SOLUTIA

Solutions for a better life.

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575 Maryville Centre Drive
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St. Louis, Missouri 63166-6760
Tel 314-674-1000

August 18, 2009

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 2009 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 2009 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
2nd Quarter 2009 Data Report
Solutia Inc., W. G. Krummrich Plant, Sauget, IL

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2ND QUARTER 2009
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

August 2009

URS Corporation
1001 Highland Plaza Drive West, Suite 300
St. Louis, MO 63110
(314) 429-0100
Project # 21562046.00000

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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 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 2009 (2Q09). A Site location map is presented in **Figure 1**.

During the 2Q09 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 certain 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) conducted the 2Q09 Illinois Route 3 Drum Site groundwater sampling activities on June 1 (groundwater level measurements), June 8 and June 9, 2009 (groundwater sampling). Groundwater samples were collected from two monitoring wells during the 2Q09 sampling event. This section summarizes the field investigative procedures.

Groundwater Level Measurements - On June 1, 2009, 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 2Q09 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 on June 8 and June 9, 2009. 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 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-thru 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-thru 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, and dissolved manganese were filtered in the field using in-line 0.2 micron disposable filters.

A Quality Assurance/Quality Control (QA/QC) sample consisting of an analytical duplicate (AD) was 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-0509” which denotes Groundwater Monitoring well number 31A sampled in May 2009. However, it should be noted the May site sampling event extended into June, and the “0509” samples were actually collected on June 8 and June 9, 2009. 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 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 FedEx® Priority 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 certain 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, nitrobenzene, 2-nitrobiphenyl, 3-nitrobiphenyl, 4-nitrobiphenyl, 2-nitrochlorobenzene, 3-nitrochlorobenzene, 4-nitrochlorobenzene, pentachlorophenol, and 2,4,6-trichlorophenol.

- MNA parameters consisting 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 as described in the Revised Illinois Route 3 Drum Site Operations and Maintenance Plan. 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**. Laboratory result pages (i.e. Form 1's) along with data validation 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 Test America for SVOCs and MNA parameters. The results for the various analyses were submitted as sample delivery group (SDG) KOM04 containing 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 Organic Data Review (USEPA 1999), USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (USEPA 2004) and the Revised Illinois Route 3 Drum Site Operation and Maintenance Plan (Solutia 2008). 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 (**J/UJ**) data, was 100 percent.

5.0 OBSERVATIONS

SVOCs were detected in groundwater samples from both monitoring wells, along with the duplicate sample collected during the 2Q09 sampling event. Laboratory analytical data for monitoring well sample GM-31A-0509, and corresponding duplicate GM-31A-0509-AD, indicate 2,4,6-Trichlorophenol was detected at concentrations of 47 µg/L and 44 µg/L, respectively; 2-Nitrobiphenyl was detected at a concentration of 14 µg/L in both samples, and 2-Chloronitrobenzene/4-Chloronitrobenzene was detected both samples at a concentration of 27 µg/L. The results from monitoring well GM-58A-0209 indicated a 2-Chloronitrobenzene/4-Chloronitrobenzene concentration of 20 µg/L. A summary of SVOC detections is provided in **Table 2**, with MNA results provided in **Table 3**.

The 2Q09 sampling event was the fourth event conducted in accordance with the Revised Illinois Route 3 Drum Site Operations and Maintenance Plan. Groundwater samples will be collected for eight quarters, at which time the results will be analyzed to determine if any statistically significant changes have occurred for any of the constituents of concern. In addition, MNA results will be reviewed/analyzed at the end of eight quarters to determine the types and magnitude of active natural attenuation processes at the Site.

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), 1999. Contract Laboratory Program National Functional Guidelines for Organic Data Review.

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

Figures

FALLING SPRINGS ROAD

STERLING STEEL

SITE H

SITE L

SITE M

SITE N

SITE I

SITE G

CONTAINMENT CELL

DEAD CREEK

CERRO COPPER

QUEENY AVENUE

ROUTE 3

W. G. KRUMMRICH FACILITY

AFTON CHEMICAL

MONSANTO AVENUE

BIG RIVER ZINC

ROUTE 3

CENTER ETHANOL COMPANY, LLC

LOT F

MIDWEST RUBBER

PHILLIPS PETROLEUM

SITE O

SITE P

UNION ELECTRIC

PCHEM POTW

CLAYTON CHEMICAL

SITE S

AMERICAN BOTTOMS POTW

VEOLIA INCINERATION

CAHOKIA MARINE

R SITE

SITE Q

GROUNDWATER PUMPING WELLS

BARRIER WALL

MISSISSIPPI RIVER

LEGEND

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

Ø 1000

SCALE FEET

ILLINOIS ROUTE 3 DRUM SITE GROUNDWATER SAMPLING
2ND QUARTER 2009 DATA REPORT
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

PROJECT NO. 21562046

URS

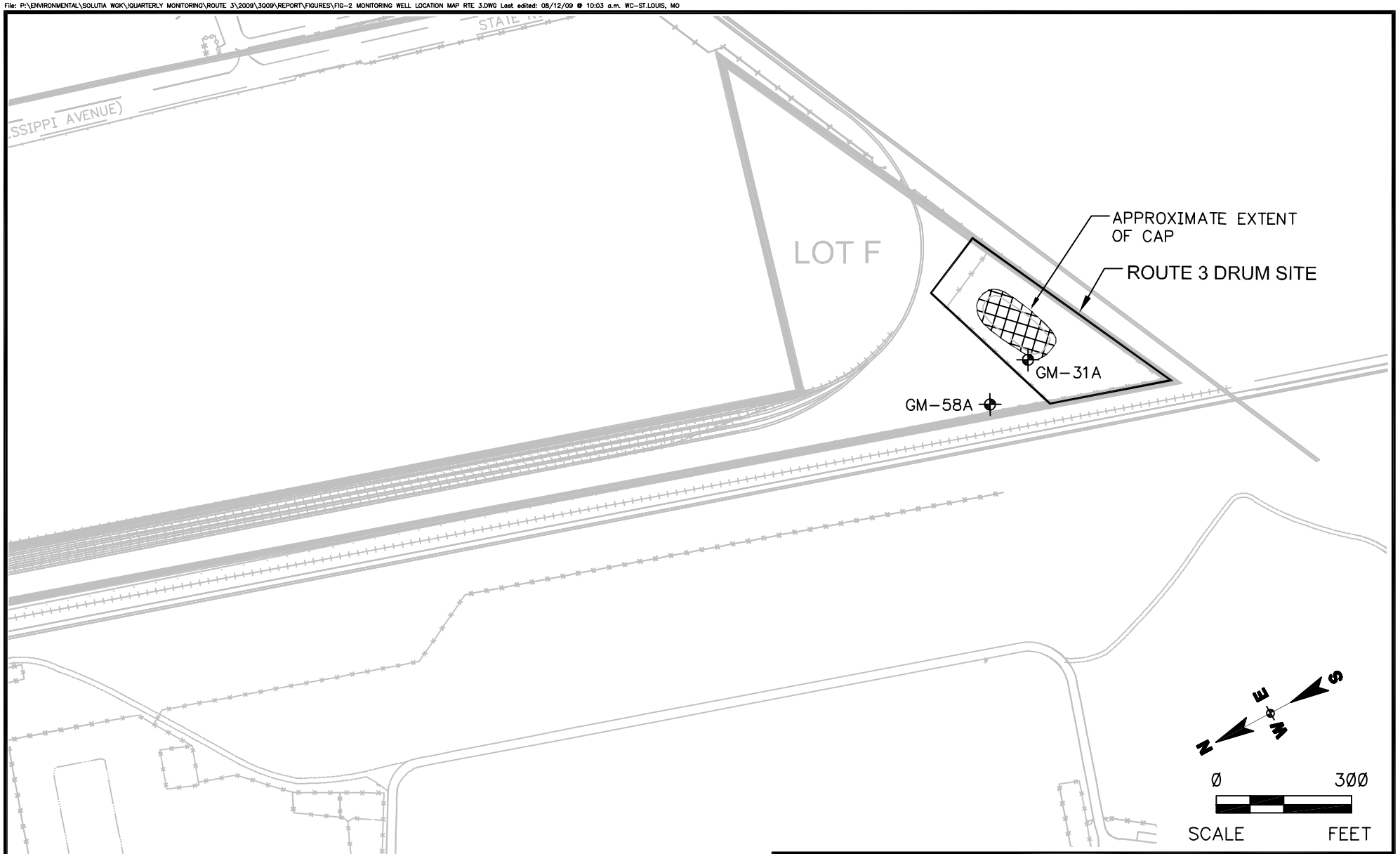
DRN. BY: lrm August 2009
DSGN. BY: wh
CHKD. BY:

