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

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

gmrina@solutia.com

March 15, 2011

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
4th 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 4th 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
4th 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

FOURTH 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. J017210.08

March 15, 2011

J017210.08

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

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J017210.08

FOURTH 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 4th Quarter 2010 (4Q10). The Site is located in the area identified as "Lot F" in Figure 1.

During the 4Q10 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 December 8, 2010 and conducted the 4Q10 Illinois Route 3 Drum Site groundwater sampling on December 8, 2010 and December 9, 2010. Groundwater samples were collected from two monitoring wells during the 4Q10 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 4Q10 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 200 to 250 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.

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-1210" which denotes Groundwater Monitoring well number 31A sampled in December 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°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) KOM010 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 88.2 percent.

5.0 OBSERVATIONS

SVOCs were detected in the groundwater samples collected from monitoring wells GM-31A and GM-58A during the 4Q10 sampling event. Laboratory analytical data for groundwater sample GM-31A-1210 indicated detections of 10 µg/L of 1-chloro-3-nitrobenzene, 110 µg/L of 2,4,6-trichlorophenol, 85 µg/L of 2-chloronitrobenzene/4-chloronitrobenzene, and 11 µg/L of nitrobenzene. Laboratory analytical data for groundwater sample GM-58A-1210 indicates a detection of 17 µg/L of 2,4,6-trichlorophenol and 91 µg/L of 2-chloronitrobenzene/ 4-chloronitrobenzene. 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

Well ID	Construction Details						December 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)
Shallow Hydrogeologic Unit (SHU 395-380 feet NAVD 88)									
GM-31A	416.63	418.63	19.00	39.00	397.63	377.63	20.50	40.40	398.13
GM-58A	412.24	414.24	19.40	39.40	392.84	372.84	15.85	41.00	398.39

Notes:
* - Elevation based upon North American Vertical Datum (NAVD) 88 datum
bgs - below ground surface
btoc - below top of casing

Table 2
Groundwater Analytical Results

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)
Shallow Hydrogeologic Unit (SHU 395 - 380 ft NAVD 88)													
GM-31A-1210	12/09/10	<9.5	<9.5	**10**	**110**	<9.5	**85**	<9.5	<9.5	<9.5	<9.5	**11**	<48
GM-31A-1210-AD	12/09/10	<9.5	<9.5	**12**	**120**	<9.5	**92**	<9.5	<9.5	<9.5	<9.5	**11**	<48
GM-58A-1210	12/08/10	<10	<10	<10	**17**	<10	**91**	<10	<10	<10	<10	<10	<50

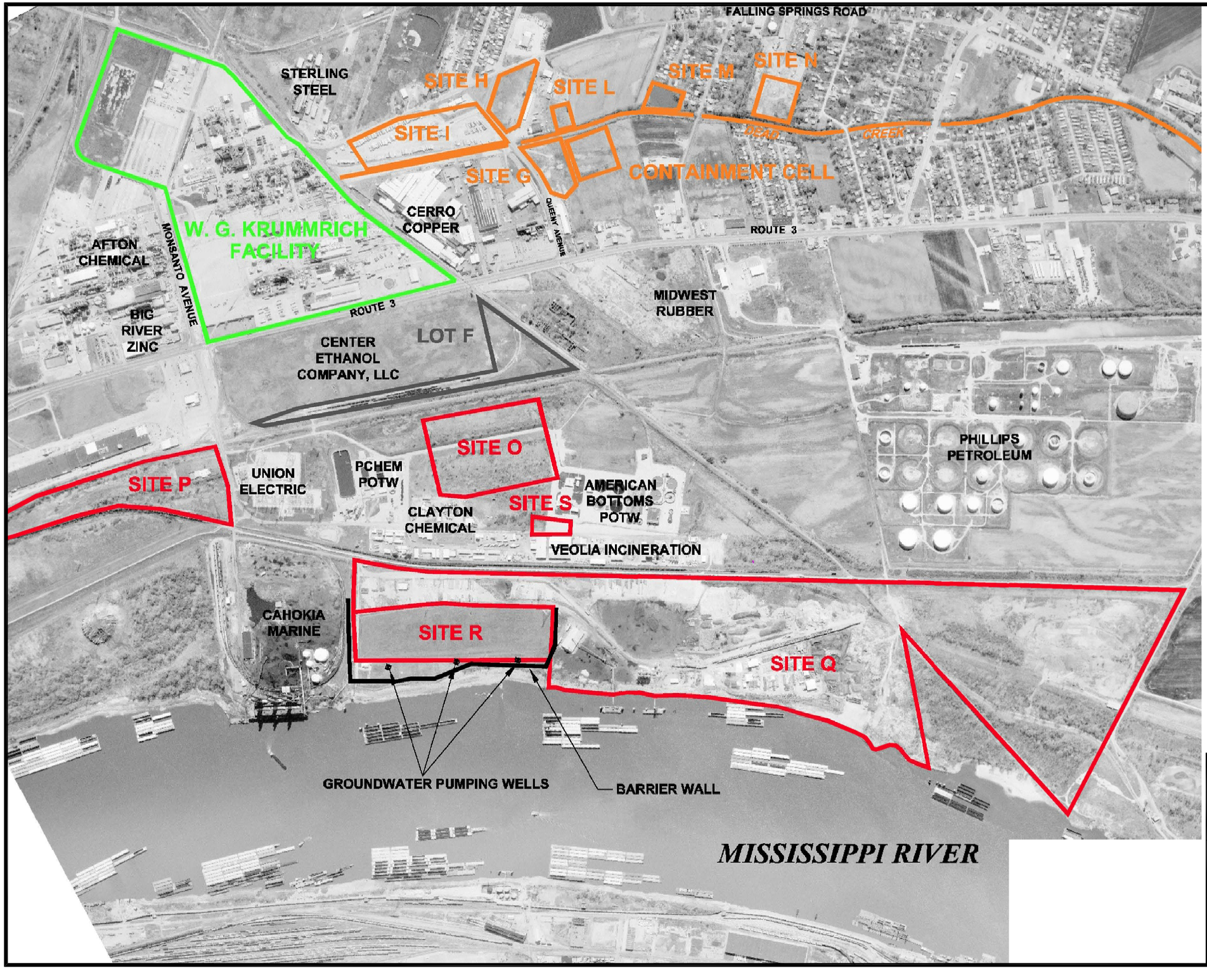
Notes:
µg/L = micrograms per liter
< = Result is non-detect, less than the reporting limit given - indicated as a U qualifier on lab data
* = LCS, LCSD, MS, MSD, MD or surrogate exceeds the control limits
J = Estimated value
BOLD indicates concentration greater than the reporting limit

J017210.08

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)	Ferrous Iron (mg/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-1210	12/09/10	490	24	26	0	<0.35	<0.33	0	1.5		1.2		3.2	1.2	99		3.9	174.33
GM-31A-F(0.2)-1210	12/09/10									<0.050		1.2				10		
GM-58A-1210	12/08/10	460	13	49	5.36	<0.35	<0.33	0.20	0.47		1.3		3.20	0.5	100		3.3	-15
GM-58A-F(0.2)-1210	12/08/10									<0.050		1.4				4.5		

Notes:
DO and ORP were measured in the field using a Horiba U22 equipped with a flow-thru cell.
Ferrous Iron readings were not measured in the field.
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: 03-09-11	Date: 03-09-11	Date: 03-09-11

GEOTECHNOLOGY INC
FROM THE GROUND UP

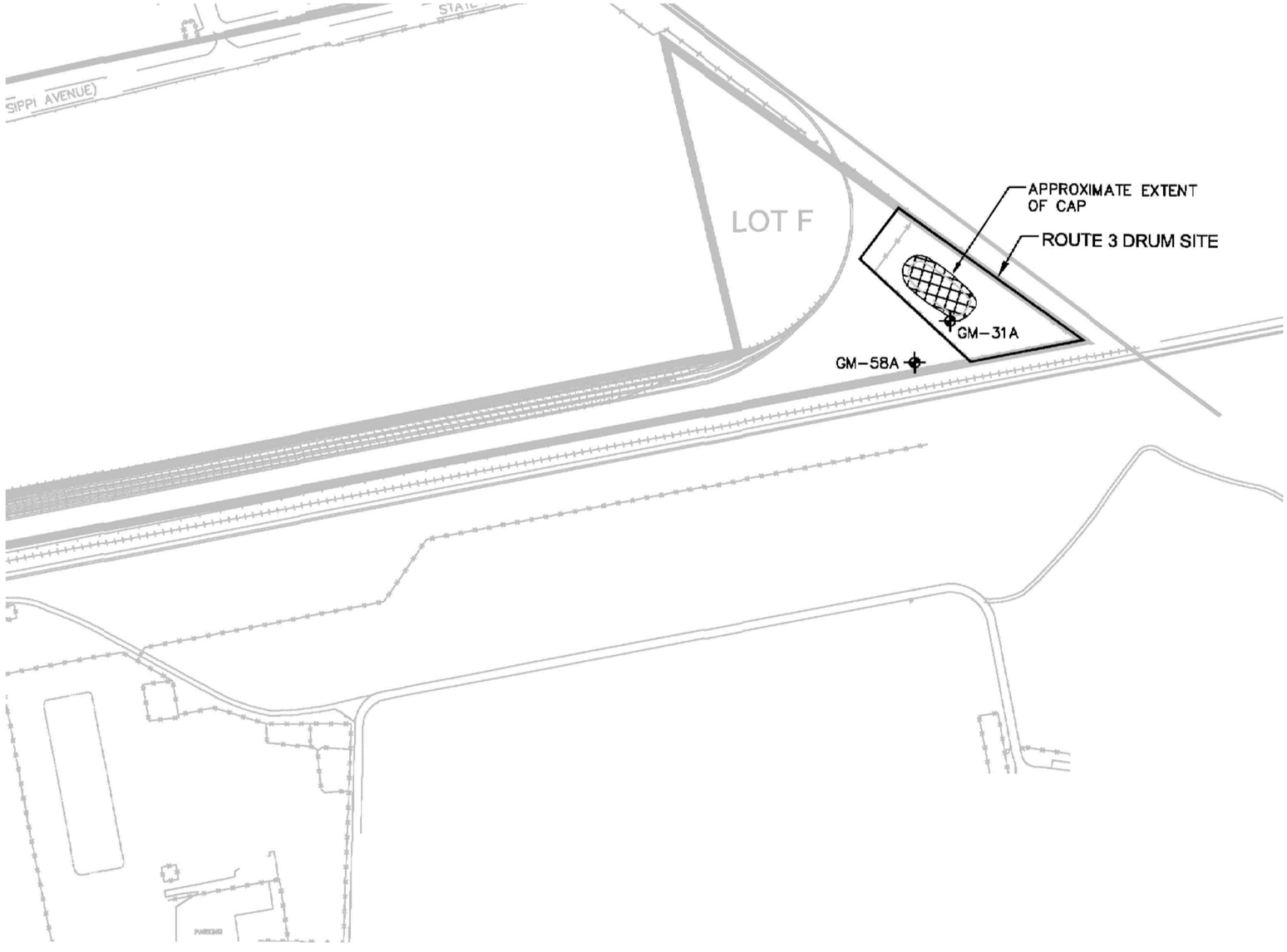
4Q 2010
Route 3 Drum Site Program
Sauget, Illinois

