

September 25, 2009

Ms. Charlotte Theobald
NY State Department of Environmental Conservation
Division of Environmental Remediation, Region 8
6274 East Avon-Lima Road
Avon, New York 14414-9519

Re: Site No. C849004
Seneca Market I, LLC Site
Watkins Glen, New York
Second Quarter 2009 Groundwater Monitoring

Dear Ms. Theobald:

On behalf of our client, Seneca Market I, LLC (Seneca Market), Benchmark Environmental Engineering & Science, PLLC (Benchmark) is herein transmitting the results from the May 2009 groundwater monitoring event at the Seneca Market Site in Watkins Glen, New York (Site; see Figure 1).

This groundwater monitoring event included sampling and analysis of MW-1SR, MW-3SR, MW-7S and MW-10S. MW-21S was not sampled during this groundwater monitoring event due to inaccessibility (a car was parked over the well location). Groundwater gauging of MW-4S and MW-9S was also completed. Groundwater samples from each of the sampled wells were analyzed for target compound list (TCL) volatile organic compounds (VOCs). The groundwater sample collected from MW-3SR was also analyzed for dissolved iron and manganese, nitrate, sulfate, sulfide, chloride, alkalinity, total organic carbon, metabolic acids and dissolved gases. Field parameters including pH, oxidation-reduction potential (ORP), dissolved oxygen (DO), temperature, turbidity, and specific conductance were also measured in each of the sampled monitoring wells. Table 1 (attached) summarizes the analytical and field results from the May 2009 groundwater monitoring event as well as historic groundwater monitoring events completed by Benchmark and the NYSDEC.

As shown on Table 1, chlorinated VOCs were not detected above NYSDEC Class GA groundwater quality standards (GWQS) as listed in NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1) in MW-3SR, MW-7S or MW10S. Sample results from MW-3SR, located in the area of VOC source soil removal by Seneca Market, has decreased from 6,203 micrograms per liter (ug/L) total chlorinated VOCs in June 2000 to less than 2 ug/L total chlorinated VOCs in May 2009. The results of the May 2009 sampling event also confirm that biodegradation of VOCs in groundwater is occurring. This is evidenced by the continued reduction in concentrations of chlorinated VOCs, the presence of tetrachloroethene (PCE) breakdown products, including trichloroethene (TCE),

www.benchmarkees.com

cis-1,2-DCE and vinyl chloride, the presence of methane, low oxidation-reduction potential (ORP) and low dissolved oxygen (DO).

Concentrations of petroleum VOCs, including, benzene, toluene, xylene and methyl tert butyl ether (MtBE), in MW-7S and MtBE in MW-3SR may be the result of on-Site migration of petroleum VOCs from the adjacent and up-gradient NYSDEC petroleum spill site (Spill No. 0651369) located at the corner of North Franklin Street and Division Street. We understand that environmental investigation and/or remediation is on-going at that site.

Monitoring well elevations of MW-1SR, MW-3SR, MW-7S, MW-10S, MW-4S and MW-9S and static groundwater elevations were recorded. Table 2 shows the relative groundwater elevations and Figure 1 includes estimated groundwater flow direction. The groundwater flow is generally consistent with historic groundwater gauging data.

The third quarterly groundwater sampling event for 2009 will be completed in September 2009. Please contact us with any questions or comments.

Sincerely,
Benchmark Environmental Engineering & Science, PLLC



Michael Lesakowski
Project Manager

Att.

c: P. Sheedy (Seneca Market I, LLC)

TABLES

TABLE 2

**SUMMARY OF GROUNDWATER ELEVATIONS
SECOND QUARTER 2009 (05-20-09)**

**Seneca Market I, LLC Site
Watkins Glen, New York**

Location	TOR Elevation (fmsl)	DTW (fbTOR)	Groundwater Elevation (fmsl)
MW-1SR	451.39	5.62	445.77
MW-3SR	451.89	5.94	445.95
MW-4S	450.68	4.83	445.85
MW-7S	450.85	5.05	445.80
MW-9S	453.57	7.82	445.75
MW-10S	452.01	6.28	445.73

