Solutia Inc.
575 Maryville Centre Drive
St. Louis, Missouri 63141

Tel: 314-674-3312
Fax: 314-674-8808

gmrina@solutia.com

December 20, 2010

Mr. Kenneth Bardo - LU-9J
U.S. EPA Region V
Corrective Action Section
77 West Jackson Boulevard
Chicago, IL 60604-3507

VIA FEDEX

Re: Route 3 Drum Site Groundwater Monitoring Program
3rd Quarter 2010 Data Report
Solutia Inc., W. G. Krummrich Plant, Sauget, IL

Dear Mr. Bardo:

Enclosed please find the Route 3 Drum Site Groundwater Monitoring Program 3rd Quarter 2010 Data Report for Solutia Inc.'s W. G. Krummrich Plant, Sauget, IL.

If you have any questions or comments regarding this report, please contact me at (314) 674-3312 or gmrina@solutia.com

Sincerely,

Gerald M. Rinaldi
Manager, Remediation Services

Enclosure

cc: Distribution List

DISTRIBUTION LIST

Route 3 Drum Site Groundwater Monitoring Program
3rd Quarter 2010 Data Report
Solutia Inc., W. G. Krummrich Plant, Sauget, IL

USEPA

Stephanie Linebaugh
USEPA Region 5 - SR6J, 77 West Jackson Boulevard, Chicago, IL 60604

IEPA

James Moore
IEPA Bureau of Land, 1021 North Grand Avenue East, Springfield, IL 62706

Booz Allen Hamilton

Dan Briller
Booz Allen Hamilton, 8283 Greensboro Drive, McLean, VA 22102

Solutia

Brett Shank 500 Monsanto Avenue, Sauget, IL 62206-1198

THIRD QUARTER 2010
DATA REPORT
ILLINOIS ROUTE 3 DRUM SITE
GROUNDWATER SAMPLING
SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

Prepared for:

SOLUTIA INC.
St. Louis, Missouri

Prepared by:

GEOTECHNOLOGY, INC.
St. Louis, Missouri

Geotechnology, Inc. Report No. J017210.04

December 17, 2010

J017210.04

THIRD QUARTER 2010
DATA REPORT
ILLINOIS ROUTE 3 DRUM SITE
GROUNDWATER SAMPLING
SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

TABLE OF CONTENTS

TABLES

ILLUSTRATIONS

APPENDICES

J017210.04

THIRD QUARTER 2010
DATA REPORT
ILLINOIS ROUTE 3 DRUM SITE
GROUNDWATER SAMPLING
SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

1.0 INTRODUCTION

Solutia Inc. (Solutia) is conducting groundwater monitoring activities as outlined in the Revised Illinois Route 3 Drum Site Operation and Maintenance Plan (Solutia, 2008). The Illinois Route 3 Drum Site (Site) is an area associated with the Solutia W.G. Krummrich (WGK) Facility located in Sauget, Illinois that is subject to a RCRA Administrative Order on Consent (AOC) entered into by the U.S. EPA and Solutia on May 3, 2000. This report presents the results of the sampling event completed in 3rd Quarter 2010 (3Q10). The Site is located in the area identified as "Lot F" in Figure 1.

During the 3Q10 sampling event, groundwater samples were collected from two Shallow Hydrogeologic Unit (SHU) monitoring wells, designated GM-31A and GM-58A (Figure 2), located hydraulically downgradient of the Site. Samples from each well were analyzed for select semivolatile organic compounds (SVOCs) using EPA Method 8270C. In addition, samples were collected from both wells for evaluation of monitored natural attenuation (MNA). The types of natural attenuation processes active at the site were determined by measurements of the following key geochemical parameters: alkalinity, carbon dioxide, chloride, dissolved oxygen (DO), total and dissolved iron, total and dissolved manganese, methane, nitrate, sulfate, total and dissolved organic carbon, and oxidation-reduction potential (ORP).

2.0 FIELD PROCEDURES

Geotechnology, Inc. (Geotechnology) personnel collected groundwater level measurements on September 15, 2010 and conducted the 3Q10 Illinois Route 3 Drum Site groundwater sampling on September 23, 2010. Groundwater samples were collected from two monitoring wells during the 3Q10 sampling event. This section summarizes the field investigative procedures.

Groundwater Level Measurements. An oil/water interface probe was used to measure depth to static groundwater levels and determine the presence of non-aqueous phase liquids (NAPL). Depth-to-groundwater measurements for the 3Q10 sampling event are presented in Table 1. NAPL was not detected in either of the monitoring wells.

Groundwater Sampling. Low-flow sampling techniques were used for groundwater sample collection. At each monitoring well, disposable, low-density polyethylene tubing was attached to a submersible pump, which was then lowered into the well to the middle of the screened interval. Monitoring wells were purged at a rate of 250 to 400 mL/minute to minimize drawdown. If significant drawdown occurred, flow rates were reduced.

Drawdown was measured periodically throughout purging to ensure that it did not exceed 25% of the distance between the pump intake and the top of the screen. Once the flow rate and drawdown were stable, field measurements were collected approximately every three to five minutes. Purging of a well was considered complete when the following water quality parameters remained stable over three consecutive flow-through cell volumes:

Parameter	Stabilization Guidelines
Dissolved Oxygen (DO)	+/- 10% or +/-0.2 mg/L, whichever is greatest
Oxidation-Reduction Potential (ORP)	+/- 20 mV
pH	+/- 0.2 units
Specific Conductivity	+/- 3%

Sampling commenced upon completion of purging. Prior to sample collection, the flow-through cell was bypassed to allow for collection of uncompromised groundwater. Samples were collected at a flow rate less than or equal to the rate at which stabilization was achieved. Sample containers were filled based on laboratory analysis to be performed. Bottles were filled in the following order:

- Gas Sensitive Parameters (e.g., carbon dioxide, methane)
- Semivolatile Organic Compounds (SVOCs)
- General Chemistry (i.e., alkalinity, chloride, total and dissolved iron, total and dissolved manganese, nitrate, sulfate, and total and dissolved organic carbon)
- Field Parameters (i.e., dissolved oxygen and oxidation reduction potential)

Samples for analysis of dissolved iron, dissolved organic carbon, and dissolved manganese were filtered in the field using in-line 0.2 micron disposable filters, represented by a "F(0.2)" in the sample nomenclature. Samples were inadvertently not collected for ferrous iron in the field. Dissolved organic carbon was detected at concentrations exceeding total organic carbon for both of the groundwater samples. After consultation with the personnel at the analytical testing laboratory, a controlled test was conducted on the 0.2 micron filters used during the 3Q10 sampling. Based on the results of the controlled filter test, it appears that the filters were contributing organic carbon to the filtered sample analytical test results. Therefore, for sampling in 4Q10 and after, the same filters as had been used in 2Q10 and before will be used.

Quality Assurance/Quality Control (QA/QC) samples consisting of analytical duplicates (AD) and equipment blanks (EB) were collected at a rate of 10% and matrix spike/matrix spike duplicates (MS/MSD) were collected at a rate of 5%. One duplicate and one MS/MSD sample were collected.

Each sample was labeled immediately following collection. The groundwater sample identification system included the following nomenclature: "GM-31A-0910" which denotes Groundwater Monitoring well number 31A sampled in September 2010. QA/QC samples are identified by the suffix AD or MS/MSD. A notation of "F" in the sample nomenclature indicates a sample that was filtered in the field with a 0.2 micron filter.

Upon collection and labeling, sample containers were immediately placed inside an iced cooler, packed in such a way as to help prevent breakage and maintain inside temperature at or below approximately 4^{o}C. Field personnel recorded the project identification and number, sample description/location, required analysis, date and time of sample collection, type and matrix of sample, number of sample containers, analysis requested/comments, and sampler signature/date/time, with permanent ink on the chain-of-custody (COC). Prior to shipment, coolers were sealed between the lid and sides of the cooler with a custody seal, and then shipped to TestAmerica in Savannah, Georgia by means of overnight delivery service. Field sampling data sheets are included in Appendix A. COC forms are included in Appendix B.

3.0 LABORATORY PROCEDURES

Samples were analyzed by TestAmerica for the 40 CFR 264 Appendix IX SVOCs, and MNA parameters (per the Route 3 Drum Site O&M Plan), using the following methodologies:

- SVOCs, via USEPA SW-846 Method 8270C - The constituents of concern (COCs) identified by the USEPA are biphenyl, 2,4-dichlorophenol, dinitrochlorobenzene, 3-nitrobenzene, 2-nitrobiphenyl, 3-nitrobiphenyl, 4-nitrobiphenyl, 2-nitrochlorobenzene, nitrochlorobenzene, 4-nitrochlorobenzene, pentachlorophenol, and 2,4,6-trichlorophenol.

- MNA parameters consisted of alkalinity (310.1), carbon dioxide (310.1), chloride (325.2), total and dissolved iron (6010B), total and dissolved manganese (6010B), dissolved organic carbon (415.1), nitrate (353.2), sulfate (375.4), dissolved gases (RSK-175), and total organic carbon (TOC) (415.1).

Laboratory results were provided in electronic and hard copy formats.

4. QUALITY ASSURANCE

Analytical data were reviewed for quality and completeness. Data qualifiers were added, as appropriate, and are included on the data tables and the laboratory result pages. The Quality Assurance report is included as Appendix C. The laboratory report and data review sheets are included in Appendix D.

A total of five groundwater samples (two investigative groundwater samples, one field duplicate, and one MS/MSD pair) were prepared and analyzed by TestAmerica for SVOCs and MNA parameters. The results for the various analyses were submitted as sample delivery group (SDG) KOM09 and contained results for GM-31A and GM-58A. Evaluation of the analytical data followed procedures outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (USEPA 2008) and the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (USEPA 2004). Based on the above mentioned criteria, results reported for the analyses performed were accepted for their intended use. Acceptable levels of accuracy and precision, based on MS/MSD, LCS, surrogate and field duplicate data were achieved for this SDG to meet the project objectives. Completeness, which is defined to be the percentage of analytical results which are judged to be valid, including estimated detect/non-detect data, was 97.4 percent.

5.0 OBSERVATIONS

SVOCs were detected in the groundwater samples collected from monitoring well GM-31A and GM-58A during the 3Q10 sampling event. Laboratory analytical data for groundwater sample GM-31A-0910 indicated detections of 1-chloro-2,4-dinitrobenzene and 2-chloronitrobenzene/4-chloronitrobenzene at concentrations of 30 µg/L and 28 µg/L, respectively. Laboratory analytical data for groundwater sample GM-58A-0510 indicates a detection of 2-chloronitrobenzene/4-chloronitrobenzene at a concentration of 60 µg/L. A summary of SVOC detections is provided in Table 2, with MNA results provided in Table 3.

6.0 REFERENCES

Solutia Inc., 2008. Revised Illinois Route 3 Drum Site Operation and Maintenance Plan, W.G. Krummrich Facility, Sauget, IL, May 2008.

U.S. Environmental Protection Agency (USEPA), 2004. Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.

U.S. Environmental Protection Agency (USEPA), 2008 National Functional Guidelines for Superfund Organic Methods Data Review.

