SOLUTIA

Solutions for a better life.

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

P.O. Box 66760
St. Louis, Missouri 63166-6760
Tel 314-674-1000

July 22, 2010

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

VIA FEDEX

Re: Route 3 Drum Site Groundwater Monitoring Program
2nd 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 2nd 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

A separate report evaluating all of the Drum Site monitoring data collected from 3rd quarter 2008 through 2nd quarter 2010, i.e., since the February 2008 Final Decision, and making recommendations for changes going forward will be submitted shortly.

Sincerely,

Gerald M. Rinaldi
Manager, Remediation Services

Enclosure

cc: Distribution List

DISTRIBUTION LIST

Route 3 Drum Site Groundwater Monitoring Program
2nd Quarter 2010 Data Report
Solutia Inc., W. G. Krummrich Plant, Sauget, IL

USEPA

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

IEPA

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

Solutia

Justin Prien 500 Monsanto Avenue, Sauget, IL 62206-1198

2ND QUARTER 2010
DATA REPORT

ILLINOIS ROUTE 3 DRUM SITE GROUNDWATER SAMPLING

SOLUTIA INC.
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

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

July 2010

URS Corporation
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St. Louis, MO 63110
(314) 429-0100
Project # 21562046.00004

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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 2nd Quarter 2010 (2Q10). The Site is located in the area identified as "Lot F" in **Figure 1**.

During the 2Q10 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 will be determined by measurements of the following key geochemical parameters: alkalinity, carbon dioxide, chloride, dissolved oxygen (DO), ferrous iron, 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

URS Corporation (URS) personnel collected groundwater level measurements on May 14, 2010 and conducted the 2Q10 Illinois Route 3 Drum Site groundwater sampling on May 27, 2010[1]. Groundwater samples were collected from two monitoring wells during the 2Q10 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 2Q10 sampling event are presented in **Table 1**. NAPL was not detected in either of the monitoring wells.

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

[1] The May 14th gauging was part of a comprehensive event which included monitoring wells associated with other WGK programs. Groundwater levels in the subject wells were gauged again on May 27th prior to sampling.

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, ferrous iron, and oxidation reduction potential).

Samples for analysis of ferrous iron, dissolved iron, dissolved organic carbon, and dissolved manganese were filtered in the field using in-line 0.2 micron disposable filters.

Quality Assurance/Quality Control (QA/QC) samples consisting of analytical duplicates (AD) 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-0510” which denotes Groundwater Monitoring well number 31A sampled in May 2010. QA/QC samples are identified by the suffix AD or MS/MSD. A notation of “F” in the sample nomenclature indicates a sample that was filtered in the field with a 0.2 micron filter.

Upon collection and labeling, sample containers were immediately placed inside an iced cooler, packed in such a way as to help prevent breakage and maintain inside temperature at or below approximately 4^{o}C. Field personnel recorded the project identification and number, sample

description/location, required analysis, date and time of sample collection, type and matrix of sample, number of sample containers, analysis requested/comments, and sampler signature/date/time, with permanent ink on the chain-of-custody (COC). Prior to shipment, coolers were sealed between the lid and sides of the cooler with a custody seal, and then shipped to TestAmerica in Savannah, Georgia by means of overnight delivery service. Field sampling data sheets are included in **Appendix A**. COC forms are included in **Appendix B**.

3.0 LABORATORY PROCEDURES

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

- SVOCs, via USEPA SW-846 Method 8270C - The constituents of concern (COCs) identified by the USEPA are biphenyl, 2,4-dichlorophenol, dinitrochlorobenzene, 3-nitrobenzene, 2-nitrobiphenyl, 3-nitrobiphenyl, 4-nitrobiphenyl, 2-nitrochlorobenzene, nitrochlorobenzene, 4-nitrochlorobenzene, pentachlorophenol, and 2,4,6-trichlorophenol.
- MNA parameters consisted of alkalinity (310.1), carbon dioxide (310.1), chloride (325.2), total and dissolved iron (6010B), total and dissolved manganese (6010B), dissolved organic carbon (415.1), nitrate (353.2), sulfate (375.4), dissolved gases (RSK-175), and total organic carbon (TOC) (415.1).

Laboratory results were provided in electronic and hard copy formats.

4.0 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 pair, 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) KOM08 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 (**J/UJ**) data, was 100 percent.

5.0 OBSERVATIONS

SVOCs were detected in the groundwater sample collected from monitoring well GM-58A during the 2Q10 sampling event. Laboratory analytical data for groundwater sample GM-58A-0510 indicate detections of 2,4,6-Trichlorophenol and 2-Chloronitrobenzene/4-Chloronitrobenzene at estimated concentrations of 12 µg/L and 130 µg/L, respectively. A summary of SVOC detections is provided in **Table 2**, with MNA results provided in **Table 3**.

The 2Q10 sampling event was the eigth event conducted in accordance with the Revised Illinois Route 3 Drum Site Operations and Maintenance Plan. Groundwater samples have been collected for eight quarters. Consequently, the results have been analyzed to determine if any statistically significant changes have occurred for any of the constituents of concern. In addition, MNA results have been reviewed/analyzed to determine the types and magnitude of active natural attenuation processes at the Site. A report documenting these analyses will be provided under separate cover.

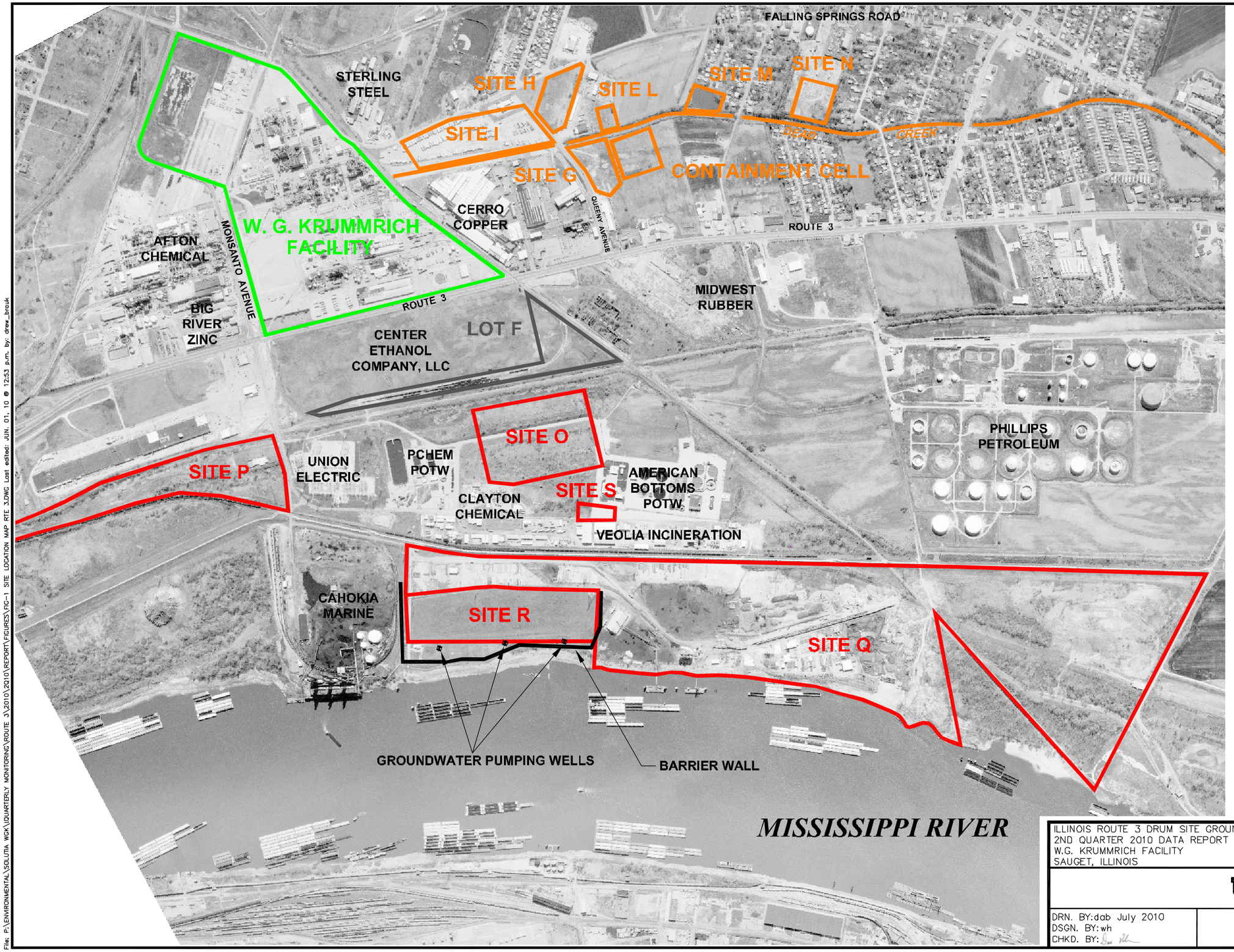
6.0 REFERENCES

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.