Site Location Map

FIG. NO. 1

File: P:\ENVIRONMENTAL\SOLUTIA WGK\QUARTERLY MONITORING\ROUTE 3\2009\2009\REPORT\FIGURES\FIG-1 SITE LOCATION MAP RTE 3.DWG Last edited: AUG. 13, 09 @ 2:13 p.m. by: curt_smith

File: P:\ENVIRONMENTAL\SOLUTIA WGK\QUARTERLY MONITORING\ROUTE 3\2009\3009\REPORT\FIGURES\FIG-2 MONITORING WELL LOCATION MAP RTE 3.DWG Last edited: 08/12/09 @ 10:03 a.m. WC-ST.LOUIS, MO



LEGEND

⊕ MONITORING WELL LOCATION

ILLINOIS ROUTE 3 DRUM SITE GROUNDWATER SAMPLING 2ND QUARTER 2009 DATA REPORT W.G. KRUMMRICH FACILITY SAUGET, ILLINOIS		PROJECT NO. 21562046
URS		
DRN. BY:lrm August 2009 DSGN. BY: ekf CHKD. BY:	Monitoring Well Location Map	FIG. NO. 2

Tables

Table 1
Monitoring Well Gauging Information

Well ID	Construction Details						1-Jun-09		
	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)	Product Thickness (feet)	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	15.65	-	402.98
GM-58A	412.24	414.24	19.40	39.40	392.84	372.84	11.36	-	402.88

Notes:
* - Elevation based upon North American Vertical Datum (NAVD) 88 datum
bgs - below ground surface
btoc - below top of casing
Ground elevation for GM-58A calculated using top of screen elevation and depth to top of screen in feet below ground surface

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-0509	6/8/2009	<9.4	<9.4	<9.4	**47**	<9.4	**27**	**14**	<9.4	<9.4	<9.4	<9.4*	<47
GM-31A-0509-AD	6/8/2009	<9.4	<9.4	<9.4	**44**	<9.4	**27**	**14**	<9.4	<9.4	<9.4	<9.4*	<47
GM-58A-0509	6/9/2009	<9.7	<9.7	<9.7	<9.7	<9.7	**20**	<9.7	<9.7	<9.7	<9.7	<9.7*	<49

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 or LCSD exceeds the control limits
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-0509	6/8/2009	490	42	77	1.4	<0.35	<0.33		1.8		0.86		6.2	1.7	240		3.8	128.3
GM-31A-F(0.2)-0509	6/8/2009							0		<0.05		0.84				3.3		
GM-58A-0509	6/9/2009	530	55	120	1.58	<0.35	<0.33		2.0		2.3		3.1	<0.05	160		4.4	169.9
GM-58A-F(0.2)-0509	6/9/2009							1.63		1.8		2.2				3.1		

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 µ filter.
mg/L = milligrams per liter
µg/L = micrograms per liter
<= Result is non-detect, less than the reporting limit given.
A blank space indicates sample not analyzed for select analyte.
F(0.2) = Sample was filtered utilizing a 0.2 µ 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, Craig Williams
DATE: 6/8/09 WEATHER: Sunny/Cloudy, 80°
MONITORING WELL ID: GM-31A SAMPLE ID: GM-31A-0509

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 40.85 ft
Constructed Well Depth (btoc): 41.00 ft
Depth to Water (btoc): 16.10 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): 24.75 ft btoc
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: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Monsoon

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 ±2 mg/L)	ORP (mv) (±20 mV)
0	1510	16.13	lt. brown	hydrocarbon	6.97	15.52	1.613	60.4	~~39.0mc~~	98.7
900	1513				6.89	15.38	1.610	56.3	1.80	102.4
1,800	1516				6.81	15.39	1.602	45.0	1.63	106.4
2,700	1519				6.73	15.32	1.596	36.9	1.53	113.1
3,600	1522				6.71	15.34	1.597	31.2	1.48	115.8
4,500	1525				6.70	15.37	1.594	27.1	1.43	117.9
5,400	1528				6.67	15.30	1.593	20.6	1.42	122.2
6,300	1531				6.66	15.36	1.591	18.7	1.40	123.7
7,200	1534				6.65	15.40	1.590	17.8	1.39	125.6
8,100	1537				6.64	15.36	1.587	17.7	1.38	127.7
9,000	1540				6.64	15.38	1.589	17.8	1.40	128.3

Start Time: 1510
Stop Time: 1540
Elapsed Time: 30 min.
Average Purge Rate (mL/min): 300
Water Quality Meter ID: YSI 6920
Date Calibrated: 6/8/09

SAMPLING DATA

Sample Date: 6/8/09
Sample Method: Stainless Steel Monsoon
Sample Time: 1545
Sample Flow Rate: 300 mL/min.
Analysis: SVOCs, Metals, MNA
~~Date Calibrated: NA~~ QA/QC: Analytical Dup. – GM-31A-0509-AD

COMMENTS:

MNA – Alkalinity, Carbon Dioxide, Chloride, Nitrate, Sulfate,
Methane, Total Organic Carbon, Dissolved Organic Carbon (0.2 Micron filter)
Ferrous Iron (0.2 Micron filter) = 0.00 ppm

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: WGK Route 3 Drum Lot
PROJECT NUMBER: 21562046.00000
FIELD PERSONNEL: Mike Corbett, Craig Williams
DATE: 6/9/09
WEATHER: cloudy, 70s
MONITORING WELL ID: GM-58A
SAMPLE ID: GM-58A-0509, GM-58A-F(0.2)-0509

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 40.41 ft
Constructed Well Depth (btoc): 41.40 ft
Depth to Water (btoc): ~~11.62~~ 12.09 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): 28.32 ft btoc
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: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Peristaltic

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH (±0.2 units)	Temp (°C) (±3 %)	Cond. (ms/cm) (±3 %)	Turbidity (NTUs)	DO (mg/l) (±10 % or ±2 mg/L.)	ORP (mv) (±20 mV)
600	0954	12.11	colorless	sl. hydrocarbon	6.38	15.28	1.556	19.4	2.74	175.3
1,500	0957			↓	6.39	15.24	1.537	28.2	1.91	178.3
2,400	1000				6.43	15.40	1.517	120.2	1.70	179.1
3,300	1003			odorless	6.44	15.35	1.506	45.0	1.64	178.5
4,200	1006				6.46	15.34	1.496	49.7	1.63	177.7
5,100	1009				6.47	15.15	1.472	17.7	1.58	175.5
6,000	1012				6.47	15.13	1.464	19.2	1.57	174.7
6,900	1015				6.48	15.12	1.458	18.8	1.57	173.2
7,800	1018				6.49	15.44	1.450	20.1	1.58	169.9

