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November 9, 2011

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

VIA FEDEX

Re: PCB Groundwater Quality Assessment Program
3rd Quarter 2011 Data Report
Solutia Inc., W. G. Krummrich Plant, Sauget, IL

Dear Mr. Bardo:

Enclosed please find the PCB Groundwater Quality Assessment Program 3rd Quarter 2011 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

**PCB Groundwater Quality Assessment Program
3rd Quarter 2011 Data Report
Solutia Inc., W. G. Krummrich Plant, Sauget, IL**

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3RD QUARTER 2011
DATA REPORT

PCB GROUNDWATER QUALITY ASSESSMENT PROGRAM

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

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

November 2011



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Project # **21562682.00002**

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1.0 INTRODUCTION

This report presents the results of the 3rd Quarter 2011 (3Q11) sampling event performed at the Solutia Inc. (Solutia) W.G. Krummrich Facility located in Sauget, Illinois (Site). This sampling event was conducted in accordance with the Revised PCB Groundwater Quality Assessment Program Work Plan (Solutia 2009). The Site location map is presented in **Figure 1**.

The PCB Groundwater Quality Assessment Program well network consists of ten monitoring wells, as follows (**Figure 2**):

- Two source area wells, PMA-MW-4S and PMA-MW-4D, are screened in the Shallow Hydrogeologic Unit (SHU) (designated with an "S") and Deep Hydrogeologic Unit (DHU) (designated with a "D"), respectively.
- Three well clusters (PMA-MW-1S/M, PMA-MW-2S/M and PMA-MW-3S/M) are located down-gradient of the source area. These clusters include wells screened in the SHU and Middle Hydrogeologic Unit (MHU) (designated with an "M").
- Two individual wells designated PMA-MW-5M and PMA-MW-6D are located further down-gradient of the source area, with PMA-MW-5M screened in the MHU and PMA-MW-6D screened in the DHU.

Groundwater samples were collected from the ten monitoring wells during the 3Q11 sampling event.

Field sampling activities were conducted in accordance with the procedures outlined in the Revised PCB Groundwater Quality Assessment Program Work Plan, including the collection of appropriate quality assurance and quality control (QA/QC) samples. The following section summarizes the field investigative procedures.

2.0 FIELD PROCEDURES

URS Corporation (URS) conducted the 3Q11 PCB Groundwater Quality Assessment Program field activities between August 17 and 25, 2011.

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) in the PCB Groundwater Quality Assessment Program well network. A dense phase NAPL (DNAPL) was detected in monitoring well PMA-MW-4S. Depth to groundwater measurements were collected from accessible existing wells (i.e., BSA-, CPA-, GM-, K-, PSMW- and PMA-series) and piezometers clusters (installed for the Sauget Area 2 RI/FS and WGK CA-750 Environmental Indicator projects) specified in the Revised PCB Groundwater Quality Assessment Program Work Plan.

Well gauging information for the 3Q11 event is presented in **Table 1**. As the middle and deep hydrogeologic units are the primary migration pathway for constituents present in groundwater at the WGK Facility, a groundwater potentiometric surface map based on water level data from wells screened in the MHU and DHU is presented as **Figure 3**.

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 no more than 500 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. Consistent with the work plan, samples were collected at a flow rate less than or equal to the rate at which stabilization was achieved.

Per the workplan, NAPL is to be sampled if present in a well. PMA-MW-4S had measurable DNAPL, but not enough to collect a sample. As such, a groundwater sample was collected using the same procedures described above.

Quality Assurance/Quality Control (QA/QC) samples consisting of analytical duplicates (AD) and equipment blanks (EB) were collected at a rate of 10% and matrix spike/matrix spike duplicates (MS/MSD) were collected at a rate of 5%, complying with the work plan. All samples were submitted to TestAmerica for PCB analysis.