SITE LOCATION MAP

Project Number J017210.05	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: 03-09-11	Date: 03-09-11	Date: 03-09-11

GEOTECHNOLOGY INC
FROM THE GROUND UP

4Q 2010
Route 3 Drum Site Program
Sauget, Illinois

MONITORING WELL LOCATION MAP

Project Number	PLATE 2
J017210.05	

APPENDIX A

GROUNDWATER PURGING AND SAMPLING FORMS

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: WGK-R+3-4QID
PROJECT NUMBER: J017210.08
FIELD PERSONNEL: JENNA VUJIC
DATE: 12-9-10
WEATHER: 25°F OVERCAST
MONITORING WELL ID: GM-31A
SAMPLE ID: GM-31A

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 40.40 ft
Constructed Well Depth (btoc): 41.00 ft
Depth to Water (btock): 20.10 ft
Depth to LNAPL/DNAPL (btoc): - ft
Depth to Top of Screen (btoc): 21.00 ft
Screen Length: 20 ft

Water Column Height (do not include LNAPL or DNAPL): 20.30 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) = 31.00 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 ND If Present, Do Not Sample

Volume of Flow Through Cell): 700 mL
Minimum Purge Volume = (3 x Flow Through Cell Volume) 2100 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: QED BLADDER PUMPS

	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)
0	1014	20.10	NONE	NONE						
1000	1019	20.10	↓	↓	6.67	11.36	1.2	49.7	0.00	198
2000	1024	20.10			6.72	11.45	1.2	38.5	0.00	185
4000	1029	20.10			6.75	11.30	1.2	37.8	0.00	179
5000	1034	20.10			6.77	11.28	1.2	37.2	0.00	174
					6.77	11.44	1.2	35.2	0.00	170
			USV						USV	

Start Time: 1014
Stop Time: 1034
Elapsed Time: 20 min
Average Purge Rate (mL/min): 200
Water Quality Meter ID: HORIBA U-22
Date Calibrated: 12-9-10

SAMPLING DATA

Sample Date: 12-9-10
Sample Method: LOW FLOW BLADDER
Sample Time: 1045
Sample Flow Rate: 200 mL/min
Analysis: SVOCs, METALS, MNA
QA/QC Samples: AD

VOA Vials, No Headspace ☐ Initials: NA

COMMENTS: MNA - Alkalinity, CO_2, Chloride, Ferrous Iron, Methane, Nitrate, Sulfate, DOC, TDC
Ferrous Iron (Filtered 0.2 micron) = 0.00 mg/L

DO meter ok - ck'd w/ drinking H_2O

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

J017210.02

PROJECT NAME: WGK-RT 3-4Q10 | PROJECT NUMBER: J017210. | FIELD PERSONNEL: JENNA VUJIC
DATE: 12-8-10 | WEATHER: 20°F, SUNNY
MONITORING WELL ID: GM-58A | SAMPLE ID: GM-58A-1210

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 41.00 ft
Constructed Well Depth (btoc): 41.40 ft
Depth to Water (btock): 19.90 ft
Depth to LNAPL/DNAPL (btoc): - ft
Depth to Top of Screen (btoc): 21.40 ft
Screen Length: 20 ft

Water Column Height (do not include LNAPL or DNAPL): 21.10 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) = 31.40 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 ND If Present, Do Not Sample

Volume of Flow Through Cell): 700 mL
Minimum Purge Volume = (3 x Flow Through Cell Volume) 2100 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: QED BLADDER

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)
12000	1545	19.90	NONE	NONE	6.80	14.04	1.2	15.5	5.80	-22
13000	1549	19.90	↓	↓	6.80	14.02	1.3	4.0	5.30	-18
14000	1553	19.90	↓	↓	6.80	13.93	1.3	5.4	5.36	-15
15000	1557	19.90	↓	↓	6.81	13.80	1.3	5.9	5.43	-12
				VSV					VSV	

Start Time: 1545
Stop Time: 1557
Elapsed Time: 12 min
Average Purge Rate (mL/min): 250 mL/min
Water Quality Meter ID: HORIBA-U22
Date Calibrated: 12-8-10

SAMPLING DATA

Sample Date: 12-8-10
Sample Method: LOW FLOW BLADDER
Sample Time: 1600
Sample Flow Rate: 250 mL/min
Analysis: SVOCs, METALS, MNA
QA/QC Samples: MS/MSD

VOA Vials, No Headspace ☐ Initials: NA

COMMENTS: MNA- ALKALINITY, CO_2, CHLORIDE, FERROUS IRON, METHANE, NITRATE, SULFATE, DOC, TDC
Ferrous Iron (Filtered 0.2 micron) = 0.20 mg/L

APPENDIX B

CHAINS-OF-CUSTODY

Serial Number 035183

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)
TAL (LAB) PROJECT MANAGER: LIOYA GULIZIA	P.O. NUMBER	CONTRACT NO.
CLIENT (SITE) PM	CLIENT PHONE: 314-674-3312	CLIENT FAX
CLIENT NAME: GM RINALDI	CLIENT E-MAIL: gmrinal@solutia.com	
CLIENT ADDRESS: SOLUTIA / 575 MARYVILLE CTR, ST. LOUIS MO		
COMPANY CONTRACTING THIS WORK (if applicable): 5		

PAGE 1 OF 1

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

PRESERVATIVE

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX: AQUEOUS (WATER)	MATRIX: SOLID OR SEMISOLID	MATRIX: AIR	MATRIX: NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	REQUIRED ANALYSIS: SVOC 8270C (HCl)	TOTAL Fe/Mn 6010B (HNO3)	Al/CO2 8010.1 (none)	Chloride 325.2 (none)	Sulfate 375.4 (H2SO4)	Methane/Ethane/Ethene RSK 175 (HCl)	Nitrate 353.2 (H2SO4)	TOC 415.1 (HCl)	Diss Fe/Mn 6010B (HNO3)	DOC by 415.1 (HCl)	REMARKS
12-8-10	1600	GM-58A-1210	G	W				2	1	1	1	3	2	1				
		GM-58A-1210-MS	G	W				2										
		GM-58A-1210-MSD	G	W				2										
		GM-58A-F(0.2)-1210	G	W												1	1	FILTERED

Page 43 of 46

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	12-8-10	2000						
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	12/9/10	0913	YES ○ NO ○		680-63890	Temp 0.6/0.2

Serial Number 033943

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-RT3-4Q10		IL
TAL (LAB) PROJECT MANAGER	**P.O. NUMBER**	**CONTRACT NO.**
LIDYA G.		
CLIENT (SITE) PM	**CLIENT PHONE**	**CLIENT FAX**
GM RINALDI	314-674-3312	314-674-8808
CLIENT NAME	**CLIENT E-MAIL**	
SOLUTIA	gmrina@solutia.com	
CLIENT ADDRESS		
575 MARYVILLE CENTER DR ST. LOUIS MO 63141		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE ____ OF ____

STANDARD REPORT DELIVERY ⊗

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ◯

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX: AQUEOUS (WATER)	MATRIX: SOLID OR SEMISOLID	MATRIX: AIR	MATRIX: NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
12-9-10	1045	GM-31A-1210						2	
	1045	GM-31A-1210-AD						2	
	1045	GM-31A-F(0.2)-1210						1	Filtered

REQUIRED ANALYSIS

SVOCs 8270C	Total Fe/Mn 6010B	Alk/CO_2 310.1	Chloride 325.2 Sulfate 375.4	Methane RSK175 Ethane Ethene	Nitrate 353.2	TOC 415.1	Dis Fe/Mn 6010B	DOC by 415.1
HCl	none	none	none	HCl H_2SO_4	H_2SO_4	HCl	HNO_3	HCl

PRESERVATIVE

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	12-9-10	1800						
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
	12/10/10	0933	YES ◯ NO ◯		650-63928	3.2°C

APPENDIX C

QUALITY ASSURANCE REPORT

FOURTH 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. J017210.08

March 15, 2011

J017210.08

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

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J017210.08

FOURTH 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 December of 2010 at the Solutia W.G. Krummrich plant as part of the 4th 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.) M.J.W. Corporation selected four random groundwater samples for Level IV data validation (GM-31A-1210, GM-31A-F(0.2)-1210, GM-58A-1210 and GM-58A-F(0.2)-1210. The Level III and IV 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) KOM10 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.
B	Compound was found in the blank and sample.