Start Time: 0952
Stop Time: 1018
Elapsed Time: 26 min.
Average Purge Rate (mL/min): 300
Water Quality Meter ID: YSI 6920
Date Calibrated: 6/9/09

SAMPLING DATA

Sample Date: 6/9/09
Sample Method: Peristaltic
Sample Time: 1025
Sample Flow Rate: 300 mL/min
Analysis: SVOCs, Metals, MNA
~~Date Calibrated: NA~~ MC QA/QC: MS/MSD – GM-58A-0509-MS, GM-58A-0509-MSD

COMMENTS:

MNA – Alkalinity, Carbon Dioxide, Chloride, Nitrate, Sulfate,
Methane, Total Organic Carbon, Dissolved Organic Carbon (0.2 Micron filter)
Ferrous Iron (0.2 Micron filter) = 1.63 ppm

Appendix B

Chains-of-Custody

Serial Number 012664

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)
Solutia WGK Rte 3 Drum Lot	21562046.00004	IL
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Lidya Gulizia		
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Thomas Adams	314-429-0100	314-429-0462
CLIENT NAME	CLIENT E-MAIL	
URS Corporation	thomas_adams@urscorp.com	
CLIENT ADDRESS		
1001 Highlands Plaza Dr. W., Ste. 300 St. Louis, MO 63110		
COMPANY CONTRACTING THIS WORK (if applicable)		
Solutia		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ○
DATE DUE _____
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE _____
NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

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: SVOCs 8270C (none)	Total Fe/Mn 6010B (HNO_3)	Alk/CO_2 (310.1) (none)	Sulfate (375.4) (none)	Chloride (325.2) (none)	Methane (RSK175) (none)	Nitrate 353.2 (H2SO4)	Toc 415.1 (H_2SO_4)	Diss. Fe/Mn 6010B (HNO_3)	DOC 415.1 (H_2SO_4)	REMARKS
6/8/09	1545	GM-31A-0509		X				2	1	1	1	3	2	1				
	1545	GM-31A-F(0.2)-0509		X												1	1	
↓	1545	GM-31A-0509-AD		X				2										

PRESERVATIVE

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	6/8/09	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
Bertha Daughtry	6/9/9	0851	YES ○ NO ○		680-47956	TEMPERATURE 5.4

TAL8240-680 (1207)

Serial Number 016948

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 Rte 3 Drum Lot	21562046.00000	IL
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Lidya Gulizia		
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Thomas Adams	314-429-0100	314-429-0462
CLIENT NAME	CLIENT E-MAIL	
URS Corporation	thomas_adams@urscorp.com	
CLIENT ADDRESS		
1001 Highlands Plaza Dr. W., Ste 300, St. Louis, MO 63110		
COMPANY CONTRACTING THIS WORK (if applicable)		
Solatia		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ◯
DATE DUE _____
EXPEDITED REPORT DELIVERY (SURCHARGE) ◯
DATE DUE _____
NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

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: SVOCs 8270c (none)	Total Fe/Mn 6010B (HNO3)	Alk/CO2 (310.1) (none)	Chloride (376.2) Sulfate (325.2) (none)	Methane RSK175 (none)	Nitrate (H2SO4)	TOC 415.1 (HCl)	Diss. Fe/Mn 6010B (HNO3)	DOC 415.1 (HCl)	REMARKS
								NUMBER OF CONTAINERS SUBMITTED									
6/9/09	1025	GM-58A-0509	X					2	1	1	1	3	2	1			
		GM-58A-F(0.2)-0509	X												1	1	
		GM-58A-0509-MS	X					2									
		GM-58A-0509-MSD	X					2									

PRESERVATIVE

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	6/9/09	1900						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
	06/10/09	0910	YES ◯ NO ◯		680-47984	4.6 TEMP

TAL8240-680 (1207)

Appendix C

Quality Assurance Report

QUALITY ASSURANCE REPORT

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

Illinois Route 3 Drum Site
2nd Quarter 2009 Data Report

Prepared for

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

July 2009

URS Corporation
1001 Highland Plaza Drive West, Suite 300
St. Louis, MO 63110
(314) 429-0100
Project # 21562046.00000

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2.0 RECEIPT CONDITION AND SAMPLE HOLDING TIMES 3

3.0 LABORATORY METHOD BLANKS 3

4.0 SURROGATE SPIKE RECOVERIES 4

5.0 LABORATORY CONTROL SAMPLE RECOVERIES 4

6.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) SAMPLES 4

7.0 FIELD DUPLICATE RESULTS 4

8.0 INTERNAL STANDARD RESPONSES 5

9.0 RESULTS REPORTED FROM DILUTIONS 5

1.0 INTRODUCTION

This Quality Assurance Report presents the findings of a review of analytical data for groundwater samples collected in June 2009 at the Illinois Route 3 Drum Site on the Solutia W.G. Krummrich Facility as part of the 2nd Quarter 2009 sampling event. The samples were collected by URS Corporation personnel and analyzed by Test America Laboratories located in Savannah, Georgia using USEPA methodologies. Samples were analyzed for semivolatile organic compounds (SVOCs), and monitored natural attenuation (MNA) parameters.

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

A total of five samples (two investigative groundwater samples, one field duplicate pair, and one matrix spike and matrix spike duplicate (MS/MSD) pair were analyzed by Test America. These samples were analyzed as Sample Delivery Group (SDG) KOM04, 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 Organic Data Review, October 1999, USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004 and the Revised Illinois Route 3 Drum Site Operation and Maintenance Plan, (Solutia 2008).

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 and 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	Analyte was not detected at or above the reporting limit.
*	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, 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 (**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.

3.0 LABORATORY METHOD BLANK

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 any of the method blanks.

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. 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. All spiked LCS/LCSD recoveries were within evaluation criteria with the exception noted in the data review for LCS/LCSD 680-140115/15-A/680-140115/16-A. LCSD recovery was above evaluation criterion for nitrobenzene. Analytical data which were reported as nondetect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Nitrobenzene was nondetect in all samples analyzed for SVOCs; therefore, 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. URS Corporation submitted one MS/MSD sample set for two investigative samples, meeting the work plan frequency requirement.

The nitrobenzene MSD recovery and MS/MSD RPD were above evaluation criteria, and nitrate MS recovery was above evaluation criteria in sample GM-58A-0509. Analytical data that were reported as nondetect and associated with MS/MSD recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. The compounds nitrobenzene and nitrate were nondetect in sample GM-58A-0509; therefore, no qualification of data was required.

Samples spiked and analyzed as MS/MSDs and their respective recoveries are discussed further in data reviews in **Appendix D**. 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 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. No qualification of the data was required.

9.0 RESULTS REPORTED FROM DILUTIONS

Chloride and sulfate samples were diluted and reanalyzed due to the high levels of these analytes in the samples. The diluted sample results for chloride and sulfate were reported at the lowest possible reporting limit.

Appendix D

Groundwater Analytical Results

(with Data Review Sheets)

Solutia Krummrich Data Review

Laboratory SDG: KOM04

Reviewer: Elizabeth Kunkel

Date Reviewed: 7/9/2009

Guidance: USEPA National Functional Guidelines for Organic Data Review 1999. 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 #	Sample Identification #
GM-31A-0509	GM-31A-F(0.2)-0509
GM-31A-0509-AD	GM-58A-0509
GM-58A-F(0.2)-0509	

1.0 Data Package Completeness

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

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

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

The laboratory case narrative indicated that nitrobenzene LCSD recovery was outside evaluation criteria. The nitrobenzene MSD recovery and MS/MSD RPD were outside evaluation criteria in sample GM-58A-0509. Nitrate MS recovery was outside evaluation criteria in sample GM-58A-0509. Samples were diluted due to elevated levels of chloride and sulfate. These issues are addressed further in the appropriate sections below.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within QAPP 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/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/RPD Criteria
680-140115/15-A/ 680-140115/16-A	SVOCs	Nitrobenzene	86/**128**	39	46-110/40

Analytical data which were reported as nondetect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Nitrobenzene was nondetect in all samples analyzed for SVOCs; therefore, no qualification of data was required.

