client Proj Name: Active
Client Proj #: 02370-01830

Sample Identification

Lab Sample #	Client Sample ID
P0205522-01	INFLUENT
P0205522-02	MIDFLUENT

Approved By: Kathleen Hallo

CHAIN - OF - CUSTODY RECORD

TC705522

Phone: (412) 826-5245 | Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238 | Fax No. : (412) 826-3433

Company : Blue Water Environmental, Inc.
Co. Address : 1610 N. Wantagh Ave, Farmingdale, NY 11735
Proj. Manager: Mark Sullivan
Proj. Location: Active, 671 Montauk Hwy, Lindenhurst, NY
Proj. Number: 02370.01830
Phone # : 631-249-1772 x. 266 **Fax # :** 631 752-3626

Sampler's signature : _____

Parameters Requested

EPA 601/602 VOC's (11)

Results to : M Sullivan

Invoice to : M Sullivan

Cooler ID	Cooler Temp.

Sample ID	Sample Description	Date	Time	Comp.	Grab	# Cont.	Remarks
Influent	Air	5-15-02			X	2	X11
Effluent	Air	5-15-02			X	2	X11 Triplicate TA

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Mark P Sullivan	Blue Water	5/15/02	11:00	[illegible]	Microseeps	5/15/02	1230
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Accompany Samples YELLOW COPY : Laboratory File PINK COPY : Submitter

Order #: P0205522
Report Date: 06/06/02
Client Proj Name: Active
Client Proj #: 02370-01830

Client Name: Blue Water Environmental
Contact: Mark Soliman
Address: 1610 New Highway
Farmington, NY 11735

Lab Sample #: P0205522-01

Sample Description	Matrix	Sampled Date/Time	Received
INFLUENT	Vapor	15 May. 02	28 May. 02

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
1,1,1-Trichloroethane	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
1,1,2,2-Tetrachloroethane	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
1,1,2-Trichloroethane	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
1,1-Dichloroethane	< 0.010	0.010	PPMV	AM4.02	rw	6/3/02
1,1-Dichloroethene	< 0.010	0.010	PPMV	AM4.02	rw	6/3/02
1,2-Dichlorobenzene	< 0.070	0.070	PPMV	AM4.02	rw	6/3/02
1,2-Dichloroethane	< 0.010	0.010	PPMV	AM4.02	rw	6/3/02
1,2-Dichloropropane`	< 0.010	0.010	PPMV	AM4.02	rw	6/3/02
1,3-Dichlorobenzene	< 0.070	0.070	PPMV	AM4.02	rw	6/3/02
1,4-Dichlorobenzene	< 0.070	0.070	PPMV	AM4.02	rw	6/3/02
Benzene	< 0.10	0.10	PPMV	AM4.02	rw	6/3/02
Bromodichloromethane	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
Bromoform	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
Bromomethane and Chloroethane	< 1.0	1.0	PPMV	AM4.02	rw	6/3/02
Carbon Tetrachloride	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
Chlorobenzene	< 0.070	0.070	PPMV	AM4.02	rw	6/3/02
Chlorodibromomethane	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
Chloroform	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
Chloromethane	< 1.0	1.0	PPMV	AM4.02	rw	6/3/02
cis-1,2-Dichloroethene	0.34	0.010	PPMV	AM4.02	rw	6/3/02
cis-1,3-Dichloropropene	< 0.010	0.010	PPMV	AM4.02	rw	6/3/02
Ethylbenzene	< 0.10	0.10	PPMV	AM4.02	rw	6/3/02
Methylene Chloride	< 2.0	2.0	PPMV	AM4.02	rw	6/3/02
Tetrachloroethene	0.16	0.005	PPMV	AM4.02	rw	6/3/02
Toluene	0.45	0.10	PPMV	AM4.02	rw	6/3/02
trans-1,2-Dichloroethene	< 0.010	0.010	PPMV	AM4.02	rw	6/3/02
trans-1,3-Dichloropropene	< 0.010	0.010	PPMV	AM4.02	rw	6/3/02
Trichloroethene	0.068	0.005	PPMV	AM4.02	rw	6/3/02
Trichlorofluoromethane	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
Vinyl Chloride	< 3.0	3.0	PPMV	AM4.02	rw	6/3/02

Order #: P0205522
Report Date: 06/06/02
Client Proj Name: Active
Client Proj #: 02370-01830

Client Name: Blue Water Environmental
Contact: Mark Soliman
Address: 1610 New Highway
Farmington, NY 11735

Lab Sample #: P0205522-02

Sample Description	Matrix	Sampled Date/Time	Received
MIDFLUENT	Vapor	15 May. 02	28 May. 02

Analyte(s)	Result	PQL	Units	Method #	Analyst	Analysis Date
RiskAnalysis						
Vapor						
1,1,1-Trichloroethane	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
1,1,2,2-Tetrachloroethane	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
1,1,2-Trichloroethane	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
1,1-Dichloroethane	< 0.010	0.010	PPMV	AM4.02	rw	6/3/02
1,1-Dichloroethene	< 0.010	0.010	PPMV	AM4.02	rw	6/3/02
1,2-Dichlorobenzene	< 0.070	0.070	PPMV	AM4.02	rw	6/3/02
1,2-Dichloroethane	< 0.010	0.010	PPMV	AM4.02	rw	6/3/02
1,2-Dichloropropane`	< 0.010	0.010	PPMV	AM4.02	rw	6/3/02
1,3-Dichlorobenzene	< 0.070	0.070	PPMV	AM4.02	rw	6/3/02
1,4-Dichlorobenzene	< 0.070	0.070	PPMV	AM4.02	rw	6/3/02
Benzene	< 0.10	0.10	PPMV	AM4.02	rw	6/3/02
Bromodichloromethane	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
Bromoform	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
Bromomethane and Chloroethane	< 1.0	1.0	PPMV	AM4.02	rw	6/3/02
Carbon Tetrachloride	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
Chlorobenzene	< 0.070	0.070	PPMV	AM4.02	rw	6/3/02
Chlorodibromomethane	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
Chloroform	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
Chloromethane	< 1.0	1.0	PPMV	AM4.02	rw	6/3/02
cis-1,2-Dichloroethene	0.033	0.010	PPMV	AM4.02	rw	6/3/02
cis-1,3-Dichloropropene	< 0.010	0.010	PPMV	AM4.02	rw	6/3/02
Ethylbenzene	< 0.10	0.10	PPMV	AM4.02	rw	6/3/02
Methylene Chloride	< 2.0	2.0	PPMV	AM4.02	rw	6/3/02
Tetrachloroethene	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
Toluene	0.40	0.10	PPMV	AM4.02	rw	6/3/02
trans-1,2-Dichloroethene	< 0.010	0.010	PPMV	AM4.02	rw	6/3/02
trans-1,3-Dichloropropene	< 0.010	0.010	PPMV	AM4.02	rw	6/3/02
Trichloroethene	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
Trichlorofluoromethane	< 0.005	0.005	PPMV	AM4.02	rw	6/3/02
Vinyl Chloride	< 3.0	3.0	PPMV	AM4.02	rw	6/3/02

@ AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0205550

Work Order Summary

CLIENT:	Ms. Karen Albacker Law Engineering and Environmental Services, Inc. 1 Summit Square, Suite # 402 Route 413 and Doublewoods Rd. Langhorne, PA 19047	**BILL TO:**	Mr. Mark Soliman Bluewater Environmental 1610 New Highway Farmingdale, NY 11735
PHONE:	215-860-1963	**P.O. #**	02370-01830
FAX:	215-860-5360	**PROJECT #**	02370-01830 Active
DATE RECEIVED:	5/28/2002	**CONTACT:**	Betty Chu
DATE COMPLETED:	6/10/2002		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	EFFLUENT	TO-14	0.0 "Hg
02A	Lab Blank	TO-14	NA
03A	LCS	TO-14	NA

CERTIFIED BY: Linda D. Truman DATE: 06/10/02

Laboratory Director

Certfication numbers: CA ELAP - 1149, NY NELAP - 11291, UT ELAP - E-217, LA - AI 30763
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 01/01/02, Expiration date: 06/30/02

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
TO-14
Bluewater Environmental
Workorder# 0205550

One 6 Liter Summa Canister sample was received on May 28, 2002. The laboratory performed analysis via EPA Method TO-14 using GC/MS in the full scan mode. The method involves concentrating up to 0.5 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis. See the data sheets for the reporting limits for each compound.

During the five point calibration, two low-level standards are used. The low-level standard for TO-14 compounds is spiked at 0.5 ppbv and represents the reporting limit for these compounds. The low-level standard for the non-TO-14 compounds is spiked at 2.0 ppbv and represents the reporting limit for these compounds. The TO-14 compounds are present in both standards but are excluded from reporting in the 2.0 ppbv standard since a lower level is already included in the curve.

Method modifications taken to run these samples include:

Requirement	*TO-14*	*ATL Modifications*
Internal standard retention times.	Not specified.	Within 0.50 minutes of most recent daily CCV internal standards
Internal standard recoveries.	Not specified.	Within 40% of the daily CCV internal standard area for blanks and samples.
Initial calibration criteria.	Not specified.	RSD of 30% or less for standard compounds, 40% or less for non-standard and polar compounds
Continuing calibration verification criteria	Not specified.	70 - 130% for at least 90% of standard compounds, 60 - 140% for at least 80% of non-standard and polar compounds

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates

as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

AIR TOXICS LTD.

SAMPLE NAME: EFFLUENT

ID#: 0205550-01A

EPA METHOD TO-14 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.67	3.4	0.84	4.2
Freon 114	0.67	4.8	Not Detected	Not Detected
Chloromethane	0.67	1.4	Not Detected	Not Detected
Vinyl Chloride	0.67	1.7	16	42
Bromomethane	0.67	2.6	Not Detected	Not Detected
Chloroethane	0.67	1.8	Not Detected	Not Detected
Freon 11	0.67	3.8	Not Detected	Not Detected
1,1-Dichloroethene	0.67	2.7	Not Detected	Not Detected
Freon 113	0.67	5.2	Not Detected	Not Detected
Methylene Chloride	0.67	2.4	Not Detected	Not Detected
1,1-Dichloroethane	0.67	2.8	1.0	4.4
cis-1,2-Dichloroethene	0.67	2.7	190	780
Chloroform	0.67	3.3	Not Detected	Not Detected
1,1,1-Trichloroethane	0.67	3.7	1.9	11
Carbon Tetrachloride	0.67	4.3	Not Detected	Not Detected
Benzene	0.67	2.2	Not Detected	Not Detected
1,2-Dichloroethane	0.67	2.8	Not Detected	Not Detected
Trichloroethene	0.67	3.6	Not Detected	Not Detected
1,2-Dichloropropane	0.67	3.1	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.67	3.1	Not Detected	Not Detected
Toluene	0.67	2.6	Not Detected	Not Detected
trans-1,3-Dichloropropene	0.67	3.1	Not Detected	Not Detected
1,1,2-Trichloroethane	0.67	3.7	Not Detected	Not Detected
Tetrachloroethene	0.67	4.6	Not Detected	Not Detected
Ethylene Dibromide	0.67	5.2	Not Detected	Not Detected
Chlorobenzene	0.67	3.1	Not Detected	Not Detected
Ethyl Benzene	0.67	3.0	Not Detected	Not Detected
m,p-Xylene	0.67	3.0	Not Detected	Not Detected
o-Xylene	0.67	3.0	Not Detected	Not Detected
Styrene	0.67	2.9	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.67	4.7	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.67	3.3	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.67	3.3	Not Detected	Not Detected
1,3-Dichlorobenzene	0.67	4.1	Not Detected	Not Detected
1,4-Dichlorobenzene	0.67	4.1	Not Detected	Not Detected
Chlorotoluene	0.67	3.5	Not Detected	Not Detected
1,2-Dichlorobenzene	0.67	4.1	Not Detected	Not Detected
1,2,4-Trichlorobenzene	2.7	20	Not Detected	Not Detected
Hexachlorobutadiene	2.7	29	Not Detected	Not Detected
Propylene	2.7	4.7	Not Detected	Not Detected
1,3-Butadiene	2.7	6.0	Not Detected	Not Detected
Acetone	2.7	6.5	Not Detected	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: EFFLUENT