Each sample was labeled immediately following collection. The sample identification system used for each sample involved the following nomenclature "PMA-MW#-MMYY-QAC" where:

- **PMA-MW#** – Monitoring Well Location (PCB Manufacturing Area (PMA)) and Number
- **MMYY** – Month and year of sampling quarter, e.g.: August (Third quarter), 2011 (0811)

- **QAC** – denotes QA/QC samples (when applicable):
 - **EB** – equipment blank
 - **AD** – analytical duplicate
 - **MS or MSD** – Matrix Spike or Matrix Spike Duplicate

Upon collection and labeling, sample containers were immediately placed inside an iced cooler, packed in such a way as to help prevent breakage and maintain inside temperature at or below approximately 4°C. Field personnel recorded the project identification and number, sample description/location, required analysis, date and time of sample collection, type and matrix of sample, number of sample containers, analysis requested/comments, and sampler signature/date/time, with permanent ink on the chain-of-custody (COC). Prior to shipment, coolers were sealed between the lid and sides of the cooler with a custody seal, and then shipped to TestAmerica in Savannah, Georgia by means of overnight delivery service (FedEx). 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 PCBs using Method 680. For presentation purposes in this report, results of the PCB isomer groups (e.g., monochlorobiphenyl, dichlorobiphenyl, etc.) are summed and presented as “total PCBs.” 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 PCB Water Quality Assessment Work Plan (Solutia 2009). 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, along with data review and validation reports are included in **Appendix D**.

A total of 14 samples (ten investigative groundwater samples, one field duplicate, one MS/MSD pair, and one equipment blank) were prepared and analyzed by TestAmerica Savannah for PCBs. Results for the various analyses were submitted as sample delivery group (SDG) KPM043.

The samples contained in SDG KPM043 are listed below:

KPM043	
PMA-MW-1S-0811	PMA-MW-3M-0811-AD
PMA-MW-1M-0811	PMA-MW-4S-0811
PMA-MW-2S-0811	PMA-MW-4D-0811
PMA-MW-2M-0811	PMA-MW-5M-0811
PMA-MW-3S-0811	PMA-MW-6D-0811
PMA-MW-3M-0811	PMA-MW-6D-0811-EB

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 Revised PCB Water Quality Assessment Work Plan (Solutia 2009). 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 LCS, surrogate and field duplicate data were achieved for these SDGs 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

This section presents a brief summary of the groundwater analytical results from the 3Q11 PCB Groundwater Quality Assessment sampling event. A summary of the laboratory results is provided in **Table 2** and the entire laboratory data package is provided in **Appendix D**.

Shallow Hydrogeologic Unit

Historically, measurable DNAPL has been periodically observed in the source area SHU monitoring well PMA-MW-4S during previous sampling events. Though DNAPL was detected in PMA-MW-4S by the oil/water interface probe (0.11 feet) during the 3Q11 event, an insufficient volume was available for sample collection. As a result, a water sample was collected, and total PCBs were detected at a concentration of 1,868 µg/L. PCBs were detected in one of the three down-gradient PCB Groundwater Quality Assessment Program SHU monitoring wells (PMAMW-3S) at a concentration of 0.13 µg/L. Such data indicate that PCBs in the SHU are attenuating over the 300 to 400 ft distance between PMA-MW-4S and the three downgradient monitoring wells. PCB sampling results for the SHU are presented on **Figure 4**.

Middle/Deep Hydrogeologic Unit

Laboratory analytical results for monitoring well PMA-MW-4D, located in the Former PCB Manufacturing Area, indicated a total PCB concentration of 1.1 µg/L for the 3Q11 sampling event. PCBs were also detected in three of the five downgradient monitoring wells at concentrations of 0.35 µg/L (PMA-MW-1M), 4.52 µg/L (PMA-MW-2M), and 1.1 µg/L (PMA-MW-