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

Yes, sample GM-58A-0509 was spiked and analyzed for SVOCs and for nitrate and nitrate-nitrite.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery	RPD	MS/MSD/ RPD Criteria
GM-58A-0509	SVOCs	Nitrobenzene	74/**138**	**60**	46-110/40
GM-58A-0509	General Chemistry	Nitrate	**111**/109	1	90-110/10
GM-58A-0509	General Chemistry	Nitrate-nitrite	**111**/109	1	90-110/10

Analytical data which were reported as nondetect and associated with MS/MSD recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. The compounds nitrobenzene and nitrate were nondetect in sample GM-58A-0509; therefore, no qualification of data was required.

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples collected as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
GM-31A-0509	GM-31A-0509-AD

Were field duplicates within evaluation criteria?

Yes

11.0 Sample Dilutions

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

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: 680-47956-1

SDG Number: KOM04

Job Description: WGK Route 3 Drum O&M 2Q09 June 2009

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
7/8/2009 3:50 PM

Lidya Gulizia
Project Manager I
lidya.gulizia@testamericainc.com
07/08/2009

Reviewed
on
7/8/2009
EZK

cc: Mr. Jeff Adams
Mr. Bob Billman
Dave Palmer

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

Job Narrative
680-J47956-1 / SDG No. KOM004

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

GC/MS Semi VOA
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 four analytes to recover outside criteria for this method when a full list spike is utilized. The LCSD associated with batch 140115 had one analyte outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8270C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 140115 were outside control limits.

Method(s) 8270C: The matrix spike / matrix spike duplicate (MS/MSD) precision for batch 140115 was outside control limits. The associated laboratory control sample (LCS) met acceptance criteria.

No other 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) 353.2: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 140129 were outside control limits. The associated laboratory control sample (LCS) met acceptance criteria.

Method(s) 375.4: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 140476 were outside control limits. The associated laboratory control sample (LCS) met acceptance criteria.

No other analytical or quality issues were noted.

Comments
No additional comments.

7/8/09 EZK

METHOD SUMMARY

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

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: 680-47956-1
Sdg Number: KOM04

Method	Analyst	Analyst ID
SW846 8270C	Nguyen, Thuong	TN
RSK RSK-175	Jakubsen, Melanie	MLJ
SW846 6010B	Bland, Brian	BCB
MCAWW 310.1	Vasquez, Juana	JV
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: 680-47956-1
Sdg Number: KOM04

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-47956-1	GM-31A-0509	Water	06/08/2009 1545	06/09/2009 0851
680-47956-2	GM-31A-F(0.2)-0509	Water	06/08/2009 1545	06/09/2009 0851
680-47956-3FD	GM-31A-0509-AD	Water	06/08/2009 1545	06/09/2009 0851
680-47984-1	GM-58A-0509	Water	06/09/2009 1025	06/10/2009 0910
680-47984-1MS	GM-58A-0509	Water	06/09/2009 1025	06/10/2009 0910
680-47984-1MSD	GM-58A-0509	Water	06/09/2009 1025	06/10/2009 0910
680-47984-2	GM-58A-F(0.2)-0509	Water	06/09/2009 1025	06/10/2009 0910

7/8/09 EVC

SAMPLE RESULTS

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Client Sample ID: **GM-31A-0509**

Lab Sample ID: 680-47956-1
Client Matrix: Water

Date Sampled: 06/08/2009 1545
Date Received: 06/09/2009 0851

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

Method:	8270C	Analysis Batch: 680-141611		Instrument ID:	MSG
Preparation:	3520C	Prep Batch: 680-140115		Lab File ID:	g5976.d
Dilution:	1.0			Initial Weight/Volume:	1060 mL
Date Analyzed:	06/26/2009 1809			Final Weight/Volume:	1 mL
Date Prepared:	06/11/2009 1211			Injection Volume:	1.0 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	47		9.4
1-Chloro-3-nitrobenzene	9.4	U	9.4
2-Nitrobiphenyl	14		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	27		19
1-chloro-2,4-dinitrobenzene	9.4	U	9.4

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	81		50 - 113
2-Fluorophenol	79		36 - 110
Nitrobenzene-d5	83		45 - 112
Phenol-d5	74		38 - 116
Terphenyl-d14	57		10 - 121
2,4,6-Tribromophenol	85		40 - 139

6/8/09 EZK

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Client Sample ID: **GM-31A-0509-AD**

Lab Sample ID: 680-47956-3FD
Client Matrix: Water

Date Sampled: 06/08/2009 1545
Date Received: 06/09/2009 0851

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

Method:	8270C	Analysis Batch: 680-141611	Instrument ID:	MSG
Preparation:	3520C	Prep Batch: 680-140115	Lab File ID:	g5977.d
Dilution:	1.0		Initial Weight/Volume:	1060 mL
Date Analyzed:	06/26/2009 1833 ✓		Final Weight/Volume:	1 mL
Date Prepared:	06/11/2009 1211 ✓		Injection Volume:	1.0 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	44		9.4
1-Chloro-3-nitrobenzene	9.4	U	9.4
2-Nitrobiphenyl	14		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	27		19
1-chloro-2,4-dinitrobenzene	9.4	U	9.4

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	80		50 - 113
2-Fluorophenol	79		36 - 110
Nitrobenzene-d5	84		45 - 112
Phenol-d5	73		38 - 116
Terphenyl-d14	44		10 - 121
2,4,6-Tribromophenol	86		40 - 139

7/8/09 EZK

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Client Sample ID: **GM-58A-0509**

Lab Sample ID: 680-47984-1
Client Matrix: Water

Date Sampled: 06/09/2009 1025
Date Received: 06/10/2009 0910

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

Method:	8270C	Analysis Batch: 680-141611		Instrument ID:	MSG
Preparation:	3520C	Prep Batch: 680-140115		Lab File ID:	g5975.d
Dilution:	1.0			Initial Weight/Volume:	1030 mL
Date Analyzed:	06/26/2009 1746			Final Weight/Volume:	1 mL
Date Prepared:	06/11/2009 1211 ✓			Injection Volume:	1.0 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	20		19
1-chloro-2,4-dinitrobenzene	9.7	U	9.7

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	77		50 - 113
2-Fluorophenol	76		36 - 110
Nitrobenzene-d5	80		45 - 112
Phenol-d5	72		38 - 116
Terphenyl-d14	49		10 - 121
2,4,6-Tribromophenol	89		40 - 139

7/8/09 ZJL

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Client Sample ID: **GM-31A-0509**

Lab Sample ID: 680-47956-1
Client Matrix: Water

Date Sampled: 06/08/2009 1545
Date Received: 06/09/2009 0851

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 680-140053		Instrument ID:	VGUFID2
Preparation:	N/A			Lab File ID:	U1206.D
Dilution:	1.0			Initial Weight/Volume:	17000 uL
Date Analyzed:	06/10/2009 1141			Final Weight/Volume:	17 mL
Date Prepared:				Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
Ethane	0.35	U	0.35
Ethylene	0.33	U	0.33
Methane	6.2		0.19

7/8/09 EVK

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Client Sample ID: **GM-58A-0509**