ID#: 0205550-01A

EPA METHOD TO-14 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	2.7	8.5	Not Detected	Not Detected
2-Propanol	2.7	6.7	Not Detected	Not Detected
trans-1,2-Dichloroethene	2.7	11	Not Detected	Not Detected
Vinyl Acetate	2.7	9.6	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.7	8.0	Not Detected	Not Detected
Hexane	2.7	9.6	Not Detected	Not Detected
Tetrahydrofuran	2.7	8.0	Not Detected	Not Detected
Cyclohexane	2.7	9.4	Not Detected	Not Detected
1,4-Dioxane	2.7	9.8	Not Detected	Not Detected
Bromodichloromethane	2.7	18	Not Detected	Not Detected
4-Methyl-2-pentanone	2.7	11	Not Detected	Not Detected
2-Hexanone	2.7	11	Not Detected	Not Detected
Dibromochloromethane	2.7	23	Not Detected	Not Detected
Bromoform	2.7	28	Not Detected	Not Detected
4-Ethyltoluene	2.7	13	Not Detected	Not Detected
Ethanol	2.7	5.1	Not Detected	Not Detected
Methyl tert-Butyl Ether	2.7	9.8	Not Detected	Not Detected
Heptane	2.7	11	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	124	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	90	70-130

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0205550-02A

EPA METHOD TO-14 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.50	2.5	Not Detected	Not Detected
Freon 114	0.50	3.6	Not Detected	Not Detected
Chloromethane	0.50	1.0	Not Detected	Not Detected
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Bromomethane	0.50	2.0	Not Detected	Not Detected
Chloroethane	0.50	1.3	Not Detected	Not Detected
Freon 11	0.50	2.8	Not Detected	Not Detected
1,1-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Freon 113	0.50	3.9	Not Detected	Not Detected
Methylene Chloride	0.50	1.8	Not Detected	Not Detected
1,1-Dichloroethane	0.50	2.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Chloroform	0.50	2.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Carbon Tetrachloride	0.50	3.2	Not Detected	Not Detected
Benzene	0.50	1.6	Not Detected	Not Detected
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	Not Detected	Not Detected
1,2-Dichloropropane	0.50	2.3	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.50	2.3	Not Detected	Not Detected
Toluene	0.50	1.9	Not Detected	Not Detected
trans-1,3-Dichloropropene	0.50	2.3	Not Detected	Not Detected
1,1,2-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	Not Detected	Not Detected
Ethylene Dibromide	0.50	3.9	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
Ethyl Benzene	0.50	2.2	Not Detected	Not Detected
m,p-Xylene	0.50	2.2	Not Detected	Not Detected
o-Xylene	0.50	2.2	Not Detected	Not Detected
Styrene	0.50	2.2	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.50	3.5	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.50	2.5	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.50	2.5	Not Detected	Not Detected
1,3-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
Chlorotoluene	0.50	2.6	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,2,4-Trichlorobenzene	2.0	15	Not Detected	Not Detected
Hexachlorobutadiene	2.0	22	Not Detected	Not Detected
Propylene	2.0	3.5	Not Detected	Not Detected
1,3-Butadiene	2.0	4.5	Not Detected	Not Detected
Acetone	2.0	4.8	Not Detected	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0205550-02A

EPA METHOD TO-14 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
2-Propanol	2.0	5.0	Not Detected	Not Detected
trans-1,2-Dichloroethene	2.0	8.0	Not Detected	Not Detected
Vinyl Acetate	2.0	7.2	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	Not Detected	Not Detected
Hexane	2.0	7.2	Not Detected	Not Detected
Tetrahydrofuran	2.0	6.0	Not Detected	Not Detected
Cyclohexane	2.0	7.0	Not Detected	Not Detected
1,4-Dioxane	2.0	7.3	Not Detected	Not Detected
Bromodichloromethane	2.0	14	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	Not Detected	Not Detected
2-Hexanone	2.0	8.3	Not Detected	Not Detected
Dibromochloromethane	2.0	17	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
4-Ethyltoluene	2.0	10	Not Detected	Not Detected
Ethanol	2.0	3.8	Not Detected	Not Detected
Methyl tert-Butyl Ether	2.0	7.3	Not Detected	Not Detected
Heptane	2.0	8.3	Not Detected	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	93	70-130