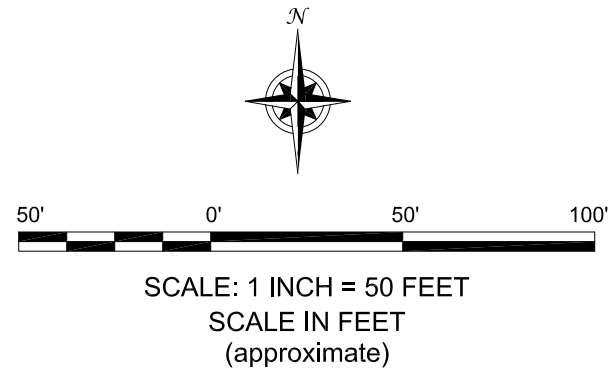
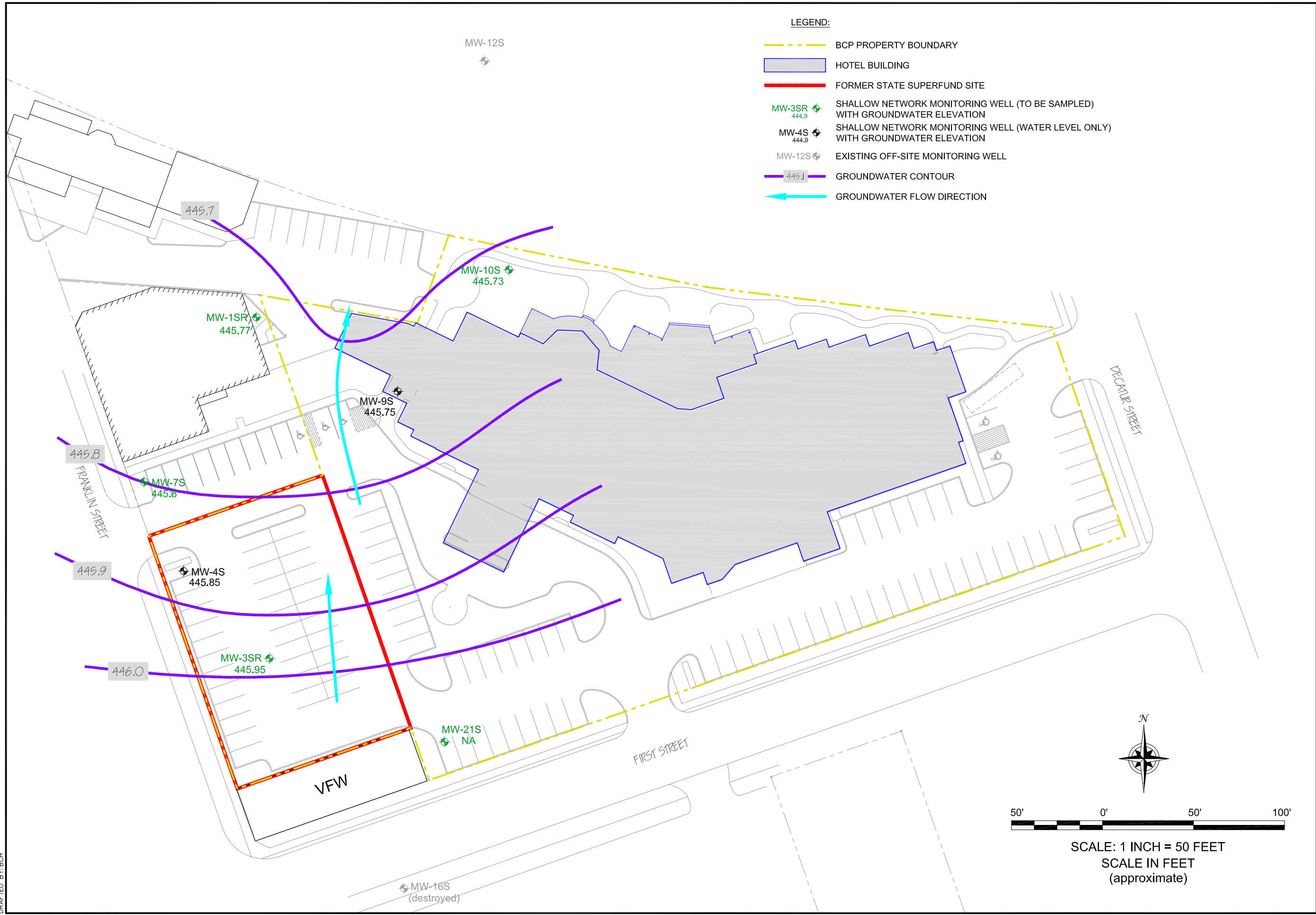
Notes:

1. DTW = depth to water, measured in feet below top of riser
2. fmsl = feet above mean sea level
3. fbTOR = feet below top of riser
4. TOR = Top of Riser; elevations surveyed on 02-27-2009

FIGURES

F:\CAD\Benchmark\Krog\Seneca Harbor Hotel - Watkins Glen\GROUNDWATER MONITORING\2009\Figure 1: LTGWM Network & Iso Map (Sept 2009).dwg

DATE: MARCH 2009
DRAFTED BY: BCH



LTGWM NETWORK & ISO POTENTIAL MAP
SECOND QUARTER 2009 (05-20-09)
LONG-TERM GROUNDWATER MONITORING PROGRAM
SENECA MARKET I, LLC SITE
WATKINS GLEN, NEW YORK
SITE NO. C849004
PREPARED FOR
SENECA MARKET I, LLC

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC
726 EXCHANGE STREET
SUITE 624
BUFFALO, NEW YORK 14210
(716) 856-0599

JOB NO.: 0092-002-200

FIGURE 1

ATTACHMENT 1

LABORATORY ANALYTICAL DATA MAY 2009 SAMPLING EVENT

JUN 22 2009

June 10, 2009

Service Request No: R0902871

Mr. Michael Lesakowski
Benchmark Environmental Engineering
726 Exchange Street
Suite 624
Buffalo, NY 14210

Laboratory Results for: Seneca Market

Dear Mr. Lesakowski:

Enclosed are the results of the sample(s) submitted to our laboratory on May 21, 2009. For your reference, these analyses have been assigned our service request number **R0902871**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 135. You may also contact me via email at JJaeager@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.



Janice Jaeger
Client Services Manager

Page 1 of 32

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R0902871

<u>Lab ID</u>	<u>Client ID</u>
R0902871-001	MW-10S
R0902871-002	MW-1SR
R0902871-003	MW-7S
R0902871-004	MW-3SR
R0902871-005	MW-3SR

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by CAS personnel have been in accordance with "CAS Field Procedures and Measurements Manual" or by client specifications.

Samples have been subcontracted to the following laboratory(ies). The subcontractor's analytical report is attached:

Columbia Analytical Services, Inc. - SIMIVALLE
Simi Valley, CA



REPORT QUALIFIERS

- U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J - Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds, or when the concentration is less than the reporting limit and greater than the MDL (concentrations are not verified within the initial calibration range).
- For DoD reports, the J-flag may also be used to indicate that the concentration between two columns for pesticides/Aroclors is greater than 40% difference.
- B - Indicates this compound was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- B- Metals - Indicates an estimated value. The concentration is less than the reporting limit and greater than the MDL (concentrations are not verified within the initial calibration range).
- E - Indicates that the sample concentration had exceeded the calibration range for that specific analysis.
- D - Indicates the sample concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range.
- * - Indicates that a quality control parameter has exceeded laboratory limits.
- X - See Case Narrative for discussion.
- P - This flag is used for a pesticide/Aroclor target concentration when there is a greater than 40% (25% for CLP) difference for detected concentrations between the two GC columns.
- For DoD reports, the J-flag is used instead of "P".
- # - Spike was diluted out.
- N - Inorganics- Indicates the matrix spike recovery was outside laboratory limits.
- N- Organics- Indicates presumptive evidence of a compound (reported as a tentatively identified compound) based on the mass spectral library search.