Lab Sample ID: 680-47984-1
Client Matrix: Water

Date Sampled: 06/09/2009 1025
Date Received: 06/10/2009 0910

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 680-140347		Instrument ID:	VGUFID2
Preparation:	N/A			Lab File ID:	U1211.D
Dilution:	1.0			Initial Weight/Volume:	17000 uL
Date Analyzed:	06/12/2009 1511			Final Weight/Volume:	17 mL
Date Prepared:				Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
Ethane	0.35	U	0.35
Ethylene	0.33	U	0.33
Methane	3.1		0.19

7/8/09 EZK

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Client Sample ID: **GM-31A-0509**

Lab Sample ID: 680-47956-1
Client Matrix: Water

Date Sampled: 06/08/2009 1545
Date Received: 06/09/2009 0851

6010B Metals (ICP)-Total Recoverable

Method:	6010B	Analysis Batch: 680-140764		Instrument ID:	ICPD
Preparation:	3005A	Prep Batch: 680-140475		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	06/18/2009 0046			Final Weight/Volume:	50 mL
Date Prepared:	06/16/2009 1212				

Analyte	Result (mg/L)	Qualifier	RL
Iron	1.8		0.050
Manganese	0.86		0.010

7/8/09 ERK

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Client Sample ID: **GM-31A-F(0.2)-0509**

Lab Sample ID: 680-47956-2
Client Matrix: Water

Date Sampled: 06/08/2009 1545
Date Received: 06/09/2009 0851

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 680-140764		Instrument ID:	ICPD
Preparation:	3005A	Prep Batch: 680-140475		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	06/18/2009 0101			Final Weight/Volume:	50 mL
Date Prepared:	06/16/2009 1212				

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	0.050	U	0.050
Manganese, Dissolved	0.84		0.010

7/8/09 EZR

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Client Sample ID: **GM-58A-0509**

Lab Sample ID: 680-47984-1
Client Matrix: Water

Date Sampled: 06/09/2009 1025
Date Received: 06/10/2009 0910

6010B Metals (ICP)-Total Recoverable

Method:	6010B	Analysis Batch: 680-140764		Instrument ID:	ICPD
Preparation:	3005A	Prep Batch: 680-140475		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	06/18/2009 0106			Final Weight/Volume:	50 mL
Date Prepared:	06/16/2009 1212				

Analyte	Result (mg/L)	Qualifier	RL
Iron	2.0		0.050
Manganese	2.3		0.010

7/8/09 EZK

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Client Sample ID: **GM-58A-F(0.2)-0509**

Lab Sample ID: 680-47984-2
Client Matrix: Water

Date Sampled: 06/09/2009 1025
Date Received: 06/10/2009 0910

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 680-140764		Instrument ID:	ICPD
Preparation:	3005A	Prep Batch: 680-140475		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	06/18/2009 0112			Final Weight/Volume:	50 mL
Date Prepared:	06/16/2009 1212				

Analyte	Result (mg/L)	Qualifier	RL
Iron, Dissolved	1.8		0.050
Manganese, Dissolved	2.2		0.010

7/8/09 EJK

General Chemistry

Client Sample ID: **GM-31A-0509**

Lab Sample ID: 680-47956-1
Client Matrix: Water

Date Sampled: 06/08/2009 1545
Date Received: 06/09/2009 0851

Analyte	Result	Qual	Units	RL	Dil	Method
Chloride	77		mg/L	1.0	1.0	325.2
Analysis Batch: 680-140412	Date Analyzed: 06/15/2009 1451					
Nitrate as N	1.7		mg/L	0.050	1.0	353.2
Analysis Batch: 680-140031	Date Analyzed: 06/09/2009 1600					
Sulfate	240		mg/L	50	10	375.4
Analysis Batch: 680-140168	Date Analyzed: 06/11/2009 1249					
Total Organic Carbon	3.8		mg/L	1.0	1.0	415.1
Analysis Batch: 680-141264	Date Analyzed: 06/23/2009 1208					

Analyte	Result	Qual	Units	RL	Dil	Method
Alkalinity	490		mg/L	5.0	1.0	310.1
Analysis Batch: 680-139986	Date Analyzed: 06/09/2009 1354					
Carbon Dioxide, Free	42		mg/L	5.0	1.0	310.1
Analysis Batch: 680-139986	Date Analyzed: 06/09/2009 1354					

7/8/09 EAR

General Chemistry

Client Sample ID: **GM-31A-F(0.2)-0509**

Lab Sample ID: 680-47956-2
Client Matrix: Water

Date Sampled: 06/08/2009 1545
Date Received: 06/09/2009 0851

Analyte	Result	Qual	Units	RL	Dil	Method
Dissolved Organic Carbon-Dissolved	3.3		mg/L	1.0	1.0	415.1
Analysis Batch: 680-140797	Date Analyzed: 06/11/2009 1028 ✓					

7/8/09 EZK

General Chemistry

Client Sample ID: **GM-58A-0509**

Lab Sample ID: 680-47984-1
Client Matrix: Water

Date Sampled: 06/09/2009 1025
Date Received: 06/10/2009 0910

Analyte	Result	Qual	Units	RL	Dil	Method
Chloride	120		mg/L	2.0	2.0	325.2
Analysis Batch: 680-140412	Date Analyzed: 06/15/2009 1509					
Nitrate as N	0.050	U	mg/L	0.050	1.0	353.2
Analysis Batch: 680-140129	Date Analyzed: 06/10/2009 1516					
Sulfate	160		mg/L	50	10	375.4
Analysis Batch: 680-140476	Date Analyzed: 06/16/2009 1005					
Total Organic Carbon	4.4		mg/L	1.0	1.0	415.1
Analysis Batch: 680-141264	Date Analyzed: 06/23/2009 1222					

Analyte	Result	Qual	Units	RL	Dil	Method
Alkalinity	530		mg/L	5.0	1.0	310.1
Analysis Batch: 680-140213	Date Analyzed: 06/11/2009 1011					
Carbon Dioxide, Free	55		mg/L	5.0	1.0	310.1
Analysis Batch: 680-140213	Date Analyzed: 06/11/2009 1011					

7/8/09 EZK

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

General Chemistry

Client Sample ID: **GM-58A-F(0.2)-0509**

Lab Sample ID: 680-47984-2
Client Matrix: Water

Date Sampled: 06/09/2009 1025
Date Received: 06/10/2009 0910

Analyte	Result	Qual	Units	RL	Dil	Method
Dissolved Organic Carbon-Dissolved	3.1		mg/L	1.0	1.0	415.1
Analysis Batch: 680-140797	Date Analyzed: 06/11/2009 1028					

7/8/09 EZK

DATA REPORTING QUALIFIERS

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

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
	F	RPD of the MS and MSD exceeds the 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.
	F	MS or MSD exceeds the control limits

QUALITY CONTROL RESULTS

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 680-140115					
LCS 680-140115/15-A	Lab Control Sample	T	Water	3520C	
LCSD 680-140115/16-A	Lab Control Sample Duplicate	T	Water	3520C	
MB 680-140115/14-A	Method Blank	T	Water	3520C	
680-47956-1	GM-31A-0509	T	Water	3520C	
680-47956-3FD	GM-31A-0509-AD	T	Water	3520C	
680-47984-1	GM-58A-0509	T	Water	3520C	
680-47984-1MS	Matrix Spike	T	Water	3520C	
680-47984-1MSD	Matrix Spike Duplicate	T	Water	3520C	
Analysis Batch:680-141611					
LCS 680-140115/15-A	Lab Control Sample	T	Water	8270C	680-140115
LCSD 680-140115/16-A	Lab Control Sample Duplicate	T	Water	8270C	680-140115
MB 680-140115/14-A	Method Blank	T	Water	8270C	680-140115
680-47956-1	GM-31A-0509	T	Water	8270C	680-140115
680-47956-3FD	GM-31A-0509-AD	T	Water	8270C	680-140115
680-47984-1	GM-58A-0509	T	Water	8270C	680-140115
680-47984-1MS	Matrix Spike	T	Water	8270C	680-140115
680-47984-1MSD	Matrix Spike Duplicate	T	Water	8270C	680-140115