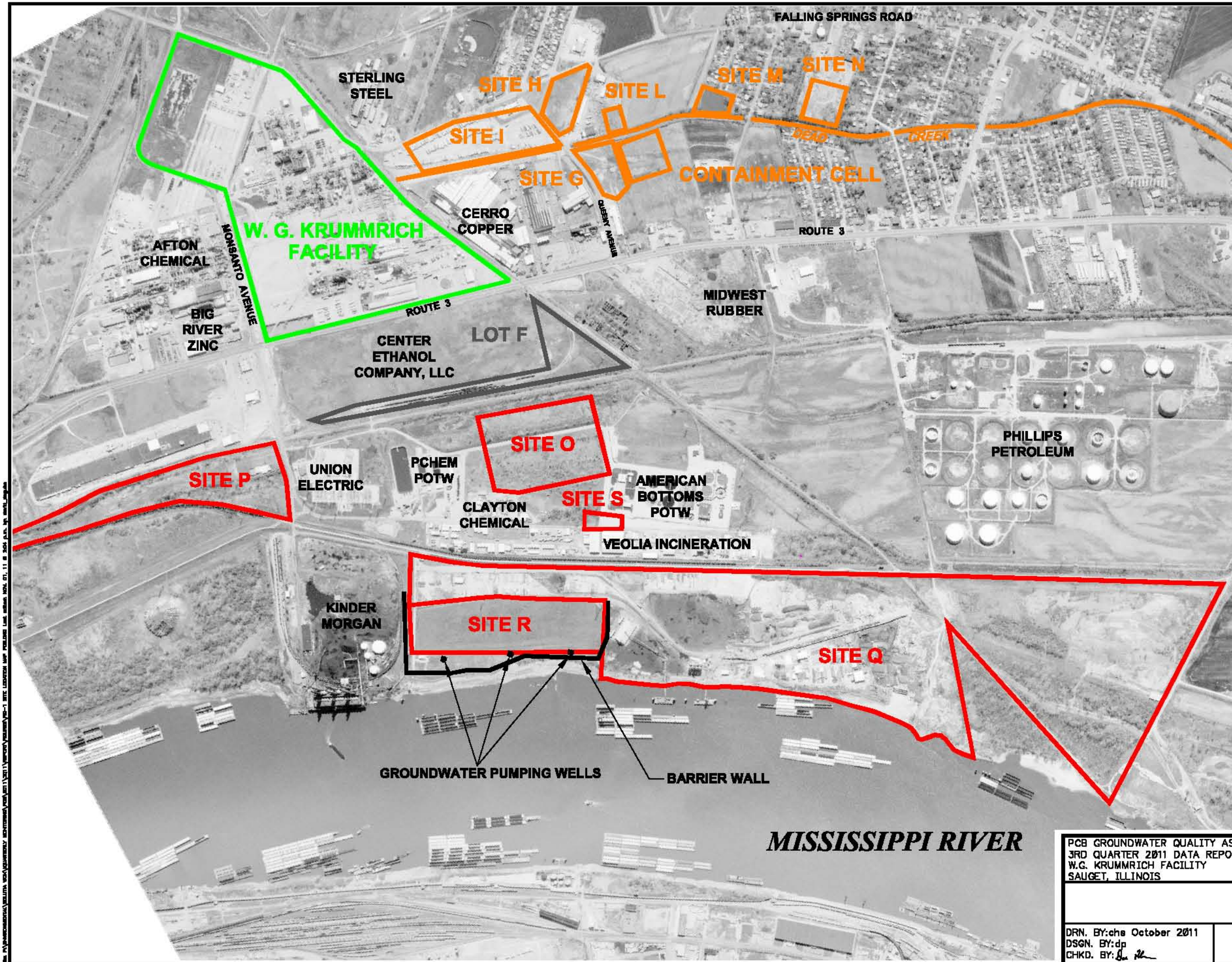
3M and duplicate). PCBs were not detected in the groundwater samples collected from monitoring wells PMA-MW-5M and PMA-MW-6D. **Figure 5** displays the 3Q11 PCB sampling results for the MHU/DHU.

The 3Q11 sampling event was the thirteenth event conducted under the PCB Groundwater Quality Assessment Program. Mann-Kendall trend analyses of total PCBs in unfiltered samples of groundwater from monitoring wells within (PMA-MW-4D) or downgradient of (PMA-MW-1M, -2M, -3S, -3M, and -6D) the former PCB Manufacturing Area are presented in **Table 3**. Similar to previous quarterly events, the data appear to exhibit an upward trend in concentrations at monitoring wells PMA-MW-1M, PMA-MW-2M and PMA-MW-4D at this time, but no trends at any of the other wells.

6.0 REFERENCES

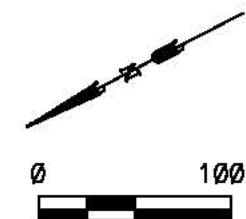
- Solutia Inc, 2009. Revised PCB Groundwater Quality Assessment Program Work Plan, W.G. Krummrich Facility, Sauget, IL, Prepared by URS Corporation, May 2009.
- U.S. Environmental Protection Agency (USEPA), 2008 Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review.