Figures



LEGEND

- W.G. KRUMMRICH FACILITY
- SAUGET AREA #1
- SAUGET AREA #2

0 1000

SCALE FEET

ILLINOIS ROUTE 3 DRUM SITE GROUNDWATER SAMPLING
2ND QUARTER 2010 DATA REPORT
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

PROJECT NO. 21562046

URS

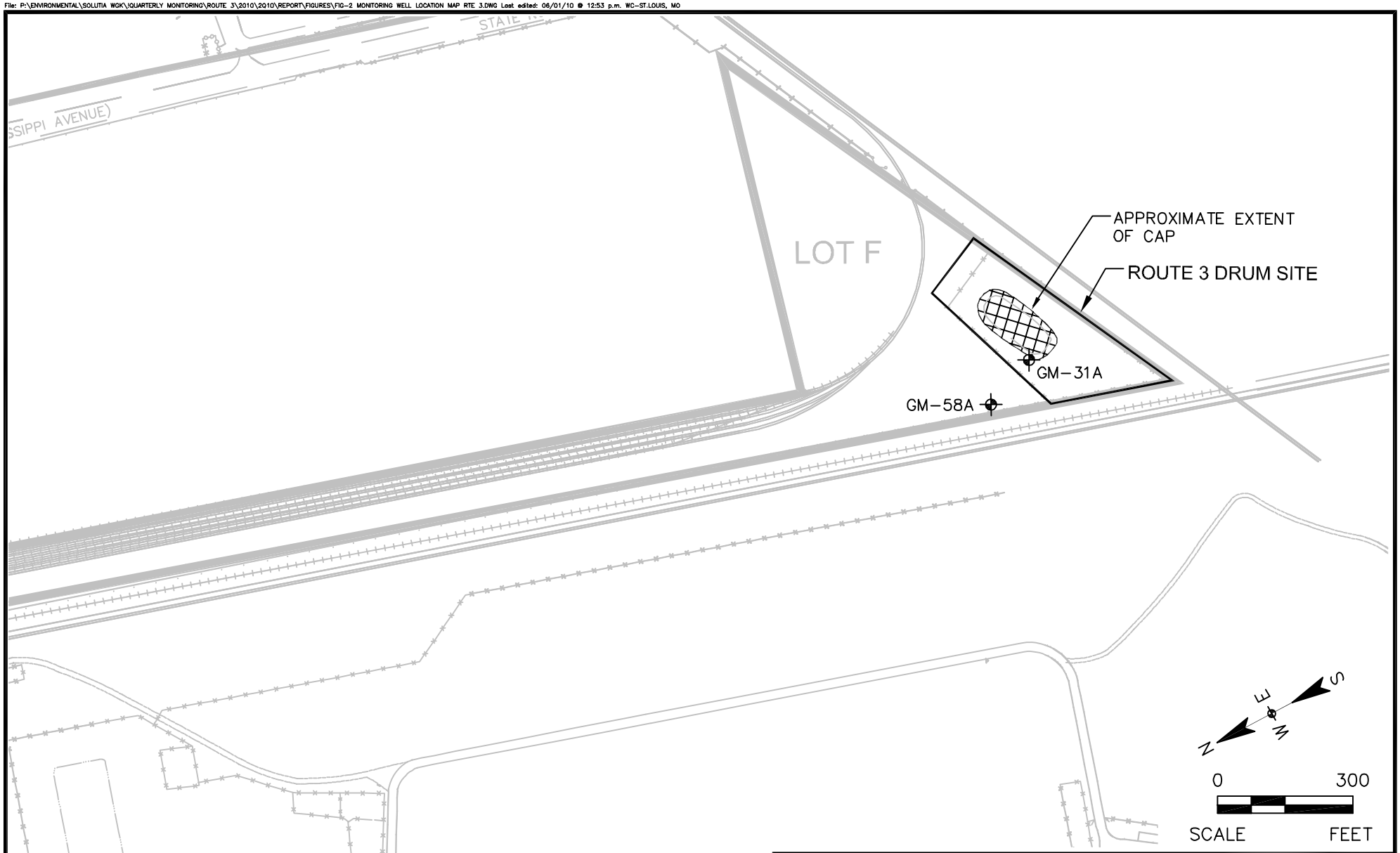
DRN. BY:dab July 2010
DSGN. BY:wh
CHKD. BY:

Site Location Map

FIG. NO. 1

File: P:\ENVIRONMENTAL\SOLUTIA WGK\QUARTERLY MONITORING\ROUTE 3\2010\2010\REPORT\FIGURES\FIG-1 SITE LOCATION MAP RTE 3.DWG Last edited: JUN. 01, 10 @ 12:53 p.m. by: drew_brouk

File: P:\ENVIRONMENTAL\SOLUTIA WGK\QUARTERLY MONITORING\ROUTE 3\2010\2010\REPORT\FIGURES\FIG-2 MONITORING WELL LOCATION MAP RTE 3.DWG Last edited: 06/01/10 @ 12:53 p.m. WC-ST.LOUIS, MO



LEGEND

⊕ MONITORING WELL LOCATION

ILLINOIS ROUTE 3 DRUM SITE GROUNDWATER SAMPLING 2ND QUARTER 2010 DATA REPORT W.G. KRUMMRICH FACILITY SAUGET, ILLINOIS		PROJECT NO. 21562046
URS		
DRN. BY: dab July 2010 DSGN. BY: ekf CHKD. BY:	**Monitoring Well Location Map**	FIG. NO. 2

Tables

Table 1
Monitoring Well Gauging Information

Well ID	Construction Details						May 14, 2010		
	Ground Elevation* (feet)	Top of 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 ft NAVD 88)									
GM-31A	416.63	418.63	19.00	39.00	397.63	377.63	16.30	40.26	402.33
GM-58A	412.24	414.24	19.40	39.40	392.84	372.84	11.96	40.87	402.28

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 (ug/L)	1-Chloro-2,4-Dinitrobenzene (ug/L)	1-Chloro-3-Nitrobenzene (ug/L)	2,4,6-Trichlorophenol (ug/L)	2,4-Dichlorophenol (ug/L)	2-Chloronitrobenzene/ 4-Chloronitrobenzene (ug/L)	2-Nitrobiphenyl (ug/L)	3-Nitrobiphenyl (ug/L)	3,4-Dichloronitrobenzene (ug/L)	4-Nitrobiphenyl (ug/L)	Nitrobenzene (ug/L)	Pentachlorophenol (ug/L)
Shallow Hydrogeologic Unit (SHU 395 - 380 ft NAVD 88)													
GM-31A-0510	5/27/2010	<9.4	<9.4	<9.4	<9.4	<9.4	<19	<9.4*	<9.4	<9.4	<9.4*	<9.4	<47
GM-31A-0510-AD	5/27/2010	<9.7	<9.7	<9.7	<9.7	<9.7	<19	<9.7*	<9.7	<9.7	<9.7*	<9.7	<49
GM-58A-0510	5/27/2010	<10	<10	<10	**12 J**	<10	**130 J**	<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

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 (ug/L)	Ethylene (ug/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-0510	5/27/2010	450	28	88	0.03	0.48	7.7		0.058		0.86		0.95	3.1	290		3.9	222.2
GM-31A-F(0.2)-0510-AD	5/27/2010							0.05		<0.05		0.86				3.8		
GM-58A-0510	5/27/2010	490	39	94	0.1	<0.35	<0.33		0.81		1.9		2.6	<0.05	200		3.7	218.1
GM-58A-F(0.2)-0510	5/27/2010							0.52		0.74		1.8				3.5		

Notes:
DO and ORP were measured in the field using a YSI 6920 equipped with a flow-through cell.
Ferrous Iron readings were measured in the field using a LaMotte Colorimeter after the groundwater passed through a 0.2 µm filter.
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 = milivolts

Appendix A

Groundwater Purging and Sampling Forms

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: WGK Route 3 Drum Lot | PROJECT NUMBER: 21562046.00000 | FIELD PERSONNEL: Mike Corbett, Susie Jansen
DATE: 5/27/10 | WEATHER: sunny, 80s
MONITORING WELL ID: GM-31A | SAMPLE ID: GM-31A-0510 , GM-31A-0510-AD

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 40.26 ft
Constructed Well Depth (btoc): 41.00 ft
Depth to Water (btoc): 13.19 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): 27.07 ft
If Depth to Top of Screen is > Depth to Water AND Screen Lenth 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 ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 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