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	Due to various QC problems some analytes may be qualified.
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 88.2%.

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 two coolers were received by the laboratory at temperatures within the temperature requirements – one was reported as "rec'd on ice" and the other was reported as received at 3.2 degrees Celsius, which is within the 4°C $\pm$ 2°C criteria. Samples received were in good condition; therefore, no qualification of data was required.

Samples for GM-58A-1210 received for TOC and DOC analysis were received at pH>2. Additional acid was added upon receipt prior to analysis. The dissolved metals sample received for GM-31A-1210 was received at pH>2. Additional acid was added upon receipt prior to analysis.

Sample GM-58A-1210-EB was received in the cooler by the laboratory but it was not listed on the chain of custody.

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-1210 was spiked and analyzed for SVOCs in SDG KOM10. All MS/MSD recoveries were within evaluation criteria. No qualifications of SVOCs 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 were not diluted; therefore, qualifications of data were not required.

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%. Results for 2-chloronitrobenzene/4-chloronitrobenzene have been qualified with a J due to initial and continuing calibrations that had a %D greater than 305 and 25% respectively.

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 qualified as rejected and estimated for samples GM-31A-1210 and GM-58A-1210, respectively, 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.

Sample ID	Parameter	Analyte	Qualification
GM-31A-1210	Inorganics	TOC	R
GM-31A-F(0.2)-1210	Inorganics	DOC	R
GM-58A-1210	Inorganics	TOC	J
GM-58A-F(0.2)-1210	Inorganics	DOC	J

APPENDIX D

GROUNDWATER ANALYTICAL RESULTS
(WITH DATA REVIEW SHEETS)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 680-63890-1

SDG Number: KOM010

Job Description: WGK Route 3 Drum Site O&M GW 4Q10

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

Attention: Mr. Jerry Rinaldi

Lidya Gulizia

Approved for release.
Lidya Gulizia
Project Manager I
1/18/2011 11:57 AM

Lidya Gulizia
Project Manager I
lidya.gulizia@testamericainc.com
01/18/2011

cc: Mr. Duane Kreuger

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

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

TestAmerica Laboratories, Inc.
TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404
Tel (912) 354-7858 Fax (912) 352-0165 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

3/1/14

Job Narrative
680-63890-1 / SDG KOM010

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

Samples for GM-58A received for Total and Dissolved Organic Carbon (TOC) analysis were received at pH greater than two (> pH2). Additional acid was added upon receipt prior to analysis.

The dissolved metals sample received for GM-31A was received at pH greater than two (> pH2). Additional acid was added upon receipt prior to analysis.

GC/MS Semi VOA
No analytical or quality issues were noted.

GC VOA
No analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

General Chemistry
Method(s) 325.2: Due to the high concentration of chloride, the matrix spike / matrix spike duplicate (MS/MSD) for batch 189417 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method(s) 375.4: The matrix spike duplicate (MSD) recoveries for batch 189461 were outside control limits for sulfate. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Comments
No additional comments.

3/1/11

METHOD SUMMARY

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

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	
Preparation, Total Recoverable or Dissolved Metals	TAL SAV		SW846 3005A
Metals (ICP)	TAL SAV	SW846 6010B	
Preparation, Total Recoverable or Dissolved Metals	TAL SAV		SW846 3005A
Sample Filtration, Field			FIELD_FLTRD
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	
Sample Filtration, Field			FIELD_FLTRD
TOC	TAL SAV	MCAWW 415.1	

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.

3/6/14

METHOD / ANALYST SUMMARY

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Method	Analyst	Analyst ID
SW846 8270C	Haynes, Carion	CRH
RSK RSK-175	Moncrief, Amy J	AJM
SW846 6010B	Bland, Brian	BCB
MCAWW 310.1	Crowder, Ca'Lisha	CC
MCAWW 325.2	Ross, Jon	JR
MCAWW 353.2	Ross, Jon	JR
MCAWW 375.4	Ross, Jon	JR
MCAWW 415.1	Blackshear, Kim	KB
MCAWW 415.1	Holmes, Tinita	TH

3/14/14

SAMPLE SUMMARY

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-63890-1	GM-58A-1210	Water	12/08/2010 1600	12/09/2010 0912
680-63890-1MS	GM-58A-1210	Water	12/08/2010 1600	12/09/2010 0912
680-63890-1MSD	GM-58A-1210	Water	12/08/2010 1600	12/09/2010 0912
680-63890-2	GM-58A-F(0.2)-1210	Water	12/08/2010 1600	12/09/2010 0912
680-63890-3	GM-58A-1210-EB	Water	12/08/2010 0000	12/09/2010 0912
680-63928-1	GM-31A-1210	Water	12/09/2010 1045	12/10/2010 0933
680-63928-2FD	GM-31A-1210-AD	Water	12/09/2010 1045	12/10/2010 0933
680-63928-3	GM-31A-F(0.2)-1210	Water	12/09/2010 1045	12/10/2010 0933

3/11/11

SAMPLE RESULTS

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Client Sample ID: **GM-58A-1210**

Lab Sample ID: 680-63890-1
Client Matrix: Water

Date Sampled: 12/08/2010 1600
Date Received: 12/09/2010 0912

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

Method:	8270C	Analysis Batch: 680-190184		Instrument ID:	MSG
Preparation:	3520C	Prep Batch: 680-188952		Lab File ID:	g4890.d
Dilution:	1.0			Initial Weight/Volume:	500 mL
Date Analyzed:	12/29/2010 0307			Final Weight/Volume:	0.5 mL
Date Prepared:	12/14/2010 1448			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	17		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	91	"J"	20
1-chloro-2,4-dinitrobenzene	10	U	10

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	50		50 - 113
2-Fluorophenol	42		36 - 110
Nitrobenzene-d5	45		45 - 112
Phenol-d5	38		38 - 116
Terphenyl-d14	49		10 - 121
2,4,6-Tribromophenol	48		40 - 139

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Client Sample ID: **GM-58A-1210-EB**

Lab Sample ID: 680-63890-3
Client Matrix: Water

Date Sampled: 12/08/2010 0000
Date Received: 12/09/2010 0912

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

Method:	8270C	Analysis Batch: 680-190290		Instrument ID:	MSG
Preparation:	3520C	Prep Batch: 680-188952		Lab File ID:	g4907.d
Dilution:	1.0			Initial Weight/Volume:	1030 mL
Date Analyzed:	12/29/2010 1540			Final Weight/Volume:	1 mL
Date Prepared:	12/14/2010 1448			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 "J"	19
1-chloro-2,4-dinitrobenzene	9.7	U	9.7

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	86		50 - 113
2-Fluorophenol	62		36 - 110
Nitrobenzene-d5	72		45 - 112
Phenol-d5	56		38 - 116
Terphenyl-d14	54		10 - 121
2,4,6-Tribromophenol	65		40 - 139

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Client Sample ID: **GM-31A-1210**

Lab Sample ID: 680-63928-1
Client Matrix: Water

Date Sampled: 12/09/2010 1045
Date Received: 12/10/2010 0933

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

Method:	8270C	Analysis Batch: 680-191242		Instrument ID:	MSG
Preparation:	3520C	Prep Batch: 680-188952		Lab File ID:	g5132.d
Dilution:	1.0			Initial Weight/Volume:	1050 mL
Date Analyzed:	01/11/2011 1220			Final Weight/Volume:	1 mL
Date Prepared:	12/14/2010 1448			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
1,1'-Biphenyl	9.5	U	9.5
2,4-Dichlorophenol	9.5	U	9.5
Nitrobenzene	11		9.5
Pentachlorophenol	48	U	48
2,4,6-Trichlorophenol	110		9.5
1-Chloro-3-nitrobenzene	10		9.5
2-Nitrobiphenyl	9.5	U	9.5
3-Nitrobiphenyl	9.5	U	9.5
3,4-Dichloronitrobenzene	9.5	U	9.5
4-Nitrobiphenyl	9.5	U	9.5
2-chloronitrobenzene / 4-chloronitrobenzene	85	"J"	19
1-chloro-2,4-dinitrobenzene	9.5	U	9.5

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	70		50 - 113
2-Fluorophenol	62		36 - 110
Nitrobenzene-d5	70		45 - 112
Phenol-d5	57		38 - 116
Terphenyl-d14	35		10 - 121
2,4,6-Tribromophenol	81		40 - 139

3/11/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Client Sample ID: **GM-31A-1210-AD**

Lab Sample ID: 680-63928-2FD
Client Matrix: Water

Date Sampled: 12/09/2010 1045
Date Received: 12/10/2010 0933

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

Method:	8270C	Analysis Batch: 680-191242		Instrument ID:	MSG
Preparation:	3520C	Prep Batch: 680-188952		Lab File ID:	g5133.d
Dilution:	1.0			Initial Weight/Volume:	1050 mL
Date Analyzed:	01/11/2011 1248			Final Weight/Volume:	1 mL
Date Prepared:	12/14/2010 1448			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
1,1'-Biphenyl	9.5	U	9.5
2,4-Dichlorophenol	9.5	U	9.5
Nitrobenzene	11		9.5
Pentachlorophenol	48	U	48
2,4,6-Trichlorophenol	120		9.5
1-Chloro-3-nitrobenzene	12		9.5
2-Nitrobiphenyl	9.5	U	9.5
3-Nitrobiphenyl	9.5	U	9.5
3,4-Dichloronitrobenzene	9.5	U	9.5
4-Nitrobiphenyl	9.5	U	9.5
2-chloronitrobenzene / 4-chloronitrobenzene	92	"J"	19
1-chloro-2,4-dinitrobenzene	9.5	U	9.5