Figures



LEGEND

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



SCALE FEET

PCB GROUNDWATER QUALITY ASSESSMENT PROGRAM
3RD QUARTER 2011 DATA REPORT
W.G. KRUMMRICH FACILITY
SAUGET, ILLINOIS

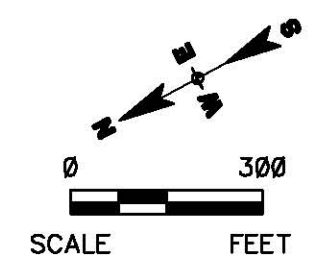
PROJECT NO.
21562682

URS

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Site Location Map

FIG. NO.
1

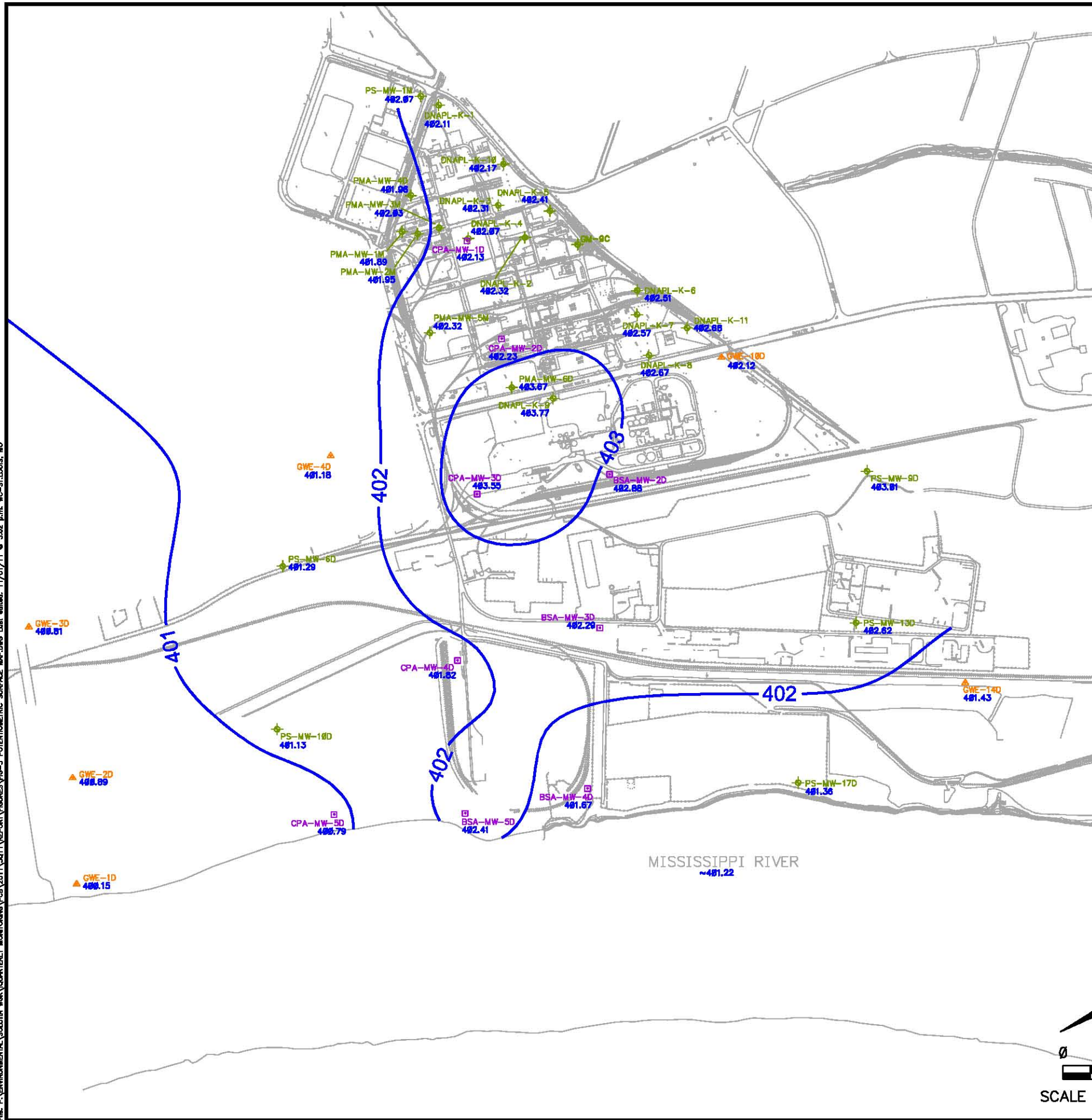


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21562682

**Former PCB Manufacturing Area
Monitoring Well Locations**

FIG. NO.
2

File: P:\ENVIRONMENTAL\SOLUTIONS\WORK\QUARTERLY MONITORING\PCB\2011\3Q11\REPORT\FIGURES\Fig-3 POTENTIOMETRIC SURFACE MAP.DWG Last edited: 11/01/11 @ 3:02 p.m. WC-ST LOUIS, MO

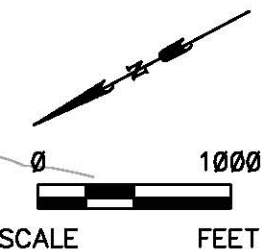


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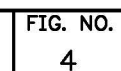
