

GRAF

UCAR CARBON COMPANY INC.
a GrafTech International Ltd. Company

Advanced Carbon Materials
791 Sante Fe Pike, Columbia, TN 38401

RECEIVED

November 22, 2006

NOV 24 2006

NYSDEC REG 9
FOIL
☒ REL ☐ UNREL

32N03

Mr. Mark Hans, PE
Regional Solid Materials Engineer
NYS Department of Environmental Conservation
270 Michigan Avenue
Buffalo, New York 14203-2999

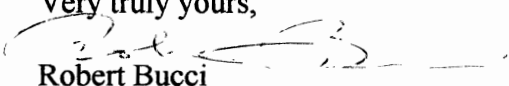
SUBJECT: UCAR Republic Landfill #32N03

Dear Mr. Hans,

Please find enclosed a copy of the sampling results that were sent to Mary E. McIntosh, Engineering Geologist II of the New York State Department of Environmental Conservation Region 9 Office.

If you have any questions please feel free to call me at (716) 628-8208.

Very truly yours,


Robert Bucci
Consultant

R. Bucci
enc.

32 N03. 6W70

GRAF

UCAR CARBON COMPANY INC.

a GrafTech International Ltd. Company

Advanced Carbon Materials

791 Sante Fe Pike, Columbia, TN 38401

November 22, 2006

Ms. Mary F. McIntosh
Engineering Geologist II
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
270 Michigan Avenue
Buffalo, NY 14203-2999

RECEIVED

NOV 24 2006

NYSDEC REG 9
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REL UNREL

Dear Ms. McIntosh:

Re: Annual Monitoring Event
UCAR Republic SWMF #32N03

The annual monitoring event for the above-referenced Site was conducted on September 18, 2006. The Site groundwater monitoring program was modified in November 2005 and currently consists of:

Annual sampling of seven wells (BW-1, BW-2, BW-3, BW-4, MW-3, GW-8B, and GW-9B) with analysis of the samples for Part 360 volatiles, ammonia, iron (total and soluble), potassium (total and soluble), zinc (total and soluble), nitrite, total kjeldahl nitrogen (TKN), turbidity, groundwater elevation, pH, specific conductance, and temperature. Monitoring is rotated between the spring and fall seasons such that one year sampling is conducted in the spring and the next year it will be conducted in the fall. Sampling is conducted once in each calendar year and reporting is submitted annually following receipt and review of the groundwater analytical data. (Letter from C. Barron (CRA) to M. McIntosh (NYSDEC) dated November 4, 2005.)

The sample collection and analyses were performed in accordance with the program outlined in the letters from M. McIntosh (NYSDEC) to R. Bucci (UCAR), dated January 18, 2000 and February 23, 2000. A sample collection and analysis summary is presented in Table 1 and water level elevations measured prior to well purging are presented in Table 2. The analytical laboratory report for this sampling event is enclosed and the data are summarized in Table 3.

The analytical data from this monitoring event are consistent with the historical data.

The next groundwater monitoring event at the Site will be conducted in Spring 2007. Should you have any questions or require additional information, please do not hesitate to contact the undersigned at 3344 Wildwood Dr Niagara Falls, NY 14304 or @ 716-628-8208.

Yours truly,


Robert Bucci
Consultant

RB/cfb/jbh/14

Encl.

c.c.: M. Hans, M. Hinton

TABLE 1

**SAMPLE COLLECTION AND ANALYSIS SUMMARY
POST-CLOSURE MONITORING PROGRAM
UCAR REPUBLIC SWMU #32NO3
NIAGARA FALLS, NEW YORK
SEPTEMBER 2006**

Well I.D.	Purge Date	Sample Date	Sample Identification	One Well Volume (Gallons)	Total Volume Purged (Gallons)	Turbidity (NTU)	Analytical Parameters			Misc. ⁽²⁾ Parameters	Comments
							VOCs	Total Metals ⁽¹⁾	Dissolved Metals ⁽¹⁾		
MW-3	09/18/06	09/18/06	WG-5513-09182006-008	0.6	2.0	765	x	x	x	x	
BW-1	09/18/06	09/18/06	WG-5513-09182006-004	7.0	21.0	11	x	x	x	x	
BW-2	09/18/06	09/18/06	WG-5513-09182006-006	7.1	21.0	6	x	x	x	x	
BW-3	09/18/06	09/18/06	WG-5513-09182006-001	6.4	19.2	7	x	x	x	x	MS/MSD
BW-4	09/18/06	09/18/06	WG-5513-09182006-002	5.2	15.6	5	x	x	x	x	
BW-4	09/18/06	09/18/06	WG-5513-09182006-003	5.2	15.6	5	x	x	x	x	Field duplicate of WG-5513-09182006-002
GW-8B	09/18/06	09/18/06	WG-5513-09182006-005	7.1	21.3	13	x	x	x	x	
GW-9B	09/18/06	09/18/06	WG-5513-09182006-007	6.8	21.0	11	x	x	x	x	

Notes:

- (1) Iron, Potassium, Zinc
(2) Nitrite, Nitrogen, NO₂, Ammonia, Total KJELDAHL Nitrogen.

MS Matrix Spike.
MSD Matrix Spike Duplicate.
NTU Nephelometric Turbidity Unit.
VOCs Volatile Organic Compounds.

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 REL UNREL

TABLE 2

**HYDRAULIC MONITORING
POST-CLOSURE MONITORING PROGRAM
UCAR REPUBLIC SWMU #32NO3
NIAGARA FALLS, NEW YORK
SEPTEMBER 2006**

<i>Well I.D.</i>	<i>TOC Elevation (Ft. AMSL)</i>	<i>Depth to Water (Ft. BTOC)</i>	<i>Water Level Elevation (Ft. AMSL)</i>
MW-3	601.89	11.70	590.19
BW-1	610.72	17.88	592.84
BW-2	608.43	13.70	594.73
BW-3	604.72	13.60	591.12
BW-4	607.08	13.33	593.75
GW-8B	603.90	9.99	593.91
GW-9B	603.40	13.51	589.89

Notes:

Ft. AMSL Feet Above Mean Sea Level.

Ft. BTOC Feet Below Top of Casing.

Ft. Feet.

TABLE 3

**ANALYTICAL RESULTS SUMMARY
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
SEPTEMBER 2006**

Sample ID:		WG-5513-09182006-001	WG-5513-09182006-002	WG-5513-09182006-003	WG-5513-09182006-004	WG-5513-09182006-005	WG-5513-09182006-006	WG-5513-09182006-007	WG-5513-091
Location ID:		BW-3	BW-4	BW-4	BW-1	GW-8B	BW-2	GW-9B	MW-3
Collection Date:		09/18/06	09/18/06	09/18/06	09/18/06	09/18/06	09/18/06	09/18/06	09/18/06
Parameters	Units								
TCL Volatiles									
Acetone	µg/L	20 U	100 U	100 U	20 U	20 U	20 U	20 U	2.6
Benzene	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
Bromodichloromethane	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
Bromoform	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
Bromomethane	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
2-Butanone	µg/L	10 U	50 U	50 U	10 U	10 U	10 U	10 U	10
Carbon disulfide	µg/L	10 U	50 U	50 U	10 U	10 U	10 U	10 U	10
Carbon tetrachloride	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
Chlorobenzene	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
Chloroethane	µg/L	5.0 U	25 U	25 U	4.0 J	5.0 U	1.5 J	5.0 U	5.0
Chloroform	µg/L	5.0 U	5.8 J	5.6 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0
Chloromethane	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
Dibromochloromethane	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
1,1-Dichloroethane	µg/L	5.0 U	25 U	25 U	0.39 J	5.0 U	5.0 U	5.0 U	5.0
1,2-Dichloroethane	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
1,1-Dichloroethene	µg/L	5.0 U	4.0 J	3.7 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0
cis-1,2-Dichloroethene	µg/L	1.8 J	620	620	2.9 J	23	0.32 J	5.0 U	5.0
trans-1,2-Dichloroethene	µg/L	5.0 U	4.4 J	4.0 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0
1,2-Dichloropropane	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
cis-1,3-Dichloropropene	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
trans-1,3-Dichloropropene	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
Ethyl benzene	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
2-Hexanone	µg/L	10 U	50 U	50 U	10 U	10 U	10 U	10 U	10
Methylene chloride	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
4-Methyl-2-pentanone	µg/L	10 U	50 U	50 U	10 U	10 U	10 U	10 U	10
Styrene	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	2.8 J	4.2 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0
Tetrachloroethene	µg/L	5.0 U	84	86	5.0 U	5.0 U	5.0 U	5.0 U	5.0
1,1,1-Trichloroethane	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
1,1,2-Trichloroethane	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
Toluene	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
Trichloroethene	µg/L	5.0 U	290	290	5.0 U	6.9	5.0 U	5.0 U	5.0
Vinyl chloride	µg/L	5.7	140	140	2.5 J	4.6 J	5.0 U	5.0 U	5.0
o-Xylenes	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0
m/p-Xylenes	µg/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0