Report Basis
T = Total

GC VOA					
Analysis Batch:680-140053					
LCS 680-140053/15	Lab Control Sample	T	Water	RSK-175	
MB 680-140053/16	Method Blank	T	Water	RSK-175	
680-47956-1	GM-31A-0509	T	Water	RSK-175	
Analysis Batch:680-140347					
LCS 680-140347/8	Lab Control Sample	T	Water	RSK-175	
MB 680-140347/9	Method Blank	T	Water	RSK-175	
680-47984-1	GM-58A-0509	T	Water	RSK-175	

Report Basis
T = Total

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 680-140475					
LCS 680-140475/22-A	Lab Control Sample	R	Water	3005A	
MB 680-140475/21-A	Method Blank	R	Water	3005A	
680-47956-1	GM-31A-0509	R	Water	3005A	
680-47956-2	GM-31A-F(0.2)-0509	D	Water	3005A	
680-47984-1	GM-58A-0509	R	Water	3005A	
680-47984-2	GM-58A-F(0.2)-0509	D	Water	3005A	
Analysis Batch:680-140764					
LCS 680-140475/22-A	Lab Control Sample	R	Water	6010B	680-140475
MB 680-140475/21-A	Method Blank	R	Water	6010B	680-140475
680-47956-1	GM-31A-0509	R	Water	6010B	680-140475
680-47956-2	GM-31A-F(0.2)-0509	D	Water	6010B	680-140475
680-47984-1	GM-58A-0509	R	Water	6010B	680-140475
680-47984-2	GM-58A-F(0.2)-0509	D	Water	6010B	680-140475

Report Basis
D = Dissolved
R = Total Recoverable

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:680-139986					
LCS 680-139986/2	Lab Control Sample	T	Water	310.1	
MB 680-139986/1	Method Blank	T	Water	310.1	
680-47956-1	GM-31A-0509	T	Water	310.1	
Analysis Batch:680-140031					
LCS 680-140031/2	Lab Control Sample	T	Water	353.2	
MB 680-140031/1	Method Blank	T	Water	353.2	
680-47956-1	GM-31A-0509	T	Water	353.2	
Analysis Batch:680-140129					
LCS 680-140129/2	Lab Control Sample	T	Water	353.2	
MB 680-140129/1	Method Blank	T	Water	353.2	
680-47984-1	GM-58A-0509	T	Water	353.2	
680-47984-1MS	Matrix Spike	T	Water	353.2	
680-47984-1MSD	Matrix Spike Duplicate	T	Water	353.2	
Analysis Batch:680-140168					
LCS 680-140168/2	Lab Control Sample	T	Water	375.4	
MB 680-140168/1	Method Blank	T	Water	375.4	
680-47956-1	GM-31A-0509	T	Water	375.4	
Analysis Batch:680-140213					
LCS 680-140213/2	Lab Control Sample	T	Water	310.1	
MB 680-140213/1	Method Blank	T	Water	310.1	
680-47984-1	GM-58A-0509	T	Water	310.1	
Analysis Batch:680-140412					
LCS 680-140412/2	Lab Control Sample	T	Water	325.2	
MB 680-140412/1	Method Blank	T	Water	325.2	
680-47956-1	GM-31A-0509	T	Water	325.2	
680-47984-1	GM-58A-0509	T	Water	325.2	
Analysis Batch:680-140476					
LCS 680-140476/2	Lab Control Sample	T	Water	375.4	
MB 680-140476/1	Method Blank	T	Water	375.4	
680-47984-1	GM-58A-0509	T	Water	375.4	
Analysis Batch:680-140797					
LCS 680-140797/2	Lab Control Sample	D	Water	415.1	
MB 680-140797/1	Method Blank	D	Water	415.1	
680-47956-2	GM-31A-F(0.2)-0509	D	Water	415.1	
680-47984-2	GM-58A-F(0.2)-0509	D	Water	415.1	

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:680-141264					
LCS 680-141264/4	Lab Control Sample	T	Water	415.1	
LCSD 680-141264/5	Lab Control Sample Duplicate	T	Water	415.1	
MB 680-141264/2	Method Blank	T	Water	415.1	
680-47956-1	GM-31A-0509	T	Water	415.1	
680-47984-1	GM-58A-0509	T	Water	415.1	

Report Basis
D = Dissolved
T = Total

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

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
680-47956-1	GM-31A-0509	81	79	83	74	57	85
680-47956-3	GM-31A-0509-AD	80	79	84	73	44	86
680-47984-1	GM-58A-0509	77	76	80	72	49	89
MB 680-140115/14-A		74	75	77	69	85	77
LCS 680-140115/15-A		72	72	71	69	77	80
LCSD 680-140115/16-A		73	72	72	67	81	85
680-47984-1 MS	GM-58A-0509 MS	78	77	81	73	50	82
680-47984-1 MSD	GM-58A-0509 MSD	76	71	77	67	58	84

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

7/8/09
EZK

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Method Blank - Batch: 680-140115

Method: 8270C
Preparation: 3520C

Lab Sample ID:	MB 680-140115/14-A	Analysis Batch:	680-141611	Instrument ID:	GC/MS SemiVolatiles - G
Client Matrix:	Water	Prep Batch:	680-140115	Lab File ID:	g5972.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	06/26/2009 1635			Final Weight/Volume:	1 mL
Date Prepared:	06/11/2009 1211			Injection Volume:	1.0 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	74	50 - 113
2-Fluorophenol	75	36 - 110
Nitrobenzene-d5	77	45 - 112
Phenol-d5	69	38 - 116
Terphenyl-d14	85	10 - 121
2,4,6-Tribromophenol	77	40 - 139

7/8/09 JK

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 680-140115

Method: 8270C
Preparation: 3520C

LCS Lab Sample ID:	LCS 680-140115/15-A	Analysis Batch:	680-141611	Instrument ID:	GC/MS SemiVolatiles - G
Client Matrix:	Water	Prep Batch:	680-140115	Lab File ID:	g5973.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	06/26/2009 1658			Final Weight/Volume:	1 mL
Date Prepared:	06/11/2009 1211			Injection Volume:	1.0 uL

LCSD Lab Sample ID:	LCSD 680-140115/16-A	Analysis Batch:	680-141611	Instrument ID:	GC/MS SemiVolatiles - G
Client Matrix:	Water	Prep Batch:	680-140115	Lab File ID:	g5974.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	06/26/2009 1722			Final Weight/Volume:	1 mL
Date Prepared:	06/11/2009 1211			Injection Volume:	1.0 uL

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1'-Biphenyl	78	79	47 - 112	1	40		
2,4-Dichlorophenol	75	74	46 - 115	1	40		
Nitrobenzene	86	128	46 - 110	39	40		*
Pentachlorophenol	90	95	37 - 132	6	40		
2,4,6-Trichlorophenol	74	77	46 - 120	3	40		
1-Chloro-3-nitrobenzene	77	77	70 - 130	1	40		
2-Nitrobiphenyl	81	86	70 - 130	6	40		
3-Nitrobiphenyl	77	79	70 - 130	2	40		
3,4-Dichloronitrobenzene	79	81	70 - 130	2	40		
4-Nitrobiphenyl	80	82	70 - 130	3	40		
2-chloronitrobenzene / 4-chloronitrobenzene	75	76	70 - 130	1	40		
1-chloro-2,4-dinitrobenzene	77	80	70 - 130	5	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
2-Fluorobiphenyl	72	73	50 - 113
2-Fluorophenol	72	72	36 - 110
Nitrobenzene-d5	71	72	45 - 112
Phenol-d5	69	67	38 - 116
Terphenyl-d14	77	81	10 - 121
2,4,6-Tribromophenol	80	85	40 - 139

Calculations are performed before rounding to avoid round-off errors in calculated results.