CAS/Rochester Lab ID # for State Certifications¹

NELAP Accredited	Nevada ID # NY-00032
Delaware Accredited	New Jersey ID # NY004
Connecticut ID # PH0556	New York ID # 10145
Florida ID # E87674	New Hampshire ID # 294100 A/B
Illinois ID #200047	Pennsylvania ID# 68-786
Maine ID #NY0032	Rhode Island ID # 158
Nebraska Accredited	West Virginia ID # 292
Navy Facilities Engineering Service Center Approved	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at www.caslab.com.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water
Sample Name: MW-10S
Lab Code: R0902871-001

Service Request: R0902871
Date Collected: 5/20/09 1153
Date Received: 5/21/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
1,1,2,2-Tetrachloroethane	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
1,1,2-Trichloroethane	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
1,1-Dichloroethane (1,1-DCA)	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
1,2,4-Trichlorobenzene	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
1,2-Dibromo-3-chloropropane (DBCP)	2.0	U	2.0	1	NA	5/30/09 02:33		155589	
1,2-Dibromoethane	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
1,2-Dichlorobenzene	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
1,2-Dichloroethane	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
1,2-Dichloropropane	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
1,3-Dichlorobenzene	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
1,4-Dichlorobenzene	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
2-Butanone (MEK)	5.0	U	5.0	1	NA	5/30/09 02:33		155589	
2-Hexanone	5.0	U	5.0	1	NA	5/30/09 02:33		155589	
4-Methyl-2-pentanone	5.0	U	5.0	1	NA	5/30/09 02:33		155589	
Acetone	5.0	U	5.0	1	NA	5/30/09 02:33		155589	
Benzene	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Bromodichloromethane	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Bromoform	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Bromomethane	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Carbon Disulfide	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Carbon Tetrachloride	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Chlorobenzene	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Chloroethane	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Chloroform	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Chloromethane	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Cyclohexane	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Dibromochloromethane	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Dichlorodifluoromethane (CFC 12)	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Dichloromethane	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Ethylbenzene	1.0	U	1.0	1	NA	5/30/09 02:33		155589	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water
Sample Name: MW-10S
Lab Code: R0902871-001

Service Request: R0902871
Date Collected: 5/20/09 1153
Date Received: 5/21/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Isopropylbenzene (Cumene)	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Methyl Acetate	2.0	U	2.0	1	NA	5/30/09 02:33		155589	
Methyl tert-Butyl Ether	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Methylcyclohexane	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Styrene	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Tetrachloroethene (PCE)	2.5		1.0	1	NA	5/30/09 02:33		155589	
Toluene	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Trichloroethene (TCE)	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Trichlorofluoromethane (CFC 11)	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
Vinyl Chloride	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
cis-1,2-Dichloroethene	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
cis-1,3-Dichloropropene	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
m,p-Xylenes	2.0	U	2.0	1	NA	5/30/09 02:33		155589	
o-Xylene	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
trans-1,2-Dichloroethene	1.0	U	1.0	1	NA	5/30/09 02:33		155589	
trans-1,3-Dichloropropene	1.0	U	1.0	1	NA	5/30/09 02:33		155589	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	107	80-123	5/30/09 02:33		
Dibromofluoromethane	106	89-115	5/30/09 02:33		
Toluene-d8	106	88-124	5/30/09 02:33		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water
Sample Name: MW-1SR
Lab Code: R0902871-002

Service Request: R0902871
Date Collected: 5/20/09 1242
Date Received: 5/21/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
1,1,2,2-Tetrachloroethane	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
1,1,2-Trichloroethane	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
1,1-Dichloroethane (1,1-DCA)	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
1,2,4-Trichlorobenzene	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
1,2-Dibromo-3-chloropropane (DBCP)	2.0	U	2.0	1	NA	5/30/09 03:03		155589	
1,2-Dibromoethane	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
1,2-Dichlorobenzene	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
1,2-Dichloroethane	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
1,2-Dichloropropane	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
1,3-Dichlorobenzene	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
1,4-Dichlorobenzene	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
2-Butanone (MEK)	5.0	U	5.0	1	NA	5/30/09 03:03		155589	
2-Hexanone	5.0	U	5.0	1	NA	5/30/09 03:03		155589	
4-Methyl-2-pentanone	5.0	U	5.0	1	NA	5/30/09 03:03		155589	
Acetone	5.0	U	5.0	1	NA	5/30/09 03:03		155589	
Benzene	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Bromodichloromethane	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Bromoform	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Bromomethane	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Carbon Disulfide	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Carbon Tetrachloride	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Chlorobenzene	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Chloroethane	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Chloroform	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Chloromethane	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Cyclohexane	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Dibromochloromethane	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Dichlorodifluoromethane (CFC 12)	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Dichloromethane	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Ethylbenzene	1.0	U	1.0	1	NA	5/30/09 03:03		155589	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water
Sample Name: MW-1SR
Lab Code: R0902871-002

Service Request: R0902871
Date Collected: 5/20/09 1242
Date Received: 5/21/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Isopropylbenzene (Cumene)	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Methyl Acetate	2.0	U	2.0	1	NA	5/30/09 03:03		155589	
Methyl tert-Butyl Ether	2.0		1.0	1	NA	5/30/09 03:03		155589	
Methylcyclohexane	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Styrene	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Tetrachloroethene (PCE)	87		1.0	1	NA	5/30/09 03:03		155589	
Toluene	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Trichloroethene (TCE)	21		1.0	1	NA	5/30/09 03:03		155589	
Trichlorofluoromethane (CFC 11)	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
Vinyl Chloride	1.4		1.0	1	NA	5/30/09 03:03		155589	
cis-1,2-Dichloroethene	72		1.0	1	NA	5/30/09 03:03		155589	
cis-1,3-Dichloropropene	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
m,p-Xylenes	2.0	U	2.0	1	NA	5/30/09 03:03		155589	
o-Xylene	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
trans-1,2-Dichloroethene	1.0	U	1.0	1	NA	5/30/09 03:03		155589	
trans-1,3-Dichloropropene	1.0	U	1.0	1	NA	5/30/09 03:03		155589	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	107	80-123	5/30/09 03:03		
Dibromofluoromethane	106	89-115	5/30/09 03:03		
Toluene-d8	107	88-124	5/30/09 03:03		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water