TABLE 3

**ANALYTICAL RESULTS SUMMARY
ANNUAL GROUNDWATER MONITORING
UCAR CARBON COMPANY, INC.
NIAGARA FALLS, NEW YORK
SEPTEMBER 2006**

		Sample ID:	WG-5513-09182006-001	WG-5513-09182006-002	WG-5513-09182006-003	WG-5513-09182006-004	WG-5513-09182006-005	WG-5513-09182006-006	WG-5513-09182006-007	WG-5513-09182006-008
		Location ID:	BW-3	BW-4	BW-4	BW-1	GW-8B	BW-2	GW-9B	MW-1
		Collection Date:	09/18/06	09/18/06	09/18/06	09/18/06	09/18/06	09/18/06	09/18/06	09/18/06
					<i>Duplicate</i>					
Parameters	Units									
Metals										
Iron (total)	mg/L	1.26	30.7	22.3	2.20	0.708	8.37	0.846	67.8	
Potassium (total)	mg/L	3.81	21.0	21.2	5.59	6.01	5.88	5.28	9.25	
Zinc (total)	mg/L	0.0904	8.59	5.65	2.55	0.663	4.41	0.0235	0.299	
Iron (dissolved)	mg/L	0.862	5.25	4.90	1.22	0.224	1.71	0.284	1.25	
Potassium (dissolved)	mg/L	3.76	22.5	22.1	5.53	5.70	5.50	4.87	2.06	
Zinc (dissolved)	mg/L	0.0275	0.337 J	0.187 J	0.0200 U	0.374	0.0200 U	0.0200 U	0.0200	
General Chemistry										
Ammonia	mg/L	0.478	3.95	3.90	0.687	0.0735	0.353	0.402	0.0923	
Nitrite	mg/L	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0136	0.0100 U	0.0100 U	0.0100	
Total Kjeldahl Nitrogen	mg/L	0.880	4.80	4.38	1.16	0.204	0.872	0.989	0.986	

Notes:

- Not applicable.

J Estimated.

TCL Target Compound List

U Non-detect at associated value.



1 Mustard ST.
Suite 250
Rochester, NY 14609
(585) 288-5380

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : CRA, Inc.
Project Reference: UCAR SEMIANNUAL #5513-02
Lab Submission # : R2633684
Project Manager : Karen Bunker
Reported : 10/10/06

Report Contains a total of 68 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. *Michael K. Perry*



This report contains analytical results for the following samples:

Submission #: R2633684

<u>Lab ID</u>	<u>Client ID</u>
938046	WG-5513-09182006-001
938047	WG-5513-09182006-002
938048	WG-5513-09182006-003
938049	WG-5513-09182006-004
938050	WG-5513-09182006-005
938051	WG-5513-09182006-006
938052	WG-5513-09182006-007
938053	WG-5513-09182006-008
938054	TRIP BLANK
938055	WG-5513-09182006-001 DISSOLVED
938056	WG-5513-09182006-002 DISSOLVED
938057	WG-5513-09182006-003 DISSOLVED
938058	WG-5513-09182006-004 DISSOLVED
938061	WG-5513-09182006-005 DISSOLVED
938062	WG-5513-09182006-006 DISSOLVED
938063	WG-5513-09182006-007 DISSOLVED
938064	WG-5513-09182006-008 DISSOLVED

COLUMBIA ANALYTICAL SERVICES, INC.

Client: CRA, Inc.
Project: UCAR Semiannual #5513-02
Sample Matrix: Water

Service Request No.: R2633684
Date Received: 9/19/06

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Nine (9) water samples were collected by CRA on 9/18/06 and received for analysis at Columbia Analytical Services on 9/19/06. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were received at a cooler temperature range of 2-4°C upon receipt at the laboratory.

General Chemistry Parameters

Eight (8) water samples were analyzed for Ammonia, TKN, and Nitrite parameters. Method #s are included on the data forms.

All initial and continuing calibration criteria were met for these analytical runs.

All holding times were met for these analyses.

Site QC was performed on location WG-5513-09182006-001 (CAS Order # 938046). All Matrix Spike (MS) recoveries and duplicate Relative Percent Difference (RPD) calculations were within QC limits. All Blank Spike recoveries were acceptable.

All Laboratory Method Blanks were free from contamination.

No problems were encountered during the analysis of these samples.

Total and Dissolved Metals

Eight (8) water samples were analyzed for Total and Dissolved Iron, Potassium and Zinc analysis by ICP method 6010B. All Dissolved metals were field filtered.

All initial and continuing calibration criteria were met for these analyses.

All holding times were met.

Site QC was performed on location WG-5513-09182006-001 (CAS Order # 938046). All Matrix Spike (MS) recoveries and duplicate Relative Percent Difference (RPD) calculations were within QC limits. All Blank Spike recoveries were acceptable.

All Laboratory Method Blanks were free from contamination.

No problems were encountered during the analysis of these samples.

Approved by



Date

10/10/06

Volatile Organic Compounds by EPA Method 8260B

Nine (9) water samples including one (1) Trip Blank were analyzed for the 360 Baseline List of Volatile Organics, by Method 8260B from SW-846.

All Tuning criteria for BFB were within limits.

The initial and continuing calibration criteria were met for all analytes.

All surrogate standard recoveries were within acceptance limits.

Site QC was performed on location WG-5513-09182006-001 (CAS Order # 938046). All Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recoveries and Relative Percent Difference (RPD) calculations were within QC limits. All Laboratory Control Sample (LCS) recoveries were within QC acceptance limits.

Hits between the Practical Quantitation Limit (PQL) and Minimum Detection Limit (MDL) are flagged as "J", estimated.

Some samples required dilutions to bring compound hits into the calibration range of the standards.

The Laboratory Blanks associated with this analysis were free from contamination.

The Volatile Internal Standard Area and RT Summary Form 8A's are included in the report.

The sample vials were checked for preservation after analysis so as to maintain the integrity of the sample. The vials were found to be preserved to a pH of <2. All samples were analyzed within proper holding times for the analysis.

No other analytical or QC problems were encountered.

Approved by



Date

10/10/06



ORGANIC 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 data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit and greater than the MDL. This flag is also used for DoD instead of "P" as indicated below.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.
- P - This flag is used for a pesticide/Aroclor target analyte when there is a greater than 40% (25% for CLP) difference for detected concentrations between the two GC columns. The concentration is reported on the Form I and flagged with a "P" ("J" for DoD).
- Q - for DoD only – indicates a pesticide/Aroclor target is not confirmed. This flag is used when there is $\geq 100\%$ difference for the detected concentrations between the two GC columns.
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.
- X - As specified in Case Narrative.
- * - This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

CAS/Rochester Lab ID # for State Certifications

NELAP Accredited
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved

Nebraska Accredited
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
Pennsylvania ID# 68-786
Rhode Island ID # 158
West Virginia ID # 292



INORGANIC QUALIFIERS

C (Concentration) qualifier –

- B - if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL). This qualifier may also be used to indicate that there was contamination above the reporting limit in the associated blank. See Narrative for details.
- U - if the analyte was analyzed for, but not detected

Q qualifier - Specified entries and their meanings are as follows:

- D - Spike was diluted out
- E - The reported value is estimated because the serial dilution did not meet criteria.
- J - Estimated Value
- M - Duplicate injection precision not met.
- N - Spiked sample recovery not within control limits.
- S - The reported value was determined by the Method of Standard Additions (MSA).
- W - Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- * - Duplicate analysis not within control limits.
- + - Correlation coefficient for the MSA is less than 0.995.

M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "AF" for Automated Cold Vapor Atomic Fluorescence Spectrometry
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.