Volume of Flow Through Cell): 750 mL
Minimum Purge Volume =
(3 x Flow Through Cell Volume) 2,250 mL
Ambient PID/FID Reading: 5.8 ppm
Wellbore PID/FID Reading: 5.8 ppm

PURGE DATA

Pump Type: Stainless Steel Monsoon

					±0.2 units		±3 %		±10 % or 0.2 mg/L	±20 mV
Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (ms/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
0	1042	13.20	colorless	none	6.57	17.83	1.701	3.6	0.12	198.7
750	1045				6.56	17.99	1.697	52.6	0.07	199.7
1,500	1048				6.55	18.06	1.699	48.7	0.06	200.3
2,250	1051				6.54	18.02	1.702	38.2	0.05	201.2
3,000	1054				6.53	18.13	1.701	34.6	0.05	201.8
3,750	1057				6.53	18.24	1.700	29.3	0.05	202.9
4,500	1100				6.52	18.37	1.700	26.7	0.05	203.7
5,250	1103				6.51	18.50	1.700	23.6	0.06	205.6
6,000	1106				6.50	18.28	1.697	20.9	0.05	207.0
6,750	1109				6.50	18.31	1.693	20.6	0.05	208.2
7,500	1112				6.49	18.67	1.692	18.8	0.07	209.7
8,250	1115				6.48	18.89	1.689	22.0	0.37	213.4
9,000	1118				6.47	18.49	1.692	21.2	0.37	214.9
9,750	1121				6.47	18.47	1.694	18.5	0.43	215.9
10,500	1124				6.45	19.11	1.686	22.7	0.02	216.9

Start Time: 1042
Stop Time: 1133
Elapsed Time: 51 min.
Average Purge Rate (mL/min): 250
Water Quality Meter ID: YSI 6920
Date Calibrated: 5/27/10

SAMPLING DATA

Sample Date: 5/27/10
Sample Method: Stainless Steel Monsoon
Sample Time: 1140
Sample Flow Rate: 250 mL/min
Analysis: SVOCs, Metals, MNA
QA/QC Samples: Analytical Duplicate

COMMENTS:

MNA – Alkalinity, CO_2, Chloride, Ferrous Iron, Methane, Nitrate, Sulfate, DOC, TOC
Ferrous Iron (Filtered 0.2 micron) = 0.05 ppm

5/27/10

PURGE DATA CONTINUED: GM-31A

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (ms/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
11,250	1127	13.20	colorless	none	6.45	19.24	1.689	20.2	0.03	219.0
12,000	1130	↓	↓	↓	6.45	18.71	1.697	21.1	0.03	221.2
12,750	1133	↓	↓	↓	6.45	19.92	1.683	20.5	0.03	222.2

COMMENTS:

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: WGK Route 3 Drum Lot PROJECT NUMBER: 21562046.00000 FIELD PERSONNEL: Mike Corbett, Susie Jansen
DATE: 5/27/10 WEATHER: Sunny, 80s
MONITORING WELL ID: GM-58A SAMPLE ID: GM-58A-0510, GM-58A-0510-MS, GM-58A-0510-MSD

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 40.87 ft
Constructed Well Depth (btoc): 41.40 ft
Depth to Water (btoc): 8.82 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): 32.05 ft
If Depth to Top of Screen is > Depth to Water AND Screen Lenth 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 ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 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

Volume of Flow Through Cell): 750 mL
Minimum Purge Volume = (3 x Flow Through Cell Volume) 2,250 mL
Ambient PID/FID Reading: 1.4 ppm
Wellbore PID/FID Reading: 1.4 ppm

PURGE DATA

Pump Type: Peristaltic

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH (±0.2 units)	Temp (°C)	Cond. (ms/cm) (±3 %)	Turbidity (NTUs)	DO (mg/l) (±10 % or 0.2 mg/L)	ORP (mv) (±20 mV)
0	0855	8.82	colorless	none	6.58	16.08	1.483	7.8	0.37	222.3
750	0858				6.58	16.09	1.481	7.6	0.16	221.5
1,500	0901				6.58	16.06	1.484	8.7	0.13	220.9
2,250	0904				6.58	16.06	1.492	10.7	0.10	219.0
3,000	0907				6.57	16.04	1.497	9.9	0.10	218.1

Start Time: 0855
Stop Time: 0907
Elapsed Time: 12 min.
Average Purge Rate (mL/min): 250
Water Quality Meter ID: YSI 6920
Date Calibrated: 5/27/10

SAMPLING DATA

Sample Date: 5/27/10
Sample Method: Peristaltic
Sample Time: 0915
Sample Flow Rate: 250 mL/min.
Analysis: SVOCs, Metals, MNA
QA/QC Samples: MS/MSD

COMMENTS:

MNA – MNA – Alkalinity, CO_2, Chloride, Ferrous Iron, Methane, Nitrate, Sulfate, DOC, TOC
Ferrous Iron (Filtered 0.2 micron) = 0.52 ppm

Appendix B

Chain-of-Custody

Savannah
5102 LaRoche Avenue
Savannah, GA 31404
phone 912.354.7858 fax 912.352.0165

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Dave Palmer	Site Contact: Nathan McNurlen	Date: 5/27/10	COC No:
URS Corporation	Tel/Fax: (314) 743-4154	Lab Contact: Lidya Gulizia	Carrier: FedEx	1 of 1 COCs
1001 Highlands Plaza Drive West, Suite 300	Analysis Turnaround Time			Job No. 21562046.00000
St. Louis, MO 63110	Calendar (C) or Work Days (W)			SDG No.
(314) 429-0100 Phone	TAT if different from Below Standard			
(314) 429-0462 FAX	☐ 2 weeks			
Project Name: 2Q10 Route 3 Drum Lot GW Sampling	☐ 1 week			
Site: Solutia WG Krummrich Facility	☐ 2 days			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	SVOCs by 8270C	Total Fe/Mn by 6010B	Alk/CO2 by 310.1	Chloride by 325.2/Sulfate by 375.4	Methane, Ethane, Ethene by RSK 175	Nitrate by 353.2	TOC by 415.1	Dissolved Fe/Mn by 6010B	DOC by 415.1	Sample Specific Notes:
GM-31A-0510	5/27/10	1140	G	Water	11		2	1	1	1	3	2	1			2 Coolers
GM-31A-0510-AD		1140	G	Water	2		2									
GM-31A-F(0.2)-0510		1140	G	Water	2	X								1	1	
GM-58A-0510		0915	G	Water	11		2	1	1	1	3	2	1			
GM-58A-0510-MS		0915	G	Water	2		2									
GM-58A-0510-MSD		0915	G	Water	2		2									
GM-58A-F(0.2)-0510		0915	G	Water	2	X								1	1	
							1	4	1	1	1	3,1	2	4	2	

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Special Instructions/QC Requirements & Comments: Level 4 Data Package

680-58070
2.1|2.0

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	URS	5/27/10 1530			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: TLA SW	Date/Time: 5/28/10 0918

Appendix C

Quality Assurance Report

QUALITY ASSURANCE REPORT

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

Illinois Route 3 Drum Site
2nd Quarter 2010 Data Report

Prepared for

Solutia Inc.
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St. Louis, MO 63141

July 2010

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Project # 21562046

1.0 INTRODUCTION

This Quality Assurance Report presents the findings of a review of analytical data for groundwater samples collected in May 2010 at the Illinois Route 3 Drum Site on the Solutia W.G. Krummrich Facility as part of the 2nd Quarter 2010 sampling event. The samples were collected by URS Corporation personnel and analyzed by TestAmerica Laboratories located in Savannah, Georgia using USEPA methodologies. Samples were analyzed for site-specific semi-volatile organic compounds (SVOCs) and monitored natural attenuation (MNA) parameters.

One hundred percent of the data were subjected to a data quality review (Level III review). The Level III review was performed in order to confirm that the analytical data provided by TestAmerica were acceptable in quality for their intended use.

A total of five samples (two investigative groundwater samples, one field duplicate, and one matrix spike and matrix spike duplicate (MS/MSD) pair) were analyzed by TestAmerica. These samples were analyzed as Sample Delivery Group (SDG) KOM08, utilizing the following USEPA SW-846 Methods:

- USEPA SW-846 Method 8270C for SVOCs

Samples were also analyzed for MNA parameters by the following methods:

- Method RSK-175 for Dissolved Gases (Ethane, Ethylene, and Methane)
- USEPA Method 310.1 for Alkalinity and Carbon Dioxide
- USEPA Method 325.2 for Chloride
- USEPA Method 6010B for Total and Dissolved Iron and Manganese
- USEPA Method 415.1 for Total and Dissolved Organic Carbon
- USEPA Method 353.2 for Nitrogen, Nitrate
- USEPA Method 375.4 for Sulfate

Samples were reviewed following procedures outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008 and 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. Qualifiers assigned by the data reviewer have been applied to the laboratory reporting forms (Form-1s). The qualifiers indicate data that did not meet acceptance criteria.