Sample Name: MW-7S
Lab Code: R0902871-003

Service Request: R0902871
Date Collected: 5/20/09 1312
Date Received: 5/21/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
1,1,2,2-Tetrachloroethane	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
1,1,2-Trichloroethane	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
1,1-Dichloroethane (1,1-DCA)	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
1,2,4-Trichlorobenzene	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
1,2-Dibromo-3-chloropropane (DBCP)	2.0	U	2.0	1	NA	5/30/09 03:33		155589	
1,2-Dibromoethane	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
1,2-Dichlorobenzene	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
1,2-Dichloroethane	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
1,2-Dichloropropane	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
1,3-Dichlorobenzene	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
1,4-Dichlorobenzene	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
2-Butanone (MEK)	5.0	U	5.0	1	NA	5/30/09 03:33		155589	
2-Hexanone	5.0	U	5.0	1	NA	5/30/09 03:33		155589	
4-Methyl-2-pentanone	5.0	U	5.0	1	NA	5/30/09 03:33		155589	
Acetone	34		5.0	1	NA	5/30/09 03:33		155589	
Benzene	14		1.0	1	NA	5/30/09 03:33		155589	
Bromodichloromethane	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
Bromoform	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
Bromomethane	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
Carbon Disulfide	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
Carbon Tetrachloride	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
Chlorobenzene	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
Chloroethane	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
Chloroform	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
Chloromethane	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
Cyclohexane	12		1.0	1	NA	5/30/09 03:33		155589	
Dibromochloromethane	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
Dichlorodifluoromethane (CFC 12)	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
Dichloromethane	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
Ethylbenzene	1.0	U	1.0	1	NA	5/30/09 03:33		155589	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water
Sample Name: MW-7S
Lab Code: R0902871-003

Service Request: R0902871
Date Collected: 5/20/09 1312
Date Received: 5/21/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Isopropylbenzene (Cumene)	1.4		1.0	1	NA	5/30/09 03:33		155589	
Methyl Acetate	2.0	U	2.0	1	NA	5/30/09 03:33		155589	
Methyl tert-Butyl Ether	1.6		1.0	1	NA	5/30/09 03:33		155589	
Methylcyclohexane	4.4		1.0	1	NA	5/30/09 03:33		155589	
Styrene	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
Tetrachloroethene (PCE)	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
Toluene	5.7		1.0	1	NA	5/30/09 03:33		155589	
Trichloroethene (TCE)	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
Trichlorofluoromethane (CFC 11)	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
Vinyl Chloride	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
cis-1,2-Dichloroethene	3.0		1.0	1	NA	5/30/09 03:33		155589	
cis-1,3-Dichloropropene	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
m,p-Xylenes	8.3		2.0	1	NA	5/30/09 03:33		155589	
o-Xylene	1.9		1.0	1	NA	5/30/09 03:33		155589	
trans-1,2-Dichloroethene	1.0	U	1.0	1	NA	5/30/09 03:33		155589	
trans-1,3-Dichloropropene	1.0	U	1.0	1	NA	5/30/09 03:33		155589	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	111	80-123	5/30/09 03:33		
Dibromofluoromethane	107	89-115	5/30/09 03:33		
Toluene-d8	108	88-124	5/30/09 03:33		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water
Sample Name: MW-3SR
Lab Code: R0902871-004

Service Request: R0902871
Date Collected: 5/20/09 1339
Date Received: 5/21/09

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Alkalinity as CaCO ₃ , Total	SM 2320 B	314		mg/L	13	1	NA	5/28/09 09:30
Carbon, Total Organic (TOC)	415.1	3.5		mg/L	1.0	1	NA	5/28/09 15:56
Chloride	9056	544		mg/L	20	100	NA	5/22/09 22:06
Nitrate as Nitrogen	9056	0.50	U	mg/L	0.50	10	NA	5/22/09 06:42
Sulfate	9056	17.0		mg/L	2.0	10	NA	5/22/09 06:42
Sulfide, Total	SM 4500-S2- F	0.98	U	mg/L	0.98	1	NA	5/27/09 09:00

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water
Sample Name: MW-3SR
Lab Code: R0902871-004

Service Request: R0902871
Date Collected: 5/20/09 1339
Date Received: 5/21/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
1,1,2,2-Tetrachloroethane	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
1,1,2-Trichloroethane	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
1,1-Dichloroethane (1,1-DCA)	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
1,2,4-Trichlorobenzene	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
1,2-Dibromo-3-chloropropane (DBCP)	2.0	U	2.0	1	NA	5/30/09 04:02		155589	
1,2-Dibromoethane	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
1,2-Dichlorobenzene	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
1,2-Dichloroethane	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
1,2-Dichloropropane	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
1,3-Dichlorobenzene	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
1,4-Dichlorobenzene	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
2-Butanone (MEK)	5.0	U	5.0	1	NA	5/30/09 04:02		155589	
2-Hexanone	5.0	U	5.0	1	NA	5/30/09 04:02		155589	
4-Methyl-2-pentanone	5.0	U	5.0	1	NA	5/30/09 04:02		155589	
Acetone	5.0	U	5.0	1	NA	5/30/09 04:02		155589	
Benzene	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Bromodichloromethane	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Bromoform	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Bromomethane	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Carbon Disulfide	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Carbon Tetrachloride	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Chlorobenzene	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Chloroethane	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Chloroform	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Chloromethane	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Cyclohexane	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Dibromochloromethane	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Dichlorodifluoromethane (CFC 12)	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Dichloromethane	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Ethylbenzene	1.0	U	1.0	1	NA	5/30/09 04:02		155589	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water
Sample Name: MW-3SR
Lab Code: R0902871-004