CAS/Rochester Lab ID # for State Certifications

NELAP Accredited
 Delaware Accredited
 Connecticut ID # PH0556
 Florida ID # E87674
 Illinois ID #200047
 Maine ID #NY0032
 Massachusetts ID # M-NY032
 Navy Facilities Engineering Service Center Approved

Nebraska Accredited
 New Jersey ID # NY004
 New York ID # 10145
 New Hampshire ID # 294100 A/B
 Pennsylvania ID # 68-786
 Rhode Island ID # 158
 West Virginia ID # 292

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-001

Date Sampled : 09/18/06 11:10

Order #: 938046

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	0.478	MG/L	10/04/06	10:17	1.0
NITRITE NITROGEN	353.2	0.0100	0.0100 U	MG/L	09/20/06	09:41	1.0
TOTAL KJELDAHL NITROGEN	351.2	0.200	0.880	MG/L	10/03/06	10:54	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-001

Date Sampled : 09/18/06 11:10

Order #: 938046

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
IRON	6010B	0.100	1.26	MG/L	09/25/06	1.0
POTASSIUM	6010B	2.00	3.81	MG/L	09/25/06	1.0
ZINC	6010B	0.0200	0.0904	MG/L	09/25/06	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-001 DISSOLVED

Date Sampled : 09/18/06 11:10

Order #: 938055

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
IRON	6010B	0.100	0.862	MG/L	09/25/06	1.0
POTASSIUM	6010B	2.00	3.76	MG/L	09/25/06	1.0
ZINC	6010B	0.0200	0.0275	MG/L	09/25/06	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B 360 BASELINE

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-001

Date Sampled : 09/18/06 11:10 Order #: 938046
 Date Received: 09/19/06 Submission #: R2633684

Sample Matrix: WATER
 Analytical Run 135168

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/06			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
ACRYLONITRILE	100	100 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMOCHLOROMETHANE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TRANS-1,4-DICHLORO-2-BUTENE	5.0	5.0 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMOETHANE	5.0	5.0 U	UG/L
DIBROMOMETHANE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1.8 J	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
IODOMETHANE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
TRICHLOROFLUOROMETHANE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROPROPANE	5.0	5.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B 360 BASELINE
Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-001

Date Sampled : 09/18/06 11:10 Order #: 938046 Sample Matrix: WATER
Date Received: 09/19/06 Submission #: R2633684 Analytical Run 135168

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/06			
ANALYTICAL DILUTION: 1.00			
VINYL ACETATE	10	10 U	UG/L
VINYL CHLORIDE	5.0	5.7	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

BROMOFLUOROBENZENE	(80 - 123 %)	107	%
TOLUENE-d8	(88 - 124 %)	102	%
DIBROMOFLUOROMETHANE	(91 - 115 %)	99	%

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-002

Date Sampled : 09/18/06 11:40

Order #: 938047

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	3.95	MG/L	10/04/06	10:17	4.0
NITRITE NITROGEN	353.2	0.0100	0.0100 U	MG/L	09/20/06	09:41	1.0
TOTAL KJELDAHL NITROGEN	351.2	0.200	4.80	MG/L	10/03/06	10:54	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-002

Date Sampled : 09/18/06 11:40

Order #: 938047

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
IRON	6010B	0.100	30.7	MG/L	09/27/06	10.0
POTASSIUM	6010B	2.00	21.0	MG/L	09/25/06	1.0
ZINC	6010B	0.0200	8.59	MG/L	09/27/06	10.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-002 DISSOLVED

Date Sampled : 09/18/06 11:40

Order #: 938056

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
IRON	6010B	0.100	5.25	MG/L	09/25/06	1.0
POTASSIUM	6010B	2.00	22.5	MG/L	09/25/06	1.0
ZINC	6010B	0.0200	0.337	MG/L	09/25/06	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B 360 BASELINE

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-002

Date Sampled : 09/18/06 11:40 Order #: 938047
Date Received: 09/19/06 Submission #: R2633684Sample Matrix: WATER
Analytical Run 135178

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/06			
ANALYTICAL DILUTION: 5.00			
ACETONE	20	100 U	UG/L
ACRYLONITRILE	100	500 U	UG/L
BENZENE	5.0	25 U	UG/L
BROMOCHLOROMETHANE	5.0	25 U	UG/L
BROMODICHLOROMETHANE	5.0	25 U	UG/L
BROMOFORM	5.0	25 U	UG/L
BROMOMETHANE	5.0	25 U	UG/L
2-BUTANONE (MEK)	10	50 U	UG/L
TRANS-1,4-DICHLORO-2-BUTENE	5.0	25 U	UG/L
CARBON DISULFIDE	10	50 U	UG/L
CARBON TETRACHLORIDE	5.0	25 U	UG/L
CHLOROBENZENE	5.0	25 U	UG/L
CHLOROETHANE	5.0	25 U	UG/L
CHLOROFORM	5.0	5.8 J	UG/L
CHLOROMETHANE	5.0	25 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	25 U	UG/L
DIBROMOCHLOROMETHANE	5.0	25 U	UG/L
1,2-DIBROMOETHANE	5.0	25 U	UG/L
DIBROMOMETHANE	5.0	25 U	UG/L
1,4-DICHLOROBENZENE	5.0	25 U	UG/L
1,2-DICHLOROBENZENE	5.0	25 U	UG/L
1,1-DICHLOROETHANE	5.0	25 U	UG/L
1,2-DICHLOROETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHENE	5.0	4.0 J	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	4.4 J	UG/L
CIS-1,2-DICHLOROETHENE	5.0	620	UG/L
1,2-DICHLOROPROPANE	5.0	25 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
ETHYLBENZENE	5.0	25 U	UG/L
2-HEXANONE	10	50 U	UG/L
IODOMETHANE	10	50 U	UG/L
METHYLENE CHLORIDE	5.0	25 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	50 U	UG/L
STYRENE	5.0	25 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	2.8 J	UG/L
1,1,1,2-TETRACHLOROETHANE	5.0	25 U	UG/L
TETRACHLOROETHENE	5.0	84	UG/L
TOLUENE	5.0	25 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	25 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	25 U	UG/L
TRICHLOROETHENE	5.0	290	UG/L
TRICHLOROFLUOROMETHANE	5.0	25 U	UG/L
1,2,3-TRICHLOROPROPANE	5.0	25 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B 360 BASELINE
Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-002

Date Sampled : 09/18/06 11:40 Order #: 938047 Sample Matrix: WATER
Date Received: 09/19/06 Submission #: R2633684 Analytical Run 135178

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/06			
ANALYTICAL DILUTION: 5.00			
VINYL ACETATE	10	50 U	UG/L
VINYL CHLORIDE	5.0	140	UG/L
M+P-XYLENE	5.0	25 U	UG/L
O-XYLENE	5.0	25 U	UG/L

SURROGATE RECOVERIESQC LIMITS

BROMOFLUOROBENZENE	(80 - 123 %)	107	%
TOLUENE-d8	(88 - 124 %)	103	%
DIBROMOFLUOROMETHANE	(91 - 115 %)	103	%

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-003

Date Sampled : 09/18/06 11:50

Order #: 938048

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	3.90	MG/L	10/04/06	10:17	4.0
NITRITE NITROGEN	353.2	0.0100	0.0100 U	MG/L	09/20/06	09:41	1.0
TOTAL KJELDAHL NITROGEN	351.2	0.200	4.38	MG/L	10/03/06	10:54	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-003

Date Sampled : 09/18/06 11:50

Order #: 938048

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
IRON	6010B	0.100	22.3	MG/L	09/27/06	10.0
POTASSIUM	6010B	2.00	21.2	MG/L	09/25/06	1.0
ZINC	6010B	0.0200	5.65	MG/L	09/27/06	10.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-003 DISSOLVED

Date Sampled : 09/18/06 11:50

Order #: 938057

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
IRON	6010B	0.100	4.90	MG/L	09/25/06	1.0
POTASSIUM	6010B	2.00	22.1	MG/L	09/25/06	1.0
ZINC	6010B	0.0200	0.187	MG/L	09/25/06	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B 360 BASELINE

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-003

Date Sampled : 09/18/06 11:50 Order #: 938048
Date Received: 09/19/06 Submission #: R2633684