The various qualifiers are explained in **Tables 1** and **2** below:

TABLE 1 Laboratory Data Qualifiers

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

TABLE 2 URS Data Qualifiers

URS Qualifier	Definition
U	The analyte was analyzed for but was not detected.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Based on the criteria outlined, it is recommended that the results reported for these analyses are accepted for their intended use. Acceptable levels of accuracy, precision, and representativeness (based on MS/MSD, LCS, surrogate compounds and field duplicate results) were achieved for this data set. In addition, analytical completeness, defined to be the percentage of analytical results which are judged to be valid, including estimated detect/non-detect (**J/UJ**) values was 100 percent, which meets the completeness goal of 95 percent.

The data review included evaluation of the following criteria:

Organics

- Receipt condition and sample holding times
- Laboratory method blanks
- 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

Inorganics/General chemistry

- 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 reported 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 did not indicate any problems, however the laboratory incorrectly transcribed COC designated sample ID, GM-31A-F(0.2)-0510 as GM-31A-F(0.2)-0510-AD. Samples were reported using the COC designated sample ID.

3.0 LABORATORY METHOD BLANK

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

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 Organic Data Review state how data is qualified, if surrogate spike recoveries do not meet evaluation criteria.

Surrogate recoveries were within evaluation criteria with the exception of one surrogate recovery in quality control sample, GM-58A-0510-MS. Surrogates that were associated with quality control samples did not require qualification. In addition, no qualification of data was required if only one SVOC acid or base fraction surrogate was outside evaluation criteria. The USEPA National Functional Guidelines for Organic Data Review indicates to qualify data if two or more surrogates per SVOC fraction are outside 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. Spiked LCS recoveries were within evaluation criteria with the exception of those discussed further in the data review. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria indicated a possible high bias did not require qualification. 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 to be collected at a frequency of one per 20 investigative samples in accordance with the work plan. URS Corporation submitted one MS/MSD sample set for two investigative samples, meeting the work plan frequency requirement.

SVOC MS/MSD recoveries were within evaluation criteria with the exception of one MS recovery discussed further in the data review. USEPA National Functional Guidelines for Superfund Organic Methods Data Review indicates that organic data does not require

qualification based on MS/MSD data alone and LCS recoveries were within evaluation criteria; therefore, no qualification of data was 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 (2X) 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). All field duplicate RPDs were within evaluation criteria. No qualification of the data was 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. IS areas must be within -50 percent to +100 percent for SVOCs. Also, the IS retention times must be within 30 seconds of the preceding IS CV retention time.

The internal standards area responses for the SVOCs were verified for the data reviews. IS responses met the criteria with the exceptions of those discussed further in the data review. Analytical data that required qualification based on IS data are included in the table below.

Sample ID	Parameter	Analyte	Qualification
GM-58A-0510	SVOCs	1,1'-Biphenyl	**UJ**
GM-58A-0510	SVOCs	2,4-Dichlorophenol	**UJ**
GM-58A-0510	SVOCs	Nitrobenzene	**UJ**
GM-58A-0510	SVOCs	Pentachlorophenol	**UJ**
GM-58A-0510	SVOCs	2,4,6-Trichlorophenol	**J**
GM-58A-0510	SVOCs	1-Chloro-3-nitrobenzene	**UJ**
GM-58A-0510	SVOCs	2-Nitrobiphenyl	**UJ**
GM-58A-0510	SVOCs	3-Nitrobiphenyl	**UJ**
GM-58A-0510	SVOCs	3,4-Dichloronitrobenzene	**UJ**
GM-58A-0510	SVOCs	4-Nitrobiphenyl	**UJ**
GM-58A-0510	SVOCs	2-chloronitrobenzene/4-chloronitrobenzene	**J**
GM-58A-0510	SVOCs	1-chloro-2,4-dinitrobenzene	**UJ**

9.0 RESULTS REPORTED FROM DILUTIONS

Samples were diluted due to the high levels of sulfate, nitrate, and chloride. The diluted sample results were reported at the lowest possible reporting limit.

Appendix D

Groundwater Analytical Results
(with Data Review Sheets)

Solutia Krummrich Data Review
WGK Route 3 Drum Site O&M 2Q10

Laboratory SDG: KOM08

Reviewer: Elizabeth Kunkel

Date Reviewed: 6/17/2010

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008. USEPA National Functional Guidelines for Inorganic Data Review 2004

Applicable Work Plan: Revised Illinois Route 3 Drum Site Operation and Maintenance Plan (Solutia 2008)

Sample Identification	
GM-31A-0510	GM-58A-0510
GM-31A-0510-AD	GM-58A-F(0.2)-0510
GM-31A-F(0.2)-0510	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that one SVOC surrogate was outside evaluation criteria in sample GM-58A-0510-MS. One SVOC MS recovery was outside evaluation criteria in sample GM-58A-0510. SVOC internal standard recoveries were outside evaluation criteria in sample GM-58A-0510. LCS recoveries for the compounds, 2-nitrobiphenyl and 4-nitrobiphenyl were outside evaluation criteria. Additionally, samples were diluted due to high levels of nitrate, sulfate, and chloride. These issues are addressed further in the appropriate sections below.

The cooler receipt form did not indicate any problems, however the laboratory incorrectly transcribed COC designated sample ID, GM-31A-F(0.2)-0510 as GM-31A-F(0.2)-0510-AD. Samples were reported using the COC designated sample ID.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS ID	Parameter	Analyte	LCS Recovery	RPD	LCS/RPD Criteria
680-170427/14-A	SVOCs	2-Nitrobiphenyl	**138**	NA	10-130/NA
680-170427/14-A	SVOCs	4-Nitrobiphenyl	**138**	NA	10-130/NA

Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria indicating a possible high bias did not require qualification. The compounds, 2-nitrobiphenyl and 4-nitrobiphenyl were not detected in SDG KOM08. No qualification of data was required.

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery	Criteria
GM-58A-0510-MS	SVOCs	Terphenyl-d_{14}	**123**	10-121

GM-58A-0510-MS is a quality control sample and does not require qualification.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples collected as part of this SDG?

Yes, sample GM-58A-0510 was spiked and analyzed for SVOCs and chloride.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery	RPD	MS/MSD RPD Criteria
GM-58A-0510	SVOCs	3,4-Dichloronitrobenzene	**133**/111	18	10-130/40

USEPA National Functional Guidelines for Superfund Organic Methods Data Review indicates that organic data does not require qualification based on MS/MSD data alone and LCS recoveries were within evaluation criteria; therefore, no qualification of data was required.

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

No

Sample ID	Parameter	Analyte	IS Area Recovery	IS Criteria
GM-58A-0510	SVOCs	1,4-Dichlorobenzene-d_4	**59229**	61322-245286
GM-58A-0510	SVOCs	Naphthalene-d_8	**214610**	235095-940378
GM-58A-0510	SVOCs	Acenaphthene-d_{10}	**139064**	143816-575264

Sample ID	Parameter	Analyte	IS Area Recovery	IS Criteria
GM-58A-0510-MS	SVOCs	1,4-Dichlorobenzene-d_4	**58163**	61322-245286
GM-58A-0510-MS	SVOCs	Naphthalene-d_8	**232321**	235095-940378
GM-58A-0510-MSD	SVOCs	1,4-Dichlorobenzene-d_4	**59362**	61322-245286
GM-58A-0510-MSD	SVOCs	Naphthalene-d_8	**229763**	235095-940378

Analytical data that required qualification based on IS data are included in the table below. GM-58A-0510-MS and GM-58A-0510-MSD are quality control samples and do not require qualification.

Sample ID	Parameter	Analyte	Qualification
GM-58A-0510	SVOCs	1,1'-Biphenyl	**UJ**
GM-58A-0510	SVOCs	2,4-Dichlorophenol	**UJ**
GM-58A-0510	SVOCs	Nitrobenzene	**UJ**
GM-58A-0510	SVOCs	Pentachlorophenol	**UJ**
GM-58A-0510	SVOCs	2,4,6-Trichlorophenol	**J**
GM-58A-0510	SVOCs	1-Chloro-3-nitrobenzene	**UJ**
GM-58A-0510	SVOCs	2-Nitrobiphenyl	**UJ**
GM-58A-0510	SVOCs	3-Nitrobiphenyl	**UJ**
GM-58A-0510	SVOCs	3,4-Dichloronitrobenzene	**UJ**
GM-58A-0510	SVOCs	4-Nitrobiphenyl	**UJ**
GM-58A-0510	SVOCs	2-chloronitrobenzene/4-chloronitrobenzene	**J**
GM-58A-0510	SVOCs	1-chloro-2,4-dinitrobenzene	**UJ**

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

Yes, sample GM-58A-0510 was duplicated and analyzed for alkalinity and free carbon dioxide.