Table 1
Monitoring Well Gauging Information

J017210.04
December 2010

Well ID	Construction Details						September 23, 2010		
	Ground Elevation* (feet)	Casing Elevation* (feet)	Depth to Top of Screen (feet bgs)	Depth to Bottom of Screen (feet bgs)	Top of Screen Elevation* (feet)	Bottom of Screen Elevation* (feet)	Depth to Water (feet btoc)	Depth to Bottom (feet btoc)	Water Elevation* (feet)
hallow Hydrogeologic Unit (SHU 395-380 feet NAVD 88)									
M-31A	416.63	418.63	19.00	39.00	397.63	377.63	17.95	40.26	400.68
M-58A	412.24	414.24	19.40	39.40	392.84	372.84	11.96	40.87	402.28

lotes:
- Elevation based upon North American Vertical Datum (NAVD) 88 datum
gs - below ground surface
toc - below top of casing

Table 2
Groundwater Analytical Results

J017210.04
December 2010

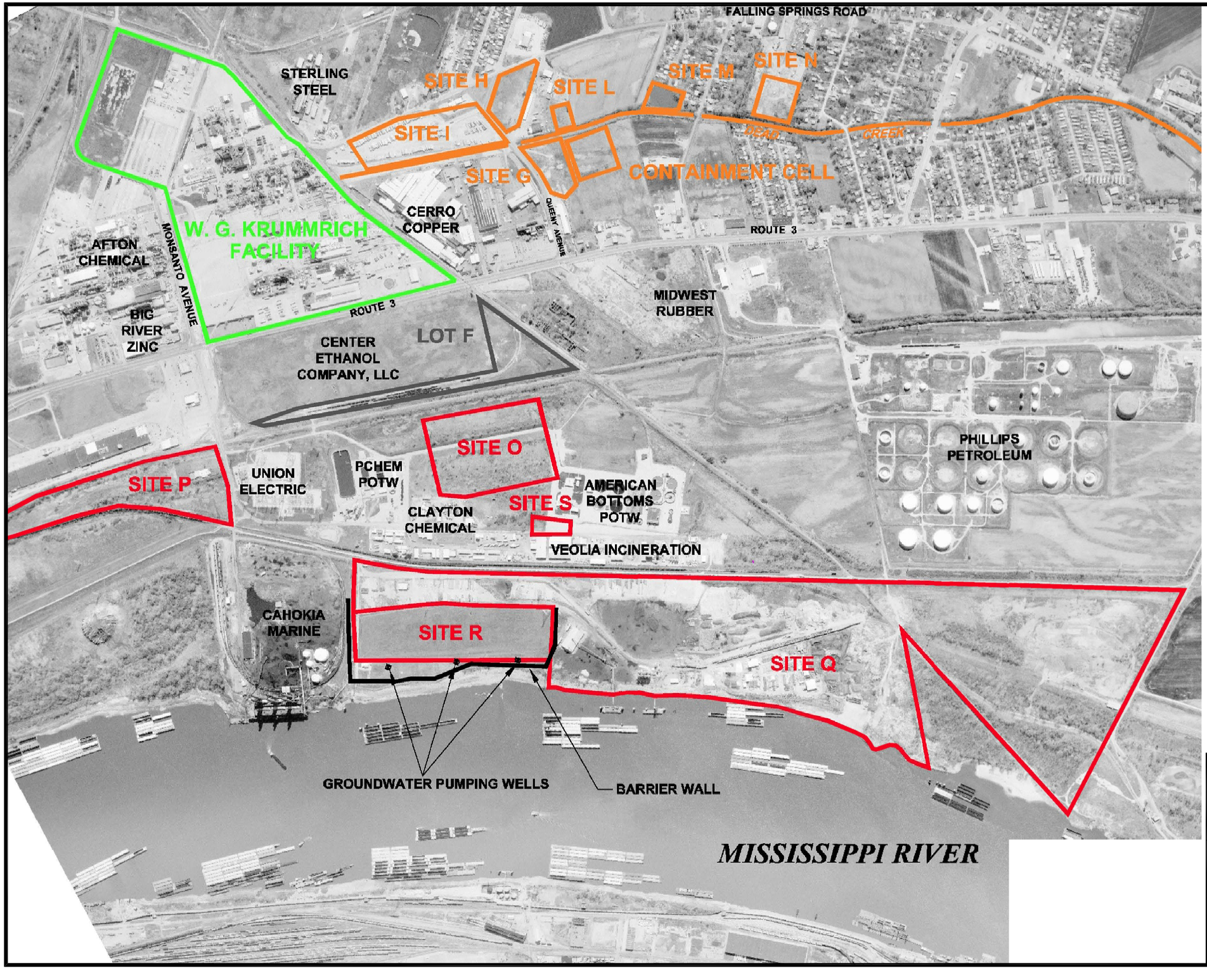
Sample ID	Sample Date	1,1'-Biphenyl (µg/L)	1-Chloro-2,4-Dinitrobenzene (µg/L)	1-Chloro-3-Nitrobenzene (µg/L)	2,4,6-Trichlorophenol (µg/L)	2,4-Dichlorophenol (µg/L)	2-Chloronitrobenzene/ 4-Chloronitrobenzene (µg/L)	2-Nitrobiphenyl (µg/L)	3-Nitrobiphenyl (µg/L)	3,4-Dichloronitrobenzene (µg/L)	4-Nitrobiphenyl (µg/L)	Nitrobenzene (µg/L)	Pentachlorophenol (µg/L)
hallow Hydrogeologic Unit (SHU 395 - 380 ft NAVD 88)													
M-31A-0910	09/23/10	<10	**30**	<10	<10	<10	**28**	<10	<10	<10	<10	<10	<51
M-31A-0910-AD	09/23/10	<10	**32**	<10	<10	<10	**28**	<10	<10	<10	<10	<10	<51
M-58A-0910	09/23/10	<10	<10	<10	<10	<10	**60**	<10	<10	<10	<10	<10	<50

otes:
g/L = micrograms per liter
= Result is non-detect, less than the reporting limit given - indicated as a U qualifier on lab data
OLD indicates concentration greater than the reporting limit

Table 3
Monitored Natural Attenuation Results Summary

Sample ID	Sample Date	Alkalinity (mg/L)	Carbon Dioxide (mg/l)	Chloride (mg/L)	Dissolved Oxygen (mg/L)	Ethane (µg/L)	Ethylene (µg/l)	Iron (mg/L)	Iron, Dissolved (mg/L)	Manganese (mg/L)	Manganese, Dissolved (mg/l)	Methane (µg/l)	Nitrogen, Nitrate (mg/L)	Sulfate as SO4 (mg/L)	Dissolved Organic Carbon (mg/L)	Total Organic Carbon (mg/L)	ORP (mV)
Shallow Hydrogeologic Unit (SHU 395 - 380 ft NAVD 88)																	
GM-31A-0910	09/23/10	440	32	22	0.08	<0.35	<0.33	45		0.49		0.71	0.83	54		2	81
GM-31A-F(0.2)-0910	09/23/10								<0.05		0.38				74 R		
GM-58A-0910	09/23/10	480	31	100	0.94	<0.35	<0.33	5.2		1.7		7.00	<0.05	190		3.6	88
GM-58A-F(0.2)-0910	09/23/10								<0.05		1.8				77 R		

Notes:
DO and ORP were measured in the field using a Horiba U52 equipped with a flow-thru cell.
Ferrous iron was inadvertently not measured in the field.
R = Data were rejected because field filters were suspected of contributing to dissolved organic carbon in the samples.
mg/L - milligrams per liter
µg/L = micrograms per liter
< = Result is non-detect, less than the reporting limit given - indicated as a U qualifier on lab data
A blank space indicates sample not analyzed for select analyte
F(0.2) = Sample was filtered utilizing a 0.2 µm filter in the field
mV = millivolts



NOTES:

1. Plan adapted from a drawing titled "Site Location Map" provided by URS.

LEGEND:

- W.G. Krummrich Facility
- Sauget Area #1
- Sauget Area #2

N

0 1,000 2,000

SCALE IN FEET

Drawn By: SLC	Ck'd By: AMS	App'vd By: DTK
Date: 11-22-10	Date: 12-17-10	Date: 12-17-10

GEOTECHNOLOGY INC
FROM THE GROUND UP

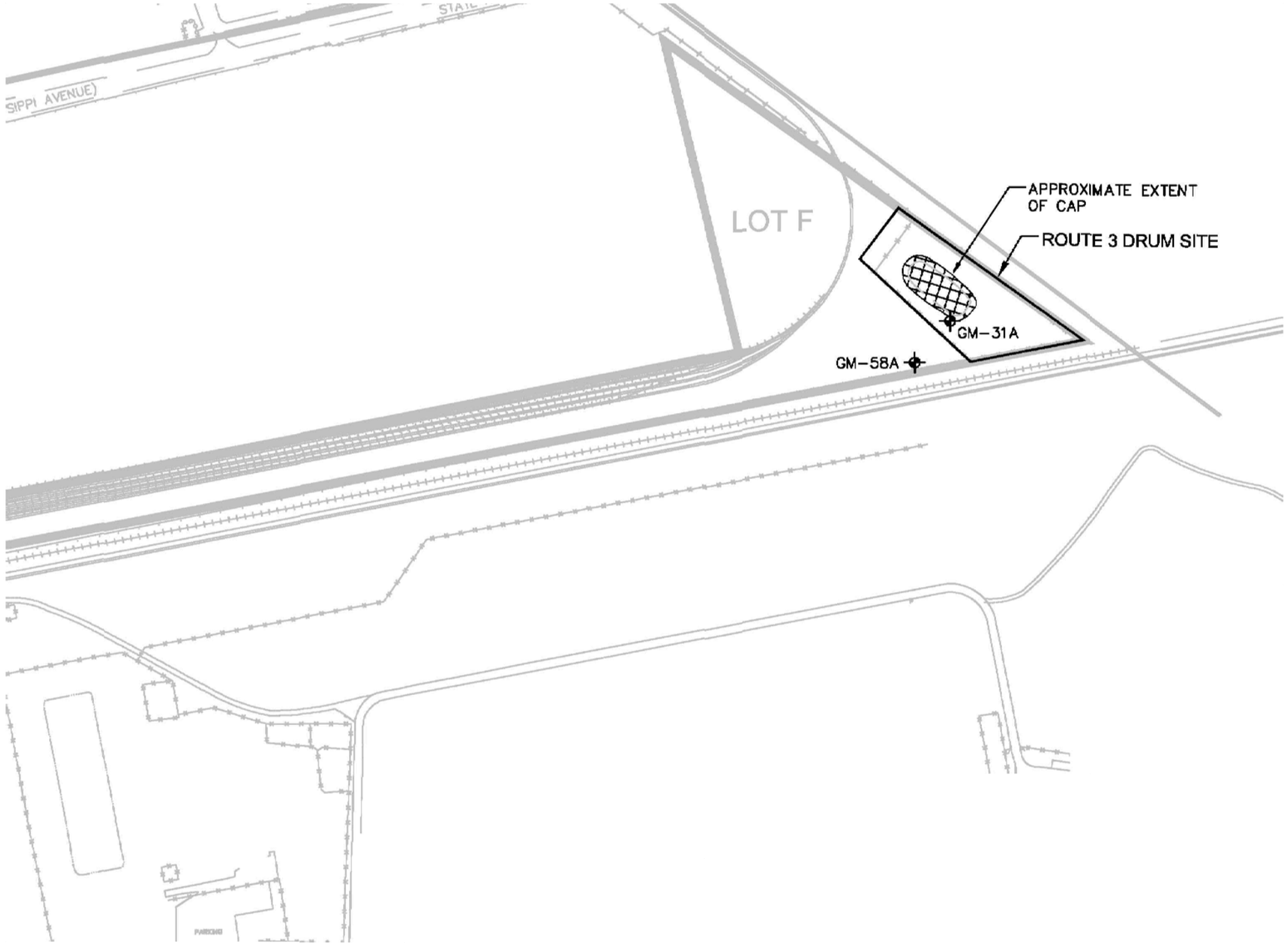
3Q 2010
Route 3 Drum Site Program
Sauget, Illinois

SITE LOCATION MAP

Project Number J017210.04	PLATE 1

NOTES:

1. Plan adapted from a drawing titled "Monitoring Well Location Map" provided by URS.



LEGEND:

Monitoring Well Location

N

0 300 600

SCALE IN FEET

Drawn By: SLC	Ck'd By: AMS	App'vd By: DTK
Date: 11-22-10	Date: 12-17-10	Date: 12-17-10

GEOTECHNOLOGY INC
FROM THE GROUND UP

3Q 2010
Route 3 Drum Site Program
Sauget, Illinois

MONITORING WELL LOCATION MAP

Project Number J017210.04	PLATE 2

APPENDIX A

GROUNDWATER PURGING AND SAMPLING FORMS

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: WGK Drumsite 3210 PROJECT NUMBER: J017210.04 FIELD PERSONNEL: Steve Graham
DATE: 9-23-10 WEATHER: 90° Clear Kevin Roberts
MONITORING WELL ID: GM-58A SAMPLE ID: GM-58A-0910

INITIAL DATA

Well Diameter: 2" in
Measured Well Depth (btoc): - ft
Constructed Well Depth (btoc): 41.40 ft
Depth to Water (btock): 11.8 ft
Depth to LNAPL/DNAPL (btoc): - ft
Depth to Top of Screen (btoc): 21.4 ft
Screen Length: 20 ft