Sample Matrix: WATER

Analytical Run 135178

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/06			
ANALYTICAL DILUTION: 5.00			
ACETONE	20	100 U	UG/L
ACRYLONITRILE	100	500 U	UG/L
BENZENE	5.0	25 U	UG/L
BROMOCHLOROMETHANE	5.0	25 U	UG/L
BROMODICHLOROMETHANE	5.0	25 U	UG/L
BROMOFORM	5.0	25 U	UG/L
BROMOMETHANE	5.0	25 U	UG/L
2-BUTANONE (MEK)	10	50 U	UG/L
TRANS-1,4-DICHLORO-2-BUTENE	5.0	25 U	UG/L
CARBON DISULFIDE	10	50 U	UG/L
CARBON TETRACHLORIDE	5.0	25 U	UG/L
CHLOROBENZENE	5.0	25 U	UG/L
CHLOROETHANE	5.0	25 U	UG/L
CHLOROFORM	5.0	5.6 J	UG/L
CHLOROMETHANE	5.0	25 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	25 U	UG/L
DIBROMOCHLOROMETHANE	5.0	25 U	UG/L
1,2-DIBROMOETHANE	5.0	25 U	UG/L
DIBROMOMETHANE	5.0	25 U	UG/L
1,4-DICHLOROBENZENE	5.0	25 U	UG/L
1,2-DICHLOROBENZENE	5.0	25 U	UG/L
1,1-DICHLOROETHANE	5.0	25 U	UG/L
1,2-DICHLOROETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHENE	5.0	3.7 J	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	4.0 J	UG/L
CIS-1,2-DICHLOROETHENE	5.0	620	UG/L
1,2-DICHLOROPROPANE	5.0	25 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
ETHYLBENZENE	5.0	25 U	UG/L
2-HEXANONE	10	50 U	UG/L
IODOMETHANE	10	50 U	UG/L
METHYLENE CHLORIDE	5.0	25 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	50 U	UG/L
STYRENE	5.0	25 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	4.2 J	UG/L
1,1,1,2-TETRACHLOROETHANE	5.0	25 U	UG/L
TETRACHLOROETHENE	5.0	86	UG/L
TOLUENE	5.0	25 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	25 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	25 U	UG/L
TRICHLOROETHENE	5.0	290	UG/L
TRICHLOROFLUOROMETHANE	5.0	25 U	UG/L
1,2,3-TRICHLOROPROPANE	5.0	25 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B 360 BASELINE
Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-003

Date Sampled : 09/18/06 11:50 Order #: 938048 Sample Matrix: WATER
Date Received: 09/19/06 Submission #: R2633684 Analytical Run 135178

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/06			
ANALYTICAL DILUTION: 5.00			
VINYL ACETATE	10	50 U	UG/L
VINYL CHLORIDE	5.0	140	UG/L
M+P-XYLENE	5.0	25 U	UG/L
O-XYLENE	5.0	25 U	UG/L

SURROGATE RECOVERIESQC LIMITS

BROMOFLUOROBENZENE	(80 - 123 %)	107	%
TOLUENE-d8	(88 - 124 %)	101	%
DIBROMOFLUOROMETHANE	(91 - 115 %)	99	%

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-004

Date Sampled : 09/18/06 12:35

Order #: 938049

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	0.687	MG/L	10/04/06	10:17	1.0
NITRITE NITROGEN	353.2	0.0100	0.0100 U	MG/L	09/20/06	09:41	1.0
TOTAL KJELDAHL NITROGEN	351.2	0.200	1.16	MG/L	10/03/06	10:54	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-004

Date Sampled : 09/18/06 12:35

Order #: 938049

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
IRON	6010B	0.100	2.20	MG/L	09/25/06	1.0
POTASSIUM	6010B	2.00	5.59	MG/L	09/25/06	1.0
ZINC	6010B	0.0200	2.55	MG/L	09/27/06	10.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-004 DISSOLVED

Date Sampled : 09/18/06 12:35

Order #: 938058

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
IRON	6010B	0.100	1.22	MG/L	09/25/06	1.0
POTASSIUM	6010B	2.00	5.53	MG/L	09/25/06	1.0
ZINC	6010B	0.0200	0.0200 U	MG/L	09/25/06	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B 360 BASELINE

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-004

Date Sampled : 09/18/06 12:35 Order #: 938049
Date Received: 09/19/06 Submission #: R2633684Sample Matrix: WATER
Analytical Run 135178

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/06			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
ACRYLONITRILE	100	100 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMOCHLOROMETHANE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TRANS-1,4-DICHLORO-2-BUTENE	5.0	5.0 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	4.0 J	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMOETHANE	5.0	5.0 U	UG/L
DIBROMOMETHANE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	0.39 J	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	2.9 J	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
IODOMETHANE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
TRICHLOROFLUOROMETHANE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROPROPANE	5.0	5.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B 360 BASELINE
Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-004

Date Sampled : 09/18/06 12:35 Order #: 938049 Sample Matrix: WATER
Date Received: 09/19/06 Submission #: R2633684 Analytical Run 135178

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/06			
ANALYTICAL DILUTION: 1.00			
VINYL ACETATE	10	10 U	UG/L
VINYL CHLORIDE	5.0	2.5 J	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(80 - 123 %)	104	%
TOLUENE-d8	(88 - 124 %)	102	%
DIBROMOFLUOROMETHANE	(91 - 115 %)	97	%

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-005

Date Sampled : 09/18/06 14:30

Order #: 938050

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE	TIME	DILUTION
					ANALYZED	ANALYZED	
AMMONIA	350.1	0.0500	0.0735	MG/L	10/04/06	10:17	1.0
NITRITE NITROGEN	353.2	0.0100	0.0136	MG/L	09/20/06	09:41	1.0
TOTAL KJELDAHL NITROGEN	351.2	0.200	0.204	MG/L	10/03/06	10:54	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-005

Date Sampled : 09/18/06 14:30

Order #: 938050

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
IRON	6010B	0.100	0.708	MG/L	09/25/06	1.0
POTASSIUM	6010B	2.00	6.01	MG/L	09/25/06	1.0
ZINC	6010B	0.0200	0.663	MG/L	09/25/06	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-005 DISSOLVED

Date Sampled : 09/18/06 14:30

Order #: 938061

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
IRON	6010B	0.100	0.224	MG/L	09/25/06	1.0
POTASSIUM	6010B	2.00	5.70	MG/L	09/25/06	1.0
ZINC	6010B	0.0200	0.374	MG/L	09/25/06	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B 360 BASELINE
Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-005

Date Sampled : 09/18/06 14:30 Order #: 938050
Date Received: 09/19/06 Submission #: R2633684

Sample Matrix: WATER
Analytical Run 135168

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/06			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
ACRYLONITRILE	100	100 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMOCHLOROMETHANE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TRANS-1,4-DICHLORO-2-BUTENE	5.0	5.0 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMOETHANE	5.0	5.0 U	UG/L
DIBROMOMETHANE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	23	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
IODOMETHANE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	6.9	UG/L
TRICHLOROFLUOROMETHANE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROPROPANE	5.0	5.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B 360 BASELINE
Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-005

Date Sampled : 09/18/06 14:30 Order #: 938050 Sample Matrix: WATER
Date Received: 09/19/06 Submission #: R2633684 Analytical Run 135168

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/06			
ANALYTICAL DILUTION: 1.00			
VINYL ACETATE	10	10 U	UG/L
VINYL CHLORIDE	5.0	4.6 J	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L

<u>SURROGATE RECOVERIES</u>	<u>QC LIMITS</u>		
BROMOFLUOROBENZENE	(80 - 123 %)	110	%
TOLUENE-d8	(88 - 124 %)	103	%
DIBROMOFLUOROMETHANE	(91 - 115 %)	100	%

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-006

Date Sampled : 09/18/06 14:00
Date Received: 09/19/06

Order #: 938051
Submission #: R2633684

Sample Matrix: WATER

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	0.353	MG/L	10/04/06	10:17	1.0
NITRITE NITROGEN	353.2	0.0100	0.0100 U	MG/L	09/20/06	09:41	1.0
TOTAL KJELDAHL NITROGEN	351.2	0.200	0.872	MG/L	10/03/06	10:54	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-006

Date Sampled : 09/18/06 14:00

Order #: 938051

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
IRON	6010B	0.100	8.37	MG/L	09/25/06	1.0
POTASSIUM	6010B	2.00	5.88	MG/L	09/25/06	1.0
ZINC	6010B	0.0200	4.41	MG/L	09/27/06	10.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-006 DISSOLVED