Were laboratory duplicate sample RPDs within criteria?

Yes

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
GM-31A-0510	GM-31A-0510-AD

Were field duplicates within evaluation criteria?

Yes

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

No

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 680-58070-1

SDG Number: KOM08

Job Description: WGK Rt. 3 Drum Site O&M 2Q10-May 2010

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
6/16/2010 5:06 PM

Lidya Gulizia
Project Manager I
lidya.gulizia@testamericainc.com
06/16/2010

Reviewed
on
JUN 17 2010 EW

cc: Mr. Bob Billman
Dave Palmer

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

Job Narrative
680-58070-1 / SDG KOM08

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

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

Method(s) 8270C: The following sample(s) contained one acid and/or one base surrogate outside acceptance limits: GM-58A-0510-MS (680-58070-4 MS). The laboratory's SOP allows one acid surrogate and/or one base surrogate to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8270C: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 4 analytes to recover outside criteria for this method when a full list spike is utilized. The MS/ associated with batch 170427 had 1 analytes outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8270C: Internal standard responses were outside of acceptance limits for the following sample(s): GM-58A-0510-MS (680-58070-4 MS), GM-58A-0510-MSD (680-58070-4 MSD). The sample(s) shows evidence of matrix interference.

Method(s) 8270C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch 170427 exceeded control limits for the following analytes: 2-Nitrobiphenyl and 4-Nitrobiphenyl. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No other analytical or quality issues were noted.

GC VOA
No analytical or quality issues were noted.

Metals
Method(s) 6010B: Due to the high concentration of iron, the matrix spike / matrix spike duplicate (MS/MSD) for batch 680-170586 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Comments
No additional comments.

JUN 17 2010 ERK

METHOD SUMMARY

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

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

Lab References:

TAL SAV = TestAmerica Savannah

Method References:

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

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

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

METHOD / ANALYST SUMMARY

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Method	Analyst	Analyst ID
SW846 8270C	Haynes, Carion	CRH
RSK RSK-175	Moncrief, Amy J	AJM
SW846 6010B	Robertson, Bryn	BR
MCAWW 310.1	Lanier, Jerry	JAL
MCAWW 325.2	Ross, Jon	JR
MCAWW 353.2	Ross, Jon	JR
MCAWW 375.4	Ross, Jon	JR
MCAWW 415.1	Blackshear, Kim	KB

SAMPLE SUMMARY

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-58070-1	GM-31A-0510	Water	05/27/2010 1140	05/28/2010 0918
680-58070-2FD	GM-31A-0510-AD	Water	05/27/2010 1140	05/28/2010 0918
680-58070-3FD	GM-31A-F(0.2)-0510-AD	Water	05/27/2010 1140	05/28/2010 0918
680-58070-4	GM-58A-0510	Water	05/27/2010 0915	05/28/2010 0918
680-58070-4MS	GM-58A-0510-MS	Water	05/27/2010 0915	05/28/2010 0918
680-58070-4MSD	GM-58A-0510-MSD	Water	05/27/2010 0915	05/28/2010 0918
680-58070-5	GM-58A-F(0.2)-0510	Water	05/27/2010 0915	05/28/2010 0918

SAMPLE RESULTS

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Client Sample ID: **GM-31A-0510**

Lab Sample ID: 680-58070-1
Client Matrix: Water

Date Sampled: 05/27/2010 1140
Date Received: 05/28/2010 0918

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

Method:	8270C	Analysis Batch: 680-171313	Instrument ID: MSG
Preparation:	3520C	Prep Batch: 680-170427	Lab File ID: g1660.d
Dilution:	1.0		Initial Weight/Volume: 1060 mL
Date Analyzed:	06/11/2010 1535		Final Weight/Volume: 1 mL
Date Prepared:	06/03/2010 1534		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	RL
1,1'-Biphenyl	9.4	U	9.4
2,4-Dichlorophenol	9.4	U	9.4
Nitrobenzene	9.4	U	9.4
Pentachlorophenol	47	U	47
2,4,6-Trichlorophenol	9.4	U	9.4
1-Chloro-3-nitrobenzene	9.4	U	9.4
2-Nitrobiphenyl	9.4	U *	9.4
3-Nitrobiphenyl	9.4	U	9.4
3,4-Dichloronitrobenzene	9.4	U	9.4
4-Nitrobiphenyl	9.4	U *	9.4
2-chloronitrobenzene / 4-chloronitrobenzene	19	U	19
1-chloro-2,4-dinitrobenzene	9.4	U	9.4

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	90		50 - 113
2-Fluorophenol	86		36 - 110
Nitrobenzene-d5	91		45 - 112
Phenol-d5	79		38 - 116
Terphenyl-d14	45		10 - 121
2,4,6-Tribromophenol	100		40 - 139

JUN 17 2010 EZR

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Client Sample ID: **GM-31A-0510-AD**

Lab Sample ID: 680-58070-2FD
Client Matrix: Water

Date Sampled: 05/27/2010 1140
Date Received: 05/28/2010 0918

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

Method:	8270C	Analysis Batch: 680-171302		Instrument ID:	MSG
Preparation:	3520C	Prep Batch: 680-170427		Lab File ID:	g1637.d
Dilution:	1.0			Initial Weight/Volume:	1030 mL
Date Analyzed:	06/10/2010 1916			Final Weight/Volume:	1 mL
Date Prepared:	06/03/2010 1534			Injection Volume:	1 uL

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

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	96		50 - 113
2-Fluorophenol	90		36 - 110
Nitrobenzene-d5	96		45 - 112
Phenol-d5	85		38 - 116
Terphenyl-d14	79		10 - 121
2,4,6-Tribromophenol	100		40 - 139

JUN 17 2010 EZK

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Client Sample ID: **GM-58A-0510**

Lab Sample ID: 680-58070-4
Client Matrix: Water

Date Sampled: 05/27/2010 0915
Date Received: 05/28/2010 0918

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

Method:	8270C	Analysis Batch: 680-171302		Instrument ID:	MSG
Preparation:	3520C	Prep Batch: 680-170427		Lab File ID:	g1638.d
Dilution:	1.0			Initial Weight/Volume:	500 mL
Date Analyzed:	06/10/2010 1940			Final Weight/Volume:	0.5 mL
Date Prepared:	06/03/2010 1534			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
1,1'-Biphenyl	10	UJ	10
2,4-Dichlorophenol	10	UJ	10
Nitrobenzene	10	UJ	10
Pentachlorophenol	50	UJ	50
2,4,6-Trichlorophenol	12	J	10
1-Chloro-3-nitrobenzene	10	UJ	10
2-Nitrobiphenyl	10	UJ	10
3-Nitrobiphenyl	10	UJ	10
3,4-Dichloronitrobenzene	10	UJ	10
4-Nitrobiphenyl	10	UJ	10
2-chloronitrobenzene / 4-chloronitrobenzene	130	J	20
1-chloro-2,4-dinitrobenzene	10	UJ	10

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	100		50 - 113
2-Fluorophenol	84		36 - 110
Nitrobenzene-d5	103		45 - 112
Phenol-d5	81		38 - 116
Terphenyl-d14	89		10 - 121
2,4,6-Tribromophenol	110		40 - 139

JUN 17 2010

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Client Sample ID: **GM-31A-0510**

Lab Sample ID: 680-58070-1
Client Matrix: Water

Date Sampled: 05/27/2010 1140
Date Received: 05/28/2010 0918

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 680-170720		Instrument ID:	VGUFID2
Preparation:	N/A			Initial Weight/Volume:	17000 uL
Dilution:	1.0			Final Weight/Volume:	17 mL
Date Analyzed:	06/07/2010 1117			Injection Volume:	1 uL
Date Prepared:				Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethane	0.48		0.35
Ethylene	7.7		0.33
Methane	0.95		0.19

JUN 17 2010 EQK

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Client Sample ID: **GM-58A-0510**

Lab Sample ID: 680-58070-4
Client Matrix: Water

Date Sampled: 05/27/2010 0915
Date Received: 05/28/2010 0918

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 680-170720		Instrument ID:	VGUFID2
Preparation:	N/A			Initial Weight/Volume:	17000 uL
Dilution:	1.0			Final Weight/Volume:	17 mL
Date Analyzed:	06/07/2010 1130			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	2.6		0.19

JUN 17 2010

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Client Sample ID: **GM-31A-0510**