Water Column Height (do not include LNAPL or DNAPL): 29.6 ft
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet
Place Pump at: Total Well Depth - 0.5 (Screen Length + DNAPL Column Height) = 31.4 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are <4 ft,
Place Pump at: Total Well Depth -)9.5 X Water Column Height + DNAPL Column Height) = - ft btoc
If Screen Length and/or water column height is <4 ft, Place Pump at: Total Well Depth - 2 ft = - ft btoc
DNPL Present NO If Present, Do Not Sample

Volume of Flow Through Cell): 1000 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) 3000 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Pegasus Peristaltic Pump

					HAVE THE STABILIZATION PARAMETERS BEEN SATISFIED? All are units unless %					
					± 0.2	± 0.2	± 3%	± 10%	± 10% or ± 0.2	± 20
Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. Ms/cm	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
1000	1356	11.8	Rusty	Slight	5.48	22.03	1.33	123	0.75	105
2500	1401	11.85	↓	↓	5.37	18.43	1.58	15.8	0.47	95
4000	1406	12.34	↓	↓	5.30	18.30	1.60	9.3	0.33	92
4500	1411	12.43	Clear	↓	5.24	18.93	1.59	5.5	0.47	90
5000	1416	12.43	↓	↓	5.27	19.08	1.56	4.4	0.83	88
6500	1421	12.43	↓	↓	5.26	18.60	1.55	2.8	1.04	88
7250	1426	12.60	↓	↓	5.27	19.32	1.53	2.1	0.94	88

Start Time: 1356
Stop Time: 1426
Elapsed Time: 30 min
Average Purge Rate (mL/min): 250
Water Quality Meter ID: Horiba - U-52
Date Calibrated: 9-23-10

SAMPLING DATA

Sample Date: 9-23-10
Sample Method: low flow ~~bladder~~ Peristaltic
Sample Time: 1426
Sample Flow Rate: 250 mL/min
Analysis: SVOC, metals, MNA
QA/QC Samples: MS, MSD, Equipment blanks

VOA Vials, No Headspace [X] Initials: SWG

COMMENTS: MNA: Alkalinity, CO_2, Chloride, Methane, Nitrate, Sulfate, DOC, TOC, Total & Dissolved Iron, Total & Dissolved Manganese

Ferrous Iron (Filtered 0.2 micron) =

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: W6K Drumsite 3Q10 PROJECT NUMBER: J017210.04 FIELD PERSONNEL: Steve Graham
DATE: 9-23-10 WEATHER: 90° clear Kevin Roberts
MONITORING WELL ID: 6m-31A SAMPLE ID: 6m-31A-0910 Jenna Vujic

INITIAL DATA

Well Diameter: 2" in
Measured Well Depth (btoc): - ft
Constructed Well Depth (btoc): 41.00 ft
Depth to Water (btock): 18.5 ft
Depth to LNAPL/DNAPL (btoc): - ft
Depth to Top of Screen (btoc): 21.0 ft
Screen Length: 20 ft

Water Column Height (do not include LNAPL or DNAPL): 22.5 ft
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet
Place Pump at: Total Well Depth - 0.5 (Screen Length + DNAPL Column Height) = 31.0 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are <4 ft,
Place Pump at: Total Well Depth -)9.5 X Water Column Height + DNAPL Column Height) = - ft btoc
If Screen Length and/or water column height is <4 ft, Place Pump at: Total Well Depth - 2 ft = - ft btoc
DNPL Present NO If Present, Do Not Sample

Volume of Flow Through Cell): 1000 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) 3000 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA
Pump Type: Pegasus Peristaltic Pump

					HAVE THE STABILIZATION PARAMETERS BEEN SATISFIED? All are units unless %					
					± 0.2	± 0.2	± 3%	± 10%	± 10% or ± 0.2	± 20
Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. Ms/cm	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
-	1205	18.5								
1000	1228	18.48	silty	slightly sweet						
2500	1230	18.40			5.93	20.04	0.997	207	0.64	89
4000	1235	18.40			5.60	17.21	1.06	187	0.10	87
5800	1240	18.40			5.48	17.22	1.06	157	0.07	85
8000	1245	18.40			5.42	17.21	1.06	140	0.09	82
8750	1250	18.40	↓	↓	5.36	17.15	1.06	135	0.08	81

Start Time: 1228
Stop Time: 1250
Elapsed Time: 22 min
Average Purge Rate (mL/min): 400
Water Quality Meter ID: Horiba - U-52
Date Calibrated: 9-23-10

SAMPLING DATA

Sample Date: 9-23-10
Sample Method: low flow Peristaltic
Sample Time: 1250
Sample Flow Rate: 400 mL/min
Analysis: SVOC's, metals, MNA
QA/QC Samples: Analytical Duplicate

VOA Vials, No Headspace ☒ Initials: SWG

COMMENTS: MNA: Alkalinity, CO_2, Chloride, Methane, Nitrate, Sulfate, DOC, TOC, Total & Dissolved Iron, Total & Dissolved Manganese
Ferrous Iron (Filtered 0.2 micron) =

APPENDIX B

CHAIN-OF-CUSTODY

Serial Number 033128

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
WGK RI 3 Drum Site	JC17210.04	
TAL (LAB) PROJECT MANAGER	**P.O. NUMBER**	**CONTRACT NO.**
GM Rinaldi	4503869001	
CLIENT (SITE) PM	**CLIENT PHONE**	**CLIENT FAX**
GM Rinaldi	314-674-3312	314-674-8808
CLIENT NAME	**CLIENT E-MAIL**	
Solutia, INC.	gmrina@solutia.com	
CLIENT ADDRESS		
575 Maryville Center Dr. St. Louis, MO 63146		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ⊘
DATE DUE _____
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE _____
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	MATRIX: COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	REQUIRED ANALYSIS: SVOC 8270C	Total Fe/Mn 6010B	HNO_3 310.1	Chlor. 325.3 Sulfate 375.4	Methane Ethane Ethene RSK 175	Nitrate 353.2	TOC 415.1	Diss. Fe/Mn 6010B	DOC 415.1	REMARKS
								NUMBER OF CONTAINERS SUBMITTED									
								none	HNO_3	none	none	none	H_2SO_4	none	HNO_3	HCl	
9/23/10	1250	GM-31A 0910	G	A				2	1	1	1	3	2	1			
9/23/10	1250	GM-31A 0910 AD	G	A				2									
9/23/10	1250	GM-31A F(0.2) 0910	G	A											1	1	
9/23/10	1426	GM-58A-0910	G	A				2	1	1	1	3	2	1			
9/23/10	1426	GM-58A F(0.2) 0910	G	A											1	1	
9/23/10	1426	GM-58A-0910-MS	G	A				2									
9/23/10	1426	GM-58A-0910-MSD	G	A				2									

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	9/23/10	1900						
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
[signature]	9/24/10	0915	YES ⊘ NO ○		680-61545	Temps (°C): 3.6, 2.6

TAL8240-680 (1207)

Serial Number 032425

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:

PROJECT REFERENCE: WGK RT.3 Drum Site	PROJECT NO.: 5017210.04	PROJECT LOCATION (STATE):
TAL (LAB) PROJECT MANAGER: GM Rinaldi	P.O. NUMBER: 4503869001	CONTRACT NO.:
CLIENT (SITE) PM: GM Rinaldi	CLIENT PHONE: 314-674-3312	CLIENT FAX: 314-674-8808
CLIENT NAME: Solutia, Inc.	CLIENT E-MAIL: gmrina@solutia.com	
CLIENT ADDRESS: 575 Maryville Center Dr. St. Louis, MO 63146		
COMPANY CONTRACTING THIS WORK (if applicable):		

PAGE 1 OF 1

STANDARD REPORT DELIVERY: X
DATE DUE ______
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE ______
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

REQUIRED ANALYSIS: 8260C 8270C
PRESERVATIVE: none

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED (8260C 8270C)	REMARKS
9/24/10	1430	GM-58A-0910-EB	G	A				2	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Stephen Lowlan	9/24/10	1600						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
Beth A Doughty	9/25/10	0949	YES ○ NO ○		680-61599	Temp 2.8

APPENDIX C

QUALITY ASSURANCE REPORT

THIRD QUARTER 2010
ILLINOIS ROUTE 3 DRUM SITE GROUNDWATER SAMPLING
QUALITY ASSURANCE REPORT
SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

Prepared for:

SOLUTIA INC.
St. Louis, Missouri

Prepared by:

GEOTECHNOLOGY, INC.
St. Louis, Missouri

Geotechnology, Inc. Report No. J017210.04

December 17, 2010

J017210.04

THIRD QUARTER 2010
ILLINOIS ROUTE 3 DRUM SITE GROUNDWATER SAMPLING
QUALITY ASSURANCE REPORT
SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

TABLE OF CONTENTS

J017210.04

THIRD QUARTER 2010
ILLINOIS ROUTE 3 DRUM SITE GROUNDWATER SAMPLING
QUALITY ASSURANCE REPORT
SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

1.0 INTRODUCTION

This Quality Assurance Report presents the findings of a review of analytical data for groundwater samples collected in September of 2010 at the Solutia W.G. Krummrich plant as part of the 3rd Quarter 2010 Illinois Route 3 Drum Site Groundwater Sampling. The samples were collected by Geotechnology, Inc. (Geotechnology) personnel and analyzed by TestAmerica Laboratories located in Savannah, Georgia using USEPA methodologies. Groundwater samples were analyzed for semi-volatile organic compounds (SVOCs) and monitored natural attenuation (MNA) parameters.

Geotechnology subcontracted with the M.J.W. Corporation to conduct third party Level III data validation. One hundred percent of the data was subjected to a data quality review (Level III validation.) The Level III reviews were performed in order to confirm that the analytical data provided by TestAmerica were acceptable in quality for their intended use.

A total of 6 samples (two investigative groundwater samples, one field duplicate, one matrix spike and matrix spike duplicate (MS/MSD) pair, and one equipment blank) were analyzed by TestAmerica. These samples were analyzed as part of Sample Delivery Group (SDG) KOM09 utilizing the following USEPA SW-846 Methods:

- Method 8270 for semi-volatile organic compounds
- Method RSK-175 for dissolved gases (ethane, ethylene and methane)
- Method 6010B for total and dissolved iron and manganese
- Method 325.2 for chloride
- Method 353.2 for nitrogen, nitrate
- Method 375.4 for sulfate
- Method 415.1 for total and dissolved organic carbon
- Method 310.1 for alkalinity and carbon dioxide

Samples were reviewed following procedures outlined in the USEPA National Functional Guidelines for Superfund Organic Methods Data Review (USEPA 2008) and the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004.

The above guidelines provided the criteria to review the data. Additional quantitative criteria are given in the analytical methods. Data was qualified based on the data quality review. Qualifiers assigned indicate data that did not meet acceptance criteria and for which corrective actions were not successful or not performed. The various qualifiers are explained in Tables 1 and 2 below:

Table 1 – Laboratory Data Qualifiers

Lab Qualifier	Definition
U	Indicates the analyte was analyzed for but not detected.
*	LCS, LCSD, MS, MSD, MD or surrogate exceeds the control limit
E	Results exceeded the calibration range.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagged with a D.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
H	Samples was prepped and analyzed beyond the specified holding time.
B	Compound was found in the blank and sample.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration: therefore, control limits are not applicable.

Table 2 – Geotechnology (MJW Corporation) Data Qualifiers

MJW Corp. Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a “tentative identification.”
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Based on the criteria outlined, it is recommended that the results reported for these analyses are accepted for their intended use. Acceptable levels of accuracy, precision, and representativeness (based on MS/MSD, LCS, surrogate compounds and field duplicate results) were achieved for this data set, except where noted in this report. In addition, analytical completeness, defined to be the percentage of analytical results which are judged to be valid, including estimated detect/nondetect (J/UJ) values was 97.4 percent, which meets the completeness of goal of 95 percent.

The data review included evaluation of the following criteria:

Organics

- Receipt condition and sample holding times
- Laboratory method blanks, and field equipment blank samples
- Surrogate spike recoveries
- Laboratory control sample (LCS) recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) sample recoveries and relative percent difference (RPD) values
- Field duplicate results
- Results reported from dilutions
- Internal standard responses
- Mass spectrometer tuning
- Calibration
- Compound identification
- Other problems/documentation

Inorganics

- Receipt condition and sample holding times
- Laboratory method blank
- LCS recoveries
- MS/MSD sample recoveries and matrix duplicate RPD values
- Field duplicate and laboratory duplicate results
- Results report from dilutions

2.0 RECEIPT CONDITION AND SAMPLE HOLDING TIMES

Sample holding time requirements for the analyses performed are presented in the methods and/or in the data review guidelines. Review of the sample collection, extraction and analysis dates involved comparing the chain-of-custody and the laboratory data summary forms for accuracy, consistency, and holding time compliance.