Service Request: R0902871
Date Collected: 5/20/09 1339
Date Received: 5/21/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Isopropylbenzene (Cumene)	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Methyl Acetate	2.0	U	2.0	1	NA	5/30/09 04:02		155589	
Methyl tert-Butyl Ether	4.7		1.0	1	NA	5/30/09 04:02		155589	
Methylcyclohexane	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Styrene	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Tetrachloroethene (PCE)	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Toluene	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Trichloroethene (TCE)	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Trichlorofluoromethane (CFC 11)	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
Vinyl Chloride	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
cis-1,2-Dichloroethene	1.8		1.0	1	NA	5/30/09 04:02		155589	
cis-1,3-Dichloropropene	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
m,p-Xylenes	2.0	U	2.0	1	NA	5/30/09 04:02		155589	
o-Xylene	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
trans-1,2-Dichloroethene	1.0	U	1.0	1	NA	5/30/09 04:02		155589	
trans-1,3-Dichloropropene	1.0	U	1.0	1	NA	5/30/09 04:02		155589	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	106	80-123	5/30/09 04:02		
Dibromofluoromethane	107	89-115	5/30/09 04:02		
Toluene-d8	107	88-124	5/30/09 04:02		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water
Sample Name: MW-3SR
Lab Code: R0902871-004

Service Request: R0902871
Date Collected: 5/20/09 1339
Date Received: 5/21/09

Units: µg/L
Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175

Analyte Name	Result Q		MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Analysis		
							Lot	Lot	Note
Ethane	2.0	U	2.0	2	NA	5/27/09 13:30		155221	
Ethene	2.0	U	2.0	2	NA	5/27/09 13:30		155221	
Methane	130		4.0	2	NA	5/27/09 13:30		155221	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water
Sample Name: MW-3SR
Lab Code: R0902871-004

Service Request: R0902871
Date Collected: 5/20/09 1339
Date Received: 5/21/09
Units: mg/L
Basis: NA

Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC)

Analytical Method: Organic Acids

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Pyruvic Acid	0.50	U	0.50	1	NA	6/4/09 18:52		156328	
Acetic Acid	1.0	U	1.0	1	NA	6/4/09 18:52		156328	
Butanoic Acid (Butyric Acid)	2.0	U	2.0	1	NA	6/4/09 18:52		156328	
Lactic Acid	1.0	U	1.0	1	NA	6/4/09 18:52		156328	
Propionic Acid	1.0	U	1.0	1	NA	6/4/09 18:52		156328	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water
Sample Name: MW-3SR
Lab Code: R0902871-005

Service Request: R0902871
Date Collected: 5/20/09 1339
Date Received: 5/21/09

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Iron, Dissolved	6010B	100	U	µg/L	100	1	5/26/09	5/28/09 05:18
Manganese, Dissolved	6010B	5600		µg/L	10	1	5/26/09	5/28/09 05:18

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R0902871-MB

Service Request: R0902871
Date Collected: NA
Date Received: NA

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Alkalinity as CaCO ₃ , Total	SM 2320 B	2.0	U	mg/L	2.0	1	NA	5/28/09 09:30
Carbon, Total Organic (TOC)	415.1	1.0	U	mg/L	1.0	1	NA	5/28/09 15:20
Chloride	9056	0.20	U	mg/L	0.20	1	NA	5/22/09 17:53
Nitrate as Nitrogen	9056	0.050	U	mg/L	0.050	1	NA	5/22/09 01:04
Sulfate	9056	0.20	U	mg/L	0.20	1	NA	5/22/09 01:04
Sulfide, Total	SM 4500-S2- F	1.0	U	mg/L	1.0	1	NA	5/27/09 09:00

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R0902871-MB

Service Request: R0902871
Date Collected: NA
Date Received: NA

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Iron, Dissolved	6010B	100	U	µg/L	100	1	5/26/09	5/28/09 03:28
Manganese, Dissolved	6010B	10	U	µg/L	10	1	5/26/09	5/28/09 03:28

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0904357-01

Service Request: R0902871
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1-Trichloroethane (TCA)	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
1,1,2,2-Tetrachloroethane	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
1,1,2-Trichloroethane	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
1,1-Dichloroethane (1,1-DCA)	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
1,1-Dichloroethene (1,1-DCE)	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
1,2,4-Trichlorobenzene	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
1,2-Dibromo-3-chloropropane (DBCP)	2.0	U	2.0	1	NA	5/30/09 02:04		155589	
1,2-Dibromochloroethane	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
1,2-Dichlorobenzene	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
1,2-Dichloroethane	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
1,2-Dichloropropane	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
1,3-Dichlorobenzene	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
1,4-Dichlorobenzene	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
2-Butanone (MEK)	5.0	U	5.0	1	NA	5/30/09 02:04		155589	
2-Hexanone	5.0	U	5.0	1	NA	5/30/09 02:04		155589	
4-Methyl-2-pentanone	5.0	U	5.0	1	NA	5/30/09 02:04		155589	
Acetone	5.0	U	5.0	1	NA	5/30/09 02:04		155589	
Benzene	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Bromodichloromethane	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Bromoform	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Bromomethane	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Carbon Disulfide	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Carbon Tetrachloride	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Chlorobenzene	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Chloroethane	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Chloroform	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Chloromethane	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Cyclohexane	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Dibromochloromethane	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Dichlorodifluoromethane (CFC 12)	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Dichloromethane	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Ethylbenzene	1.0	U	1.0	1	NA	5/30/09 02:04		155589	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0904357-01

Service Request: R0902871
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Isopropylbenzene (Cumene)	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Methyl Acetate	2.0	U	2.0	1	NA	5/30/09 02:04		155589	
Methyl tert-Butyl Ether	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Methylcyclohexane	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Styrene	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Tetrachloroethene (PCE)	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Toluene	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Trichloroethene (TCE)	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Trichlorofluoromethane (CFC 11)	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
Vinyl Chloride	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
cis-1,2-Dichloroethene	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
cis-1,3-Dichloropropene	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
m,p-Xylenes	2.0	U	2.0	1	NA	5/30/09 02:04		155589	
o-Xylene	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
trans-1,2-Dichloroethene	1.0	U	1.0	1	NA	5/30/09 02:04		155589	
trans-1,3-Dichloropropene	1.0	U	1.0	1	NA	5/30/09 02:04		155589	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	107	80-123	5/30/09 02:04		
Dibromofluoromethane	106	89-115	5/30/09 02:04		
Toluene-d8	107	88-124	5/30/09 02:04		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0904058-01