Lab Sample ID: 680-58070-1
Client Matrix: Water

Date Sampled: 05/27/2010 1140
Date Received: 05/28/2010 0918

6010B Metals (ICP)-Total Recoverable

Method:	6010B	Analysis Batch: 680-170841		Instrument ID:	ICPD
Preparation:	3005A	Prep Batch: 680-170586		Lab File ID:	060710.chr
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	06/08/2010 0505			Final Weight/Volume:	50 mL
Date Prepared:	06/04/2010 1143				

Analyte	Result (mg/L)	Qualifier	RL
Iron	0.058		0.050
Manganese	0.86		0.010

JUN 17 2010

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Client Sample ID: **GM-31A-F(0.2)-0510-AD**

Lab Sample ID: 680-58070-3FD
Client Matrix: Water

Date Sampled: 05/27/2010 1140
Date Received: 05/28/2010 0918

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 680-170841		Instrument ID:	ICPD
Preparation:	3005A	Prep Batch: 680-170586		Lab File ID:	060710.chr
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	06/08/2010 0510			Final Weight/Volume:	50 mL
Date Prepared:	06/04/2010 1143				

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	0.050	U	0.050
Manganese, Dissolved	0.86		0.010

JUN 17 2010 EQK

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Client Sample ID: **GM-58A-0510**

Lab Sample ID: 680-58070-4
Client Matrix: Water

Date Sampled: 05/27/2010 0915
Date Received: 05/28/2010 0918

6010B Metals (ICP)-Total Recoverable

Method:	6010B	Analysis Batch: 680-170841		Instrument ID:	ICPD
Preparation:	3005A	Prep Batch: 680-170586		Lab File ID:	060710.chr
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	06/08/2010 0515			Final Weight/Volume:	50 mL
Date Prepared:	06/04/2010 1143				

Analyte	Result (mg/L)	Qualifier	RL
Iron	0.81		0.050
Manganese	1.9		0.010

JUN 17 2010

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Client Sample ID: **GM-58A-F(0.2)-0510**

Lab Sample ID: 680-58070-5
Client Matrix: Water

Date Sampled: 05/27/2010 0915
Date Received: 05/28/2010 0918

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 680-170841		Instrument ID:	ICPD
Preparation:	3005A	Prep Batch: 680-170586		Lab File ID:	060710.chr
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	06/08/2010 0520			Final Weight/Volume:	50 mL
Date Prepared:	06/04/2010 1143				

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	0.74		0.050
Manganese, Dissolved	1.8		0.010

JUN 17 2010 EZK

General Chemistry

Client Sample ID: **GM-31A-0510**

Lab Sample ID: 680-58070-1
Client Matrix: Water

Date Sampled: 05/27/2010 1140
Date Received: 05/28/2010 0918

Analyte	Result	Qual	Units	RL	Dil	Method
Chloride	88		mg/L	1.0	1.0	325.2
Analysis Batch: 680-170400	Date Analyzed: 06/02/2010 1658					
Nitrate as N	3.1		mg/L	0.25	5.0	353.2
Analysis Batch: 680-170222	Date Analyzed: 05/28/2010 1612					
Sulfate	290		mg/L	100	20	375.4
Analysis Batch: 680-170294	Date Analyzed: 06/01/2010 1558					
Total Organic Carbon	3.9		mg/L	1.0	1.0	415.1
Analysis Batch: 680-170623	Date Analyzed: 06/03/2010 1241					

Analyte	Result	Qual	Units	RL	Dil	Method
Alkalinity	450		mg/L	5.0	1.0	310.1
Analysis Batch: 680-170401	Date Analyzed: 06/02/2010 1356					
Carbon Dioxide, Free	28		mg/L	5.0	1.0	310.1
Analysis Batch: 680-170401	Date Analyzed: 06/02/2010 1356					

JUN 17 2010 EVC

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

General Chemistry

Client Sample ID: **GM-31A-F(0.2)-0510-AD**

Lab Sample ID: 680-58070-3FD
Client Matrix: Water

Date Sampled: 05/27/2010 1140
Date Received: 05/28/2010 0918

Analyte	Result	Qual	Units	RL	Dil	Method
Dissolved Organic Carbon-Dissolved	3.8		mg/L	1.0	1.0	415.1

Analysis Batch: 680-170737 Date Analyzed: 06/04/2010 1027

JUN 17 2010

General Chemistry

Client Sample ID: **GM-58A-0510**

Lab Sample ID: 680-58070-4
Client Matrix: Water

Date Sampled: 05/27/2010 0915
Date Received: 05/28/2010 0918

Analyte	Result	Qual	Units	RL	Dil	Method
Chloride	94		mg/L	2.0	2.0	325.2
Analysis Batch: 680-170400	Date Analyzed: 06/02/2010 1708					
Nitrate as N	0.050	U	mg/L	0.050	1.0	353.2
Analysis Batch: 680-170222	Date Analyzed: 05/28/2010 1612					
Sulfate	200		mg/L	100	20	375.4
Analysis Batch: 680-170294	Date Analyzed: 06/01/2010 1600					
Total Organic Carbon	3.7		mg/L	1.0	1.0	415.1
Analysis Batch: 680-170623	Date Analyzed: 06/03/2010 1258					

Analyte	Result	Qual	Units	RL	Dil	Method
Alkalinity	490		mg/L	5.0	1.0	310.1
Analysis Batch: 680-170401	Date Analyzed: 06/02/2010 1404					
Carbon Dioxide, Free	39		mg/L	5.0	1.0	310.1
Analysis Batch: 680-170401	Date Analyzed: 06/02/2010 1404					

JUN 17 2010

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

General Chemistry

Client Sample ID: **GM-58A-F(0.2)-0510**

Lab Sample ID: 680-58070-5
Client Matrix: Water

Date Sampled: 05/27/2010 0915
Date Received: 05/28/2010 0918

Analyte	Result	Qual	Units	RL	Dil	Method
Dissolved Organic Carbon-Dissolved	3.5		mg/L	1.0	1.0	415.1
Analysis Batch: 680-170737	Date Analyzed: 06/04/2010 1027					

JUN 17 2010

DATA REPORTING QUALIFIERS

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

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

QUALITY CONTROL RESULTS

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 680-170427					
LCS 680-170427/14-A	Lab Control Sample	T	Water	3520C	
MB 680-170427/13-A	Method Blank	T	Water	3520C	
680-58070-1	GM-31A-0510	T	Water	3520C	
680-58070-2FD	GM-31A-0510-AD	T	Water	3520C	
680-58070-4	GM-58A-0510	T	Water	3520C	
680-58070-4MS	Matrix Spike	T	Water	3520C	
680-58070-4MSD	Matrix Spike Duplicate	T	Water	3520C	
Analysis Batch:680-171302					
MB 680-170427/13-A	Method Blank	T	Water	8270C	680-170427
680-58070-2FD	GM-31A-0510-AD	T	Water	8270C	680-170427
680-58070-4	GM-58A-0510	T	Water	8270C	680-170427
680-58070-4MS	Matrix Spike	T	Water	8270C	680-170427
680-58070-4MSD	Matrix Spike Duplicate	T	Water	8270C	680-170427
Analysis Batch:680-171313					
680-58070-1	GM-31A-0510	T	Water	8270C	680-170427
Analysis Batch:680-171541					
LCS 680-170427/14-A	Lab Control Sample	T	Water	8270C	680-170427

Report Basis
T = Total

GC VOA

Analysis Batch:680-170720					
LCS 680-170720/6	Lab Control Sample	T	Water	RSK-175	
LCSD 680-170720/7	Lab Control Sample Duplicate	T	Water	RSK-175	
MB 680-170720/8	Method Blank	T	Water	RSK-175	
680-58070-1	GM-31A-0510	T	Water	RSK-175	
680-58070-4	GM-58A-0510	T	Water	RSK-175	

Report Basis
T = Total

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 680-170586					
LCS 680-170586/17-A	Lab Control Sample	R	Water	3005A	
MB 680-170586/16-A	Method Blank	R	Water	3005A	
680-58070-1	GM-31A-0510	R	Water	3005A	
680-58070-3FD	GM-31A-F(0.2)-0510-AD	D	Water	3005A	
680-58070-4	GM-58A-0510	R	Water	3005A	
680-58070-5	GM-58A-F(0.2)-0510	D	Water	3005A	
Analysis Batch:680-170841					
LCS 680-170586/17-A	Lab Control Sample	R	Water	6010B	680-170586
MB 680-170586/16-A	Method Blank	R	Water	6010B	680-170586
680-58070-1	GM-31A-0510	R	Water	6010B	680-170586
680-58070-3FD	GM-31A-F(0.2)-0510-AD	D	Water	6010B	680-170586
680-58070-4	GM-58A-0510	R	Water	6010B	680-170586
680-58070-5	GM-58A-F(0.2)-0510	D	Water	6010B	680-170586