Date Sampled : 09/18/06 14:00

Order #: 938062

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
IRON	6010B	0.100	1.71	MG/L	09/25/06	1.0
POTASSIUM	6010B	2.00	5.50	MG/L	09/25/06	1.0
ZINC	6010B	0.0200	0.0200 U	MG/L	09/25/06	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
 METHOD 8260B 360 BASELINE
 Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-006

Date Sampled : 09/18/06 14:00 Order #: 938051 Sample Matrix: WATER
 Date Received: 09/19/06 Submission #: R2633684 Analytical Run 135178

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/06			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
ACRYLONITRILE	100	100 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMOCHLOROMETHANE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TRANS-1,4-DICHLORO-2-BUTENE	5.0	5.0 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	1.5 J	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMOETHANE	5.0	5.0 U	UG/L
DIBROMOMETHANE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	0.32 J	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
IODOMETHANE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
TRICHLOROFLUOROMETHANE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROPROPANE	5.0	5.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B 360 BASELINE
Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-006

Date Sampled : 09/18/06 14:00 Order #: 938051 Sample Matrix: WATER
Date Received: 09/19/06 Submission #: R2633684 Analytical Run 135178

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/06			
ANALYTICAL DILUTION: 1.00			
VINYL ACETATE	10	10 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(80 - 123 %)	106	%
TOLUENE-d8	(88 - 124 %)	101	%
DIBROMOFLUOROMETHANE	(91 - 115 %)	102	%

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-007

Date Sampled : 09/18/06 14:40

Order #: 938052

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	0.402	MG/L	10/04/06	10:17	1.0
NITRITE NITROGEN	353.2	0.0100	0.0100 U	MG/L	09/20/06	09:41	1.0
TOTAL KJELDAHL NITROGEN	351.2	0.200	0.989	MG/L	10/03/06	10:54	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-007

Date Sampled : 09/18/06 14:40

Order #: 938052

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
IRON	6010B	0.100	0.846	MG/L	09/25/06	1.0
POTASSIUM	6010B	2.00	5.28	MG/L	09/25/06	1.0
ZINC	6010B	0.0200	0.0235	MG/L	09/25/06	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-007 DISSOLVED

Date Sampled : 09/18/06 14:40

Order #: 938063

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
IRON	6010B	0.100	0.284	MG/L	09/25/06	1.0
POTASSIUM	6010B	2.00	4.87	MG/L	09/25/06	1.0
ZINC	6010B	0.0200	0.0200 U	MG/L	09/25/06	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B 360 BASELINE
Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-007

Date Sampled : 09/18/06 14:40 Order #: 938052 Sample Matrix: WATER
Date Received: 09/19/06 Submission #: R2633684 Analytical Run 135168

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/06			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
ACRYLONITRILE	100	100 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMOCHLOROMETHANE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TRANS-1,4-DICHLORO-2-BUTENE	5.0	5.0 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMOETHANE	5.0	5.0 U	UG/L
DIBROMOMETHANE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
IODOMETHANE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
TRICHLOROFLUOROMETHANE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROPROPANE	5.0	5.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B 360 BASELINE

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-007

Date Sampled : 09/18/06 14:40 Order #: 938052 Sample Matrix: WATER
Date Received: 09/19/06 Submission #: R2633684 Analytical Run 135168

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/06			
ANALYTICAL DILUTION: 1.00			
VINYL ACETATE	10	10 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L

<u>SURROGATE RECOVERIES</u>	<u>QC LIMITS</u>		
BROMOFLUOROBENZENE	(80 - 123 %)	104	%
TOLUENE-d8	(88 - 124 %)	102	%
DIBROMOFLUOROMETHANE	(91 - 115 %)	102	%

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-008

Date Sampled : 09/18/06 14:50
Date Received: 09/19/06

Order #: 938053
Submission #: R2633684

Sample Matrix: WATER

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE	TIME	DILUTION
					ANALYZED	ANALYZED	
AMMONIA	350.1	0.0500	0.0923	MG/L	10/04/06	10:17	1.0
NITRITE NITROGEN	353.2	0.0100	0.0100 U	MG/L	09/20/06	09:41	1.0
TOTAL KJELDAHL NITROGEN	351.2	0.200	0.986	MG/L	10/03/06	10:54	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-008

Date Sampled : 09/18/06 14:50

Order #: 938053

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
IRON	6010B	0.100	67.8	MG/L	09/27/06	10.0
POTASSIUM	6010B	2.00	9.25	MG/L	09/25/06	1.0
ZINC	6010B	0.0200	0.299	MG/L	09/25/06	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-008 DISSOLVED

Date Sampled : 09/18/06

Order #: 938064

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
IRON	6010B	0.100	1.25	MG/L	09/25/06	1.0
POTASSIUM	6010B	2.00	2.06	MG/L	09/25/06	1.0
ZINC	6010B	0.0200	0.0200 U	MG/L	09/25/06	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B 360 BASELINE

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-008

Date Sampled : 09/18/06 14:50 Order #: 938053
 Date Received: 09/19/06 Submission #: R2633684

Sample Matrix: WATER
 Analytical Run 135168

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/06			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	2.6 J	UG/L
ACRYLONITRILE	100	100 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMOCHLOROMETHANE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TRANS-1,4-DICHLORO-2-BUTENE	5.0	5.0 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMOETHANE	5.0	5.0 U	UG/L
DIBROMOMETHANE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
IODOMETHANE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
TRICHLOROFLUOROMETHANE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROPROPANE	5.0	5.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B 360 BASELINE
Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : WG-5513-09182006-008

Date Sampled : 09/18/06 14:50 Order #: 938053 Sample Matrix: WATER
Date Received: 09/19/06 Submission #: R2633684 Analytical Run 135168

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/06			
ANALYTICAL DILUTION: 1.00			
VINYL ACETATE	✓ 10	10 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

BROMOFLUOROBENZENE	(80 - 123 %)	104	%
TOLUENE-d8	(88 - 124 %)	102	%
DIBROMOFLUOROMETHANE	(91 - 115 %)	103	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B 360 BASELINE

Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : TRIP BLANK

Date Sampled : 09/18/06

Order #: 938054

Sample Matrix: WATER

Date Received: 09/19/06

Submission #: R2633684

Analytical Run 135168

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/06			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
ACRYLONITRILE	100	100 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMOCHLOROMETHANE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TRANS-1,4-DICHLORO-2-BUTENE	5.0	5.0 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMOETHANE	5.0	5.0 U	UG/L
DIBROMOMETHANE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
IODOMETHANE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
TRICHLOROFLUOROMETHANE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROPROPANE	5.0	5.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B 360 BASELINE
Reported: 10/10/06

CRA, Inc.

Project Reference: UCAR SEMIANNUAL #5513-02

Client Sample ID : TRIP BLANK

Date Sampled : 09/18/06 Order #: 938054 Sample Matrix: WATER
Date Received: 09/19/06 Submission #: R2633684 Analytical Run 135168

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/06			
ANALYTICAL DILUTION: 1.00			
VINYL ACETATE	10	10 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L

<u>SURROGATE RECOVERIES</u>	<u>QC LIMITS</u>		
BROMOFLUOROBENZENE	(80 - 123 %)	109	%
TOLUENE-d8	(88 - 124 %)	101	%
DIBROMOFLUOROMETHANE	(91 - 115 %)	99	%

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 10/10/06
CAS Order # : 938046 - WG-5513-09182006-001
Client : CRA, Inc.
UCAR SEMIANNUAL #5513-02
Reported Units: MG/L
Run # : 135183

PRECISION

ACCURACY

	ORIGINAL	DUPLICATE	RPD	FOUND	ADDED	% REC.	LIMITS
IRON	1.26	1.22	4	2.14	1.00	88	75 - 125
POTASSIUM	3.81	4.10	7	23.5	20.0	98	75 - 125
ZINC	0.0904	0.0989	9	0.574	0.500	97	75 - 125

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 10/10/06
CAS Order # : 938046 - WG-5513-09182006-001
Client : CRA, Inc.
UCAR SEMIANNUAL #5513-02
Reported Units: MG/L
Run # : 135093

PRECISION

ACCURACY

NITRITE NITROGEN

ORIGINAL	DUPLICATE	RPD	FOUND	ADDED	% REC.	LIMITS
0.0100 U	0.0100 U	NC	0.251	0.250	100	73 - 126

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 10/10/06
CAS Order # : 938046 - WG-5513-09182006-001
Client : CRA, Inc.
UCAR SEMIANNUAL #5513-02
Reported Units: MG/L
Run # : 135434

PRECISION

ACCURACY

	ORIGINAL	DUPLICATE	RPD	FOUND	ADDED	% REC.	LIMITS
TOTAL KJELDAHL NITROGEN	0.880	0.866	2	3.10	2.50	89	70 - 117

COLUMBIA ANALYTICAL SERVICES

INORGANIC QUALITY CONTROL SUMMARY

Report Date : 10/10/06
CAS Order # : 938046 - WG-5513-09182006-001
Client : CRA, Inc.
UCAR SEMIANNUAL #5513-02
Reported Units: MG/L
Run # : 135481

PRECISION

ACCURACY

ORIGINAL	DUPLICATE	RPD	FOUND	ADDED	% REC.	LIMITS
0.478	0.473	1	0.830	0.500	70	59 - 129

AMMONIA

COLUMBIA ANALYTICAL SERVICES

INORGANIC BLANK SPIKE SUMMARY

CAS Submission #: R2633684

Client: CRA, Inc.