Extractions and/or analyses were completed within the recommended holding time requirements.

The cooler receipt form indicated that the three coolers were received by the laboratory at temperatures within the 4°C $\pm$ 2°C criteria. Samples received were in good condition; therefore, no qualification of data was required.

3.0 LABORATORY METHOD AND EQUIPMENT BLANK SAMPLES

Laboratory method blank samples evaluate the existence and magnitude of contamination problems resulting from laboratory activities. All laboratory method blank samples were analyzed at the method prescribed frequencies. No analytes were detected in the method blank; therefore, no qualification of date was required.

Equipment blank samples are used to assess the effectiveness of equipment decontamination procedures. No analytes were detected in the equipment blank sample.

4.0 SURROGATE SPIKE RECOVERIES

Surrogate compounds are used to evaluate overall laboratory performance for sample preparation efficiency on a per sample basis. All samples analyzed for SVOCs were spiked with surrogate compounds during sample preparation. USEPA National Functional Guidelines for Superfund Organic Methods Data Review state how data is qualified, if surrogate spike recoveries do not meet evaluation criteria. Surrogate recoveries were within evaluation criteria. No qualifications of data were required due to surrogate recoveries.

5.0 LABORATORY CONTROL SAMPLE RECOVERIES

Laboratory control samples (LCS) are analyzed with each analytical batch to assess the accuracy of the analytical process. All LCS recoveries were within evaluation criteria. No qualification of data was required.

6.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) SAMPLES

MS/MSD samples are analyzed to assess the accuracy and precision of the analytical process on an analytical sample in a particular matrix. MS/MSD samples were required to be collected at a frequency of one per 20 investigative samples in accordance with the work plan (one per 20 investigative samples or 5%). Geotechnology submitted one MS/MSD sample set for two investigative samples, meeting the work plan frequency requirement.

No qualifications were made to the data if the MS/MSD percent recoveries were zero due to dilutions or if the Relative Percent Difference (RPD) was the only factor outside of criteria. Also, USEPA National Functional Guidelines for Superfund Organic Methods Data Review (2008) states that organic data does not need qualification based on MS/MSD criteria alone. Therefore, if recoveries were outside evaluation criteria due to matrix interference or abundance of analytes, no qualifiers were assigned unless these analytes had other quality control criteria outside evaluation criteria.

Sample GM-58A-0910 was spiked and analyzed for SVOCs and metals in SDG K0M09. All MS/MSD recoveries were within evaluation criteria. No qualifications of SVOCs and metals data were required.

7.0 FIELD DUPLICATE RESULTS

Field duplicate results are used to evaluate precision of the entire data collection activity, including sampling, analysis and site heterogeneity. When results for both duplicate and sample values are greater than five times the practical quantitation limit (PQL), satisfactory precision is indicated by an RPD less than or equal to 25 percent for aqueous samples. Where one or both of the results of a field duplicate pair are reported at less than five times the PQL, satisfactory precision is indicated if the field duplicate results agree within 2 times the quantitation limit. Field duplicate results that do not meet these criteria may indicate unsatisfactory precision of the results.

One field duplicate sample was collected for the two investigative samples. This satisfies the requirement in the work plan (one per 10 investigative samples or 10 percent). Field duplicate results were within evaluation criteria. No qualifications of data were required.

8.0 INTERNAL STANDARD RESPONSES

Internal standard (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during each analytical run. For the SVOCs, the IS areas must be within -50 to +10% percent of the preceding calibration verification (CV) IS value. Also, the IS retention times must be within 30 seconds of the preceding IS CV retention time.

The internal standards area responses for SVOCs were verified for the data reviews. IS responses met the criteria as described above. No qualifications of data were required.

9.0 RESULTS REPORTED FROM DILUTIONS

Samples GM-31A-0910 and GM-58A-0910 were diluted due to abundance of target analytes. The diluted sample results were reported at the lowest possible reporting limit.

10. MASS SPECTROMETER TUNING

Instrument performance was determined to be satisfactory. No qualifications of data were required.

11.0 CALIBRATION

Percent Relative Standard Deviation (%RSD) is used to indicate the stability of a specific compound response factor over increasing concentration. Percent D (%D) is a measure of the instrument's daily performance. Percent RSD must be <30% and Percent D must be <25%. No qualifications of data were required.

12.0 COMPOUND IDENTIFICATION

Compound identification was determined to be satisfactory. No qualifications of data were required.

13.0 OTHER PROBLEMS/DOCUMENTATION

The analytical testing results for Total Organic Carbon (TOC) and Dissolved Organic Carbon (DOC) were initially rejected because DOC results are greater than the TOC results for the samples, which is not possible. The validator could not establish whether the error occurred in the field filtering or in the laboratory analyses. However, after discussion with Geotechnology regarding the identified issues with the field filters, the MJW Corporation revised their data validation findings with respect to the TOC results. The TOC results are no longer considered as rejected. The sample results qualified as rejected are summarized in the table below.

Sample ID	Parameter	Analyte	Qualification
GM-31A-0910	Inorganics	DOC	R
GM-58A-0910	Inorganics	DOC	R

APPENDIX D

GROUNDWATER ANALYTICAL RESULTS
(WITH DATA REVIEW SHEETS)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 680-61545-1

SDG Number: KOM09

Job Description: WGK Route 3 Drum Site O&M 3Q10/SEP 2010

For:
Solutia Inc.
575 Maryville Centre Dr.
Saint Louis, MO 63141

Attention: Mr. Jerry Rinaldi

Approved for release.
Lidya Gulizia
Project Manager I
10/28/2010 5:30 PM

Lidya Gulizia
Project Manager I
lidya.gulizia@testamericainc.com
10/28/2010

cc: Mr. Duane Kreuger

Savannah Certifications and ID #s: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

Receipt
All samples were received in good condition within temperature requirements.

GC/MS Semi VOA
Method(s) 8270C: The grand mean exception, as outlined in EPA Method 8000B, was applied to the initial calibration (ICAL). This rule states that when one or more compounds in the ICAL fail to meet acceptance criteria, the initial calibration (ICAL) may be used for quantitation if the average %RSD (the grand mean) of all the compounds in the ICAL is less than or equal to 15 %RSD.

Method(s) 8270C: The following sample(s) contained one acid and/or one base surrogate outside acceptance limits: GM-58A-0910 (680-61545-4 MS). The laboratory's SOP allows one acid surrogate and/or one base surrogate to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

No other analytical or quality issues were noted.

GC VOA
No analytical or quality issues were noted.

Metals
Method(s) 6010B: Due to the high concentration of iron, the matrix spike / matrix spike duplicate (MS/MSD) for batch 680-181975 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No other analytical or quality issues were noted.

General Chemistry
Method(s) 415.1: The Dissolved Organic Carbon (DOC) results were greater than the associated Total Organic Carbon (TOC) results in the project samples. The DOC samples were reanalyzed and the reanalysis results confirmed the original laboratory data.

No analytical or quality issues were noted.

Comments
No additional comments.

12/2/10

METHOD SUMMARY

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Description	Lab Location	Method	Preparation Method
Matrix Water			
Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	TAL SAV	SW846 8270C	
Liquid-Liquid Extraction (Continuous)	TAL SAV		SW846 3520C
Dissolved Gases (GC)	TAL SAV	RSK RSK-175	
Metals (ICP)	TAL SAV	SW846 6010B	
Sample Filtration, Field	TAL SAV		FIELD_FLTRD
Preparation, Total Recoverable or Dissolved Metals	TAL SAV		SW846 3005A
Alkalinity	TAL SAV	MCAWW 310.1	
Chloride	TAL SAV	MCAWW 325.2	
Nitrogen, Nitrate-Nitrite	TAL SAV	MCAWW 353.2	
Sulfate	TAL SAV	MCAWW 375.4	
DOC	TAL SAV	MCAWW 415.1	
TOC	TAL SAV	MCAWW 415.1	
Sample Filtration, Field	TAL SAV		FIELD_FLTRD

Lab References:

TAL SAV = TestAmerica Savannah

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

12/2/16

METHOD / ANALYST SUMMARY

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Method	Analyst	Analyst ID
SW846 8270C	Haynes, Carion	CRH
RSK RSK-175	Moncrief, Amy J	AJM
SW846 6010B	Bland, Brian	BCB
MCAWW 310.1	Robinson, Tiffany	TR
MCAWW 325.2	Ross, Jon	JR
MCAWW 353.2	Ross, Jon	JR
MCAWW 375.4	Ross, Jon	JR
MCAWW 415.1	Holmes, Tinita	TH

12/2/10

SAMPLE SUMMARY

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-61545-1	GM-31A-0910	Water	09/23/2010 1250	09/24/2010 0915
680-61545-2FD	GM-31A-0910-AD	Water	09/23/2010 1250	09/24/2010 0915
680-61545-3	GM-31A-F(0.2)-0910	Water	09/23/2010 1250	09/24/2010 0915
680-61545-4	GM-58A-0910	Water	09/23/2010 1426	09/24/2010 0915
680-61545-4MS	GM-58A-0910	Water	09/23/2010 1426	09/24/2010 0915
680-61545-4MSD	GM-58A-0910	Water	09/23/2010 1426	09/24/2010 0915
680-61545-5	GM-58A-F(0.2)-0910	Water	09/23/2010 1426	09/24/2010 0915
680-61599-1EB	GM-58A-0910-EB	Water	09/24/2010 1430	09/25/2010 0949

AS 12/2/10

SAMPLE RESULTS

12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Client Sample ID: **GM-31A-0910**

Lab Sample ID: 680-61545-1
Client Matrix: Water

Date Sampled: 09/23/2010 1250
Date Received: 09/24/2010 0915

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 680-181701		Instrument ID:	MSG
Preparation:	3520C	Prep Batch: 680-181236		Lab File ID:	g3626.d
Dilution:	1.0			Initial Weight/Volume:	980 mL
Date Analyzed:	10/01/2010 1500			Final Weight/Volume:	1 mL
Date Prepared:	09/28/2010 1502			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
1,1'-Biphenyl	10	U	10
2,4-Dichlorophenol	10	U	10
Nitrobenzene	10	U	10
Pentachlorophenol	51	U	51
2,4,6-Trichlorophenol	10	U	10
1-Chloro-3-nitrobenzene	10	U	10
2-Nitrobiphenyl	10	U	10
3-Nitrobiphenyl	10	U	10
3,4-Dichloronitrobenzene	10	U	10
4-Nitrobiphenyl	10	U	10
2-chloronitrobenzene / 4-chloronitrobenzene	28		20
1-chloro-2,4-dinitrobenzene	30		10

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	79		50 - 113
2-Fluorophenol	55		36 - 110
Nitrobenzene-d5	76		45 - 112
Phenol-d5	59		38 - 116
Terphenyl-d14	63		10 - 121
2,4,6-Tribromophenol	76		40 - 139

AS 12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Client Sample ID: **GM-31A-0910-AD**

Lab Sample ID: 680-61545-2FD
Client Matrix: Water

Date Sampled: 09/23/2010 1250
Date Received: 09/24/2010 0915

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 680-181701		Instrument ID:	MSG
Preparation:	3520C	Prep Batch: 680-181236		Lab File ID:	g3627.d
Dilution:	1.0			Initial Weight/Volume:	980 mL
Date Analyzed:	10/01/2010 1528			Final Weight/Volume:	1 mL
Date Prepared:	09/28/2010 1502			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
1,1'-Biphenyl	10	U	10
2,4-Dichlorophenol	10	U	10
Nitrobenzene	10	U	10
Pentachlorophenol	51	U	51
2,4,6-Trichlorophenol	10	U	10
1-Chloro-3-nitrobenzene	10	U	10
2-Nitrobiphenyl	10	U	10
3-Nitrobiphenyl	10	U	10
3,4-Dichloronitrobenzene	10	U	10
4-Nitrobiphenyl	10	U	10
2-chloronitrobenzene / 4-chloronitrobenzene	28		20
1-chloro-2,4-dinitrobenzene	32		10