Report Basis
D = Dissolved
R = Total Recoverable

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:680-170222					
LCS 680-170222/2	Lab Control Sample	T	Water	353.2	
MB 680-170222/1	Method Blank	T	Water	353.2	
680-58070-1	GM-31A-0510	T	Water	353.2	
680-58070-4	GM-58A-0510	T	Water	353.2	
Analysis Batch:680-170294					
LCS 680-170294/2	Lab Control Sample	T	Water	375.4	
MB 680-170294/1	Method Blank	T	Water	375.4	
680-58070-1	GM-31A-0510	T	Water	375.4	
680-58070-4	GM-58A-0510	T	Water	375.4	
Analysis Batch:680-170400					
LCS 680-170400/2	Lab Control Sample	T	Water	325.2	
MB 680-170400/1	Method Blank	T	Water	325.2	
680-58070-1	GM-31A-0510	T	Water	325.2	
680-58070-4	GM-58A-0510	T	Water	325.2	
680-58070-4MS	Matrix Spike	T	Water	325.2	
680-58070-4MSD	Matrix Spike Duplicate	T	Water	325.2	
Analysis Batch:680-170401					
LCS 680-170401/2	Lab Control Sample	T	Water	310.1	
MB 680-170401/1	Method Blank	T	Water	310.1	
680-58070-1	GM-31A-0510	T	Water	310.1	
680-58070-4	GM-58A-0510	T	Water	310.1	
680-58070-4DU	Duplicate	T	Water	310.1	
Analysis Batch:680-170623					
LCS 680-170623/4	Lab Control Sample	T	Water	415.1	
MB 680-170623/2	Method Blank	T	Water	415.1	
680-58070-1	GM-31A-0510	T	Water	415.1	
680-58070-4	GM-58A-0510	T	Water	415.1	
Analysis Batch:680-170737					
LCS 680-170737/2	Lab Control Sample	D	Water	415.1	
MB 680-170737/1	Method Blank	D	Water	415.1	
680-58070-3FD	GM-31A-F(0.2)-0510-AD	D	Water	415.1	
680-58070-5	GM-58A-F(0.2)-0510	D	Water	415.1	

Report Basis
D = Dissolved
T = Total

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

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
680-58070-1	GM-31A-0510	90	86	91	79	45	100
680-58070-2	GM-31A-0510-AD	96	90	96	85	79	100
680-58070-4	GM-58A-0510	100	84	103	81	89	110
MB 680-170427/13-A		92	87	97	83	115	104
LCS 680-170427/14-A		75	66	80	66	100	95
680-58070-4 MS	GM-58A-0510 MS	81	93	106	98	123X	90
680-58070-4 MSD	GM-58A-0510 MSD	71	80	93	84	97	85

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

JUN 17 2010

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Method Blank - Batch: 680-170427

Method: 8270C
Preparation: 3520C

Lab Sample ID:	MB 680-170427/13-A	Analysis Batch:	680-171302	Instrument ID:	MSG
Client Matrix:	Water	Prep Batch:	680-170427	Lab File ID:	g1634.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	06/10/2010 1803			Final Weight/Volume:	1 mL
Date Prepared:	06/03/2010 1534			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	92	50 - 113
2-Fluorophenol	87	36 - 110
Nitrobenzene-d5	97	45 - 112
Phenol-d5	83	38 - 116
Terphenyl-d14	115	10 - 121
2,4,6-Tribromophenol	104	40 - 139

JUN 17 2010

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Lab Control Sample - Batch: 680-170427

Method: 8270C
Preparation: 3520C

Lab Sample ID:	LCS 680-170427/14-A	Analysis Batch:	680-171541	Instrument ID:	MSG
Client Matrix:	Water	Prep Batch:	680-170427	Lab File ID:	g1720.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	06/14/2010 1824			Final Weight/Volume:	1 mL
Date Prepared:	06/03/2010 1534			Injection Volume:	1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1'-Biphenyl	100	70.5	71	47 - 112	
2,4-Dichlorophenol	100	85.6	86	46 - 115	
Nitrobenzene	100	72.0	72	46 - 110	
Pentachlorophenol	100	96.6	97	37 - 132	
2,4,6-Trichlorophenol	100	75.3	75	46 - 120	
1-Chloro-3-nitrobenzene	100	89.7	90	10 - 130	
2-Nitrobiphenyl	100	138	138	10 - 130	*
3-Nitrobiphenyl	100	90.8	91	10 - 130	
3,4-Dichloronitrobenzene	100	86.1	86	10 - 130	
4-Nitrobiphenyl	100	138	138	10 - 130	*
2-chloronitrobenzene / 4-chloronitrobenzene	200	202	101	10 - 130	
1-chloro-2,4-dinitrobenzene	100	98.3	98	10 - 130	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	75	50 - 113
2-Fluorophenol	66	36 - 110
Nitrobenzene-d5	80	45 - 112
Phenol-d5	66	38 - 116
Terphenyl-d14	100	10 - 121
2,4,6-Tribromophenol	95	40 - 139

JUN 17 2010 EZK

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-170427

Method: 8270C
Preparation: 3520C

MS Lab Sample ID:	680-58070-4	Analysis Batch: 680-171302	Instrument ID: MSG
Client Matrix:	Water	Prep Batch: 680-170427	Lab File ID: g1639.d
Dilution:	1.0		Initial Weight/Volume: 500 mL
Date Analyzed:	06/10/2010 2004		Final Weight/Volume: 0.5 mL
Date Prepared:	06/03/2010 1534		Injection Volume: 1 uL

MSD Lab Sample ID:	680-58070-4	Analysis Batch: 680-171302	Instrument ID: MSG
Client Matrix:	Water	Prep Batch: 680-170427	Lab File ID: g1640.d
Dilution:	1.0		Initial Weight/Volume: 500 mL
Date Analyzed:	06/10/2010 2029		Final Weight/Volume: 0.5 mL
Date Prepared:	06/03/2010 1534		Injection Volume: 1 uL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1'-Biphenyl	79	70	47 - 112	12	40		
2,4-Dichlorophenol	105	91	46 - 115	13	40		
Nitrobenzene	96	89	46 - 110	7	40		
Pentachlorophenol	113	99	37 - 132	13	40		
2,4,6-Trichlorophenol	81	72	46 - 120	11	40		
1-Chloro-3-nitrobenzene	106	97	10 - 130	9	40		
2-Nitrobiphenyl	98	96	10 - 130	2	40		
3-Nitrobiphenyl	130	105	10 - 130	22	40		
3,4-Dichloronitrobenzene	133	111	10 - 130	18	40	F	
4-Nitrobiphenyl	126	122	10 - 130	3	40		
2-chloronitrobenzene / 4-chloronitrobenzene	113	111	10 - 130	2	40		
1-chloro-2,4-dinitrobenzene	127	121	10 - 130	5	30		

Surrogate	MS % Rec		MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	81		71	50 - 113
2-Fluorophenol	93		80	36 - 110
Nitrobenzene-d5	106		93	45 - 112
Phenol-d5	98		84	38 - 116
Terphenyl-d14	123	X	97	10 - 121
2,4,6-Tribromophenol	90		85	40 - 139

JUN 17 2010 ERK

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Method Blank - Batch: 680-170720

Method: RSK-175
Preparation: N/A

Lab Sample ID: MB 680-170720/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/07/2010 1000
Date Prepared: N/A

Analysis Batch: 680-170720
Prep Batch: N/A
Units: ug/L

Instrument ID: VGUFID2
Lab File ID: UQ497.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: 680-170720

Method: RSK-175
Preparation: N/A

LCS Lab Sample ID: LCS 680-170720/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/07/2010 0921
Date Prepared: N/A

Analysis Batch: 680-170720
Prep Batch: N/A
Units: ug/L

Instrument ID: VGUFID2
Lab File ID: UQ494.D
Initial Weight/Volume: 17000 uL
Final Weight/Volume: 17 mL
Injection Volume: 1 uL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 680-170720/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/07/2010 0934
Date Prepared: N/A

Analysis Batch: 680-170720
Prep Batch: N/A
Units: ug/L

Instrument ID: VGUFID2
Lab File ID: UQ495.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	81	93	75 - 125	13	30		
Ethylene	80	91	75 - 125	13	30		
Methane	80	91	75 - 125	13	30		

JUN 17 2010 EK

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Method Blank - Batch: 680-170586

Method: 6010B
Preparation: 3005A
Total Recoverable

Lab Sample ID: MB 680-170586/16-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/08/2010 0455
Date Prepared: 06/04/2010 1143

Analysis Batch: 680-170841
Prep Batch: 680-170586
Units: mg/L

Instrument ID: ICPD
Lab File ID: 060710.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: 680-170586