UCAR SEMIANNUAL #5513-02

BLANK SPIKES

	BLANK	FOUND	ADDED	% REC	LIMITS	RUN	UNITS
IRON	0.100 U	1.03	1.00	103	80 - 120	135183	MG/L
POTASSIUM	2.00 U	20.0	20.0	100	80 - 120	135183	MG/L
ZINC	0.0200 U	0.524	0.500	105	80 - 120	135183	MG/L
NITRITE NITROGEN	0.0100 U	0.244	0.250	98	90 - 110	135093	MG/L
TOTAL KJELDAHL NITROGEN	0.200 U	2.36	2.50	94	72 - 108	135434	MG/L
AMMONIA	0.0500 U	0.499	0.500	100	90 - 110	135481	MG/L

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
WATER

Spiked Order No. : 938046 CRA, Inc.

Client ID: WG-5513-09182006-001

Test: 8260B 360 BASELINE

Analytical Units: UG/L

Run Number : 135168

ANALYTE	SPIKE		MATRIX SPIKE		MATRIX SPIKE DUP.				QC LIMITS	
	ADDED	CONCENT.	FOUND	% REC.	FOUND	% REC.	RPD	RPD	REC.	
		SAMPLE								
BENZENE	50.0	0	50.0	100	52.0	104	4	30	70 - 130	
CHLOROBENZENE	50.0	0	48.0	96	51.0	102	6	30	70 - 130	
1,1-DICHLOROETHENE	50.0	0	53.0	106	55.0	110	4	30	70 - 130	
TOLUENE	50.0	0	47.0	94	50.0	100	6	30	70 - 130	
TRICHLOROETHENE	50.0	0	47.0	94	48.0	96	2	30	70 - 130	

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS
METHOD: 8260B 360 BASELINELABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 939736 ANALYTICAL RUN #: 135168

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 09/25/06			
ANALYTICAL DILUTION: 1.0			
ACETONE	20.0	98	50 - 150
ACRYLONITRILE	100	101	50 - 150
BENZENE	20.0	91	70 - 130
BROMOCHLOROMETHANE	20.0	101	70 - 130
BROMODICHLOROMETHANE	20.0	94	70 - 130
BROMOFORM	20.0	91	70 - 130
BROMOMETHANE	20.0	99	50 - 150
2-BUTANONE (MEK)	20.0	99	50 - 150
TRANS-1,4-DICHLORO-2-BUTENE	20.0	99	50 - 150
CARBON DISULFIDE	20.0	79	70 - 130
CARBON TETRACHLORIDE	20.0	91	70 - 130
CHLOROBENZENE	20.0	91	70 - 130
CHLOROETHANE	20.0	87	70 - 130
CHLOROFORM	20.0	91	70 - 130
CHLOROMETHANE	20.0	94	70 - 130
1,2-DIBROMO-3-CHLOROPROPANE	20.0	101	50 - 150
DIBROMOCHLOROMETHANE	20.0	95	70 - 130
1,2-DIBROMOETHANE	20.0	95	70 - 130
DIBROMOMETHANE	20.0	89	70 - 130
1,4-DICHLOROBENZENE	20.0	92	70 - 130
1,2-DICHLOROBENZENE	20.0	95	70 - 130
1,1-DICHLOROETHANE	20.0	92	70 - 130
1,2-DICHLOROETHANE	20.0	94	70 - 130
1,1-DICHLOROETHENE	20.0	95	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	89	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	95	70 - 130
1,2-DICHLOROPROPANE	20.0	90	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	94	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	90	70 - 130
ETHYLBENZENE	20.0	89	70 - 130
2-HEXANONE	20.0	97	70 - 130
IODOMETHANE	20.0	81	50 - 150
METHYLENE CHLORIDE	20.0	92	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	94	70 - 130
STYRENE	20.0	88	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	97	70 - 130
1,1,1,2-TETRACHLOROETHANE	20.0	85	70 - 130
TETRACHLOROETHENE	20.0	85	70 - 130
TOLUENE	20.0	89	70 - 130
1,1,1-TRICHLOROETHANE	20.0	83	70 - 130
1,1,2-TRICHLOROETHANE	20.0	92	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 8260B 360 BASELINE

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 939736 ANALYTICAL RUN # : 135168

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 09/25/06			
ANALYTICAL DILUTION: 1.0			
TRICHLOROETHENE	20.0	90	70 - 130
TRICHLOROFLUOROMETHANE	20.0	88	70 - 130
1,2,3-TRICHLOROPROPANE	20.0	88	70 - 130
VINYL ACETATE	20.0	102	50 - 150
VINYL CHLORIDE	20.0	87	70 - 130
M+P-XYLENE	40.0	90	70 - 130
O-XYLENE	20.0	87	70 - 130

COLUMBIA ANALYTICAL SERVICESVOLATILE ORGANICS
METHOD: 8260B 360 BASELINELABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 940098

ANALYTICAL RUN #: 135178

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 09/26/06			
ANALYTICAL DILUTION: 1.0			
ACETONE	20.0	86	50 - 150
ACRYLONITRILE	100	99	50 - 150
BENZENE	20.0	99	70 - 130
BROMOCHLOROMETHANE	20.0	103	70 - 130
BROMODICHLOROMETHANE	20.0	98	70 - 130
BROMOFORM	20.0	94	70 - 130
BROMOMETHANE	20.0	93	50 - 150
2-BUTANONE (MEK)	20.0	89	50 - 150
TRANS-1,4-DICHLORO-2-BUTENE	20.0	101	50 - 150
CARBON DISULFIDE	20.0	74	70 - 130
CARBON TETRACHLORIDE	20.0	100	70 - 130
CHLOROBENZENE	20.0	100	70 - 130
CHLOROETHANE	20.0	93	70 - 130
CHLOROFORM	20.0	99	70 - 130
CHLOROMETHANE	20.0	103	70 - 130
1,2-DIBROMO-3-CHLOROPROPANE	20.0	95	50 - 150
DIBROMOCHLOROMETHANE	20.0	94	70 - 130
1,2-DIBROMOETHANE	20.0	100	70 - 130
DIBROMOMETHANE	20.0	93	70 - 130
1,4-DICHLOROBENZENE	20.0	98	70 - 130
1,2-DICHLOROBENZENE	20.0	96	70 - 130
1,1-DICHLOROETHANE	20.0	98	70 - 130
1,2-DICHLOROETHANE	20.0	98	70 - 130
1,1-DICHLOROETHENE	20.0	108	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	96	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	100	70 - 130
1,2-DICHLOROPROPANE	20.0	93	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	97	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	92	70 - 130
ETHYLBENZENE	20.0	97	70 - 130
2-HEXANONE	20.0	88	70 - 130
IODOMETHANE	20.0	81	50 - 150
METHYLENE CHLORIDE	20.0	95	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	88	70 - 130
STYRENE	20.0	93	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	101	70 - 130
1,1,1,2-TETRACHLOROETHANE	20.0	94	70 - 130
TETRACHLOROETHENE	20.0	99	70 - 130
TOLUENE	20.0	95	70 - 130
1,1,1-TRICHLOROETHANE	20.0	94	70 - 130
1,1,2-TRICHLOROETHANE	20.0	93	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 8260B 360 BASELINE

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 940098 ANALYTICAL RUN # : 135178