- LONG-TERM MONITORING WELL USED FOR GROUNDWATER CONTOURING
- + OTHER MONITORING WELL USED FOR GROUNDWATER CONTOURING
- ▲ PIEZOMETER CLUSTER USED FOR GROUNDWATER CONTOURING
- 402 — GROUNDWATER ELEVATION CONTOUR (FT NAVD)

NOTES:

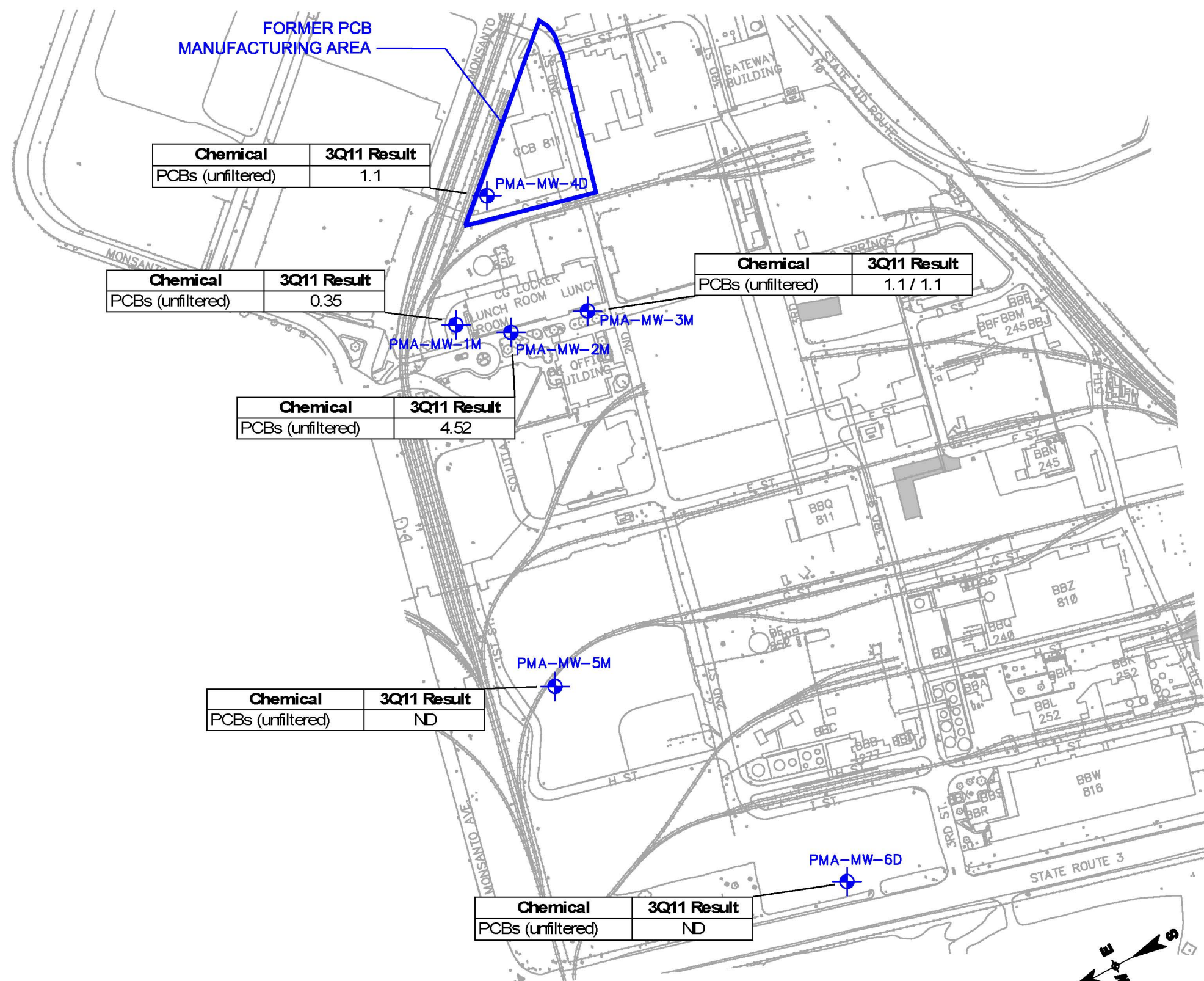
1. GROUNDWATER LEVELS WERE MEASURED AUGUST 11 & 12, 2011.
2. CONTOURS GENERATED PRIMARILY USING SURFER SOFTWARE VERSION 8. SOME INTERPRETATION WAS DONE USING PROFESSIONAL JUDGMENT AND CONTOUR LINES WERE MODIFIED BY HAND.
3. THE MISSISSIPPI RIVER STAGE ELEVATION PRESENTED ON THE FIGURE IS AN AVERAGE ELEVATION FOR THE TIME OF THE GAUGING EVENT. THE INFORMATION WAS OBTAINED FROM THE SITE R BUBBLER.
4. LOCATIONS WITH WELLS SCREENED IN BOTH THE MHU AND DHU UTILIZED THE DHU WELL FOR DEVELOPMENT OF THE POTENTIOMETRIC SURFACE MAP.