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	67		50 - 113
2-Fluorophenol	50		36 - 110
Nitrobenzene-d5	59		45 - 112
Phenol-d5	54		38 - 116
Terphenyl-d14	55		10 - 121
2,4,6-Tribromophenol	73		40 - 139

12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Client Sample ID: **GM-58A-0910**

Lab Sample ID: 680-61545-4
Client Matrix: Water

Date Sampled: 09/23/2010 1426
Date Received: 09/24/2010 0915

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 680-181701		Instrument ID:	MSG
Preparation:	3520C	Prep Batch: 680-181236		Lab File ID:	g3628.d
Dilution:	1.0			Initial Weight/Volume:	500 mL
Date Analyzed:	10/01/2010 1555			Final Weight/Volume:	0.5 mL
Date Prepared:	09/28/2010 1502			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
1,1'-Biphenyl	10	U	10
2,4-Dichlorophenol	10	U	10
Nitrobenzene	10	U	10
Pentachlorophenol	50	U	50
2,4,6-Trichlorophenol	10	U	10
1-Chloro-3-nitrobenzene	10	U	10
2-Nitrobiphenyl	10	U	10
3-Nitrobiphenyl	10	U	10
3,4-Dichloronitrobenzene	10	U	10
4-Nitrobiphenyl	10	U	10
2-chloronitrobenzene / 4-chloronitrobenzene	60		20
1-chloro-2,4-dinitrobenzene	10	U	10

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	68		50 - 113
2-Fluorophenol	52		36 - 110
Nitrobenzene-d5	61		45 - 112
Phenol-d5	52		38 - 116
Terphenyl-d14	53		10 - 121
2,4,6-Tribromophenol	75		40 - 139

12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Client Sample ID: **GM-58A-0910-EB**

Lab Sample ID: 680-61599-1EB
Client Matrix: Water

Date Sampled: 09/24/2010 1430
Date Received: 09/25/2010 0949

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 680-181862		Instrument ID:	MSG
Preparation:	3520C	Prep Batch: 680-181236		Lab File ID:	g3634.d
Dilution:	1.0			Initial Weight/Volume:	1030 mL
Date Analyzed:	10/04/2010 1306			Final Weight/Volume:	1 mL
Date Prepared:	09/28/2010 1502			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
1,1'-Biphenyl	9.7	U	9.7
2,4-Dichlorophenol	9.7	U	9.7
Nitrobenzene	9.7	U	9.7
Pentachlorophenol	49	U	49
2,4,6-Trichlorophenol	9.7	U	9.7
1-Chloro-3-nitrobenzene	9.7	U	9.7
2-Nitrobiphenyl	9.7	U	9.7
3-Nitrobiphenyl	9.7	U	9.7
3,4-Dichloronitrobenzene	9.7	U	9.7
4-Nitrobiphenyl	9.7	U	9.7
2-chloronitrobenzene / 4-chloronitrobenzene	19	U	19
1-chloro-2,4-dinitrobenzene	9.7	U	9.7

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	72		50 - 113
2-Fluorophenol	56		36 - 110
Nitrobenzene-d5	63		45 - 112
Phenol-d5	54		38 - 116
Terphenyl-d14	95		10 - 121
2,4,6-Tribromophenol	75		40 - 139

AB 12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Client Sample ID: **GM-31A-0910**

Lab Sample ID: 680-61545-1
Client Matrix: Water

Date Sampled: 09/23/2010 1250
Date Received: 09/24/2010 0915

RSK-175 Dissolved Gases (GC)

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 10/01/2010 1849
Date Prepared:

Analysis Batch: 680-181772

Instrument ID: VGUFID2
Initial Weight/Volume: 17000 uL
Final Weight/Volume: 17 mL
Injection Volume: 1 uL
Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethane	0.35	U	0.35
Ethylene	0.33	U	0.33
Methane	0.71		0.19

AS 12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Client Sample ID: GM-58A-0910

Lab Sample ID: 680-61545-4
Client Matrix: Water

Date Sampled: 09/23/2010 1426
Date Received: 09/24/2010 0915

RSK-175 Dissolved Gases (GC)

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 10/01/2010 1902
Date Prepared:

Analysis Batch: 680-181772

Instrument ID: VGUFID2
Initial Weight/Volume: 17000 uL
Final Weight/Volume: 17 mL
Injection Volume: 1 uL
Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethane	0.35	U	0.35
Ethylene	0.33	U	0.33
Methane	7.0		0.19

AG 12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Client Sample ID: GM-31A-0910

Lab Sample ID: 680-61545-1
Client Matrix: Water

Date Sampled: 09/23/2010 1250
Date Received: 09/24/2010 0915

6010B Metals (ICP)-Total Recoverable

Method:	6010B	Analysis Batch: 680-182142		Instrument ID:	ICPD
Preparation:	3005A	Prep Batch: 680-181975		Lab File ID:	100510.chr
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	10/05/2010 1815			Final Weight/Volume:	50 mL
Date Prepared:	10/05/2010 1233				

Analyte	Result (mg/L)	Qualifier	RL
Iron	45		0.050
Manganese	0.49		0.010

AG 12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Client Sample ID: **GM-31A-F(0.2)-0910**

Lab Sample ID: 680-61545-3
Client Matrix: Water

Date Sampled: 09/23/2010 1250
Date Received: 09/24/2010 0915

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 680-182142		Instrument ID:	ICPD
Preparation:	3005A	Prep Batch: 680-181975		Lab File ID:	100510.chr
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	10/05/2010 1841			Final Weight/Volume:	50 mL
Date Prepared:	10/05/2010 1233				

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	0.050	U	0.050
Manganese, Dissolved	0.38		0.010

AS 12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Client Sample ID: **GM-58A-0910**

Lab Sample ID: 680-61545-4
Client Matrix: Water

Date Sampled: 09/23/2010 1426
Date Received: 09/24/2010 0915

6010B Metals (ICP)-Total Recoverable

Method:	6010B	Analysis Batch: 680-182142		Instrument ID:	ICPD
Preparation:	3005A	Prep Batch: 680-181975		Lab File ID:	100510.chr
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	10/05/2010 1846			Final Weight/Volume:	50 mL
Date Prepared:	10/05/2010 1233				

Analyte	Result (mg/L)	Qualifier	RL
Iron	5.2		0.050
Manganese	1.7		0.010

12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Client Sample ID: **GM-58A-F(0.2)-0910**

Lab Sample ID: 680-61545-5
Client Matrix: Water

Date Sampled: 09/23/2010 1426
Date Received: 09/24/2010 0915

6010B Metals (ICP)-Dissolved

Method: 6010B
Preparation: 3005A
Dilution: 1.0
Date Analyzed: 10/05/2010 1851
Date Prepared: 10/05/2010 1233

Analysis Batch: 680-182142
Prep Batch: 680-181975

Instrument ID: ICPD
Lab File ID: 100510.chr
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	0.050	U	0.050
Manganese, Dissolved	1.8		0.010

AS 12/2/10

General Chemistry

Client Sample ID: **GM-31A-0910**

Lab Sample ID: 680-61545-1
Client Matrix: Water

Date Sampled: 09/23/2010 1250
Date Received: 09/24/2010 0915

Analyte	Result	Qual	Units	RL	Dil	Method
Chloride	22		mg/L	1.0	1.0	325.2
Analysis Batch: 680-182159	Date Analyzed: 10/06/2010 1541					
Nitrate as N	0.83		mg/L	0.050	1.0	353.2
Analysis Batch: 680-181164	Date Analyzed: 09/24/2010 1605					
Sulfate	54		mg/L	25	5.0	375.4
Analysis Batch: 680-181295	Date Analyzed: 09/28/2010 1456					
Total Organic Carbon	2.0		mg/L	1.0	1.0	415.1
Analysis Batch: 680-181644	Date Analyzed: 09/30/2010 1825					

Analyte	Result	Qual	Units	RL	Dil	Method
Alkalinity	440		mg/L	5.0	1.0	310.1
Analysis Batch: 680-181350	Date Analyzed: 09/28/2010 1311					
Carbon Dioxide, Free	32		mg/L	5.0	1.0	310.1
Analysis Batch: 680-181350	Date Analyzed: 09/28/2010 1311					

12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

General Chemistry

Client Sample ID: **GM-31A-F(0.2)-0910**

Lab Sample ID: 680-61545-3
Client Matrix: Water

Date Sampled: 09/23/2010 1250
Date Received: 09/24/2010 0915

Analyte	Result	Qual	Units	RL	Dil	Method
Dissolved Organic Carbon-Dissolved	74	"R"	mg/L	1.0	1.0	415.1

Analysis Batch: 680-181665 Date Analyzed: 09/30/2010 1253

12/2/10

General Chemistry

Client Sample ID: GM-58A-0910

Lab Sample ID: 680-61545-4
Client Matrix: Water

Date Sampled: 09/23/2010 1426
Date Received: 09/24/2010 0915

Analyte	Result	Qual	Units	RL	Dil	Method
Chloride	100		mg/L	2.0	2.0	325.2
Analysis Batch: 680-182159	Date Analyzed: 10/06/2010 1554					
Nitrate as N	0.050	U	mg/L	0.050	1.0	353.2
Analysis Batch: 680-181164	Date Analyzed: 09/24/2010 1605					
Sulfate	190		mg/L	50	10	375.4
Analysis Batch: 680-181295	Date Analyzed: 09/28/2010 1429					
Total Organic Carbon	3.6		mg/L	1.0	1.0	415.1
Analysis Batch: 680-181644	Date Analyzed: 09/30/2010 1841					

Analyte	Result	Qual	Units	RL	Dil	Method
Alkalinity	480		mg/L	5.0	1.0	310.1
Analysis Batch: 680-181350	Date Analyzed: 09/28/2010 1319					
Carbon Dioxide, Free	31		mg/L	5.0	1.0	310.1
Analysis Batch: 680-181350	Date Analyzed: 09/28/2010 1319					

12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

General Chemistry

Client Sample ID: **GM-58A-F(0.2)-0910**

Lab Sample ID: 680-61545-5
Client Matrix: Water

Date Sampled: 09/23/2010 1426
Date Received: 09/24/2010 0915

Analyte	Result	Qual	Units	RL	Dil	Method
Dissolved Organic Carbon-Dissolved	77	" R "	mg/L	1.0	1.0	415.1

Analysis Batch: 680-181665 Date Analyzed: 09/30/2010 1253

12/2/10

DATA REPORTING QUALIFIERS

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	X	Surrogate is outside control limits
GC VOA		
	U	Indicates the analyte was analyzed for but not detected.
Metals		
	U	Indicates the analyte was analyzed for but not detected.
General Chemistry		
	U	Indicates the analyte was analyzed for but not detected.