7/8/09 EZK

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-140115

Method: 8270C
Preparation: 3520C

MS Lab Sample ID:	680-47984-1	Analysis Batch:	680-141611	Instrument ID:	GC/MS SemiVolatiles - G
Client Matrix:	Water	Prep Batch:	680-140115	Lab File ID:	g5978.d
Dilution:	1.0			Initial Weight/Volume:	1030 mL
Date Analyzed:	06/26/2009 1857			Final Weight/Volume:	1 mL
Date Prepared:	06/11/2009 1211			Injection Volume:	1.0 uL

MSD Lab Sample ID:	680-47984-1	Analysis Batch:	680-141611	Instrument ID:	GC/MS SemiVolatiles - G
Client Matrix:	Water	Prep Batch:	680-140115	Lab File ID:	g5979.d
Dilution:	1.0			Initial Weight/Volume:	1030 mL
Date Analyzed:	06/26/2009 1921			Final Weight/Volume:	1 mL
Date Prepared:	06/11/2009 1211			Injection Volume:	1.0 uL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1'-Biphenyl	85	84	47 - 112	2	40		
2,4-Dichlorophenol	80	77	46 - 115	3	40		
Nitrobenzene	74	138	46 - 110	60	40		F
Pentachlorophenol	105	108	37 - 132	3	40		
2,4,6-Trichlorophenol	80	79	46 - 120	1	40		
1-Chloro-3-nitrobenzene	86	83	70 - 130	3	40		
2-Nitrobiphenyl	89	90	70 - 130	1	40		
3-Nitrobiphenyl	87	89	70 - 130	2	40		
3,4-Dichloronitrobenzene	84	84	70 - 130	0	40		
4-Nitrobiphenyl	91	93	70 - 130	2	40		
2-chloronitrobenzene / 4-chloronitrobenzene	85	83	70 - 130	3	40		
1-chloro-2,4-dinitrobenzene	92	96	70 - 130	5	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	78	76	50 - 113
2-Fluorophenol	77	71	36 - 110
Nitrobenzene-d5	81	77	45 - 112
Phenol-d5	73	67	38 - 116
Terphenyl-d14	50	58	10 - 121
2,4,6-Tribromophenol	82	84	40 - 139

7/8/09 EZK

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Method Blank - Batch: 680-140053

Method: RSK-175
Preparation: N/A

Lab Sample ID:	MB 680-140053/16	Analysis Batch:	680-140053	Instrument ID:	GC Volatiles - U FID
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UQ240.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	17000 uL
Date Analyzed:	06/09/2009 1933			Final Weight/Volume:	17 mL
Date Prepared:	N/A			Injection Volume:	1 uL

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 - Batch: 680-140053

Method: RSK-175
Preparation: N/A

Lab Sample ID:	LCS 680-140053/15	Analysis Batch:	680-140053	Instrument ID:	GC Volatiles - U FID
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UQ237.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	17000 uL
Date Analyzed:	06/09/2009 1855			Final Weight/Volume:	17 mL
Date Prepared:	N/A			Injection Volume:	1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ethane	282	302	107	75 - 125	
Ethylene	271	298	110	75 - 125	
Methane	153	173	113	75 - 125	

7/8/09 EZK

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Method Blank - Batch: 680-140347

Method: RSK-175
Preparation: N/A

Lab Sample ID: MB 680-140347/9
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/12/2009 1432
Date Prepared: N/A

Analysis Batch: 680-140347
Prep Batch: N/A
Units: ug/L

Instrument ID: GC Volatiles - U FID
Lab File ID: UQ248.D
Initial Weight/Volume: 17000 uL
Final Weight/Volume: 17 mL
Injection Volume: 1 uL

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 - Batch: 680-140347

Method: RSK-175
Preparation: N/A

Lab Sample ID: LCS 680-140347/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/12/2009 1420
Date Prepared: N/A

Analysis Batch: 680-140347
Prep Batch: N/A
Units: ug/L

Instrument ID: GC Volatiles - U FID
Lab File ID: UQ247.D
Initial Weight/Volume: 17000 uL
Final Weight/Volume: 17 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ethane	282	260	92	75 - 125	
Ethylene	271	271	100	75 - 125	
Methane	153	148	97	75 - 125	

7/8/09 EZK

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Method Blank - Batch: 680-140475

Method: 6010B
Preparation: 3005A
Total Recoverable

Lab Sample ID: MB 680-140475/21-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/18/2009 0035
Date Prepared: 06/16/2009 1212

Analysis Batch: 680-140764
Prep Batch: 680-140475
Units: mg/L

Instrument ID: ICP/AES - D
Lab File ID: N/A
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: 680-140475

Method: 6010B
Preparation: 3005A
Total Recoverable

Lab Sample ID: LCS 680-140475/22-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/18/2009 0040
Date Prepared: 06/16/2009 1212

Analysis Batch: 680-140764
Prep Batch: 680-140475
Units: mg/L

Instrument ID: ICP/AES - D
Lab File ID: N/A
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	

7/8/09
SRK

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Method Blank - Batch: 680-139986

Method: 310.1
Preparation: N/A

Lab Sample ID: MB 680-139986/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/09/2009 1354
Date Prepared: N/A

Analysis Batch: 680-139986
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

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

Lab Control Sample - Batch: 680-139986

Method: 310.1
Preparation: N/A

Lab Sample ID: LCS 680-139986/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/09/2009 1354
Date Prepared: N/A

Analysis Batch: 680-139986
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Alkalinity	186	189	102	80 - 120	

7/8/09 ewk

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Method Blank - Batch: 680-140213

Method: 310.1
Preparation: N/A

Lab Sample ID: MB 680-140213/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/11/2009 1011
Date Prepared: N/A

Analysis Batch: 680-140213
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

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

Lab Control Sample - Batch: 680-140213

Method: 310.1
Preparation: N/A

Lab Sample ID: LCS 680-140213/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/11/2009 1011
Date Prepared: N/A

Analysis Batch: 680-140213
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Alkalinity	186	189	101	80 - 120	

7/8/09 EJK

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Method Blank - Batch: 680-140412

Method: 325.2
Preparation: N/A

Lab Sample ID: MB 680-140412/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/15/2009 1448
Date Prepared: N/A

Analysis Batch: 680-140412
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab1
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Result	Qual	RL
Chloride	1.0	U	1.0

Lab Control Sample - Batch: 680-140412

Method: 325.2
Preparation: N/A

Lab Sample ID: LCS 680-140412/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/15/2009 1451
Date Prepared: N/A

Analysis Batch: 680-140412
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab1
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride	50.0	48.6	97	85 - 115	

7/8/09 EZK

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Method Blank - Batch: 680-140031

Method: 353.2
Preparation: N/A

Lab Sample ID: MB 680-140031/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/09/2009 1429
Date Prepared: N/A

Analysis Batch: 680-140031
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab2
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

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

Lab Control Sample - Batch: 680-140031

Method: 353.2
Preparation: N/A

Lab Sample ID: LCS 680-140031/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/09/2009 1429
Date Prepared: N/A

Analysis Batch: 680-140031
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab2
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N	1.00	1.10	110	90 - 110	
Nitrate Nitrite as N	1.00	1.10	110	90 - 110	

7/8/09
EMK

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Method Blank - Batch: 680-140129

Method: 353.2
Preparation: N/A

Lab Sample ID: MB 680-140129/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/10/2009 1534
Date Prepared: N/A