Service Request: R0902871
Date Collected: NA
Date Received: NA
Units: µg/L
Basis: NA

Dissolved Gases by GC/FID

Analytical Method: RSK 175

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Ethane	1.0	U	1.0	1	NA	5/27/09 12:30		155221	
Ethene	1.0	U	1.0	1	NA	5/27/09 12:30		155221	
Methane	2.0	U	2.0	1	NA	5/27/09 12:30		155221	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ0904353-01

Service Request: R0902871
Date Collected: NA
Date Received: NA
Units: mg/L
Basis: NA

Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC)

Analytical Method: Organic Acids

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Pyruvic Acid	0.50	U	0.50	1	NA	6/4/09 10:56		156328	
Acetic Acid	1.0	U	1.0	1	NA	6/4/09 10:56		156328	
Butanoic Acid (Butyric Acid)	2.0	U	2.0	1	NA	6/4/09 10:56		156328	
Lactic Acid	1.0	U	1.0	1	NA	6/4/09 10:56		156328	
Propionic Acid	1.0	U	1.0	1	NA	6/4/09 10:56		156328	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water

Service Request: R0902871
Date Analyzed: 5/27/09

Lab Control Sample Summary
Sulfide, Iodometric 20th Ed.

Units: mg/L

Basis: NA

Analyte Name	Method	Lab Control Sample R0902871-LCS1			Duplicate Lab Control Sample R0902871-DLCS1			% Rec Limits	RPD	RPD Limit
		Result	Expected	% Rec	Result	Expected	% Rec			
Sulfide, Total	SM 4500-S2- F	5.74	5.8	98	5.54	5.8	95	56 - 138	3	20

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water

Service Request: R0902871
Date Analyzed: 5/22/09 -
5/28/09

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R0902871-LCS2			% Rec Limits
		Result	Expected	% Rec	
Carbon, Total Organic (TOC)	415.1	9.61	10.0	96	86 - 117
Chloride	9056	2.04	2.00	102	90 - 110
Sulfate	9056	1.88	2.00	94	90 - 110
Alkalinity as CaCO ₃ , Total	SM 2320 B	19.1	20.0	95	90 - 108
Nitrate as Nitrogen	9056	1.00	1.00	100	90 - 110

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water

Service Request: R0902871
Date Analyzed: 5/28/09

**Lab Control Sample Summary
Inorganic Parameters**

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R0902871-LCS			% Rec Limits
		Result	Expected	% Rec	
Iron, Dissolved	6010B	1030	1000	103	80 - 120
Manganese, Dissolved	6010B	502	500	100	80 - 120

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water

Service Request: R0902871
Date Analyzed: 5/30/09

**Lab Control Sample Summary
Volatile Organic Compounds by GC/MS**

Analytical Method: 8260B

Units: µg/L

Basis: NA

Analysis Lot: 155589

Analyte Name	Lab Control Sample RQ0904357-02			% Rec Limits
	Result	Expected	% Rec	
1,1,1-Trichloroethane (TCA)	20.2	20.0	101	70 - 130
1,1,2,2-Tetrachloroethane	18.1	20.0	91	70 - 130
1,1,2-Trichloroethane	20.3	20.0	101	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	19.1	20.0	95	70 - 130
1,1-Dichloroethane (1,1-DCA)	18.4	20.0	92	70 - 130
1,1-Dichloroethene (1,1-DCE)	19.1	20.0	95	70 - 130
1,2,4-Trichlorobenzene	18.9	20.0	94	70 - 130
1,2-Dibromo-3-chloropropane (DBCP)	20.0	20.0	100	50 - 150
1,2-Dibromoethane	21.3	20.0	107	70 - 130
1,2-Dichlorobenzene	19.9	20.0	99	70 - 130
1,2-Dichloroethane	20.4	20.0	102	70 - 130
1,2-Dichloropropane	19.5	20.0	98	70 - 130
1,3-Dichlorobenzene	19.6	20.0	98	70 - 130
1,4-Dichlorobenzene	19.1	20.0	96	70 - 130
2-Butanone (MEK)	16.3	20.0	82	50 - 150
2-Hexanone	18.5	20.0	92	70 - 130
4-Methyl-2-pentanone	18.2	20.0	91	70 - 130
Acetone	20.2	20.0	101	50 - 150
Benzene	18.8	20.0	94	70 - 130
Bromodichloromethane	20.8	20.0	104	70 - 130
Bromoform	21.3	20.0	106	70 - 130
Bromomethane	19.1	20.0	95	50 - 150
Carbon Disulfide	18.1	20.0	90	70 - 130
Carbon Tetrachloride	20.8	20.0	104	70 - 130
Chlorobenzene	19.5	20.0	97	70 - 130
Chloroethane	18.6	20.0	93	70 - 130
Chloroform	19.7	20.0	99	70 - 130
Chloromethane	17.8	20.0	89	70 - 130
Cyclohexane	15.7	20.0	78	50 - 150
Dibromochloromethane	21.9	20.0	110	70 - 130
Dichlorodifluoromethane (CFC 12)	18.7	20.0	94	70 - 130
Dichloromethane	18.7	20.0	94	70 - 130
Ethylbenzene	19.4	20.0	97	70 - 130
Isopropylbenzene (Cumene)	20.5	20.0	102	70 - 130
Methyl Acetate	17.0	20.0	85	50 - 150
Methyl tert-Butyl Ether	20.2	20.0	101	70 - 130

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water

Service Request: R0902871
Date Analyzed: 5/30/09

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Units: µg/L

Basis: NA

Analysis Lot: 155589

Analyte Name	Lab Control Sample			% Rec Limits
	Result	Expected	% Rec	
	RQ0904357-02			
Methylcyclohexane	16.6	20.0	83	50 - 150
Styrene	22.4	20.0	112	70 - 130
Tetrachloroethene (PCE)	20.4	20.0	102	70 - 130
Toluene	19.4	20.0	97	70 - 130
Trichloroethene (TCE)	20.7	20.0	104	70 - 130
Trichlorofluoromethane (CFC 11)	20.5	20.0	103	70 - 130
Vinyl Chloride	18.2	20.0	91	70 - 130
cis-1,2-Dichloroethene	19.0	20.0	95	70 - 130
cis-1,3-Dichloropropene	20.2	20.0	101	70 - 130
m,p-Xylenes	40.9	40.0	102	70 - 130
o-Xylene	20.8	20.0	104	70 - 130
trans-1,2-Dichloroethene	17.9	20.0	90	70 - 130
trans-1,3-Dichloropropene	20.1	20.0	101	70 - 130