12/21/10

QUALITY CONTROL RESULTS

12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 680-181236					
LCS 680-181236/10-A	Lab Control Sample	T	Water	3520C	
LCS 680-181236/17-A	Lab Control Sample	T	Water	3520C	
MB 680-181236/9-A	Method Blank	T	Water	3520C	
680-61545-1	GM-31A-0910	T	Water	3520C	
680-61545-2FD	GM-31A-0910-AD	T	Water	3520C	
680-61545-4	GM-58A-0910	T	Water	3520C	
680-61545-4MS	Matrix Spike	T	Water	3520C	
680-61545-4MSD	Matrix Spike Duplicate	T	Water	3520C	
680-61599-1EB	GM-58A-0910-EB	T	Water	3520C	
Analysis Batch:680-181701					
LCS 680-181236/10-A	Lab Control Sample	T	Water	8270C	680-181236
LCS 680-181236/17-A	Lab Control Sample	T	Water	8270C	680-181236
MB 680-181236/9-A	Method Blank	T	Water	8270C	680-181236
680-61545-1	GM-31A-0910	T	Water	8270C	680-181236
680-61545-2FD	GM-31A-0910-AD	T	Water	8270C	680-181236
680-61545-4	GM-58A-0910	T	Water	8270C	680-181236
680-61545-4MS	Matrix Spike	T	Water	8270C	680-181236
680-61545-4MSD	Matrix Spike Duplicate	T	Water	8270C	680-181236
680-61599-1EB	GM-58A-0910-EB	T	Water	8270C	680-181236
Analysis Batch:680-181862					
680-61599-1EB	GM-58A-0910-EB	T	Water	8270C	680-181236

Report Basis
T = Total

GC VOA

Analysis Batch:680-181772					
LCS 680-181772/23	Lab Control Sample	T	Water	RSK-175	
LCSD 680-181772/25	Lab Control Sample Duplicate	T	Water	RSK-175	
MB 680-181772/24	Method Blank	T	Water	RSK-175	
680-61545-1	GM-31A-0910	T	Water	RSK-175	
680-61545-4	GM-58A-0910	T	Water	RSK-175	

Report Basis
T = Total

11/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 680-181975					
LCS 680-181975/11-A	Lab Control Sample	R	Water	3005A	
MB 680-181975/10-A	Method Blank	R	Water	3005A	
680-61545-1	GM-31A-0910	R	Water	3005A	
680-61545-3	GM-31A-F(0.2)-0910	D	Water	3005A	
680-61545-4	GM-58A-0910	R	Water	3005A	
680-61545-5	GM-58A-F(0.2)-0910	D	Water	3005A	
Analysis Batch:680-182142					
LCS 680-181975/11-A	Lab Control Sample	R	Water	6010B	680-181975
MB 680-181975/10-A	Method Blank	R	Water	6010B	680-181975
680-61545-1	GM-31A-0910	R	Water	6010B	680-181975
680-61545-3	GM-31A-F(0.2)-0910	D	Water	6010B	680-181975
680-61545-4	GM-58A-0910	R	Water	6010B	680-181975
680-61545-5	GM-58A-F(0.2)-0910	D	Water	6010B	680-181975

Report Basis
D = Dissolved
R = Total Recoverable

12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:680-181164					
LCS 680-181164/2	Lab Control Sample	T	Water	353.2	
MB 680-181164/1	Method Blank	T	Water	353.2	
680-61545-1	GM-31A-0910	T	Water	353.2	
680-61545-4	GM-58A-0910	T	Water	353.2	
Analysis Batch:680-181295					
LCS 680-181295/2	Lab Control Sample	T	Water	375.4	
MB 680-181295/1	Method Blank	T	Water	375.4	
680-61545-1	GM-31A-0910	T	Water	375.4	
680-61545-4	GM-58A-0910	T	Water	375.4	
Analysis Batch:680-181350					
LCS 680-181350/6	Lab Control Sample	T	Water	310.1	
LCSD 680-181350/21	Lab Control Sample Duplicate	T	Water	310.1	
MB 680-181350/5	Method Blank	T	Water	310.1	
680-61545-1	GM-31A-0910	T	Water	310.1	
680-61545-4	GM-58A-0910	T	Water	310.1	
Analysis Batch:680-181644					
LCS 680-181644/4	Lab Control Sample	T	Water	415.1	
MB 680-181644/2	Method Blank	T	Water	415.1	
680-61545-1	GM-31A-0910	T	Water	415.1	
680-61545-4	GM-58A-0910	T	Water	415.1	
Analysis Batch:680-181665					
LCS 680-181663/2-A	Lab Control Sample	D	Water	415.1	
MB 680-181663/1-A	Method Blank	D	Water	415.1	
680-61545-3	GM-31A-F(0.2)-0910	D	Water	415.1	
680-61545-3DU	Duplicate	D	Water	415.1	
680-61545-5	GM-58A-F(0.2)-0910	D	Water	415.1	
Analysis Batch:680-182159					
LCS 680-182159/2	Lab Control Sample	T	Water	325.2	
MB 680-182159/11	Method Blank	T	Water	325.2	
680-61545-1	GM-31A-0910	T	Water	325.2	
680-61545-1MS	Matrix Spike	T	Water	325.2	
680-61545-1MSD	Matrix Spike Duplicate	T	Water	325.2	
680-61545-4	GM-58A-0910	T	Water	325.2	

Report Basis
D = Dissolved
T = Total

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Surrogate Recovery Report

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	FBP %Rec	2FP %Rec	NBZ %Rec	PHL %Rec	TPH %Rec	TBP %Rec
680-61545-1	GM-31A-0910	79	55	76	59	63	76
680-61545-2	GM-31A-0910-AD	67	50	59	54	55	73
680-61545-4	GM-58A-0910	68	52	61	52	53	75
680-61599-1	GM-58A-0910-EB	72	56	63	54	95	75
MB 680-181236/9-A		56	46	52	47	81	52
LCS 680-181236/10-A		77	55	73	65	91	83
LCS 680-181236/17-A		60	53	65	55	96	68
680-61545-4 MS	GM-58A-0910 MS	60	42	57	53	63	68
680-61545-4 MS	GM-58A-0910 MS	47X	40	50	40	73	59
680-61545-4 MSD	GM-58A-0910 MSD	70	53	67	65	73	80
680-61545-4 MSD	GM-58A-0910 MSD	56	49	63	56	70	64

Surrogate	Acceptance Limits
FBP = 2-Fluorobiphenyl	50-113
2FP = 2-Fluorophenol	36-110
NBZ = Nitrobenzene-d5	45-112
PHL = Phenol-d5	38-116
TPH = Terphenyl-d14	10-121
TBP = 2,4,6-Tribromophenol	40-139

12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Method Blank - Batch: 680-181236

Method: 8270C
Preparation: 3520C

Lab Sample ID:	MB 680-181236/9-A	Analysis Batch:	680-181701	Instrument ID:	MSG
Client Matrix:	Water	Prep Batch:	680-181236	Lab File ID:	g3621.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	10/01/2010 1245			Final Weight/Volume:	1 mL
Date Prepared:	09/28/2010 1502			Injection Volume:	1 uL

Analyte	Result	Qual	RL
1,1'-Biphenyl	10	U	10
2,4-Dichlorophenol	10	U	10
Nitrobenzene	10	U	10
Pentachlorophenol	50	U	50
2,4,6-Trichlorophenol	10	U	10
1-Chloro-3-nitrobenzene	10	U	10
2-Nitrobiphenyl	10	U	10
3-Nitrobiphenyl	10	U	10
3,4-Dichloronitrobenzene	10	U	10
4-Nitrobiphenyl	10	U	10
2-chloronitrobenzene / 4-chloronitrobenzene	20	U	20
1-chloro-2,4-dinitrobenzene	10	U	10

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	56	50 - 113
2-Fluorophenol	46	36 - 110
Nitrobenzene-d5	52	45 - 112
Phenol-d5	47	38 - 116
Terphenyl-d14	81	10 - 121
2,4,6-Tribromophenol	52	40 - 139

RLS 12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Lab Control Sample - Batch: 680-181236

Method: 8270C
Preparation: 3520C

Lab Sample ID: LCS 680-181236/10-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/01/2010 1312
Date Prepared: 09/28/2010 1502

Analysis Batch: 680-181701
Prep Batch: 680-181236
Units: ug/L

Instrument ID: MSG
Lab File ID: g3622.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1'-Biphenyl	100	72.7	73	47 - 112	
2,4-Dichlorophenol	100	69.2	69	46 - 115	
Nitrobenzene	100	65.9	66	46 - 110	
Pentachlorophenol	100	108	108	37 - 132	
2,4,6-Trichlorophenol	100	72.8	73	46 - 120	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	77	50 - 113
2-Fluorophenol	55	36 - 110
Nitrobenzene-d5	73	45 - 112
Phenol-d5	65	38 - 116
Terphenyl-d14	91	10 - 121
2,4,6-Tribromophenol	83	40 - 139

Lab Control Sample - Batch: 680-181236

Method: 8270C
Preparation: 3520C

Lab Sample ID: LCS 680-181236/17-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/01/2010 1339
Date Prepared: 09/28/2010 1502

Analysis Batch: 680-181701
Prep Batch: 680-181236
Units: ug/L

Instrument ID: MSG
Lab File ID: g3623.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1-Chloro-3-nitrobenzene	100	77.3	77	10 - 130	
2-Nitrobiphenyl	100	84.0	84	10 - 130	
3-Nitrobiphenyl	100	96.4	96	10 - 130	
3,4-Dichloronitrobenzene	100	76.3	76	10 - 130	
4-Nitrobiphenyl	100	99.5	100	10 - 130	
2-chloronitrobenzene / 4-chloronitrobenzene	200	157	79	10 - 130	
1-chloro-2,4-dinitrobenzene	100	89.6	90	10 - 130	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	60	50 - 113
2-Fluorophenol	53	36 - 110
Nitrobenzene-d5	65	45 - 112
Phenol-d5	55	38 - 116
Terphenyl-d14	96	10 - 121

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	68	40 - 139

AS 12/21/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-181236

Method: 8270C
Preparation: 3520C

MS Lab Sample ID:	680-61545-4	Analysis Batch:	680-181701	Instrument ID:	MSG
Client Matrix:	Water	Prep Batch:	680-181236	Lab File ID:	g3630.d
Dilution:	1.0			Initial Weight/Volume:	500 mL
Date Analyzed:	10/01/2010 1649			Final Weight/Volume:	0.5 mL
Date Prepared:	09/28/2010 1502			Injection Volume:	1 uL

MSD Lab Sample ID:	680-61545-4	Analysis Batch:	680-181701	Instrument ID:	MSG
Client Matrix:	Water	Prep Batch:	680-181236	Lab File ID:	g3631.d
Dilution:	1.0			Initial Weight/Volume:	500 mL
Date Analyzed:	10/01/2010 1716			Final Weight/Volume:	0.5 mL
Date Prepared:	09/28/2010 1502			Injection Volume:	1 uL

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1'-Biphenyl	61	72	47 - 112	16	40		
2,4-Dichlorophenol	60	70	46 - 115	15	40		
Nitrobenzene	56	67	46 - 110	19	40		
Pentachlorophenol	108	120	37 - 132	11	40		
2,4,6-Trichlorophenol	64	78	46 - 120	20	40		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	60	70	50 - 113
2-Fluorophenol	42	53	36 - 110
Nitrobenzene-d5	57	67	45 - 112
Phenol-d5	53	65	38 - 116
Terphenyl-d14	63	73	10 - 121
2,4,6-Tribromophenol	68	80	40 - 139

12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-181236

Method: 8270C
Preparation: 3520C

MS Lab Sample ID:	680-61545-4	Analysis Batch:	680-181701	Instrument ID:	MSG
Client Matrix:	Water	Prep Batch:	680-181236	Lab File ID:	g3632.d
Dilution:	1.0			Initial Weight/Volume:	500 mL
Date Analyzed:	10/01/2010 1743			Final Weight/Volume:	0.5 mL
Date Prepared:	09/28/2010 1502			Injection Volume:	1 uL

MSD Lab Sample ID:	680-61545-4	Analysis Batch:	680-181701	Instrument ID:	MSG
Client Matrix:	Water	Prep Batch:	680-181236	Lab File ID:	g3633.d
Dilution:	1.0			Initial Weight/Volume:	500 mL
Date Analyzed:	10/01/2010 1810			Final Weight/Volume:	0.5 mL
Date Prepared:	09/28/2010 1502			Injection Volume:	1 uL

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1-Chloro-3-nitrobenzene	63	76	10 - 130	20	40		
2-Nitrobiphenyl	76	80	10 - 130	4	40		
3-Nitrobiphenyl	84	86	10 - 130	3	40		
3,4-Dichloronitrobenzene	65	74	10 - 130	13	40		
4-Nitrobiphenyl	85	88	10 - 130	4	40		
2-chloronitrobenzene / 4-chloronitrobenzene	58	79	10 - 130	22	40		
1-chloro-2,4-dinitrobenzene	81	91	10 - 130	12	30		

Surrogate	MS % Rec		MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	47	X	56	50 - 113
2-Fluorophenol	40		49	36 - 110
Nitrobenzene-d5	50		63	45 - 112
Phenol-d5	40		56	38 - 116
Terphenyl-d14	73		70	10 - 121
2,4,6-Tribromophenol	59		64	40 - 139

12/8/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Method Blank - Batch: 680-181772

Method: RSK-175
Preparation: N/A

Lab Sample ID: MB 680-181772/24
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/01/2010 1228
Date Prepared: N/A

Analysis Batch: 680-181772
Prep Batch: N/A
Units: ug/L

Instrument ID: VGUFID2
Lab File ID: UQ907.D
Initial Weight/Volume: 17000 uL
Final Weight/Volume: 17 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Ethane	0.35	U	0.35
Ethylene	0.33	U	0.33
Methane	0.19	U	0.19