Method: 6010B
Preparation: 3005A
Total Recoverable

Lab Sample ID: LCS 680-170586/17-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/08/2010 0500
Date Prepared: 06/04/2010 1143

Analysis Batch: 680-170841
Prep Batch: 680-170586
Units: mg/L

Instrument ID: ICPD
Lab File ID: 060710.chr
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Iron	1.00	1.04	104	75 - 125	
Iron, Dissolved	1.00	1.04	104	75 - 125	
Manganese	0.500	0.518	104	75 - 125	
Manganese, Dissolved	0.500	0.518	104	75 - 125	

JUN 17 2010 EJ2

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Method Blank - Batch: 680-170401

Method: 310.1
Preparation: N/A

Lab Sample ID: MB 680-170401/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/02/2010 1132
Date Prepared: N/A

Analysis Batch: 680-170401
Prep Batch: N/A
Units: mg/L

Instrument ID: MANTECH
Lab File ID: 060210alk.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 - Batch: 680-170401

Method: 310.1
Preparation: N/A

Lab Sample ID: LCS 680-170401/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/02/2010 1142
Date Prepared: N/A

Analysis Batch: 680-170401
Prep Batch: N/A
Units: mg/L

Instrument ID: MANTECH
Lab File ID: 060210alk.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Alkalinity	576	565	98	80 - 120	

Duplicate - Batch: 680-170401

Method: 310.1
Preparation: N/A

Lab Sample ID: 680-58070-4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/02/2010 1414
Date Prepared: N/A

Analysis Batch: 680-170401
Prep Batch: N/A
Units: mg/L

Instrument ID: MANTECH
Lab File ID: 060210alk.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Alkalinity	490	491	0	30	
Carbon Dioxide, Free	39	35.3	9	30	

JUN 17 2010

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Method Blank - Batch: 680-170400

Method: 325.2
Preparation: N/A

Lab Sample ID: MB 680-170400/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/02/2010 1623
Date Prepared: N/A

Analysis Batch: 680-170400
Prep Batch: N/A
Units: mg/L

Instrument ID: KONELAB1
Lab File ID: KONE10602101CLA.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: 680-170400

Method: 325.2
Preparation: N/A

Lab Sample ID: LCS 680-170400/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/02/2010 1624
Date Prepared: N/A

Analysis Batch: 680-170400
Prep Batch: N/A
Units: mg/L

Instrument ID: KONELAB1
Lab File ID: KONE10602101CLA.xls
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride	50.0	51.7	103	85 - 115	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-170400

Method: 325.2
Preparation: N/A

MS Lab Sample ID: 680-58070-4
Client Matrix: Water
Dilution: 2.0
Date Analyzed: 06/02/2010 1659
Date Prepared: N/A

Analysis Batch: 680-170400
Prep Batch: N/A

Instrument ID: KONELAB1
Lab File ID: KONE10602101CLA.xls
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 680-58070-4
Client Matrix: Water
Dilution: 2.0
Date Analyzed: 06/02/2010 1659
Date Prepared: N/A

Analysis Batch: 680-170400
Prep Batch: N/A

Instrument ID: KONELAB1
Lab File ID: KONE10602101CLA.xls
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Chloride	88	88	85 - 115	0	30		

JUN 17 2010

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Method Blank - Batch: 680-170222

Method: 353.2
Preparation: N/A

Lab Sample ID: MB 680-170222/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/28/2010 1612
Date Prepared: N/A

Analysis Batch: 680-170222
Prep Batch: N/A
Units: mg/L

Instrument ID: Latchat 2
Lab File ID: N/A
Initial Weight/Volume: 7 mL
Final Weight/Volume: 7 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: 680-170222

Method: 353.2
Preparation: N/A

Lab Sample ID: LCS 680-170222/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/28/2010 1612
Date Prepared: N/A

Analysis Batch: 680-170222
Prep Batch: N/A
Units: mg/L

Instrument ID: Latchat 2
Lab File ID: N/A
Initial Weight/Volume: 7 mL
Final Weight/Volume: 7 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N	0.500	0.501	100	90 - 110	
Nitrate Nitrite as N	1.00	0.997	100	90 - 110	
Nitrite as N	0.500	0.495	99	90 - 110	

JUN 17 2010 ERK

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Method Blank - Batch: 680-170294

Method: 375.4
Preparation: N/A

Lab Sample ID: MB 680-170294/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/01/2010 1510
Date Prepared: N/A

Analysis Batch: 680-170294
Prep Batch: N/A
Units: mg/L

Instrument ID: KONELAB1
Lab File ID: KONE10601101SO4.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: 680-170294

Method: 375.4
Preparation: N/A

Lab Sample ID: LCS 680-170294/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/01/2010 1510
Date Prepared: N/A

Analysis Batch: 680-170294
Prep Batch: N/A
Units: mg/L

Instrument ID: KONELAB1
Lab File ID: KONE10601101SO4.xls
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Sulfate	20.0	19.6	98	75 - 125	

JUN 17 2010

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Method Blank - Batch: 680-170623

Method: 415.1
Preparation: N/A

Lab Sample ID: MB 680-170623/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/03/2010 1043
Date Prepared: N/A

Analysis Batch: 680-170623
Prep Batch: N/A
Units: mg/L

Instrument ID: TOC3
Lab File ID: TOC060310.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: 680-170623

Method: 415.1
Preparation: N/A

Lab Sample ID: LCS 680-170623/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/03/2010 1114
Date Prepared: N/A

Analysis Batch: 680-170623
Prep Batch: N/A
Units: mg/L

Instrument ID: TOC3
Lab File ID: TOC060310.txt
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	20.0	19.3	97	80 - 120	

JUN 17 2010

Client: Solutia Inc.

Job Number: 680-58070-1
Sdg Number: KOM08

Method Blank - Batch: 680-170737

Method: 415.1
Preparation: N/A

Lab Sample ID: MB 680-170737/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/04/2010 1027
Date Prepared: N/A

Analysis Batch: 680-170737
Prep Batch: N/A
Units: mg/L

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

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

Lab Control Sample - Batch: 680-170737

Method: 415.1
Preparation: N/A

Lab Sample ID: LCS 680-170737/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/04/2010 1027
Date Prepared: N/A

Analysis Batch: 680-170737
Prep Batch: N/A
Units: mg/L

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

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Dissolved Organic Carbon-Dissolved	20.0	19.5	98	80 - 120	

JUN 17 2010

Savannah
5102 LaRoche Avenue

Savannah, GA 31404
phone 912.354.7858 fax 912.352.0165

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Dave Palmer	Site Contact: Nathan McNurlen	Date: 5/27/10	COC No:
URS Corporation	Tel/Fax: (314) 743-4154	Lab Contact: Lidya Gulizia	Carrier: FedEx	1 of 1 COCs
1001 Highlands Plaza Drive West, Suite 300	Analysis Turnaround Time			Job No. 21562046.00000
St. Louis, MO 63110	Calendar (C) or Work Days (W)			SDG No.
(314) 429-0100 Phone	TAT if different from Below Standard			
(314) 429-0462 FAX	☐ 2 weeks			
Project Name: 2Q10 Route 3 Drum Lot GW Sampling	☐ 1 week			
Site: Solutia WG Krummrich Facility	☐ 2 days			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	SVOCs by 8270C	Total Fe/Mn by 6010B	Alk/CO2 by 310.1	Chloride by 325.2/Sulfate by 375.4	Methane, Ethane, Ethene by RSK 175	Nitrate by 353.2	TOC by 415.1	Dissolved Fe/Mn by 6010B	DOC by 415.1	Sample Specific Notes:
GM-31A-0510	5/27/10	1140	G	Water	11		2	1	1	1	3	2	1			7 Coolers
GM-31A-0510-AD		1140	G	Water	2		2									
GM-31A-F(0.2)-0510		1140	G	Water	2	X								1	1	
GM-58A-0510		0915	G	Water	11		2	1	1	1	3	2	1			
GM-58A-0510-MS		0915	G	Water	2		2									
GM-58A-0510-MSD		0915	G	Water	2		2									
GM-58A-F(0.2)-0510	↓	0915	G	Water	2	X								1	1	
							1	4	1	1	1	3,1	2	4	2	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant Poison B ☐ Unknown ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments: Level 4 Data Package

680-58070
2.1|2.0

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	URS	5/27/10 1530			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: TM SW	Date/Time: 5/28/10 0918

JUN 17 2010 EZ

Login Sample Receipt Check List

Client: URS Corporation

Job Number: 680-58070-1
SDG Number: KOM08

Login Number: 58070
List Source: TestAmerica Savannah
Creator: Conner, Keaton
List Number: 1

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	2.1 and 2.0 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
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	
Is the Field Sampler's name present on COC?	N/A	
Sample Preservation Verified	True	

JUN 17 2010 EZK