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0205550-03A

EPA METHOD TO-14 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	%Recovery
Freon 12	0.50	2.5	109
Freon 114	0.50	3.6	98
Chloromethane	0.50	1.0	79
Vinyl Chloride	0.50	1.3	115
Bromomethane	0.50	2.0	117
Chloroethane	0.50	1.3	114
Freon 11	0.50	2.8	113
1,1-Dichloroethene	0.50	2.0	106
Freon 113	0.50	3.9	97
Methylene Chloride	0.50	1.8	104
1,1-Dichloroethane	0.50	2.0	113
cis-1,2-Dichloroethene	0.50	2.0	102
Chloroform	0.50	2.5	102
1,1,1-Trichloroethane	0.50	2.8	106
Carbon Tetrachloride	0.50	3.2	98
Benzene	0.50	1.6	101
1,2-Dichloroethane	0.50	2.0	110
Trichloroethene	0.50	2.7	101
1,2-Dichloropropane	0.50	2.3	122
cis-1,3-Dichloropropene	0.50	2.3	96
Toluene	0.50	1.9	103
trans-1,3-Dichloropropene	0.50	2.3	93
1,1,2-Trichloroethane	0.50	2.8	106
Tetrachloroethene	0.50	3.4	96
Ethylene Dibromide	0.50	3.9	129
Chlorobenzene	0.50	2.3	99
Ethyl Benzene	0.50	2.2	99
m,p-Xylene	0.50	2.2	98
o-Xylene	0.50	2.2	110
Styrene	0.50	2.2	87
1,1,2,2-Tetrachloroethane	0.50	3.5	104
1,3,5-Trimethylbenzene	0.50	2.5	102
1,2,4-Trimethylbenzene	0.50	2.5	99
1,3-Dichlorobenzene	0.50	3.0	85
1,4-Dichlorobenzene	0.50	3.0	82
Chlorotoluene	0.50	2.6	75
1,2-Dichlorobenzene	0.50	3.0	83
1,2,4-Trichlorobenzene	2.0	15	78
Hexachlorobutadiene	2.0	22	79
Propylene	2.0	3.5	112
1,3-Butadiene	2.0	4.5	114
Acetone	2.0	4.8	95

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0205550-03A

EPA METHOD TO-14 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	%Recovery
Carbon Disulfide	2.0	6.3	66
2-Propanol	2.0	5.0	73
trans-1,2-Dichloroethene	2.0	8.0	65
Vinyl Acetate	2.0	7.2	72
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	75
Hexane	2.0	7.2	68
Tetrahydrofuran	2.0	6.0	74
Cyclohexane	2.0	7.0	63
1,4-Dioxane	2.0	7.3	66
Bromodichloromethane	2.0	14	69
4-Methyl-2-pentanone	2.0	8.3	76
2-Hexanone	2.0	8.3	70
Dibromochloromethane	2.0	17	64
Bromoform	2.0	21	55 Q
4-Ethyltoluene	2.0	10	86
Ethanol	2.0	3.8	70
Methyl tert-Butyl Ether	2.0	7.3	66
Heptane	2.0	8.3	72

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	99	70-130

@ AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

Page ___ of ___

Contact Person: Mark P. Soliman
Company: Blue Water Environmental
Address: 610 New Highway City: Farmingdale State: NY Zip: 11735
Phone: 631-249-1872 ext 266 FAX: 631-752-2008
Collected By: Signature ______

Project Info:
P.O. # 02370-01830
Project # 02370-01830
Project Name: ACTIVE EFFLUENT AIR SAMPLE

Turn Around Time:
☒ Normal
☐ Rush ______ Specify

MC 5.22.02

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
01A	EFFLUENT	5.21.02 ~12AM	TO-14	NOT RECHARGED		0.0"Hg

Relinquished By: (Signature) Date/Time: Mark P. Soliman 5/21/02 — Received By: (Signature) Date/Time:
Relinquished By: (Signature) Date/Time: — Received By: (Signature) Date/Time:
Relinquished By: (Signature) Date/Time: — Received By: (Signature) Date/Time: Kelly Buettner AR 5/22/02 1410

Notes:

Lab Use Only

Shipper Name	Air Bill #	Opened By:	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
USPS	—	KCB	—	Good	Yes No (None)	0205550

Form 1293 rev. 09

Appendix B

Laboratory Analytical Results of
Process Water Samples
Active Industrial Uniform Site
67 West Montauk Highway
Lindenhurst, New York, NYSDEC
Contract No. D004134

Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

06/04/2002

Custody Document: N9163

Received: 05/21/2002 15:17
Sampled by: C Ferrito

Client: Blue Waters (11260)

1610 New Highway
Farmingdale,
NY 11735

Project: Active Industrial

67 West Montauk Hwy
Lindenhurst,
NY

Manager: M Soliman

Respectfully submitted,

Laboratory Manager

NYS Lab ID # 10969
NJ Cert. # 73812
CT Cert. # PH0645
MA Cert. # NY061
PA Cert. # 68-535
VA Cert. # 108
NH Cert. # 252592-BA
RI Cert. # 161

Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735

Phone - 631-249-1456 Fax - 631-249-8344

06/04/2002

Volatiles - EPA 8260B

Sample: N9163-1

Client Sample ID: Influent — Collected: 05/21/2002 12:00

Matrix: Liquid — Type: Grab

Remarks: See Case Narrative

Analyzed Date: 05/24/2002

Cas No	Analyte	File ID	MDL	Concentration	Units	Q
75-71-8	Dichlorodifluoromethane	C 542 -1017	0.76	0.76	ppb	U
75-45-6	Chlorodifluoromethane	C 542 -1017	0.50	0.50	ppb	U
74-87-3	Chloromethane	C 542 -1017	0.64	0.64	ppb	U
75-01-4	Vinyl Chloride	C 542 -1017	0.46	0.46	ppb	U
74-83-9	Bromomethane	C 542 -1017	0.64	0.64	ppb	U
75-00-3	Chloroethane	C 542 -1017	0.48	0.48	ppb	U
75-69-4	Trichlorofluoromethane	C 542 -1017	0.54	0.54	ppb	U
76-13-1	1,1,2-Trichlorotrifluoroethane	C 542 -1017	0.72	0.72	ppb	U
75-35-4	1,1-Dichloroethene	C 542 -1017	0.54	0.54	ppb	U
67-64-1	Acetone	C 542 -1017	2.26	2.26	ppb	U
75-15-0	Carbon disulfide	C 542 -1017	0.38	0.38	ppb	U
75-09-2	Methylene Chloride	C 542 -1017	0.42	0.42	ppb	U
156-60-5	t-1,2-Dichloroethene	C 542 -1017	0.62	0.62	ppb	U
1634-04-4	Methyl t-butyl ether	C 542 -1017	0.36	**8.20**	ppb	
75-34-3	1,1-Dichloroethane	C 542 -1017	0.60	0.60	ppb	U
590-20-7	2,2-Dichloropropane	C 542 -1017	0.54	0.54	ppb	U
156-59-2	c-1,2-Dichloroethene	C 542 -1017	0.48	**146**	ppb	
78-93-3	2-Butanone	C 542 -1017	7.60	7.60	ppb	U
74-97-5	Bromochloromethane	C 542 -1017	0.50	0.50	ppb	U
67-66-3	Chloroform	C 542 -1017	0.52	0.52	ppb	U
71-55-6	1,1,1-Trichloroethane	C 542 -1017	0.52	**1.80**	ppb	
56-23-5	Carbon Tetrachloride	C 542 -1017	0.44	0.44	ppb	U
563-58-6	1,1-Dichloropropene	C 542 -1017	0.78	0.78	ppb	U
71-43-2	Benzene	C 542 -1017	0.42	0.42	ppb	U
107-06-2	1,2-Dichloroethane	C 542 -1017	0.46	0.46	ppb	U
79-01-6	Trichloroethene	C 542 -1017	0.72	**58.7**	ppb	
78-87-5	1,2-Dichloropropane	C 542 -1017	0.62	0.62	ppb	U
74-95-3	Dibromomethane	C 542 -1017	0.48	0.48	ppb	U
75-27-4	Bromodichloromethane	C 542 -1017	0.40	0.40	ppb	U
110-75-8	2-Chloroethylvinylether	C 542 -1017	0.66	0.66	ppb	U
10061-01-5	c-1,3-Dichloropropene	C 542 -1017	0.32	0.32	ppb	U
108-10-1	4-Methyl-2-pentanone	C 542 -1017	1.26	1.26	ppb	U
108-88-3	Toluene	C 542 -1017	0.40	0.40	ppb	U
10061-02-6	t-1,3-Dichloropropene	C 542 -1017	0.32	0.32	ppb	U
79-00-5	1,1,2-Trichloroethane	C 542 -1017	0.32	0.32	ppb	U
127-18-4	Tetrachloroethene	C 542 -1017	0.22	**193**	ppb	

Environmental Testing Laboratories, Inc.
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

06/04/2002

Volatiles - EPA 8260B

Sample: N9163-1...continue

Client Sample ID: Influent
Collected: 05/21/2002 12:00
Matrix: Liquid
Type: Grab
Remarks: See Case Narrative
Analyzed Date: 05/24/2002

Cas No	Analyte	File ID	MDL	Concentration	Units	Q
142-28-9	1,3-Dichloropropane	C 542 -1017	0.42	0.42	ppb	U
591-78-6	2-Hexanone	C 542 -1017	1.88	1.88	ppb	U
124-48-1	Dibromochloromethane	C 542 -1017	0.26	0.26	ppb	U
106-93-4	1,2-Dibromoethane	C 542 -1017	0.34	0.34	ppb	U
108-90-7	Chlorobenzene	C 542 -1017	0.30	0.30	ppb	U
630-20-6	1,1,1,2-Tetrachloroethane	C 542 -1017	0.40	0.40	ppb	U
100-41-4	Ethylbenzene	C 542 -1017	0.44	0.44	ppb	U
108-38-3	m,p-xylene	C 542 -1017	0.68	0.68	ppb	U
95-47-6	o-xylene	C 542 -1017	0.50	0.50	ppb	U
100-42-5	Styrene	C 542 -1017	0.40	0.40	ppb	U
75-25-2	Bromoform	C 542 -1017	0.42	0.42	ppb	U
98-82-8	Isopropylbenzene	C 542 -1017	0.30	0.30	ppb	U
108-86-1	Bromobenzene	C 542 -1017	0.40	0.40	ppb	U
79-34-5	1,1,2,2-Tetrachloroethane	C 542 -1017	0.46	0.46	ppb	U
103-65-1	n-Propylbenzene	C 542 -1017	0.32	0.32	ppb	U
96-18-4	1,2,3-Trichloropropane	C 542 -1017	0.70	0.70	ppb	U
622-96-8	p-Ethyltoluene	C 542 -1017	0.32	0.32	ppb	U
108-67-8	1,3,5-Trimethylbenzene	C 542 -1017	0.40	0.40	ppb	U
95-49-8	2-Chlorotoluene	C 542 -1017	0.50	0.50	ppb	U
106-43-4	4-Chlorotoluene	C 542 -1017	0.44	0.44	ppb	U
98-06-6	tert-Butylbenzene	C 542 -1017	0.38	0.38	ppb	U
95-63-6	1,2,4-Trimethylbenzene	C 542 -1017	0.34	0.34	ppb	U
135-98-8	sec-Butylbenzene	C 542 -1017	0.44	0.44	ppb	U
99-87-6	4-Isopropyltoluene	C 542 -1017	0.34	0.34	ppb	U
541-73-1	1,3-Dichlorobenzene	C 542 -1017	0.34	0.34	ppb	U
106-46-7	1,4-Dichlorobenzene	C 542 -1017	0.20	0.20	ppb	U
95-50-1	1,2-Dichlorobenzene	C 542 -1017	0.22	0.22	ppb	U
105-05-5	p-Diethylbenzene	C 542 -1017	0.44	0.44	ppb	U
104-51-8	n-Butylbenzene	C 542 -1017	0.34	0.34	ppb	U
95-93-2	1,2,4,5-Tetramethylbenzene	C 542 -1017	1.00	1.00	ppb	U
96-12-8	1,2-Dibromo-3-chloropropane	C 542 -1017	0.84	0.84	ppb	U
120-82-1	1,2,4-Trichlorobenzene	C 542 -1017	0.26	0.26	ppb	U
87-68-3	Hexachlorobutadiene	C 542 -1017	0.90	0.90	ppb	U
91-20-3	Naphthalene	C 542 -1017	0.58	0.58	ppb	U
87-61-6	1,2,3-Trichlorobenzene	C 542 -1017	0.38	0.38	ppb	U

Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735

Phone - 631-249-1456 Fax - 631-249-8344

06/04/2002

Volatiles - EPA 8260B

Sample: N9163-1...continue

Client Sample ID: Influent

Collected: 05/21/2002 12:00

Matrix: Liquid

Type: Grab

Remarks: See Case Narrative

Analyzed Date: 05/24/2002

Cas No	Surrogate	File ID	% Recovery	QC Limits	Q
460-00-4	4-BROMOFLUOROBENZENE	C542-1017	99.3 %	(76 - 118)	
4774-33-8	DIBROMOFLUOROMETHANE	C542-1017	102.0 %	(83 - 113)	
2037-26-5	TOLUENE-D8	C542-1017	101.0 %	(90 - 111)	

Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735

Phone - 631-249-1456 Fax - 631-249-8344

06/04/2002

Volatiles - EPA 8260B

Sample: N9163-2

Client Sample ID: Effluent

Collected: 05/21/2002 12:00

Matrix: Liquid

Type: Grab

Remarks: See Case Narrative

Analyzed Date: 05/24/2002

Cas No	Analyte	File ID	MDL	Concentration	Units	Q
75-71-8	Dichlorodifluoromethane	C 542 -1018	0.76	0.76	ppb	U
75-45-6	Chlorodifluoromethane	C 542 -1018	0.50	0.50	ppb	U
74-87-3	Chloromethane	C 542 -1018	0.64	0.64	ppb	U
75-01-4	Vinyl Chloride	C 542 -1018	0.46	0.46	ppb	U
74-83-9	Bromomethane	C 542 -1018	0.64	0.64	ppb	U
75-00-3	Chloroethane	C 542 -1018	0.48	0.48	ppb	U
75-69-4	Trichlorofluoromethane	C 542 -1018	0.54	0.54	ppb	U
76-13-1	1,1,2-Trichlorotrifluoroethane	C 542 -1018	0.72	0.72	ppb	U
75-35-4	1,1-Dichloroethene	C 542 -1018	0.54	0.54	ppb	U
67-64-1	Acetone	C 542 -1018	2.26	2.26	ppb	U
75-15-0	Carbon disulfide	C 542 -1018	0.38	0.38	ppb	U
75-09-2	Methylene Chloride	C 542 -1018	0.42	0.42	ppb	U
156-60-5	t-1,2-Dichloroethene	C 542 -1018	0.62	0.62	ppb	U
1634-04-4	Methyl t-butyl ether	C 542 -1018	0.36	0.36	ppb	U
75-34-3	1,1-Dichloroethane	C 542 -1018	0.60	0.60	ppb	U
590-20-7	2,2-Dichloropropane	C 542 -1018	0.54	0.54	ppb	U
156-59-2	c-1,2-Dichloroethene	C 542 -1018	0.48	0.48	ppb	U
78-93-3	2-Butanone	C 542 -1018	7.60	7.60	ppb	U
74-97-5	Bromochloromethane	C 542 -1018	0.50	0.50	ppb	U
67-66-3	Chloroform	C 542 -1018	0.52	0.52	ppb	U
71-55-6	1,1,1-Trichloroethane	C 542 -1018	0.52	0.52	ppb	U
56-23-5	Carbon Tetrachloride	C 542 -1018	0.44	0.44	ppb	U
563-58-6	1,1-Dichloropropene	C 542 -1018	0.78	0.78	ppb	U
71-43-2	Benzene	C 542 -1018	0.42	0.42	ppb	U
107-06-2	1,2-Dichloroethane	C 542 -1018	0.46	0.46	ppb	U
79-01-6	Trichloroethene	C 542 -1018	0.72	0.72	ppb	U
78-87-5	1,2-Dichloropropane	C 542 -1018	0.62	0.62	ppb	U
74-95-3	Dibromomethane	C 542 -1018	0.48	0.48	ppb	U
75-27-4	Bromodichloromethane	C 542 -1018	0.40	0.40	ppb	U
110-75-8	2-Chloroethylvinylether	C 542 -1018	0.66	0.66	ppb	U
10061-01-5	c-1,3-Dichloropropene	C 542 -1018	0.32	0.32	ppb	U
108-10-1	4-Methyl-2-pentanone	C 542 -1018	1.26	1.26	ppb	U
108-88-3	Toluene	C 542 -1018	0.40	0.40	ppb	U
10061-02-6	t-1,3-Dichloropropene	C 542 -1018	0.32	0.32	ppb	U
79-00-5	1,1,2-Trichloroethane	C 542 -1018	0.32	0.32	ppb	U
127-18-4	Tetrachloroethene	C 542 -1018	0.22	0.22	ppb	U

Environmental Testing Laboratories, Inc.
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

06/04/2002

Volatiles - EPA 8260B

Sample: N9163-2...continue

Client Sample ID: Effluent
Collected: 05/21/2002 12:00
Matrix: Liquid
Type: Grab
Remarks: See Case Narrative
Analyzed Date: 05/24/2002