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 680-181772

Method: RSK-175
Preparation: N/A

LCS Lab Sample ID: LCS 680-181772/23
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/01/2010 1202
Date Prepared: N/A

Analysis Batch: 680-181772
Prep Batch: N/A
Units: ug/L

Instrument ID: VGUFID2
Lab File ID: UQ905.D
Initial Weight/Volume: 17000 uL
Final Weight/Volume: 17 mL
Injection Volume: 1 uL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 680-181772/25
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/01/2010 1928
Date Prepared: N/A

Analysis Batch: 680-181772
Prep Batch: N/A
Units: ug/L

Instrument ID: VGUFID2
Lab File ID: UQ909.D
Initial Weight/Volume: 17000 uL
Final Weight/Volume: 17 mL
Injection Volume: 1 uL
Column ID: PRIMARY

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Ethane	105	104	75 - 125	1	30		
Ethylene	103	98	75 - 125	5	30		
Methane	103	101	75 - 125	2	30		

12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Method Blank - Batch: 680-181975

Method: 6010B
Preparation: 3005A
Total Recoverable

Lab Sample ID: MB 680-181975/10-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/05/2010 1728
Date Prepared: 10/05/2010 1233

Analysis Batch: 680-182142
Prep Batch: 680-181975
Units: mg/L

Instrument ID: ICPD
Lab File ID: 100510.chr
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Iron	0.050	U	0.050
Iron, Dissolved	0.050	U	0.050
Manganese	0.010	U	0.010
Manganese, Dissolved	0.010	U	0.010

Lab Control Sample - Batch: 680-181975

Method: 6010B
Preparation: 3005A
Total Recoverable

Lab Sample ID: LCS 680-181975/11-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/05/2010 1733
Date Prepared: 10/05/2010 1233

Analysis Batch: 680-182142
Prep Batch: 680-181975
Units: mg/L

Instrument ID: ICPD
Lab File ID: 100510.chr
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Iron	1.00	1.03	103	75 - 125	
Iron, Dissolved	1.00	1.03	103	75 - 125	
Manganese	0.500	0.527	105	75 - 125	
Manganese, Dissolved	0.500	0.527	105	75 - 125	

AG 12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Method Blank - Batch: 680-181350

Method: 310.1
Preparation: N/A

Lab Sample ID: MB 680-181350/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/28/2010 1130
Date Prepared: N/A

Analysis Batch: 680-181350
Prep Batch: N/A
Units: mg/L

Instrument ID: MANTECH
Lab File ID: alk092810b.TXT
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Alkalinity	5.0	U	5.0
Carbon Dioxide, Free	5.0	U	5.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 680-181350

Method: 310.1
Preparation: N/A

LCS Lab Sample ID: LCS 680-181350/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/28/2010 1140
Date Prepared: N/A

Analysis Batch: 680-181350
Prep Batch: N/A
Units: mg/L

Instrument ID: MANTECH
Lab File ID: alk092810b.TXT
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

LCSD Lab Sample ID: LCSD 680-181350/21
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/28/2010 1407
Date Prepared: N/A

Analysis Batch: 680-181350
Prep Batch: N/A
Units: mg/L

Instrument ID: MANTECH
Lab File ID: alk092810b.TXT
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Alkalinity	92	87	80 - 120	6	30		

AG 10/12/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Method Blank - Batch: 680-182159

Method: 325.2
Preparation: N/A

Lab Sample ID: MB 680-182159/11
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/06/2010 1522
Date Prepared: N/A

Analysis Batch: 680-182159
Prep Batch: N/A
Units: mg/L

Instrument ID: KONELAB1
Lab File ID: KONE11006101CLB.xls
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Result	Qual	RL
Chloride	1.0	U	1.0

Lab Control Sample - Batch: 680-182159

Method: 325.2
Preparation: N/A

Lab Sample ID: LCS 680-182159/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/06/2010 1514
Date Prepared: N/A

Analysis Batch: 680-182159
Prep Batch: N/A
Units: mg/L

Instrument ID: KONELAB1
Lab File ID: KONE11006101CLB.xls
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride	50.0	49.2	98	85 - 115	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-182159

Method: 325.2
Preparation: N/A

MS Lab Sample ID: 680-61545-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/06/2010 1514
Date Prepared: N/A

Analysis Batch: 680-182159
Prep Batch: N/A

Instrument ID: KONELAB1
Lab File ID: KONE11006101CLB.xls
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 680-61545-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/06/2010 1514
Date Prepared: N/A

Analysis Batch: 680-182159
Prep Batch: N/A

Instrument ID: KONELAB1
Lab File ID: KONE11006101CLB.xls
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Chloride	94	95	85 - 115	0	30		

12/13/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Method Blank - Batch: 680-181164

Method: 353.2
Preparation: N/A

Lab Sample ID: MB 680-181164/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/24/2010 1605
Date Prepared: N/A

Analysis Batch: 680-181164
Prep Batch: N/A
Units: mg/L

Instrument ID: Latchat 2
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Result	Qual	RL
Nitrate as N	0.050	U	0.050
Nitrate Nitrite as N	0.050	U	0.050
Nitrite as N	0.050	U	0.050

Lab Control Sample - Batch: 680-181164

Method: 353.2
Preparation: N/A

Lab Sample ID: LCS 680-181164/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/24/2010 1605
Date Prepared: N/A

Analysis Batch: 680-181164
Prep Batch: N/A
Units: mg/L

Instrument ID: Latchat 2
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N	0.500	0.500	100		
Nitrate Nitrite as N	1.00	1.00	100	90 - 110	
Nitrite as N	0.500	0.501	100	90 - 110	

12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Method Blank - Batch: 680-181295

Method: 375.4
Preparation: N/A

Lab Sample ID: MB 680-181295/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/28/2010 1351
Date Prepared: N/A

Analysis Batch: 680-181295
Prep Batch: N/A
Units: mg/L

Instrument ID: KONELAB1
Lab File ID: KONE10928101SO4.xls
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Result	Qual	RL
Sulfate	5.0	U	5.0

Lab Control Sample - Batch: 680-181295

Method: 375.4
Preparation: N/A

Lab Sample ID: LCS 680-181295/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/28/2010 1351
Date Prepared: N/A

Analysis Batch: 680-181295
Prep Batch: N/A
Units: mg/L

Instrument ID: KONELAB1
Lab File ID: KONE10928101SO4.xls
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Sulfate	20.0	21.4	107	75 - 125	

AG 9/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Method Blank - Batch: 680-181644

Method: 415.1
Preparation: N/A

Lab Sample ID: MB 680-181644/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/30/2010 1303
Date Prepared: N/A

Analysis Batch: 680-181644
Prep Batch: N/A
Units: mg/L

Instrument ID: TOC3
Lab File ID: TOC093010.txt
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Total Organic Carbon	1.0	U	1.0

Lab Control Sample - Batch: 680-181644

Method: 415.1
Preparation: N/A

Lab Sample ID: LCS 680-181644/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/30/2010 1334
Date Prepared: N/A

Analysis Batch: 680-181644
Prep Batch: N/A
Units: mg/L

Instrument ID: TOC3
Lab File ID: TOC093010.txt
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	20.0	20.0	100	80 - 120	

12/2/10

Client: Solutia Inc.

Job Number: 680-61545-1
Sdg Number: KOM09

Method Blank - Batch: 680-181665

Method: 415.1
Preparation: N/A

Lab Sample ID: MB 680-181663/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/30/2010 1253
Date Prepared: N/A

Analysis Batch: 680-181665
Prep Batch: N/A
Units: mg/L

Instrument ID: TOC3
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Dissolved Organic Carbon-Dissolved	1.0	U	1.0

Lab Control Sample - Batch: 680-181665

Method: 415.1
Preparation: N/A

Lab Sample ID: LCS 680-181663/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/30/2010 1253
Date Prepared: N/A

Analysis Batch: 680-181665
Prep Batch: N/A
Units: mg/L

Instrument ID: TOC3
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 25 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Dissolved Organic Carbon-Dissolved	20.0	20.0	100	80 - 120	

Duplicate - Batch: 680-181665

Method: 415.1
Preparation: N/A

Lab Sample ID: 680-61545-3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 09/30/2010 1253
Date Prepared: N/A

Analysis Batch: 680-181665
Prep Batch: N/A
Units: mg/L

Instrument ID: TOC3
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 25 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Dissolved Organic Carbon-Dissolved	74	73.3	1	30	

2/2/10

9/24/10

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
WGK RI 3 Drum Site	JC17210.04	
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
GM Rinaldi	4503869001	
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
GM Rinaldi	314-674-3312	314-674-8808
CLIENT NAME	CLIENT E-MAIL	
Solutia, INC.	gmrina@solutia.com	
CLIENT ADDRESS		
575 Maryville Center Dr. St. Louis, MO 63146		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ⊗
DATE DUE
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	MATRIX: COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	REQUIRED ANALYSIS: NUMBER OF CONTAINERS SUBMITTED — SVOC 8270C	Total Fe/Mn 6010B	Alkalinity 310.1	Chloride 325.3 Sulfate 375.4	Methane Ethane Ethene RSK 175	Nitrate 353.2	TOC 415.1	Diss. Fe/Mn 6010B	DOC 415.1	REMARKS
		PRESERVATIVE						none	HNO3			HCl					
9/23/10	1250	GM-31A 0910	G	A				2	1	1	1	3	2	1			
9/23/10	1250	GM-31A 0910 AD	G	A				2									
9/23/10	1250	GM-31A F(0.2) 0910	G	A											1	1	
9/23/10	1426	GM-58A-0910	G	A				2	1	1	1	3	2	1			
9/23/10	1426	GM-58A F(0.2) 0910	G	A											1	1	
9/23/10	1426	GM-58A-0910-MS	G	A				2									
9/23/10	1426	GM-58A-0910-MSD	G	A				2									

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	9/23/10	1900						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT YES ⊗ NO ○	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
[signature]	9/24/10	0915			680-61545	Temps (°C): 3.6, 2.6

TAL8240-680 (1207)

Serial Number 032425

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
WGK RI.3 Drum Site	50 17216.04	
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
GM Rinaldi	450 3869 0001	
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
GM Rinaldi	314-674-3312	314-674-8808
CLIENT NAME	CLIENT E-MAIL	
Solutia, Inc.	gmrinc@Solutia.com	
CLIENT ADDRESS		
575 Maryville Center Dr. St. Louis, MO 63146		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ☒
DATE DUE
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	MATRIX: COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX: AQUEOUS (WATER)	MATRIX: SOLID OR SEMISOLID	MATRIX: AIR	MATRIX: NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	REQUIRED ANALYSIS: 8260C 8270C	REQUIRED ANALYSIS: NONE PRESERVATIVE	REMARKS
9/24/10	1430	GM-58A-0910-EB	G	N				2		

NUMBER OF CONTAINERS SUBMITTED

Page 41 of 43

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Stephen Lowman	9/24/10	1600						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
	9/25/10	0949	YES ○ NO ○		680-61599	Temp 2.8

TAL 8240-680 (1207)

Login Sample Receipt Check List

Client: Solutia Inc.

Job Number: 680-61545-1
SDG Number: KOM09

Login Number: 61545
Creator: Hornsby, Jess
List Number: 1

List Source: TestAmerica Savannah

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

12/2/10

Login Sample Receipt Check List

Client: Solutia Inc.

Job Number: 680-61545-1
SDG Number: KOM09

Login Number: 61599
Creator: Daughtry, Beth
List Number: 1

List Source: TestAmerica Savannah

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	

12/2/10

MJW CORPORATION
Radiation Consulting Professionals

December 14, 2010

Mr. Duane T. Kreuger
Geotechnology, Inc.
11816 Lackland Road Suite 150
St. Louis, MO63146

Dear Mr. Kreuger:

As per your request I have taken another look at the Total Organic and Dissolved Organic data for SDG's KOM09 and KPS060. I have reviewed the additional data that you supplied December 13, 2010. This data includes tests for the field filtering apparatus. The test results show that the 0.2 micron filters used in the field leached dissolved organic carbon into the samples. Based on this new data I have removed the rejection qualifiers on all samples of Total Organic Carbon. However, the rejection qualifiers are still attached to all samples of Dissolved Organic Carbon. I have included the corrected pages in this report. Please replace your existing pages with these revised pages.

If you have any questions concerning this data validation report, please contact me at 585-344-7197.