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water

Service Request: R0902871
Date Analyzed: 5/30/09

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Units: µg/L

Basis: NA

Analysis Lot: 155589

Analyte Name	Lab Control Sample RQ0904357-03			Duplicate Lab Control Sample RQ0904357-04			% Rec Limits	RPD	RPD Limit
	Result	Expected	% Rec	Result	Expected	% Rec			
1,1,1-Trichloroethane (TCA)	54.5	50.0	109	60.7	50.0	121	70 - 130	11	30
1,1,2,2-Tetrachloroethane	38.8	50.0	78	44.9	50.0	90	70 - 130	15	30
1,1,2-Trichloroethane	49.6	50.0	99	52.3	50.0	105	70 - 130	5	30
1,1,2-Trichloro-1,2,2-trifluoroethane	47.5	50.0	95	54.7	50.0	109	70 - 130	14	30
1,1-Dichloroethane (1,1-DCA)	47.2	50.0	94	52.7	50.0	105	70 - 130	11	30
1,1-Dichloroethene (1,1-DCE)	47.8	50.0	96	56.3	50.0	113	70 - 130	16	30
1,2,4-Trichlorobenzene	44.8	50.0	90	51.3	50.0	103	70 - 130	13	30
1,2-Dibromo-3-chloropropane (DBCP)	44.1	50.0	88	48.4	50.0	97	50 - 150	9	30
1,2-Dibromoethane	50.0	50.0	100	54.9	50.0	110	70 - 130	9	30
1,2-Dichlorobenzene	46.7	50.0	93	52.0	50.0	104	70 - 130	11	30
1,2-Dichloroethane	54.2	50.0	108	56.0	50.0	112	70 - 130	3	30
1,2-Dichloropropane	49.8	50.0	100	53.0	50.0	106	70 - 130	6	30
1,3-Dichlorobenzene	46.7	50.0	93	53.1	50.0	106	70 - 130	13	30
1,4-Dichlorobenzene	45.3	50.0	91	51.5	50.0	103	70 - 130	13	30
2-Butanone (MEK)	37.7	50.0	75	40.2	50.0	80	50 - 150	6	30
2-Hexanone	45.3	50.0	91	47.1	50.0	94	70 - 130	4	30
4-Methyl-2-pentanone	46.6	50.0	93	48.5	50.0	97	70 - 130	4	30
Acetone	52.7	50.0	105	51.3	50.0	103	50 - 150	3	30
Benzene	49.1	50.0	98	53.6	50.0	107	70 - 130	9	30
Bromodichloromethane	56.7	50.0	113	59.7	50.0	119	70 - 130	5	30
Bromoform	54.2	50.0	108	57.7	50.0	115	70 - 130	6	30
Bromomethane	43.6	50.0	87	49.7	50.0	99	50 - 150	13	30
Carbon Disulfide	47.7	50.0	95	53.6	50.0	107	70 - 130	12	30
Carbon Tetrachloride	58.1	50.0	116	63.5	50.0	127	70 - 130	9	30
Chlorobenzene	48.5	50.0	97	53.6	50.0	107	70 - 130	10	30
Chloroethane	48.1	50.0	96	54.1	50.0	108	70 - 130	12	30
Chloroform	53.1	50.0	106	56.8	50.0	114	70 - 130	7	30
Chloromethane	44.3	50.0	89	50.4	50.0	101	70 - 130	13	30
Cyclohexane	45.8	48.0	95	48.5	48.0	101	50 - 150	6	30
Dibromochloromethane	55.7	50.0	111	59.8	50.0	120	70 - 130	7	30
Dichlorodifluoromethane (CFC 12)	49.5	50.0	99	54.5	50.0	109	70 - 130	10	30
Dichloromethane	46.4	50.0	93	50.5	50.0	101	70 - 130	8	30
Ethylbenzene	49.8	50.0	100	56.6	50.0	113	70 - 130	13	30
Isopropylbenzene (Cumene)	53.3	50.0	107	60.8	50.0	122	70 - 130	13	30
Methyl Acetate	44.1	48.0	92	45.3	48.0	94	50 - 150	3	30
Methyl tert-Butyl Ether	49.0	50.0	98	53.8	50.0	108	70 - 130	9	30

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water

Service Request: R0902871
Date Analyzed: 5/30/09

**Lab Control Sample Summary
Volatile Organic Compounds by GC/MS**

Analytical Method: 8260B

Units: µg/L

Basis: NA

Analysis Lot: 155589

Analyte Name	Lab Control Sample RQ0904357-03			Duplicate Lab Control Sample RQ0904357-04			% Rec Limits	RPD	RPD Limit
	Result	Expected	% Rec	Result	Expected	% Rec			
Methylcyclohexane	48.5	48.0	101	51.7	48.0	108	50 - 150	6	30
Styrene	57.3	50.0	115	63.7	50.0	127	70 - 130	11	30
Tetrachloroethene (PCE)	49.1	50.0	98	56.4	50.0	113	70 - 130	14	30
Toluene	50.0	50.0	100	55.7	50.0	111	70 - 130	11	30
Trichloroethene (TCE)	54.2	50.0	108	58.8	50.0	118	70 - 130	8	30
Trichlorofluoromethane (CFC 11)	55.7	50.0	111	61.1	50.0	122	70 - 130	9	30
Vinyl Chloride	48.3	50.0	97	54.1	50.0	108	70 - 130	11	30
cis-1,2-Dichloroethene	48.6	50.0	97	53.8	50.0	108	70 - 130	10	30
cis-1,3-Dichloropropene	50.6	50.0	101	54.5	50.0	109	70 - 130	7	30
m,p-Xylenes	101	100	101	115	100	115	70 - 130	13	30
o-Xylene	52.3	50.0	105	59.0	50.0	118	70 - 130	12	30
trans-1,2-Dichloroethene	46.8	50.0	94	51.7	50.0	103	70 - 130	10	30
trans-1,3-Dichloropropene	51.2	50.0	102	54.9	50.0	110	70 - 130	7	30