Cas No	Analyte	File ID	MDL	Concentration	Units	Q
142-28-9	1,3-Dichloropropane	C 542 -1018	0.42	0.42	ppb	U
591-78-6	2-Hexanone	C 542 -1018	1.88	1.88	ppb	U
124-48-1	Dibromochloromethane	C 542 -1018	0.26	0.26	ppb	U
106-93-4	1,2-Dibromoethane	C 542 -1018	0.34	0.34	ppb	U
108-90-7	Chlorobenzene	C 542 -1018	0.30	0.30	ppb	U
630-20-6	1,1,1,2-Tetrachloroethane	C 542 -1018	0.40	0.40	ppb	U
100-41-4	Ethylbenzene	C 542 -1018	0.44	0.44	ppb	U
108-38-3	m,p-xylene	C 542 -1018	0.68	0.68	ppb	U
95-47-6	o-xylene	C 542 -1018	0.50	0.50	ppb	U
100-42-5	Styrene	C 542 -1018	0.40	0.40	ppb	U
75-25-2	Bromoform	C 542 -1018	0.42	0.42	ppb	U
98-82-8	Isopropylbenzene	C 542 -1018	0.30	0.30	ppb	U
108-86-1	Bromobenzene	C 542 -1018	0.40	0.40	ppb	U
79-34-5	1,1,2,2-Tetrachloroethane	C 542 -1018	0.46	0.46	ppb	U
103-65-1	n-Propylbenzene	C 542 -1018	0.32	0.32	ppb	U
96-18-4	1,2,3-Trichloropropane	C 542 -1018	0.70	0.70	ppb	U
622-96-8	p-Ethyltoluene	C 542 -1018	0.32	0.32	ppb	U
108-67-8	1,3,5-Trimethylbenzene	C 542 -1018	0.40	0.40	ppb	U
95-49-8	2-Chlorotoluene	C 542 -1018	0.50	0.50	ppb	U
106-43-4	4-Chlorotoluene	C 542 -1018	0.44	0.44	ppb	U
98-06-6	tert-Butylbenzene	C 542 -1018	0.38	0.38	ppb	U
95-63-6	1,2,4-Trimethylbenzene	C 542 -1018	0.34	0.34	ppb	U
135-98-8	sec-Butylbenzene	C 542 -1018	0.44	0.44	ppb	U
99-87-6	4-Isopropyltoluene	C 542 -1018	0.34	0.34	ppb	U
541-73-1	1,3-Dichlorobenzene	C 542 -1018	0.34	0.34	ppb	U
106-46-7	1,4-Dichlorobenzene	C 542 -1018	0.20	0.20	ppb	U
95-50-1	1,2-Dichlorobenzene	C 542 -1018	0.22	0.22	ppb	U
105-05-5	p-Diethylbenzene	C 542 -1018	0.44	0.44	ppb	U
104-51-8	n-Butylbenzene	C 542 -1018	0.34	0.34	ppb	U
95-93-2	1,2,4,5-Tetramethylbenzene	C 542 -1018	1.00	1.00	ppb	U
96-12-8	1,2-Dibromo-3-chloropropane	C 542 -1018	0.84	0.84	ppb	U
120-82-1	1,2,4-Trichlorobenzene	C 542 -1018	0.26	0.26	ppb	U
87-68-3	Hexachlorobutadiene	C 542 -1018	0.90	0.90	ppb	U
91-20-3	Naphthalene	C 542 -1018	0.58	0.58	ppb	U
87-61-6	1,2,3-Trichlorobenzene	C 542 -1018	0.38	0.38	ppb	U

Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735

Phone - 631-249-1456 Fax - 631-249-8344

06/04/2002

Volatiles - EPA 8260B

Sample: N9163-2...continue

Client Sample ID: Effluent

Collected: 05/21/2002 12:00

Matrix: Liquid

Type: Grab

Remarks: See Case Narrative

Analyzed Date: 05/24/2002

Cas No	Surrogate	File ID	% Recovery	QC Limits	Q
460-00-4	4-BROMOFLUOROBENZENE	C542-1018	101.0 %	(76- 118)	
4774-33-8	DIBROMOFLUOROMETHANE	C542-1018	101.0 %	(83- 113)	
2037-26-5	TOLUENE-D8	C542-1018	101.0 %	(90- 111)	

Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735

Phone - 631-249-1456 Fax - 631-249-8344

06/04/2002

Mercury, Total

Sample: N9163-2

Client Sample ID: Effluent

Collected: 05/21/2002 12:00

Matrix: Liquid

Type: Grab

Remarks:

Analyzed Date: 05/30/2002

Cas No	Analyte	MDL	Concentration	Units	Q
7439-97-6	Mercury	0.000020	0.000020	ppm	U

Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735

Phone - 631-249-1456 Fax - 631-249-8344

06/04/2002

TAL Metals by EPA7000 Series

Sample: N9163-2

Client Sample ID: Effluent

Collected: 05/21/2002 12:00

Matrix: Liquid

Type: Grab

Remarks:

Analyzed Date: 06/03/2002

Cas No	Analyte	MDL	Concentration	Units	Q
7429-90-5	Aluminum	0.091	0.091	ppm	U
7440-36-0	Antimony	0.0051	0.0051	ppm	U
7440-38-2	Arsenic	0.0034	**0.0090**	ppm	
7440-39-3	Barium	0.0037	**0.025**	ppm	
7440-41-7	Beryllium	0.0010	0.0010	ppm	U
7440-43-9	Cadmium	0.0010	0.0010	ppm	U
7440-70-2	Calcium	0.33	**86.7**	ppm	
7440-47-3	Chromium	0.0010	0.0010	ppm	U
7440-48-4	Cobalt	0.0010	0.0010	ppm	U
7440-50-8	Copper	0.0010	0.0010	ppm	U
7439-89-6	Iron	0.24	0.24	ppm	U
7439-92-1	Lead	0.0013	0.0013	ppm	U
7439-95-4	Magnesium	0.30	**106**	ppm	
7439-96-5	Manganese	0.0010	**2.37**	ppm	
7440-02-0	Nickel	0.0010	**0.0033**	ppm	
7440-09-7	Potassium	1.06	**31.7**	ppm	
7782-49-2	Selenium	0.0018	0.0018	ppm	U
7440-22-4	Silver	0.0019	**0.0089**	ppm	
7440-23-5	Sodium	0.36	**940**	ppm	
7440-28-0	Thallium	0.0018	0.0018	ppm	U
7440-62-2	Vanadium	0.0010	0.0010	ppm	U
7440-66-6	Zinc	0.0012	**0.029**	ppm	

Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735

Phone - 631-249-1456 Fax - 631-249-8344

06/04/2002

Alkalinity - EPA 310.1

Sample: N9163-2

Client Sample ID: Effluent

Collected: 05/21/2002 12:00

Matrix: Liquid

Type: Grab

Remarks:

Analyzed Date: 05/30/2002

Cas No	Analyte	MDL	Result	Units	Q
	Alkalinity as CaCO3	0.28	**52.0**	ppm	

Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735

Phone - 631-249-1456 Fax - 631-249-8344

06/04/2002

Chemical Oxygen Demand (COD) - EPA 410.4

Sample: N9163-2

Client Sample ID: Effluent

Collected: 05/21/2002 12:00

Matrix: Liquid

Type: Grab

Remarks:

Analyzed Date: 05/23/2002

Cas No	Analyte	MDL	Result	Units	Q
	COD	4.80	**67.6**	ppm	

Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735

Phone - 631-249-1456 Fax - 631-249-8344

06/04/2002

Residual Chlorine - EPA 330.3/330.3M

Sample: N9163-2

Client Sample ID: Effluent

Collected: 05/21/2002 12:00

Matrix: Liquid

Type: Grab

Remarks:

Analyzed Date: 05/22/2002

Cas No	Analyte	MDL	Result	Units	Q
	Residual Chlorine	NA	ND	ppm	

Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735

Phone - 631-249-1456 Fax - 631-249-8344

06/04/2002

Total Dissolved Solids - 2540C

Sample: N9163-2

Client Sample ID: Effluent

Collected: 05/21/2002 12:00

Matrix: Liquid

Type: Grab

Remarks:

Analyzed Date: 05/22/2002

Cas No	Analyte	MDL	Result	Units	Q
	Total Dissolved Solids	9.92	**3100**	mg/l	

Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735

Phone - 631-249-1456 Fax - 631-249-8344

06/04/2002

Total Suspended Solids - 2540D

Sample: N9163-2

Client Sample ID: Effluent

Collected: 05/21/2002 12:00

Matrix: Liquid

Type: Grab

Remarks:

Analyzed Date: 05/22/2002

Cas No	Analyte	MDL	Result	Units	Q
	Total Suspended Solids	4.58	**7.00**	mg/L	

Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735

Phone - 631-249-1456 Fax - 631-249-8344

06/04/2002

Case Narrative

The following compounds were calibrated at 25, 50, 100, 150 and 200 ppb levels in the initial calibration curve:

Acetone
2-Butanone
4-Methyl,2-pentanone
2-Hexanone

M&P-Xylenes and 2-Chloro ethyl vinyl ether were calibrated at 10, 40, 100, 200 and 300 ppb levels.

All other compounds were calibrated at 5, 20, 50, 100 and 150 ppb levels.

Reviewed by: _____

Environmental Testing Laboratories, Inc.
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

06/04/2002

ORGANIC METHOD QUALIFIERS

Q - Qualifier - specified entries and their meanings are as follows:

U - The analytical result is a non-detect.

J - Indicates an estimated value. The concentration reported was detected below the Method Detection Limit.

B - The analyte was found in the associated method blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E - The concentration of the analyte exceeded the calibration range of the instrument.

D - This flag identifies all compounds identified in an analysis at a secondary dilution. In the case of a surrogate this flag indicates a system mointoring compound diluted out.

INORGANIC METHOD QUALIFIERS

C - (Concentration) qualifiers are as follows:

B - Entered if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL).

U - Entered when the analyte was analyzed for, but not detected.

Q - Qualifier specific entries and their meanings are as follows:

E - Reported value is estimated because of the presence of interferences.

M - (Method) qualifiers are as follows:

A - Flame AA

AS - Semi-automated Spectrophotometric

AV - Automated Cold Vapor AA

C - Manual Spectrophotometric

F - Furnace AA

P - ICP

T - Titrimetric

OTHER QUALIFIERS

ND - Not Detected

NA - Not Applicable

NR - Not Required

* - Outside Expected Range (NYCDEP Table I/II or Surrogate Limits)

OTHER

- All soil and sediment samples are reported on a dry weight basis.

ETL

Environmental Testing Laboratories, Inc.
208 Route 109 • Farmingdale • New York 11735
631-249-1456 • Fax: 631-249-8344

CHAIN OF CUSTODY DOCUMENT

N 09163

Project Name: Active	Project Manager: M Solomon	Sampler (Signature): C - Ferrito	(Print): C - Ferrito
Project Address: 67 W. Montauk Hwy, Lindenhurst, NY			
Client: [illegible] J/N: 023790 - 01830	❑ ~~Rush by / /~~		

SAMPLE INFO Type: SS = Split Spoon; G = Grab; C = Composite; B = Blank *Air - Vol. (Liters)
Matrix: L = Liquid; S = Soil; SL = Sludge; A* = Air; W = Wipe include: Flow (CFM)

ID	Date	Time	Type	Matrix	Sample Location	Total. # Cont.	601/602	BTX/BTEX	MTBE	624/8260/8021	625/8270/BN	PCB/Pesticides	Pet.Prods./8100M	RCRA Metals (TAL)	pH/Flash/React	418.1 - TRPH	TDS-160.2	TSS-160.1	COD-410.1.2	Res. Chlorine	Alkalinity				
1	5/21/02	12 PM	G	L	Influent	2				x															
2					Effluent	7 6				x				x			x	x	x	x	x				
3																									
4																									
5																									
6																									
7																									
8					Standard		Turnaround																		
9																									
10																									
11																									
12																									
13																									
14																									
15																									

Relinquished by **(Signature)**: Mark A Solomon	Date 5-21-02 Time 12 PM	Printed Name & Agent:	Received by **(Signature)**:	Date Time	Printed Name & Agent
Relinquished by **(Signature)**:	Date Time	Printed Name & Agent:	Received for Lab by **(Signature)**: [signature]	Date 5-21-02 Time 1517	Printed Name [illegible]
Comments & Special Instructions		QA/QC Type:	Number & Type of Containers: 4 Voa's, 1 Liter, 1-500 P, 2-250 P	Preservatives: HCl (V), H_2SO_4 (500), HNO_3 (250)	Temp: 5°C 5/21/02

SHIPPING COPY