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 09/26/06			
ANALYTICAL DILUTION: 1.0			
TRICHLOROETHENE	20.0	94	70 - 130
TRICHLOROFLUOROMETHANE	20.0	104	70 - 130
1,2,3-TRICHLOROPROPANE	20.0	92	70 - 130
VINYL ACETATE	20.0	97	50 - 150
VINYL CHLORIDE	20.0	97	70 - 130
M+P-XYLENE	40.0	98	70 - 130
O-XYLENE	20.0	94	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS

METHOD 8260B 360 BASELINE

Reported: 10/10/06

Project Reference:

Client Sample ID : METHOD BLANK

Date Sampled :	Order #: 939735	Sample Matrix: WATER
Date Received:	Submission #:	Analytical Run 135168

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/25/06			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
ACRYLONITRILE	100	100 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMOCHLOROMETHANE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TRANS-1,4-DICHLORO-2-BUTENE	5.0	5.0 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMOETHANE	5.0	5.0 U	UG/L
DIBROMOMETHANE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
IODOMETHANE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
TRICHLOROFLUOROMETHANE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROPROPANE	5.0	5.0 U	UG/L
VINYL ACETATE	10	10 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B 360 BASELINE
Reported: 10/10/06

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled :	Order #: 939735	Sample Matrix: WATER
Date Received:	Submission #:	Analytical Run 135168

ANALYTE	PQL	RESULT	UNITS
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DATE ANALYZED : 09/25/06
ANALYTICAL DILUTION: 1.00

VINYL CHLORIDE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIESQC LIMITS

BROMOFLUOROBENZENE	(80 - 123 %)	107	%
TOLUENE-d8	(88 - 124 %)	103	%
DIBROMOFLUOROMETHANE	(91 - 115 %)	100	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B 360 BASELINE
Reported: 10/10/06

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : Order #: 940097 Sample Matrix: WATER
Date Received: Submission #: Analytical Run 135178

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/06			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
ACRYLONITRILE	100	100 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMOCHLOROMETHANE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
TRANS-1,4-DICHLORO-2-BUTENE	5.0	5.0 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,2-DIBROMOETHANE	5.0	5.0 U	UG/L
DIBROMOMETHANE	5.0	5.0 U	UG/L
1,4-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,2-DICHLOROBENZENE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
IODOMETHANE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
1,1,1,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
TRICHLOROFLUOROMETHANE	5.0	5.0 U	UG/L
1,2,3-TRICHLOROPROPANE	5.0	5.0 U	UG/L
VINYL ACETATE	10	10 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B 360 BASELINE
Reported: 10/10/06

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled :	Order #: 940097	Sample Matrix: WATER
Date Received:	Submission #:	Analytical Run 135178

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 09/26/06			
ANALYTICAL DILUTION: 1.00			
VINYL CHLORIDE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L

<u>SURROGATE RECOVERIES</u>	<u>QC LIMITS</u>		
BROMOFLUOROBENZENE	(80 - 123 %)	107	%
TOLUENE-d8	(88 - 124 %)	102	%
DIBROMOFLUOROMETHANE	(91 - 115 %)	100	%

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: cas-roch Contract: tre
 Lab Code: 10145 Case No.: r6-33684 SAS No.: _____ SDG No.: _____
 Lab File ID (Standard): F3298.D Date Analyzed: 09/25/06
 Instrument ID: ms#3 Time Analyzed: 08:54
 GC Column: db-624 ID: 0.20 (mm) Heated Purge (Y/N): N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	353882	7.82	715422	9.03	640849	14.17
UPPER LIMIT	707764	7.32	1430844	8.53	1281698	13.67
LOWER LIMIT	176941	8.32	357711	9.53	320425	14.67
EPA SAMPLE NO.						
01 LCS1	352770	7.83	709134	9.03	647507	14.17
02 MET BLK1	343072	7.83	699559	9.03	636352	14.18
03 001	351933	7.83	707927	9.03	655855	14.18
04 005	345293	7.83	686621	9.03	629028	14.18
05 007	354026	7.83	696434	9.04	643068	14.18
06 008	354356	7.83	689859	9.03	646909	14.18
07 TRIP BLANK	345176	7.84	695437	9.03	641711	14.18

IS1 = Pentafluorobenzene
 IS2 = 1,4 - Difluorobenzene
 IS3 = d5 - Chlorobenzene
 IS4 = d4 - Dichlorobenzene

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: cas-roch Contract: tre
 Lab Code: 10145 Case No.: r6-33684 SAS No.: _____ SDG No.: _____
 Lab File ID (Standard): F3298.D Date Analyzed: 09/25/06
 Instrument ID: ms#3 Time Analyzed: 08:54
 GC Column: db-624 ID: 0.20 (mm) Heated Purge (Y/N): N

	IS4					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	263976	18.66				
UPPER LIMIT	527952	18.16				
LOWER LIMIT	131988	19.16				
EPA SAMPLE NO.						
01 LCS1	268954	18.67				
02 MET BLK1	265395	18.66				
03 001	263168	18.66				
04 005	265139	18.67				
05 007	258944	18.67				
06 008	262103	18.66				
07 TRIP BLANK	261606	18.67				

IS1 = Pentafluorobenzene
 IS2 = 1,4 - Difluorobenzene
 IS3 = d5 - Chlorobenzene
 IS4 = d4 - Dichlorobenzene

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
 * Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: cas-roch Contract: tre
 Lab Code: 10145 Case No.: r6-33684 SAS No.: _____ SDG No.: _____
 Lab File ID (Standard): F3318.D Date Analyzed: 09/26/06
 Instrument ID: ms#3 Time Analyzed: 08:17
 GC Column: db-624 ID: 0.20 (mm) Heated Purge (Y/N): N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	368523	7.81	684483	9.01	659925	14.16
UPPER LIMIT	737046	7.31	1368966	8.51	1319850	13.66
LOWER LIMIT	184262	8.31	342242	9.51	329963	14.66
EPA SAMPLE NO.						
01 LCS2	359995	7.82	721475	9.02	658714	14.16
02 MET BLK2	356416	7.82	705852	9.01	651577	14.16
03 002	348493	7.81	707008	9.01	649484	14.16
04 003	355481	7.81	715273	9.02	649014	14.16
05 004	356919	7.81	711080	9.02	658733	14.16
06 051	359465	7.82	707675	9.01	657827	14.16

IS1 = Pentafluorobenzene
 IS2 = 1,4 - Difluorobenzene
 IS3 = d5 - Chlorobenzene
 IS4 = d4 - Dichlorobenzene

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
 * Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: cas-roch Contract: tre
 Lab Code: 10145 Case No.: r6-33684 SAS No.: _____ SDG No.: _____
 Lab File ID (Standard): F3318.D Date Analyzed: 09/26/06
 Instrument ID: ms#3 Time Analyzed: 08:17
 GC Column: db-624 ID: 0.20 (mm) Heated Purge (Y/N): N

	IS4					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	272157	18.64				
UPPER LIMIT	544314	18.14				
LOWER LIMIT	136079	19.14				
EPA SAMPLE NO.						
01 LCS2	279242	18.64				
02 MET BLK2	264836	18.64				
03 002	269785	18.64				
04 003	272931	18.64				
05 004	267559	18.64				
06 051	269350	18.65				

IS1 = Pentafluorobenzene
 IS2 = 1,4 - Difluorobenzene
 IS3 = d5 - Chlorobenzene
 IS4 = d4 - Dichlorobenzene

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

R263 3684.