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water

Service Request: R0902871
Date Analyzed: 5/27/09

**Lab Control Sample Summary
Dissolved Gases by GC/FID**

Analytical Method: RSK 175

Units: µg/L

Basis: NA

Analysis Lot: 155221

Analyte Name	Lab Control Sample RQ0904058-02			% Rec Limits
	Result	Expected	% Rec	
Ethane	32.7	25.5	129	50 - 150
Ethene	32.1	24.8	129	50 - 150
Methane	31.6	24.7	128	50 - 150

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Benchmark Environmental Engineering
Project: Seneca Market
Sample Matrix: Water

Service Request: R0902871
Date Analyzed: 6/ 4/09

Lab Control Sample Summary
Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC)

Analytical Method: Organic Acids

Units: mg/L

Basis: NA

Analysis Lot: 156328

Analyte Name	Lab Control Sample RQ0904353-02			Duplicate Lab Control Sample RQ0904353-03			% Rec Limits	RPD	RPD Limit
	Result	Expected	% Rec	Result	Expected	% Rec			
Pyruvic Acid	1.24	1.07	116	1.30	1.07	121	50 - 150	5	30
Acetic Acid	10.2	11.1	91	10.4	11.1	93	50 - 150	2	30
Butanoic Acid (Butyric Acid)	9.52	10.2	93	9.62	10.2	94	50 - 150	1	30
Lactic Acid	9.88	11.1	89	10.1	11.1	91	50 - 150	2	30
Propionic Acid	9.27	10.1	92	9.46	10.1	94	50 - 150	2	30

Comments:

Columbia Analytical Services, Inc.
An Employee - Owned Company
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SR #	CAS Contact
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Project Name Seneca Markets		Project Number		
Project Manager Mike Lesiakowski		Report CC		
Company/Address Benchmark Eng 2558 Hamburg Turnpike, Suite 300 Lackawanna NY 14218		FAX#		
Phone # (716) 556-0635		Sampler's Printed Name		
Sampler's Signature				
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX
MW-10s		5/20/09	1153	GW
MW-15R			1242	
MW-7s			1312	
MW-35R			1337	
SPECIAL INSTRUCTIONS/COMMENTS Metals metabolic Acids metals - S Iron & manganese Freddie - lactic, pyruvic, acetic Propionic and butyric Field Filtered				
See QAPP ☐				
SAMPLE RECEIPT: CONDITION/COOLER TEMP:				
RELINQUISHED BY		RECEIVED BY		CUSTODY SEALS: Y N
Signature Michael Lesiakowski		Signature William J. Parnell		RELINQUISHED BY
Printed Name Michael Lesiakowski		Printed Name William J. Parnell		Signature
Firm Benchmark Eng		Firm Seneca Markets		Printed Name
Date/Time 5/21/09		Date/Time 5/21/09 1520		Firm
				Date/Time
ANALYSIS REQUESTED (Include Method Number and Container Preservative)				
PRESERVATIVE	1	NUMBER OF CONTAINERS		
GC/MS VOAs ☐ CLP				
GC/MS SVOAs ☐ CLP				
GC/MS ☐ 8270 ☐ 625 ☐ CLP				
PESTICIDES ☐ 8021 ☐ 601/602				
PCBs ☐ 8081 ☐ 608 ☐ CLP				
METALS, TOTAL ☐ 8082 ☐ 608 ☐ CLP				
METALS, DISSOLVED (List in comments below)				
TCV				
Rsk				
Surf				
NO3				
SO4				
CL				
ATC				
Metabolic Acids				
REMARKS/ ALTERNATE DESCRIPTION				
Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn Acetate 6. MeOH 7. NaHSO4 8. Other				
REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Ra V. Specialized Forms / Custom R Edata Yes N				
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 24 hr 48 hr 5 day STANDARD REQUESTED FAX DATE REQUESTED REPORT DATE				
INVOICE INFORMATION PO# BILL TO:				
R0902871 Benchmark Environmental Engineering Seneca Markets				
RELINQUISHED BY				
Signature				
Printed Name				
Firm				
Date/Time				

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

SCOC-1102-08

Cooler Receipt And Preservation Check Form

Project/Client Benchmark Submission Number _____

Cooler received on 5/21/09 by: IP COURIER: CAS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did any VOA vials have significant* air bubbles? YES NO N/A
5. Were ice or Ice packs present? not enough YES NO
6. Where did the bottles originate? CAS/ROC, CLIENT
7. Temperature of cooler(s) upon receipt: 4° 10° _____

Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes

If No, Explain Below No No No No No

Date/Time Temperatures Taken: 5/21/09 1535

Thermometer ID: 161 / IR GUN#2 / IR GUN#3 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition, Client Approval to Run Samples: _____

PC Secondary Review: ms 5/21/09

Cooler Breakdown: Date: 5-21-09 by: NE

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies: _____

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH	<u>✓</u>							
≤2	HNO ₃	<u>✓</u>		<u>BDB2692B</u>	<u>04/10</u>				
≤2	H ₂ SO ₄								
Residual Chlorine (-)	For TCN and Phenol			If present, contact PM to add ascorbic acid					
	Na ₂ S ₂ O ₃	-	-			*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet			
	Zn Aceta	-	-						
	HCl	*	*	<u>G45A01</u>	<u>04/10</u>				

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 041309-20, 011209-1B, 9-014-002, 9-014-001

Other Comments: _____

Sample poured NE 5-22-09

Metabolic Acids aliquot poured out of I.C. - unpreserved bottle into a 40ml vial. Sample went into the lab unpreserved.

PC Secondary Review: ms 6/4/09

*significant air bubbles are greater than 5-6 mm