Analysis Batch: 680-140129
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab2
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

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

Lab Control Sample - Batch: 680-140129

Method: 353.2
Preparation: N/A

Lab Sample ID: LCS 680-140129/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/10/2009 1534
Date Prepared: N/A

Analysis Batch: 680-140129
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab2
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N	1.00	1.03	103	90 - 110	
Nitrate Nitrite as N	1.00	1.03	103	90 - 110	

7/8/09 ZK

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-140129

Method: 353.2
Preparation: N/A

MS Lab Sample ID:	680-47984-1	Analysis Batch:	680-140129	Instrument ID:	KoneLab2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	06/10/2009 1516			Final Weight/Volume:	10 mL
Date Prepared:	N/A				

MSD Lab Sample ID:	680-47984-1	Analysis Batch:	680-140129	Instrument ID:	KoneLab2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	06/10/2009 1516			Final Weight/Volume:	10 mL
Date Prepared:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Nitrate as N	111	109	90 - 110	1	10	F	
Nitrate Nitrite as N	111	109	90 - 110	1	10	F	

7/8/09
EJK

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Method Blank - Batch: 680-140168

Method: 375.4
Preparation: N/A

Lab Sample ID: MB 680-140168/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/11/2009 1104
Date Prepared: N/A

Analysis Batch: 680-140168
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab1
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Result	Qual	RL
Sulfate	5.0	U	5.0

Lab Control Sample - Batch: 680-140168

Method: 375.4
Preparation: N/A

Lab Sample ID: LCS 680-140168/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/11/2009 1104
Date Prepared: N/A

Analysis Batch: 680-140168
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab1
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Sulfate	20.0	19.0	95	75 - 125	

7/8/09
EMK

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Method Blank - Batch: 680-140476

Method: 375.4
Preparation: N/A

Lab Sample ID: MB 680-140476/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/16/2009 0918
Date Prepared: N/A

Analysis Batch: 680-140476
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab1
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Result	Qual	RL
Sulfate	5.0	U	5.0

Lab Control Sample - Batch: 680-140476

Method: 375.4
Preparation: N/A

Lab Sample ID: LCS 680-140476/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/16/2009 0918
Date Prepared: N/A

Analysis Batch: 680-140476
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab1
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Sulfate	20.0	18.2	91	75 - 125	

7/8/09
EZK

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Method Blank - Batch: 680-140797

Method: 415.1
Preparation: N/A

Lab Sample ID: MB 680-140797/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/11/2009 1028
Date Prepared: N/A

Analysis Batch: 680-140797
Prep Batch: N/A
Units: mg/L

Instrument ID: Total Organic Carbon Analyze
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: 680-140797

Method: 415.1
Preparation: N/A

Lab Sample ID: LCS 680-140797/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/11/2009 1028
Date Prepared: N/A

Analysis Batch: 680-140797
Prep Batch: N/A
Units: mg/L

Instrument ID: Total Organic Carbon Analyze
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 25 mL

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

7/8/09 ZZK

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Solutia Inc.

Job Number: 680-47956-1
Sdg Number: KOM04

Method Blank - Batch: 680-141264

Method: 415.1
Preparation: N/A

Lab Sample ID: MB 680-141264/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/23/2009 1009
Date Prepared: N/A

Analysis Batch: 680-141264
Prep Batch: N/A
Units: mg/L

Instrument ID: Total Organic Carbon Analyze
Lab File ID: N/A
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/
Lab Control Sample Duplicate Recovery Report - Batch: 680-141264

Method: 415.1
Preparation: N/A

LCS Lab Sample ID: LCS 680-141264/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/23/2009 1041
Date Prepared: N/A

Analysis Batch: 680-141264
Prep Batch: N/A
Units: mg/L

Instrument ID: Total Organic Carbon Analyze
Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

LCSD Lab Sample ID: LCSD 680-141264/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/23/2009 1054
Date Prepared: N/A

Analysis Batch: 680-141264
Prep Batch: N/A
Units: mg/L

Instrument ID: Total Organic Carbon Analy;
Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Total Organic Carbon	102	100	80 - 120	2	25		

7/8/09 ERK

Calculations are performed before rounding to avoid round-off errors in calculated results.

Serial Number 012664

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)
Solutia WGK Rte 3 Drum Lot.	21562046.00004	IL

TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Lidya Gulizia		

CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Thomas Adams	314-429-0100	314-429-0462

CLIENT NAME	CLIENT E-MAIL
URS Corporation	thomas_adams@urscorp.com

CLIENT ADDRESS: 1001 Highlands Plaza Dr. W., Ste. 300 St. Louis, MO 63110

COMPANY CONTRACTING THIS WORK (if applicable): Solutia

PAGE 1 OF 1

STANDARD REPORT DELIVERY ○

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ○

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

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 (none)	Total Fe/Mn 6010B (HNO3)	Alk/CO2 (310.1) (none)	Sulfate (375.4) Chloride (325.2) (none)	Methane (RSK175) (none)	Nitrate 353.2 (H2SO4)	TOC 415.1 (HCl)	Diss. Fe/Mn 6010B (HNO3)	DOC 415.1 (HCl)	REMARKS
								NUMBER OF CONTAINERS SUBMITTED									
6/8/09	1545	GM-31A-0509		X				2	1	1	1	3	2	1			
↓	1545	GM-31A-F(0.2)-0509		X											1	1	
↓	1545	GM-31A-0509-AD		X				2									

PRESERVATIVE

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	6/8/09	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
Beth a Daughtry	6/9/9	0851	YES ○ NO ○		680-47956	TEMPERATURE 5.4

TAL8240-680 (1207)

7/8/09 EZK

Serial Number 016948

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 Rte 3 Drum Lot	21562046.00000	IL
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Lidya Gulizia		
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Thomas Adams	314-429-0100	314-429-0462
CLIENT NAME	CLIENT E-MAIL	
URS Corporation	thomas_adams@urscorp.com	
CLIENT ADDRESS		
1001 Highlands Plaza Dr. W., Ste 300, St. Louis, MO 63110		
COMPANY CONTRACTING THIS WORK (if applicable)		
Solutia		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ○
DATE DUE
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE
NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX TYPE: AQUEOUS (WATER)	MATRIX TYPE: SOLID OR SEMISOLID	MATRIX TYPE: AIR	MATRIX TYPE: NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	REQUIRED ANALYSIS: SVOCs 8270C	Total Fe/Mn 6010B	Alk/CO_2 (310.1)	Chloride(375.4) Sulfate(375.2)	Methane RSK175	Nitrate	TOC 415.1	Diss. Fe/Mn 6010B	DOC 415.1	REMARKS
								none	HNO_3	none	none	none	H_2SO_4	HCl	HNO_3	HCl	
6/9/09	1025	GM-58A-0509		X				2	1	1	1	3	2	1			
		GM-58A-F(0.2)-0509		X											1	1	
		GM-58A-0509-MS		X				2									
		GM-58A-0509-MSD		X				2									

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	6/9/09	1900						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
	06/10/09	0910	YES ○ NO ○		680 47984	4.6 TEMP

7/8/09 ezk

TAL8240-680 (1207)

Login Sample Receipt Check List

Client: URS Corporation

Job Number: 680-47956-1
SDG Number: KOM04

Login Number: 47956
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	1 cooler rec'd on ice.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.4 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.	False	Sample 31A (rec'd 1 liter amber broken for 8270)
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	MS/MSd not requested in SDG (no additional volume provided).
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	

7/8/09 EZK

Login Sample Receipt Check List

Client: URS Corporation

Job Number: 680-47956-1
SDG Number: KOM04

Login Number: 47984
Creator: Hall, Karl I
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	1 cooler rec'd on ice.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6 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	

7/8/09 EZK