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	76		50 - 113
2-Fluorophenol	70		36 - 110
Nitrobenzene-d5	78		45 - 112
Phenol-d5	68		38 - 116
Terphenyl-d14	44		10 - 121
2,4,6-Tribromophenol	87		40 - 139

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Client Sample ID: **GM-58A-1210**

Lab Sample ID: 680-63890-1
Client Matrix: Water

Date Sampled: 12/08/2010 1600
Date Received: 12/09/2010 0912

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 680-189349	Instrument ID: VGUFID2
Preparation:	N/A		Initial Weight/Volume: 17000 uL
Dilution:	1.0		Final Weight/Volume: 17 mL
Date Analyzed:	12/16/2010 1517		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethane	0.35	U	0.35
Ethylene	0.33	U	0.33
Methane	3.2		0.19

AG 3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Client Sample ID: **GM-31A-1210**

Lab Sample ID: 680-63928-1
Client Matrix: Water

Date Sampled: 12/09/2010 1045
Date Received: 12/10/2010 0933

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 680-189349	Instrument ID: VGUFID2
Preparation:	N/A		Initial Weight/Volume: 17000 uL
Dilution:	1.0		Final Weight/Volume: 17 mL
Date Analyzed:	12/16/2010 1738		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethane	0.35	U	0.35
Ethylene	0.33	U	0.33
Methane	3.2		0.19

3/11/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Client Sample ID: **GM-58A-1210**

Lab Sample ID: 680-63890-1
Client Matrix: Water

Date Sampled: 12/08/2010 1600
Date Received: 12/09/2010 0912

6010B Metals (ICP)-Total Recoverable

Method:	6010B	Analysis Batch: 680-189384		Instrument ID:	ICPD
Preparation:	3005A	Prep Batch: 680-189163		Lab File ID:	1216101526.chr
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	12/16/2010 2235			Final Weight/Volume:	50 mL
Date Prepared:	12/15/2010 1751				

Analyte	Result (mg/L)	Qualifier	RL
Iron	0.47		0.050
Manganese	1.3		0.010

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Client Sample ID: **GM-58A-F(0.2)-1210**

Lab Sample ID: 680-63890-2
Client Matrix: Water

Date Sampled: 12/08/2010 1600
Date Received: 12/09/2010 0912

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 680-189384		Instrument ID:	ICPD
Preparation:	3005A	Prep Batch: 680-189163		Lab File ID:	1216101526.chr
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	12/16/2010 2251			Final Weight/Volume:	50 mL
Date Prepared:	12/15/2010 1751				

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	0.050	U	0.050
Manganese, Dissolved	1.4		0.010

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Client Sample ID: **GM-31A-1210**

Lab Sample ID: 680-63928-1
Client Matrix: Water

Date Sampled: 12/09/2010 1045
Date Received: 12/10/2010 0933

6010B Metals (ICP)-Total Recoverable

Method:	6010B	Analysis Batch: 680-189384		Instrument ID:	ICPD
Preparation:	3005A	Prep Batch: 680-189163		Lab File ID:	1216101526.chr
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	12/16/2010 2256			Final Weight/Volume:	50 mL
Date Prepared:	12/15/2010 1751				

Analyte	Result (mg/L)	Qualifier	RL
Iron	1.5		0.050
Manganese	1.2		0.010

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Client Sample ID: **GM-31A-F(0.2)-1210**

Lab Sample ID: 680-63928-3
Client Matrix: Water

Date Sampled: 12/09/2010 1045
Date Received: 12/10/2010 0933

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 680-189384		Instrument ID:	ICPD
Preparation:	3005A	Prep Batch: 680-189163		Lab File ID:	1216101526.chr
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	12/16/2010 2301			Final Weight/Volume:	50 mL
Date Prepared:	12/15/2010 1751				

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	0.050	U	0.050
Manganese, Dissolved	1.2		0.010

3/1/11

General Chemistry

Client Sample ID: GM-58A-1210

Lab Sample ID: 680-63890-1
Client Matrix: Water

Date Sampled: 12/08/2010 1600
Date Received: 12/09/2010 0912

Analyte	Result	Qual	Units	RL	Dil	Method
Chloride	49		mg/L	1.0	1.0	325.2
Analysis Batch: 680-189417	Date Analyzed: 12/17/2010 1441					
Nitrate as N	0.50		mg/L	0.050	1.0	353.2
Analysis Batch: 680-188846	Date Analyzed: 12/09/2010 1747					
Sulfate	100		mg/L	25	5.0	375.4
Analysis Batch: 680-189461	Date Analyzed: 12/18/2010 1135					
Total Organic Carbon	3.3	"J"	mg/L	1.0	1.0	415.1
Analysis Batch: 680-190005	Date Analyzed: 12/22/2010 2227					

Analyte	Result	Qual	Units	RL	Dil	Method
Alkalinity	460		mg/L	5.0	1.0	310.1
Analysis Batch: 680-189751	Date Analyzed: 12/21/2010 1455					
Carbon Dioxide, Free	13		mg/L	5.0	1.0	310.1
Analysis Batch: 680-189751	Date Analyzed: 12/21/2010 1455					

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

General Chemistry

Client Sample ID: **GM-58A-F(0.2)-1210**

Lab Sample ID: 680-63890-2
Client Matrix: Water

Date Sampled: 12/08/2010 1600
Date Received: 12/09/2010 0912

Analyte	Result	Qual	Units	RL	Dil	Method
Dissolved Organic Carbon-Dissolved	4.5	"J"	mg/L	1.0	1.0	415.1

Analysis Batch: 680-189390 Date Analyzed: 12/16/2010 1138

AG 3/1/11

General Chemistry

Client Sample ID: **GM-31A-1210**

Lab Sample ID: 680-63928-1
Client Matrix: Water

Date Sampled: 12/09/2010 1045
Date Received: 12/10/2010 0933

Analyte	Result	Qual	Units	RL	Dil	Method
Chloride	26		mg/L	1.0	1.0	325.2
Analysis Batch: 680-189417	Date Analyzed: 12/17/2010 1441					
Nitrate as N	1.2		mg/L	0.25	5.0	353.2
Analysis Batch: 680-188847	Date Analyzed: 12/10/2010 1659					
Sulfate	99		mg/L	25	5.0	375.4
Analysis Batch: 680-189461	Date Analyzed: 12/18/2010 1126					
Total Organic Carbon	3.9	"R"	mg/L	1.0	1.0	415.1
Analysis Batch: 680-190005	Date Analyzed: 12/22/2010 2243					

Analyte	Result	Qual	Units	RL	Dil	Method
Alkalinity	490		mg/L	5.0	1.0	310.1
Analysis Batch: 680-189845	Date Analyzed: 12/21/2010 1930					
Carbon Dioxide, Free	24	B	mg/L	5.0	1.0	310.1
Analysis Batch: 680-189845	Date Analyzed: 12/21/2010 1930					

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

General Chemistry

Client Sample ID: **GM-31A-F(0.2)-1210**

Lab Sample ID: 680-63928-3
Client Matrix: Water

Date Sampled: 12/09/2010 1045
Date Received: 12/10/2010 0933

Analyte	Result	Qual	Units	RL	Dil	Method
Dissolved Organic Carbon-Dissolved	10	"R"	mg/L	1.0	1.0	415.1

Analysis Batch: 680-189390 Date Analyzed: 12/16/2010 1138

3/1/11

DATA REPORTING QUALIFIERS

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
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		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.

3/1/11

QUALITY CONTROL RESULTS

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 680-188952					
LCS 680-188952/19-A	Lab Control Sample	T	Water	3520C	
LCS 680-188952/25-A	Lab Control Sample	T	Water	3520C	
MB 680-188952/18-A	Method Blank	T	Water	3520C	
680-63890-1	GM-58A-1210	T	Water	3520C	
680-63890-1MS	Matrix Spike	T	Water	3520C	
680-63890-1MSD	Matrix Spike Duplicate	T	Water	3520C	
680-63890-3	GM-58A-1210-EB	T	Water	3520C	
680-63928-1	GM-31A-1210	T	Water	3520C	
680-63928-2FD	GM-31A-1210-AD	T	Water	3520C	
Analysis Batch:680-190184					
LCS 680-188952/19-A	Lab Control Sample	T	Water	8270C	680-188952
LCS 680-188952/25-A	Lab Control Sample	T	Water	8270C	680-188952
680-63890-1	GM-58A-1210	T	Water	8270C	680-188952
680-63890-1MS	Matrix Spike	T	Water	8270C	680-188952
680-63890-1MSD	Matrix Spike Duplicate	T	Water	8270C	680-188952
Analysis Batch:680-190290					
680-63890-3	GM-58A-1210-EB	T	Water	8270C	680-188952
Analysis Batch:680-190606					
MB 680-188952/18-A	Method Blank	T	Water	8270C	680-188952
Analysis Batch:680-191242					
680-63928-1	GM-31A-1210	T	Water	8270C	680-188952
680-63928-2FD	GM-31A-1210-AD	T	Water	8270C	680-188952

Report Basis
T = Total

GC VOA					
Analysis Batch:680-189349					
LCS 680-189349/24	Lab Control Sample	T	Water	RSK-175	
LCSD 680-189349/26	Lab Control Sample Duplicate	T	Water	RSK-175	
MB 680-189349/25	Method Blank	T	Water	RSK-175	
680-63890-1	GM-58A-1210	T	Water	RSK-175	
680-63928-1	GM-31A-1210	T	Water	RSK-175	