Very truly yours,

MJW Corporation Inc.

Annette Guilds

Annette Guilds
Senior Scientist

CC: David Dooley
2010-1914 File

University Park, 1900 Sweet Home Road
Amherst, NY 14228-3359
Voice: (716) 631.8291 Fax: (716) 631.5631 Toll Free: 1 (888) MJW.CORP www.mjwcorp.com

MJW CORPORATION
Radiation Consulting Professionals

November 23, 2010

Mr. Duane T. Kreuger
Geotechnology, Inc.
11816 Lackland Road Suite 150
St. Louis, MO63146

Dear Mr. Kreuger:

The data reported by Test America Laboratories under SDG KOM09 has been reviewed for quality assurance validation. Data was reported for Volatiles (dissolved gases), Semi-Volatiles, ICP Metals (total and dissolved), Chloride, Nitrate, Sulfate, Organic Carbon (total and dissolved), Alkalinity, and Carbon Dioxide for 8 samples as requested by Geotechnology, Inc. The 8 samples listed below were validated by MJW. The data in this report has either been approved for use, approved with qualification, or rejected.

- GM-31A-0910 (Lab ID: 680-61545-1)
- GM-31A-0910 AD (Lab ID: 680-61545-2 FD)
- GM-31A-F(0.2)-0910 (Lab ID: 680-61545-3)
- GM-58A-0910 (Lab ID: 680-61545-4)
- GM-58A-0910-MS (Lab ID: 680-61545-4 MS)
- GM-58A-0910-MSD (Lab ID: 680-61545-4 MSD)
- GM-58A-F(0.2)-0910 (Lab ID: 680-61545-5)
- GM-58A-0910-EB (Lab ID: 680-61599-1EB)

If you have any questions concerning this data validation report, please contact me at 585-344-7197.

Very truly yours,

MJW Corporation Inc.

Annette Guilds
Senior Scientist

Approved by:

David A. Dooley, Ph.D., CHP
President, MJW Corporation Inc.

University Park, 1900 Sweet Home Road
Amherst, NY 14228-3359
Voice: (716) 631.8291 Fax: (716) 631.5631 Toll Free: 1 (888) MJW.CORP www.mjwcorp.com

Summary Data Qualifiers

Summary of Sample Data Qualifiers

SDG # KOM09 Site Name Solutia W.G. Krummrich Plant (Drum Site)

Client ID	Lab ID	Matrix	DOC				
GM-31A-0910	680-61545&3	Water	R				
GM-38A-0910	680-61545 5	Water	R				

12/14/10

Data Outlier Forms

Total and Dissolved Analyses

Sample	Analyte	Total Amt (mg/L)	Dissolved Amt (mg/L)	Qualifier
GM-31A-0910	Iron	45.00	0.05	none
GM-31A-0910	Manganese	0.490	0.38	none
GM-58A-0910	Iron	5.20	0.05	none
GM-58A-0910	Manganese	1.700	1.80	none
GM-31A-0910	DOC	2.00	74.0	R
GM-58A-0910	DOC	3.600	77.0	R

Data Package: KOM09

Date: 12/14/2010

12/14/10

DVP-4 Attachment 5

CLP DATA ASSESSMENT

Functional Guidelines for Evaluating Organic Analysis

CASE NO.: ___________ SDG NO.: KOM09 LABORATORY: Test America
SITE: Solutia W.G. Krummrich Plant (Drum Site)

DATA ASSESSMENT

The current SOP No. HW-6 (Revision 11), June 1996 for CLP Organics Review and Preliminary Review has been applied.

All data were found to be valid and acceptable except those analytes that have been rejected, "R" (unusable). Due to various QC problems some analytes may have been qualified with a "J" (estimated), "N" (presumptive evidence for the presence of the material), "U" (non-detect), or "JN" (presumptive evidence for the presence of the material at an estimated value) flag. All action is detailed on the attached sheets.

The "R" flag means that the associated value is unusable. In other words, significant data bias is evident and the reported analyte concentration is unreliable.

Reviewer's Signature: [signature] Date: 11/23/2010

MJW Approval: [signature] Date: 11/23/2010

1. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detects (sample quantitation limits) will be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

The following action was taken in the samples and analytes shown due to excessive holding time.

No action necessary.

2. SURROGATES:

All samples are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured surrogate concentrations were outside contract specifications, qualifications were applied to the samples and analytes as shown below.

No action necessary.

3. MATRIX SPIKE/SPIKE DUPLICATE, MS/MSD:

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD may be used in conjunction with other QC criteria for additional qualification of data.

No action necessary.

4. BLANK CONTAMINATION:

Quality assurance (QA) blanks, i.e., method, trip, field, or rinse blanks are prepared to identify any contamination, which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. If the concentration of the analyte is less than 5 times the blank contaminant level (10 times for common contaminants), the analytes are qualified as non-detects, "U". The following analytes in the sample shown were qualified with "U" for these reasons:

A) Method blank contamination:

No action necessary.

B) Field or rinse blank contamination:

No action necessary.

C) Trip blank contamination:

No action necessary.

5. MASS SPECTROMETER TUNING:

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is (BFB) Bromofluorobenzene and for semi-volatiles Decafluorotriphenyl-phosphine (DFTPP).

If the mass calibration is in error, all associated data will be classified as unusable "R".

No action necessary.

6. CALIBRATION:

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

A) Response Factor GC/MS:

The response factor measures the instrument's response to specific chemical compounds. The response factor for the Target Compound List (TCL) must be ≥ 0.05 in both initial and continuing calibrations. A value < 0.05 indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound will be rejected "R".

No action necessary.

7. CALIBRATION:

B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be < 30% and %D must be < 25%. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria, non-detects data may be qualified "R".

For the PEST/PCB fraction, if %RSD exceeds 20% for all analytes except for the two surrogates (which must not exceed 30% RSD), qualify all associated positive results "J" and non-detects "UJ".

The following analytes in the sample shown were qualified for %RSD and %D:

Initial calibration-BNA's: Some analytes have %D>30. These analytes are not required for this data package so no samples have been qualified.

Continuing calibration-BNA's: Some analytes have %D>25. These analytes are not required for this data package so no samples have been qualified.

8. INTERNAL STANDARDS PERFORMANCE GC/MS:

Internal standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-50% to +100%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than ±30 seconds from the associated continuing calibration standard. If the area count is outside the (-50% to +100%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 30 seconds, the reviewer will use professional judgment to determine either partial or total rejection of the data for that sample fraction.

No action necessary.

9. COMPOUND IDENTIFICATION:

A) Volatile and Semi-Volatile Fractions:

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within ± 0.06 RRT units of the standard compound and have an ion spectra which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound. For the tentatively identified compounds (TIC) the ion spectra must match accurately. In the cases where there is not an adequate ion spectrum match, the laboratory may have provided false positive identifications.

No action necessary.

B) Pesticide Fraction:

The retention times of reported compounds must fall within the calculated retention time windows for the two chromatographic columns and a GC/MS confirmation is required if the concentration exceeds 10ng/ml in the final sample extract.

N/A

10. CONTRACT PROBLEMS NON-COMPLIANCE: None

11. FIELD DOCUMENTATION: None

12. OTHER PROBLEMS: None

13. This package contains reextractions, reanalyses or dilutions. Upon reviewing the QA results, the following Form 1(s) are identified to be used.

none

DVP-4 Attachment 6

ORGANIC REGIONAL DATA ASSESSMENT SUMMARY

ORGANIC REGIONAL DATA ASSESSMENT SUMMARY

DPO: [ ] Action [ ] FYI

CASE/SAS NO.: _____ **LABORATORY:** Test America

SDG NO.: KOM09 **DATA USER:** Geotechnology, Inc.

SOW: _____ **REVIEW COMPLETION DATE:** 11/23/2010

NO. OF SAMPLES: 6 **WATER** _____ **SOIL** _____ **OTHER**

REVIEWER: [ ] **ESD** [ ] **ESAT** [X] **OTHER, CONTRACTOR** MJW Corporation, Inc.

QC ITEM	VOA	BNA	PEST		
HOLDING TIMES	O	O	N/A		
GC-MS PERFORMANCE	O	O	N/A		
INITIAL CALIBRATIONS	O	O	N/A		
CONTINUING CALIBRATIONS	O	O	N/A		
FIELD BLANKS (F = N/A)	F	O	N/A		
LABORATORY BLANKS	O	O	N/A		
SURROGATES	O	O	N/A		
MATRIX SPIKE/DUPLICATES	O	O	N/A		
QC SAMPLES (LCS, PVS)	O	O	N/A		
INTERNAL STANDARDS	O	O	N/A		
COMPOUND IDENTIFICATION	O	O	N/A		
COMPOUND QUANTITATION	O	O	N/A		
SYSTEM PERFORMANCE	O	O	N/A		
OVERALL ASSESSMENT	O	O	N/A		

O = No problems or minor problems that do not affect data usability.
X = No more than about 5% of the data points are qualified as either estimated or unusable.
M = More than about 5% of the data points are qualified as either estimated or unusable.
Z = More than about 5% of the data points are qualified as unusable.

DPO ACTION ITEMS: _____

AREAS OF CONCERN: _____

DVP-4 Attachment 7

DATA REJECTION SUMMARY

DATA REJECTION SUMMARY

Type of Review: • Level IV **Date:** 11/23/2010 **SDG No.:** KOM09
Site Name: Solutia W.G. Krummrich Plant (Drum Site) **Lab Name:** Test America

Reviewer's Initials: AG **Number of Samples:** 6

Analytes Rejected Due to Exceeding Review Criteria For:

No. of Compounds/No. of Fractions (Samples)

	Surrogates	Holding Time	Calibration	Contamination	ID	Internal Standards	Other	Total # of Samples	Total # Rejected/Total # in All Samples
VOA(33)									/ = %
ACID(14)									/ = %
B/N(50)									/ = %
PEST(21)									/ = %
PCB(7)									/ = %

NOTE: ASTERISK (*) INDICATES ADDITIONAL EXCEEDANCES OF REVIEW CRITERIA.

Analytes Estimated Due to Exceeding Review Criteria For:

No. of Compounds/No. of Fractions (Samples)

	Surrogates	Holding Time	Calibration	Contamination	ID	Internal Standards	Other	Total # of Samples	Total # Estimated/Total # in All Samples
VOA(33)									/ = %
ACID(14)									%
B/N(50)									%
PEST(21)									/ = %
PCB(7)									/ = %

NOTE: ASTERISK (*) INDICATES ADDITIONAL EXCEEDANCES OF REVIEW CRITERIA.

DVP-4 Attachment 8

Acronyms and Data Qualifiers

Acronyms and Data Qualifiers

Acronyms

BFB - bromofluorobenzene
BHC - benzene hexachloride
BNA - base neutral acid
CCS - contract compliance screening
CLASS - Contract Laboratory Analytical Services Support
CLP - Contract Laboratory Program
CRQL - Contract Required Quantitation Limit
%D - percent difference
DCB -decachlorobiphenyl
DDD - dichlorodiphenyldichloroethane
DDE - dichlorodiphenylethane
DDT - dichlorodiphenyltrichloroethane
GC - gas chromatography
GC/EC - gas chromatograph/electron capture detector
GC/MS - gas chromatograph/mass spectrometer
GPC - gel permeation chromatography
IS - internal standard
kg - kilogram
µg - microgram
MAGIC - Mainframe Access Graphical Interface with CARD
MS - matrix spike
MSD - matrix spike duplicate
l - liter
ml - mililiter
PCB - polychlorinated biphenyl
PE - performance evaluation
PEM - Performance Evaluation Mixture
QC - quality control
RAS - Routine Analytical Services
RIC - reconstructed ion chromatogram
RPD - relative percent difference
RRF - relative response factor
RRF - average relative response factor (from initial calibration)
RRT - relative retention time
RSD - relative standard deviation
RT - retention time

RSCC - Regional Sample Control Center
SDG - sample delivery group
SMC - system monitoring compound
SOP - standard operating procedure
SOW - Statement of Work
SVOA - semivolatile organic analysis
TCL - Target Compound List
TCLP - Toxicity Characteristics Leachate Procedure
TCX -tetrachloro-m-xylene
TIC - tentatively identified compound
TPO - technical project officer
VOA - volatile organic analysis
VTSR - validated time of sample receipt

Data Qualifiers

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.