1001 (D) APR 28/97(NF) REV. 0 (F-15)

Cooler Receipt And Preservation Check Form

Project/Client CRA Submission Number R2633684

Cooler received on 9/19/06 by: RJ 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? YES NO
6. Where did the bottles originate? CAS/ROC CLIENT
7. Temperature of cooler(s) upon receipt: 2° 4°

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: 9/19/06 @ 1425

Thermometer ID: 161 or IR GUN Reading From: Temp Blank or Sample Bottle

If out of Temperature, Client Approval to Run Samples

PC Secondary Review: UB 9/20/06

Cooler Breakdown: Date: 9/20/06 by: RJ

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:

		YES	NO	Sample I.D.	Reagent	Vol. Added	Final pH
pH	Reagent						
≥12	NaOH						
≤2	HNO ₃	✓					
≤2	H ₂ SO ₄	✓					
Residual Chlorine (+/-)	for TCN & Phenol						

YES = All samples OK

NO = Samples were preserved at lab as listed

PC OK to adjust pH

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2		
<u>≤2</u>		

Other Comments:

PC Secondary Review: AH 9/22/06

Daily Log

29/05
13-02

Weather: clear, 34°F, mild

met DTYR in-site to
Keys from Bio. Base
pled 4 wells, drill out 2, 1/2 round of WH
site BW1, 2 / MW1, 2, GMB

met DTYR on-site.
brake meter
aple Mw i
re i Sample BW 3, 4, 5
Mw 3

(55)

BW-1

Date 9/18/2000

Project # 5513-02

Condition good

Depth 28.73 25.7

Initial w/L 14.88

Vol calc. $25.7 - 14.88 = 10.82 \times .65 = 7$

Method whale pump

Pump record

Time	Vol	pH	Cond	Temp	Turb
1210	7	7.06	1.80	13.2	153
1215	14	7.01	1.71	11.8	27.8
1220	21	6.88	1.73	11.2	17.9

Initial w/L cloudy Brown

Final w/L clear / colorless

Final w/L 14.35

David J. [Signature]

sample Record

BW-1

Fluge Record

Date 9/18/2006

crew DJT/RBN

method Refion Barler

Vol/Analysis See pg 28C

Sample time - 1235

Sample ID - WG-SS13-09182006-004

w/a clear / colorless

pH	cond	Temp°C	Turb.
6.81	176	11.4	11.0

C of C 4654

Inst Controls #s

w/L C04307

Hanna 03550

57

BW-2

Date 9/18/2006

project 5513-20

condition good

Depth 24.07

Initial w/a 13.70

Vol. cal 24.67-13.70-10.97x.65-7.13

method whale pump

Fluge Record

Time	Vol	pH	Cond	Temp°C	Turb
1350	7	6.83	2.73	13.2	108
1352	14	6.59	2.62	11.7	15
1354	21	6.67	2.58	11.8	9

Initial w/a cloudy dark brown

Final w/a clear / slight green tint

final w/L 13.5

David Lyon

Sample Record

BW-2

Date 9/18/2006

Crew DJT/RBN

method Teflon Bailer

vol/analysis See pg 28C

Sample Time 1400

Sample ID WG-SS13-09182006-006

W/Q Clear, colorless

pH	Cond	Temp	Turb
6.49	2.01	13.8	5.5

C of C 4654

Inst control #5
w/L C04307
Horiba 03550

(59)

BW-3

MS/MST

Date 9/18/2006

Project # SS13-02

condition: good

Depth 23.50

Initial w/L 13.60

Vol calc $23.50 - 13.60 = 9.9 \times 1.65 = 16.4$

method: whale pump

Purge Record

Time	Vol	pH	Cond	Temp°C	Turb
1046	6.4	6.55	1.90	12.2	20.6
1050	12.8	6.58	1.91	11.2	19.3
1054	19.2	6.60	1.92	11.3	16.5

Initial w/Q slightly cloudy brown

Final w/Q Clear, colorless

Final w/L 13.7

David J. Ryan

Sample Record

BW-3

Date 9/18/2006
Crew DST/RBN
Method ~~whale pump~~
Teflon Barrel
Vol/analysis See pg 28C

Sample Time 1110
Sample ID WGS-SS13-09182006-001

w/q Clear colorless

pH	cond	Temp	Turb
6.65	1.92	12.4	7.0

C of C 4054

Inst Control #s
w/L 004307
Horiba 03550

BW-4 DUP (6)

Date 9/18/2006
Project # SS13-20
Condition good
Depth 4" ~~13.9~~ 8" 21.30 Sounded
Initial w/L 13.33
Vol calc $21.30 - 13.33 = 7.97 \times 0.65 = 5.18$
Method whale pump

Purge Record

Time	Vol	pH	cond	Temp	Turb
1127	5.18	6.81	2.00	12.8	13.9
1130	10.36	6.66	1.90	12.0	58.3
1132	15.54	6.6	1.85	11.7	26.2
	26.72				

Initial w/q cloudy Dark Brown
at Sheen
Final w/q clear / colorless
no sheen

Final w/L 13.31

Daniel Myron

Sample Record

Bury

Date 9/18/2006
 crew DJT / RBN
 method Teflon Bailor

Vol/analysis See pg 28C x 2

Sample Time n40 & 1150

Sample ID WG-SS13-09182006-002 (1140)

Pup: WG-SS13-09182006-003 (1150)

w/q Clear, colorless

PH Cond Temp °C Turb
 6.60 1.85 12.01 5.2

Calc 4654

Inst control #

w/L C04307
 Florida 03550

MW-3

(63)

Date 9/18/2006

Project: SS13-20

condition: good

depth 15.45 sounded

Initial w/L 11.70

Vol. Calc $15.45 - 11.70 = 3.75 \times .16 = 0.6 \text{ gal}$

method: ~~whale~~ pump
 Bailor

Purge Record

Time	Vol	pH	Cond	Temp °C	Turb
1025	.6	5.76	1.659	15.3	139
1027	1.2	6.20	.502	13.4	940
1030	1.8	6.46	.455	13.4	>1000
1032					

DRY @ 2 gallons

Initial w/q slightly cloudy / Brown

Final w/q Cloudy / Brown

Final w/L Dry

Dave J. Tyler

Sample Record mw-3

Date 9/18/2006
Crew DST/RBN
method Reflen Buiron

vol / analysis See pg 28C

Sample Time 1450
Sample ID WG-5513-09182006-008

w/q Brown / cloudy

PH	cond	Temp °C	Turb
7.44	.513	14.1	765

col C 465C

Inst control #5
w/L 004307
Habitat 08850

GW-8B

(65)

Date 9/18/2006
Project # 5513-02
condition good
Depth 29.28 Sounded
Initial w/L 9.99
vol. calc $29.28 - 9.99 = 19.29 \times .87 = 7.1$
method whale pump

Purge Record

Time	vol	P H	cond	Temp °C	Turb
1410	7.1	7.35	1.82	13.6	104
1412	14.2	7.13	1.72	11.7	73.6
1416	21.3	7.06	1.71	11.8	87.5

Initial w/q clear colorless

Final w/q clear colorless

Final w/L 26.10

David J. Ryan

Sample Record GW-88

Date 9/18/2006
 Core DST/BBW
 Method Tollen Beutler

Vol/analysis See pg 28C

Sample Time 1430

Sample ID WG-5513-09182006-005

w/q Clear, colorless

pH cond Temp °C Turb.
 6.74 1.72 11.6 13.2

calc 4654

Inst control #5
 w/L C04307
 Horiba 03550

GW-9B

(67)

Date 9/18/2006

Project # 5513-02

cond good

Depth 31.95

Initial w/L 13.51

Vol/calc $31.95 - 13.51 = 18.44 \times .37 = 6.82$

Method whale pump

Range Record

Time	Vol	pH	cond	Temp °C	Turb
1417	7	6.97	2.64	12.7	6.3
1421	14	6.84	2.64	12.5	5.7
1426	21	6.85	2.64	12.0	5.0

Initial w/q clear/colorless

Final w/q clear/colorless

Final w/L 29.52

David J. Tynan

5513-02 Daily Log

9/18/06 Mostly Sunny 70-83°F

0855 RBN, DJT on-site meet

Bob Bucca;

w/c Round, calibrate

Horiba w/a meter C03550

with auto cal. Solution

meters calibrated to pH 4.00

Cond 4.49 turb 0.0

1030 Purge & Sample all 7 wells
decon

Packup

1510 off-site

David J. Tyrone

Sample Record

Date 9/18/2000
Crew DJT/RBN
Method Teflon Beaker

Vol/Analysis See pg 28C

Sample Time 1440
Sample ID WG-SSB-09182000-007

w/q Clear, colorless

TH Cont Temp °C Turb
6.58 2.64 12.1 10.7

c of C 4/654

Inst Control #

w/L CO4307
Horiba 03550

Hydraulic Monitoring (69)

Date 9/18/2000
Project # 5513

Crew DJT/RBN

well #	Time	w/L	Sounded depth
mw 1	0955	9.68	
2	0917	21.18	
3	0935	11.70	15.45
BW 1	1002	15.48	25.70
2	0916	15.49	24.67
3	0941	15.08	23.00
4	0945	13.33	21.30
5	0938	13.07	
6	0915	17.48	
GW 8B	1006	9.99	29.28
9B	0926	13.51	cut old 31.95 lock

Put American lock on it

Inst Control #

w/L CO4307

Dave Lyon