Report Basis
T = Total

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 680-189163					
LCS 680-189163/21-A	Lab Control Sample	R	Water	3005A	
MB 680-189163/20-A	Method Blank	R	Water	3005A	
680-63890-1	GM-58A-1210	R	Water	3005A	
680-63890-2	GM-58A-F(0.2)-1210	D	Water	3005A	
680-63928-1	GM-31A-1210	R	Water	3005A	
680-63928-3	GM-31A-F(0.2)-1210	D	Water	3005A	
Analysis Batch:680-189384					
LCS 680-189163/21-A	Lab Control Sample	R	Water	6010B	680-189163
MB 680-189163/20-A	Method Blank	R	Water	6010B	680-189163
680-63890-1	GM-58A-1210	R	Water	6010B	680-189163
680-63890-2	GM-58A-F(0.2)-1210	D	Water	6010B	680-189163
680-63928-1	GM-31A-1210	R	Water	6010B	680-189163
680-63928-3	GM-31A-F(0.2)-1210	D	Water	6010B	680-189163

Report Basis
D = Dissolved
R = Total Recoverable

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:680-188846					
LCS 680-188846/2	Lab Control Sample	T	Water	353.2	
MB 680-188846/1	Method Blank	T	Water	353.2	
680-63890-1	GM-58A-1210	T	Water	353.2	
Analysis Batch:680-188847					
LCS 680-188847/2	Lab Control Sample	T	Water	353.2	
MB 680-188847/1	Method Blank	T	Water	353.2	
680-63928-1	GM-31A-1210	T	Water	353.2	
680-63928-1MS	Matrix Spike	T	Water	353.2	
680-63928-1MSD	Matrix Spike Duplicate	T	Water	353.2	
Analysis Batch:680-189390					
680-63890-2	GM-58A-F(0.2)-1210	D	Water	415.1	
680-63928-3	GM-31A-F(0.2)-1210	D	Water	415.1	
Analysis Batch:680-189417					
LCS 680-189417/1	Lab Control Sample	T	Water	325.2	
MB 680-189417/2	Method Blank	T	Water	325.2	
680-63890-1	GM-58A-1210	T	Water	325.2	
680-63928-1	GM-31A-1210	T	Water	325.2	
Analysis Batch:680-189461					
LCS 680-189461/2	Lab Control Sample	T	Water	375.4	
MB 680-189461/1	Method Blank	T	Water	375.4	
680-63890-1	GM-58A-1210	T	Water	375.4	
680-63928-1	GM-31A-1210	T	Water	375.4	
Analysis Batch:680-189751					
LCS 680-189751/3	Lab Control Sample	T	Water	310.1	
LCSD 680-189751/29	Lab Control Sample Duplicate	T	Water	310.1	
MB 680-189751/2	Method Blank	T	Water	310.1	
680-63890-1	GM-58A-1210	T	Water	310.1	
Analysis Batch:680-189845					
LCS 680-189845/3	Lab Control Sample	T	Water	310.1	
LCSD 680-189845/29	Lab Control Sample Duplicate	T	Water	310.1	
MB 680-189845/2	Method Blank	T	Water	310.1	
680-63928-1	GM-31A-1210	T	Water	310.1	
Analysis Batch:680-190005					
LCS 680-190005/4	Lab Control Sample	T	Water	415.1	
MB 680-190005/2	Method Blank	T	Water	415.1	
680-63890-1	GM-58A-1210	T	Water	415.1	
680-63928-1	GM-31A-1210	T	Water	415.1	

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch

Report Basis
D = Dissolved
T = Total

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

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
680-63890-1	GM-58A-1210	50	42	45	38	49	48
680-63890-3	GM-58A-1210-EB	86	62	72	56	54	65
680-63928-1	GM-31A-1210	70	62	70	57	35	81
680-63928-2	GM-31A-1210-AD	76	70	78	68	44	87
MB 680-188952/18-A		79	62	64	59	79	58
LCS 680-188952/19-A		76	67	68	64	82	70
LCS 680-188952/25-A		61	55	60	47	71	52
680-63890-1 MS	GM-58A-1210 MS	65	56	58	51	70	64
680-63890-1 MS	GM-58A-1210 MS	62	49	62	45	57	60
680-63890-1 MSD	GM-58A-1210 MSD	73	60	65	57	79	74
680-63890-1 MSD	GM-58A-1210 MSD	50	44	52	39	44	48

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

AD 3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Method Blank - Batch: 680-188952

Method: 8270C
Preparation: 3520C

Lab Sample ID: MB 680-188952/18-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 01/04/2011 1009
Date Prepared: 12/14/2010 1448

Analysis Batch: 680-190606
Prep Batch: 680-188952
Units: ug/L

Instrument ID: MSG
Lab File ID: g4988.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
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	79	50 - 113
2-Fluorophenol	62	36 - 110
Nitrobenzene-d5	64	45 - 112
Phenol-d5	59	38 - 116
Terphenyl-d14	79	10 - 121
2,4,6-Tribromophenol	58	40 - 139

AC 3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Lab Control Sample - Batch: 680-188952

Method: 8270C
Preparation: 3520C

Lab Sample ID: LCS 680-188952/19-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/29/2010 0403
Date Prepared: 12/14/2010 1448

Analysis Batch: 680-190184
Prep Batch: 680-188952
Units: ug/L

Instrument ID: MSG
Lab File ID: g4892.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1'-Biphenyl	100	81.3	81	54 - 130	
2,4-Dichlorophenol	100	78.2	78	54 - 130	
Nitrobenzene	100	64.4	64	56 - 130	
Pentachlorophenol	100	80.1	80	42 - 138	
2,4,6-Trichlorophenol	100	76.9	77	57 - 130	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	76	50 - 113
2-Fluorophenol	67	36 - 110
Nitrobenzene-d5	68	45 - 112
Phenol-d5	64	38 - 116
Terphenyl-d14	82	10 - 121
2,4,6-Tribromophenol	70	40 - 139

Lab Control Sample - Batch: 680-188952

Method: 8270C
Preparation: 3520C

Lab Sample ID: LCS 680-188952/25-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/29/2010 0459
Date Prepared: 12/14/2010 1448

Analysis Batch: 680-190184
Prep Batch: 680-188952
Units: ug/L

Instrument ID: MSG
Lab File ID: g4894.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1-Chloro-3-nitrobenzene	100	75.8	76	10 - 130	
2-Nitrobiphenyl	100	95.5	95	10 - 130	
3-Nitrobiphenyl	100	87.1	87	10 - 130	
3,4-Dichloronitrobenzene	100	69.8	70	10 - 130	
4-Nitrobiphenyl	100	96.0	96	10 - 130	
2-chloronitrobenzene / 4-chloronitrobenzene	200	144	72	10 - 130	
1-chloro-2,4-dinitrobenzene	100	82.4	82	10 - 130	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	61	50 - 113
2-Fluorophenol	55	36 - 110
Nitrobenzene-d5	60	45 - 112
Phenol-d5	47	38 - 116
Terphenyl-d14	71	10 - 121

AL 3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	52	40 - 139

3/11/14

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-188952

Method: 8270C
Preparation: 3520C

MS Lab Sample ID:	680-63890-1	Analysis Batch:	680-190184	Instrument ID:	MSG
Client Matrix:	Water	Prep Batch:	680-188952	Lab File ID:	g4895.d
Dilution:	1.0			Initial Weight/Volume:	500 mL
Date Analyzed:	12/29/2010 0527			Final Weight/Volume:	0.5 mL
Date Prepared:	12/14/2010 1448			Injection Volume:	1 uL

MSD Lab Sample ID:	680-63890-1	Analysis Batch:	680-190184	Instrument ID:	MSG
Client Matrix:	Water	Prep Batch:	680-188952	Lab File ID:	g4896.d
Dilution:	1.0			Initial Weight/Volume:	500 mL
Date Analyzed:	12/29/2010 0555			Final Weight/Volume:	0.5 mL
Date Prepared:	12/14/2010 1448			Injection Volume:	1 uL

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1'-Biphenyl	82	82	54 - 130	1	50		
2,4-Dichlorophenol	80	81	54 - 130	2	50		
Nitrobenzene	85	89	56 - 130	5	50		
Pentachlorophenol	92	90	42 - 138	1	50		
2,4,6-Trichlorophenol	82	86	57 - 130	3	50		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	65	73	50 - 113
2-Fluorophenol	56	60	36 - 110
Nitrobenzene-d5	58	65	45 - 112
Phenol-d5	51	57	38 - 116
Terphenyl-d14	70	79	10 - 121
2,4,6-Tribromophenol	64	74	40 - 139

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-188952

Method: 8270C
Preparation: 3520C

MS Lab Sample ID:	680-63890-1	Analysis Batch: 680-190184	Instrument ID: MSG
Client Matrix:	Water	Prep Batch: 680-188952	Lab File ID: g4899.d
Dilution:	1.0		Initial Weight/Volume: 500 mL
Date Analyzed:	12/29/2010 0719		Final Weight/Volume: 0.5 mL
Date Prepared:	12/14/2010 1448		Injection Volume: 1 uL

MSD Lab Sample ID:	680-63890-1	Analysis Batch: 680-190184	Instrument ID: MSG
Client Matrix:	Water	Prep Batch: 680-188952	Lab File ID: g4900.d
Dilution:	1.0		Initial Weight/Volume: 500 mL
Date Analyzed:	12/29/2010 0747		Final Weight/Volume: 0.5 mL
Date Prepared:	12/14/2010 1448		Injection Volume: 1 uL

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1-Chloro-3-nitrobenzene	78	71	10 - 130	9	50		
2-Nitrobiphenyl	95	99	10 - 130	4	50		
3-Nitrobiphenyl	97	93	10 - 130	4	50		
3,4-Dichloronitrobenzene	63	67	10 - 130	5	50		
4-Nitrobiphenyl	108	88	10 - 130	21	50		
2-chloronitrobenzene / 4-chloronitrobenzene	88	77	10 - 130	8	50		
1-chloro-2,4-dinitrobenzene	90	73	10 - 130	21	50		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	62	50	50 - 113
2-Fluorophenol	49	44	36 - 110
Nitrobenzene-d5	62	52	45 - 112
Phenol-d5	45	39	38 - 116
Terphenyl-d14	57	44	10 - 121
2,4,6-Tribromophenol	60	48	40 - 139

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Method Blank - Batch: 680-189349

Method: RSK-175
Preparation: N/A

Lab Sample ID: MB 680-189349/25
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/16/2010 1226
Date Prepared: N/A

Analysis Batch: 680-189349
Prep Batch: N/A
Units: ug/L

Instrument ID: VGUFID2
Lab File ID: UQ331.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: 680-189349

Method: RSK-175
Preparation: N/A

LCS Lab Sample ID: LCS 680-189349/24
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/16/2010 1200
Date Prepared: N/A

Analysis Batch: 680-189349
Prep Batch: N/A
Units: ug/L

Instrument ID: VGUFID2
Lab File ID: UQ329.D
Initial Weight/Volume: 17000 uL
Final Weight/Volume: 17 mL
Injection Volume: 1 uL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 680-189349/26
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/16/2010 1934
Date Prepared: N/A

Analysis Batch: 680-189349
Prep Batch: N/A
Units: ug/L

Instrument ID: VGUFID2
Lab File ID: UQ334.D
Initial Weight/Volume: 17000 uL
Final Weight/Volume: 17 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Ethane	120	109	75 - 125	10	30		
Ethylene	118	103	75 - 125	14	30		
Methane	117	108	75 - 125	8	30		

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Method Blank - Batch: 680-189163

Method: 6010B
Preparation: 3005A
Total Recoverable

Lab Sample ID: MB 680-189163/20-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/16/2010 2220
Date Prepared: 12/15/2010 1751

Analysis Batch: 680-189384
Prep Batch: 680-189163
Units: mg/L

Instrument ID: ICPD
Lab File ID: 1216101526.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: 680-189163

Method: 6010B
Preparation: 3005A
Total Recoverable

Lab Sample ID: LCS 680-189163/21-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/16/2010 2225
Date Prepared: 12/15/2010 1751

Analysis Batch: 680-189384
Prep Batch: 680-189163
Units: mg/L

Instrument ID: ICPD
Lab File ID: 1216101526.chr
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Iron	1.00	1.02	102	75 - 125	
Iron, Dissolved	1.00	1.02	102	75 - 125	
Manganese	0.500	0.513	103	75 - 125	
Manganese, Dissolved	0.500	0.513	103	75 - 125	

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Method Blank - Batch: 680-189751

Method: 310.1
Preparation: N/A

Lab Sample ID: MB 680-189751/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/21/2010 1152
Date Prepared: N/A

Analysis Batch: 680-189751
Prep Batch: N/A
Units: mg/L

Instrument ID: MANTECH
Lab File ID: alk122110a.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 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: 680-189751

Method: 310.1
Preparation: N/A

LCS Lab Sample ID: LCS 680-189751/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/21/2010 1201
Date Prepared: N/A

Analysis Batch: 680-189751
Prep Batch: N/A
Units: mg/L

Instrument ID: MANTECH
Lab File ID: alk122110a.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

LCSD Lab Sample ID: LCSD 680-189751/29
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/21/2010 1507
Date Prepared: N/A

Analysis Batch: 680-189751
Prep Batch: N/A
Units: mg/L

Instrument ID: MANTECH
Lab File ID: alk122110a.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Alkalinity	96	89	80 - 120	7	30		

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Method Blank - Batch: 680-189845

Method: 310.1
Preparation: N/A

Lab Sample ID: MB 680-189845/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/21/2010 1911
Date Prepared: N/A

Analysis Batch: 680-189845
Prep Batch: N/A
Units: mg/L

Instrument ID: MANTECH
Lab File ID: alk122110c.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Alkalinity	5.0	U	5.0
Carbon Dioxide, Free	11.7		5.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 680-189845

Method: 310.1
Preparation: N/A

LCS Lab Sample ID: LCS 680-189845/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/21/2010 1919
Date Prepared: N/A

Analysis Batch: 680-189845
Prep Batch: N/A
Units: mg/L

Instrument ID: MANTECH
Lab File ID: alk122110c.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

LCSD Lab Sample ID: LCSD 680-189845/29
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/21/2010 2210
Date Prepared: N/A

Analysis Batch: 680-189845
Prep Batch: N/A
Units: mg/L

Instrument ID: MANTECH
Lab File ID: alk122110c.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Alkalinity	91	93	80 - 120	2	30		

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Method Blank - Batch: 680-189417

Method: 325.2
Preparation: N/A

Lab Sample ID: MB 680-189417/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/17/2010 1413
Date Prepared: N/A

Analysis Batch: 680-189417
Prep Batch: N/A
Units: mg/L

Instrument ID: KONELAB1
Lab File ID: KONE1121710B1CLA.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: 680-189417

Method: 325.2
Preparation: N/A

Lab Sample ID: LCS 680-189417/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/17/2010 1406
Date Prepared: N/A

Analysis Batch: 680-189417
Prep Batch: N/A
Units: mg/L

Instrument ID: KONELAB1
Lab File ID: KONE1121710B1CLA.xls
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride	50.0	51.3	103	85 - 115	

AG 3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Method Blank - Batch: 680-188846

Method: 353.2
Preparation: N/A

Lab Sample ID: MB 680-188846/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/09/2010 1731
Date Prepared: N/A

Analysis Batch: 680-188846
Prep Batch: N/A
Units: mg/L

Instrument ID: Latchat 2
Lab File ID: OM_12-9-2010_17-04-23.OM
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: 680-188846

Method: 353.2
Preparation: N/A

Lab Sample ID: LCS 680-188846/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/09/2010 1732
Date Prepared: N/A

Analysis Batch: 680-188846
Prep Batch: N/A
Units: mg/L

Instrument ID: Latchat 2
Lab File ID: OM_12-9-2010_17-04-23.OM
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N	1.00	0.976	98	90 - 110	
Nitrite as N	0.500	0.491	98	90 - 110	

3/11/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Method Blank - Batch: 680-188847

Method: 353.2
Preparation: N/A

Lab Sample ID: MB 680-188847/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/10/2010 1631
Date Prepared: N/A

Analysis Batch: 680-188847
Prep Batch: N/A
Units: mg/L

Instrument ID: Latchat 2
Lab File ID: OM_12-10-2010_16-04-31.OM
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: 680-188847

Method: 353.2
Preparation: N/A

Lab Sample ID: LCS 680-188847/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/10/2010 1632
Date Prepared: N/A

Analysis Batch: 680-188847
Prep Batch: N/A
Units: mg/L

Instrument ID: Latchat 2
Lab File ID: OM_12-10-2010_16-04-31.OM
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N	1.00	0.995	99	90 - 110	
Nitrite as N	0.500	0.497	99	90 - 110	

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-188847

Method: 353.2
Preparation: N/A

MS Lab Sample ID:	680-63928-1	Analysis Batch: 680-188847	Instrument ID: Latchat 2
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: OM_12-10-2010_16-04-31.C
Dilution:	5.0		Initial Weight/Volume: 10 mL
Date Analyzed:	12/10/2010 1701		Final Weight/Volume: 10 mL
Date Prepared:	N/A		

MSD Lab Sample ID:	680-63928-1	Analysis Batch: 680-188847	Instrument ID: Latchat 2
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: OM_12-10-2010_16-04-31.OM
Dilution:	5.0		Initial Weight/Volume: 10 mL
Date Analyzed:	12/10/2010 1704		Final Weight/Volume: 10 mL
Date Prepared:	N/A		

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Nitrate Nitrite as N	95	98	90 - 110	1	10		
Nitrite as N	98	99	90 - 110	0	10		

3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Method Blank - Batch: 680-189461

Method: 375.4
Preparation: N/A

Lab Sample ID: MB 680-189461/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/18/2010 1053
Date Prepared: N/A

Analysis Batch: 680-189461
Prep Batch: N/A
Units: mg/L

Instrument ID: KONELAB1
Lab File ID: KONE11218101SO4B.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: 680-189461

Method: 375.4
Preparation: N/A

Lab Sample ID: LCS 680-189461/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/18/2010 1053
Date Prepared: N/A

Analysis Batch: 680-189461
Prep Batch: N/A
Units: mg/L

Instrument ID: KONELAB1
Lab File ID: KONE11218101SO4B.xls
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Sulfate	20.0	18.6	93	75 - 125	

AO 3/1/11

Client: Solutia Inc.

Job Number: 680-63890-1
Sdg Number: KOM010

Method Blank - Batch: 680-190005

Method: 415.1
Preparation: N/A

Lab Sample ID: MB 680-190005/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/22/2010 1717
Date Prepared: N/A

Analysis Batch: 680-190005
Prep Batch: N/A
Units: mg/L

Instrument ID: TOC3
Lab File ID: TOC122210.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: 680-190005

Method: 415.1
Preparation: N/A

Lab Sample ID: LCS 680-190005/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/22/2010 1747
Date Prepared: N/A

Analysis Batch: 680-190005
Prep Batch: N/A
Units: mg/L

Instrument ID: TOC3
Lab File ID: TOC122210.txt
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	20.0	19.7	98	80 - 120	

3/1/11

Serial Number 035183

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)
TAL (LAB) PROJECT MANAGER: LIOYA GULIZIA	P.O. NUMBER	CONTRACT NO.
CLIENT (SITE) PM	CLIENT PHONE: 314-674-3312	CLIENT FAX
CLIENT NAME: GM RINALDI	CLIENT E-MAIL: gmrinal@solutia.com	
CLIENT ADDRESS: SOLUTIA / 575 MARYVILLE CTR, ST. LOUIS MO		
COMPANY CONTRACTING THIS WORK (if applicable): S		

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

REQUIRED ANALYSIS: SVOC 8270C; TOTAL Fe/Mn 6010B; Al/CO2 810.1; Chloride 325.2; Sulfate 375.4; Methane RSK Ethane Ethene; Nitrate 353.2; TOC 415.1; Diss Fe/Mn 6010B; DOC by 415.1

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	COMP (C) OR GRAB (G)	AQUEOUS (W)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID	SVOC 8270C	TOTAL Fe/Mn 6010B	Al/CO2 810.1	Chloride 325.2	Sulfate 375.4	Methane RSK	Ethane	Ethene	Nitrate 353.2	TOC 415.1	Diss Fe/Mn 6010B	DOC by 415.1	REMARKS
								HCl	none	none	none	none	none	none	none	H2SO4	HCl	HCl	HCl	
12-8-10	1600	GM-58A-1210	G	W				2	1	1	1	3	2			1				
		GM-58A-1210-MS	G	W				2												
		GM-58A-1210-MSD	G	W				2												
		GM-58A-F(0.2)-1210	G	W														1	1	FILTERED

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RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	12-8-10	2000						
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. Daughtry	12/9/10	0910	YES ○ NO ○		680-63890	Temp 0.6/0.2

TAL 8240-680 (1008)

3/1/11

Serial Number 033943

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-R3-4Q10		IL
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
LIDYA G.		
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
GM RINALDI	314-674-3312	314-674-8808
CLIENT NAME	CLIENT E-MAIL	
SOLUTIA	gmrina@solutia.com	
CLIENT ADDRESS		
575 MARYVILLE CENTER DR ST. LOUIS MO 63141		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE ___ OF ___

STANDARD REPORT DELIVERY ☒

DATE DUE ___

EXPEDITED REPORT DELIVERY (SURCHARGE) ○

DATE DUE ___

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	REQUIRED ANALYSIS: SVOCs 8270C	Total Fe/Mn 6010B	Alk/CO_2 310.1	Chloride 325.2 / Sulfate 375.4	Methane RSK175 / Ethane / Ethene	Nitrate 353.2	TOC 415.1	Diss Fe/Mn 6010B	DOC by 415.1	REMARKS
								HCl	None	None	None	Meoh / H_2SO_4	H_2SO_4	HCl	HNO_3	HCl	
12-9-10	1045	GM-31A-1210						2	1	1	1	3	2	1			
↓	1045	GM-31A-1210-AD						2									
	1045	GM-31A-F(0.2)-1210													1	1	Filtered

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PRESERVATIVE

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	12-9-10	1800						
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
	12/10/10	0933	YES ○ NO ○		680-63928	3.2°C

TAL 8240-680 (1008)

Rev 3/11/11

Login Sample Receipt Check List

Client: Solutia Inc.

Job Number: 680-63890-1
SDG Number: KOM010

Login Number: 63890
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	2 coolers rec'd on ice
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	False	Miissing EB ID and submitted containers (2-1L SVOC).
COC is filled out with all pertinent information.	True	Lab PM corrected sampling month in EB ID for login.
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	False	Rec'd "GM-58A-1110-EB" not listed on COC
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	pH needs to be adjusted for the HCL container
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.	True	
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	

3/1/11

Login Sample Receipt Check List

Client: Solutia Inc.

Job Number: 680-63890-1
SDG Number: KOM010

Login Number: 63928
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	3.2 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?	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	False	pH greater than 2 on metals bottle -3
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	

3/1/11

MJW CORPORATION
Radiation Consulting Professionals

March 9, 2011

Mr. Duane T. Kreuger
Geotechnology, Inc.
11816 Lackland Road Suite 150
St. Louis, MO 63146

Dear Mr. Kreuger:

The data reported by Test America Laboratories under SDG KOM010 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 samples in **bold type** have been validated for level IV validation. The data in this report has either been approved for use, approved with qualification, or rejected.

- **GM-31A-1210 (Lab ID: 680-63928-1)**
- GM-31A-1210 AD (Lab ID: 680-63928-2 FD)
- **GM-31A-F(0.2)-1210 (Lab ID: 680-63928-3)**
- **GM-58A-1210 (Lab ID: 680-63890-1)**
- GM-58A-1210-MS (Lab ID: 680-63890-1MS)
- GM-58A-1210-MSD (Lab ID: 680-63890-1MSD)
- **GM-58A-F(0.2)-1210 (Lab ID: 680-63890-2)**
- GM-58A-1210-EB (Lab ID: 680-63890-3EB)

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, CES
Senior Scientist

Approved by:

David A. Dooley

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QUALITY ASSURANCE REPORT

Solutia Inc.
W.G. Krummrich Facility
Sauget, Illinois

4th Quarter 2010 Data Validation Report
Illinois Route 3 Drum Site
SDG: KOM010

Prepared for

GEOTECHNOLOGY, INC.
11816 Lackland Road, Suite 150
St. Louis, MO 63146

March 2011

MJW

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Project # 2010-1918

Summary Data Qualifiers

Summary of Sample Data Qualifiers

SDG # KOM010 Site Name Solutia W.G. Krummrich Plant (Drum Site)

Client ID	Lab ID	Matrix	TOC	DOC	2-chloronitrobenzene/ 4-chloronitrobenzene
GM-31A-1210	680-63928-1	Water	R		J
GM-31A-1210-AD	680-63928-2	Water			J
GM-31A-F(0.2)-1210	680-63928-3	Water		R	
GM-58A-1210	680-63890-1	Water	J		J
GM-58A-F(0.2)-1210	680-63890-2	Water		J	
GM-58A-1210-EB	680-63890-3	Water			J

Data Outlier Forms

Total and Dissolved Analyses

Sample	Analyte	Total Amt (mg/L)	Dissolved Amt (mg/L)	Qualifier
GM-31A-1210	Iron	1.50	0.05	none
GM-31A-1210	Manganese	1.200	1.20	none
GM-58A-1210	Iron	0.47	0.05	none
GM-58A-1210	Manganese	1.300	1.40	none
GM-31A-1210	Organic Carbon	3.90	10.0	R
GM-58A-1210	Organic Carbon	3.300	4.5	J

Data Package: KOM010

Date: 3/09/11

Calibration Quality Control

Samples Affected	Matrix	Analyte	Detector/Problem	Qualifier
GM-58A-1210	Water	2-chloronitrobenzene/4-chloronitrobenzene	Initial Cal 35.2%	J
GM-58A-1210	Water	2-chloronitrobenzene/4-chloronitrobenzene	CCal 29.6%	J
GM-58A-1210-EB	Water	2-chloronitrobenzene/4-chloronitrobenzene	CCal 29.6%	J
GM-31A-1210	Water	2-chloronitrobenzene/4-chloronitrobenzene	CCal 26.3%	J
GM-31A-1210-AD	Water	2-chloronitrobenzene/4-chloronitrobenzene	CCal 26.3%	J

DATA ASSESSMENT NARRATIVE
(INORGANICS)

INORGANIC DATA ASSESSMENT NARRATIVE

Site: Solutia W.G. Krummich Plant (Drum Site) Matrix: Soil _____

SDG# KOM010 Lab Test America Water X

Contractor Geotechnology Inc. Reviewer Annette Guilds-MJW Other _____

A.2.1 Validation **Flags-** The following flags have been applied in red by the data validator and must be considered by the data user.

J- This flag indicates the result qualified as **estimated**

Red- Line- A red line drawn through a sample result indicates **unusable** value. The red lined data are known to contain significant errors based on documented information and must not be used by the data user.

Fully Usable Data- The results that do not carry "J" or "red-line" are fully **usable**.

Contractual Qualifiers- The legend of contractual qualifiers applied by the lab on Form I's is found on page B-20 of SOW ILM01.0.

A.2.2 The data assessment is given below.

- **Data is usable with the exception of Total Organic Carbon (TOC) and Dissolved Organic Carbon (DOC), which has been rejected for sample GM-31A-1210 and estimated for sample GM-58A-1210 because all DOC results are greater than the corresponding TOC results and that is not possible. The validator cannot determine whether the error was in the field filtering or in the laboratory analyses.**

The following bulleted items summarize additional comments where data has not been qualified but it is recommended that additional communication with the laboratory be conducted to further assess the data.

- In the Laboratory Case Narrative, the lab reports MS/MSD out of control situations but they do not properly qualify the control data. In one instance the Chloride was greater than 4X the spike. Even though this does not qualify the sample data, the lab should have qualified the spike data with a "4". Instead the lab did not even include the MS/MSD data in the report. In the other instance the lab reported that the MSD recoveries were out of control for Sulfate but that the LCS met criteria. Even though this does not qualify the sample data, the lab should have qualified the spike data with an "E". Instead the lab did not even include the MS/MSD data in the report. The validator suggests that all analysis always be reported whether it passes QC or not. That is just good laboratory practice.

A.2.3 Contract-Problem/Non-Compliance

-

Data Reviewer: Annette Guilds Date: 3/09/2011
Signature

MJW Approval: David A. Dooley Date: 3/09/2011
Signature

DATA ASSESSMENT NARRATIVE
(ORGANICS)

ORGANIC DATA ASSESSMENT

Functional Guidelines for Evaluating Organic Analysis

CASE NO.: _____ SDG NO.: KOM010 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.

Data is usable except for the following samples:

Samples GM-31A-1210, GM-58A-1210, GM-58A-1210-EB, and GM-31A-1210-AD were qualified as estimated "J" for 2-chloronitrobenzene/4-chloronitrobenzene due to initial and continuing calibrations that had a %D greater than 30% AND 25% respectively.

Reviewer's Signature: Annette Gentis Date: 3/09/2011

MJW Approval: David A. Dobay Date: 3/09/2011

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: 2-chloronitrobezene/4-chloronitrobenzene has %D 35.2. All samples associated with this analyte have been qualified "J"

Continuing calibration-BNA's: 2-chloronitrobezene/4-chloronitrobenzene has %D 29.6 on 12/29/10 and 26.3% on 1/11/11. All samples associated with this analyte have been qualified "J".

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: **A field duplicate was analyzed for sample GM-31A-1210 and all %RPD's were acceptable.**

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

CERTIFICATES OF ANALYSIS (COA's)

with Data Validation Qualifiers Added

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GM-58A-1210
Lab Sample ID: 680-63890-1
Lab Name: TestAmerica Savannah
Job No.: 680-63890-1
SDG ID.: KOM010
Matrix: Water
Date Sampled: 12/08/2010 16:00
Reporting Basis: WET
Date Received: 12/09/2010 09:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
16887-00-6	Chloride	49	1.0	0.18	mg/L			1	325.2
14797-55-8	Nitrate as N	0.50	0.050	0.010	mg/L			1	353.2
14808-79-8	Sulfate	100	25	13	mg/L			5	375.4
7440-44-0	Total Organic Carbon	3.3	1.0	0.50	mg/L			1	415.1

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: GM-58A-F(0.2)-1210
Lab Sample ID: 680-63890-2
Lab Name: TestAmerica Savannah
Job No.: 680-63890-1
SDG ID.: KOM010
Matrix: Water
Date Sampled: 12/08/2010 16:00
Reporting Basis: WET
Date Received: 12/09/2010 09:12

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	4.5	1.0	0.50	mg/L		3	1	415.1

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GM-31A-1210
Lab Sample ID: 680-63928-1
Lab Name: TestAmerica Savannah
Job No.: 680-63890-1
SDG ID.: KOM010
Matrix: Water
Date Sampled: 12/09/2010 10:45
Reporting Basis: WET
Date Received: 12/10/2010 09:33

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
16887-00-6	Chloride	26	1.0	0.18	mg/L			1	325.2
14797-55-8	Nitrate as N	1.2	0.25	0.050	mg/L			5	353.2
14808-79-8	Sulfate	99	25	13	mg/L			5	375.4
7440-44-0	Total Organic Carbon	3.9	1.0	0.50	mg/L		R	1	415.1

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: GM-31A-F(0.2)-1210
Lab Sample ID: 680-63928-3
Lab Name: TestAmerica Savannah
Job No.: 680-63890-1
SDG ID.: KOM010
Matrix: Water
Date Sampled: 12/09/2010 10:45
Reporting Basis: WET
Date Received: 12/10/2010 09:33

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	10	1.0	0.50	mg/L		K	1	415.1

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-63890-1

SDG No.: KOM010

Client Sample ID: GM-58A-1210 | Lab Sample ID: 680-63890-1

Matrix: Water | Lab File ID: g4890.d

Analysis Method: 8270C | Date Collected: 12/08/2010 16:00

Extract. Method: 3520C | Date Extracted: 12/14/2010 14:48

Sample wt/vol: 500(mL) | Date Analyzed: 12/29/2010 03:07

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 190184 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	10	U	10	0.58
120-83-2	2,4-Dichlorophenol	10	U	10	1.1
98-95-3	Nitrobenzene	10	U	10	0.73
87-86-5	Pentachlorophenol	50	U	50	2.0
88-06-2	2,4,6-Trichlorophenol	17		10	0.85
121-73-3	1-Chloro-3-nitrobenzene	10	U	10	4.4
86-00-0	2-Nitrobiphenyl	10	U	10	4.3
2113-58-8	3-Nitrobiphenyl	10	U	10	4.1
99-54-7	3,4-Dichloronitrobenzene	10	U	10	4.2
92-93-3	4-Nitrobiphenyl	10	U	10	3.6
STL00671	2-chloronitrobenzene / 4-chloronitrobenzene	91	J	20	20
97-00-7	1-chloro-2,4-dinitrobenzene	10	U	10	10

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	50		50-113
367-12-4	2-Fluorophenol	42		36-110
4165-60-0	Nitrobenzene-d5	45		45-112
4165-62-2	Phenol-d5	38		38-116
1718-51-0	Terphenyl-d14	49		10-121
118-79-6	2,4,6-Tribromophenol	48		40-139

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-63890-1

SDG No.: KOM010

Client Sample ID: GM-58A-1210-EB | Lab Sample ID: 680-63890-3

Matrix: Water | Lab File ID: g4907.d

Analysis Method: 8270C | Date Collected: 12/08/2010 00:00

Extract. Method: 3520C | Date Extracted: 12/14/2010 14:48

Sample wt/vol: 1030(mL) | Date Analyzed: 12/29/2010 15:40

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 190290 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	9.7	U	9.7	0.56
120-83-2	2,4-Dichlorophenol	9.7	U	9.7	1.1
98-95-3	Nitrobenzene	9.7	U	9.7	0.71
87-86-5	Pentachlorophenol	49	U	49	1.9
88-06-2	2,4,6-Trichlorophenol	9.7	U	9.7	0.83
121-73-3	1-Chloro-3-nitrobenzene	9.7	U	9.7	4.3
86-00-0	2-Nitrobiphenyl	9.7	U	9.7	4.2
2113-58-8	3-Nitrobiphenyl	9.7	U	9.7	4.0
99-54-7	3,4-Dichloronitrobenzene	9.7	U	9.7	4.1
92-93-3	4-Nitrobiphenyl	9.7	U	9.7	3.5
STL00671	2-chloronitrobenzene / 4-chloronitrobenzene	19	U	19	19
97-00-7	1-chloro-2,4-dinitrobenzene	9.7	U	9.7	9.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	86		50-113
367-12-4	2-Fluorophenol	62		36-110
4165-60-0	Nitrobenzene-d5	72		45-112
4165-62-2	Phenol-d5	56		38-116
1718-51-0	Terphenyl-d14	54		10-121
118-79-6	2,4,6-Tribromophenol	65		40-139

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-63890-1

SDG No.: KOM010

Client Sample ID: GM-31A-1210 | Lab Sample ID: 680-63928-1

Matrix: Water | Lab File ID: g5132.d

Analysis Method: 8270C | Date Collected: 12/09/2010 10:45

Extract. Method: 3520C | Date Extracted: 12/14/2010 14:48

Sample wt/vol: 1050(mL) | Date Analyzed: 01/11/2011 12:20

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 191242 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	9.5	U	9.5	0.55
120-83-2	2,4-Dichlorophenol	9.5	U	9.5	1.0
98-95-3	Nitrobenzene	11		9.5	0.70
87-86-5	Pentachlorophenol	48	U	48	1.9
88-06-2	2,4,6-Trichlorophenol	110		9.5	0.81
121-73-3	1-Chloro-3-nitrobenzene	10		9.5	4.2
86-00-0	2-Nitrobiphenyl	9.5	U	9.5	4.1
2113-58-8	3-Nitrobiphenyl	9.5	U	9.5	3.9
99-54-7	3,4-Dichloronitrobenzene	9.5	U	9.5	4.0
92-93-3	4-Nitrobiphenyl	9.5	U	9.5	3.4
STL00671	2-chloronitrobenzene / 4-chloronitrobenzene	85	J	19	19
97-00-7	1-chloro-2,4-dinitrobenzene	9.5	U	9.5	9.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	70		50-113
367-12-4	2-Fluorophenol	62		36-110
4165-60-0	Nitrobenzene-d5	70		45-112
4165-62-2	Phenol-d5	57		38-116
1718-51-0	Terphenyl-d14	35		10-121
118-79-6	2,4,6-Tribromophenol	81		40-139

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 680-63890-1

SDG No.: KOM010

Client Sample ID: GM-31A-1210-AD | Lab Sample ID: 680-63928-2

Matrix: Water | Lab File ID: g5133.d

Analysis Method: 8270C | Date Collected: 12/09/2010 10:45

Extract. Method: 3520C | Date Extracted: 12/14/2010 14:48

Sample wt/vol: 1050(mL) | Date Analyzed: 01/11/2011 12:48

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup: (Y/N) N

Analysis Batch No.: 191242 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	9.5	U	9.5	0.55
120-83-2	2,4-Dichlorophenol	9.5	U	9.5	1.0
98-95-3	Nitrobenzene	11		9.5	0.70
87-86-5	Pentachlorophenol	48	U	48	1.9
88-06-2	2,4,6-Trichlorophenol	120		9.5	0.81
121-73-3	1-Chloro-3-nitrobenzene	12		9.5	4.2
86-00-0	2-Nitrobiphenyl	9.5	U	9.5	4.1
2113-58-8	3-Nitrobiphenyl	9.5	U	9.5	3.9
99-54-7	3,4-Dichloronitrobenzene	9.5	U	9.5	4.0
92-93-3	4-Nitrobiphenyl	9.5	U	9.5	3.4
STL00671	2-chloronitrobenzene / 4-chloronitrobenzene	92	J	19	19
97-00-7	1-chloro-2,4-dinitrobenzene	9.5	U	9.5	9.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	76		50-113
367-12-4	2-Fluorophenol	70		36-110
4165-60-0	Nitrobenzene-d5	78		45-112
4165-62-2	Phenol-d5	68		38-116
1718-51-0	Terphenyl-d14	44		10-121
118-79-6	2,4,6-Tribromophenol	87		40-139