PCB GROUNDWATER QUALITY ASSESSMENT PROGRAM 3RD QUARTER 2011 DATA REPORT W.G. KRUMMRICH FACILITY SAUGET, ILLINOIS		PROJECT NO. 21562682
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DRN. BY:chs November 2011 DSGN. BY:dp CHKD. BY: [signature]	Potentiometric Surface Map Middle/Deep Hydrogeologic Unit	FIG. NO. 3



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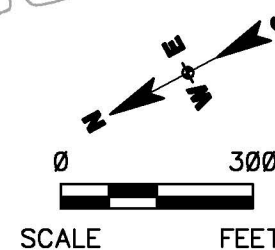
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MONITORING WELL LOCATION

NOTES:

1. TOTAL PCB RESULTS INCLUDE THE SUM OF ALL METHOD 680 HOMOLOGS.
2. RESULTS ARE SHOWN IN ug/L.
3. ND = NOT DETECTED.
4. MULTIPLE SAMPLE RESULTS INDICATE A DUPLICATE SAMPLE



PCB GROUNDWATER QUALITY ASSESSMENT PROGRAM
3RD QUARTER 2011 DATA REPORT
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PROJECT NO.
21562682

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CHKD. BY: [signature]

PCB Results –
MHU/DHU Wells

FIG. NO.
5

Tables

See last page of table for notes.

Table 1
Monitoring Well Gauging Information

Well ID	Construction Details						August 11 - 12, 2011		
	Ground Elevation (feet)*	Casing Elevation* (feet)	Depth to Top of Screen (feet bgs)	Depth to Bottom of Screen (feet bgs)	Top of Screen Elevation* (feet)	Bottom of Screen Elevation* (feet)	Depth to Water (feet btoc)	DNAPL Thickness (feet)	Water Elevation* (feet)
Shallow Hydrogeologic Unit (SHU 395-380 feet NAVD 88)									
PMA-MW-1S	410.30	410.06	20.18	25.18	390.12	385.12	7.75	--	402.31
PMA-MW-2S	412.27	411.66	22.94	27.94	389.33	384.33	9.74	--	401.92
PMA-MW-3S	412.37	412.06	22.71	27.71	389.66	384.66	10.01	--	402.05
PMA-MW-4S	411.09	410.43	20.99	25.99	390.10	385.10	8.85	0.11	401.58
Middle Hydrogeologic Unit (MHU 380-350 feet NAVD 88)									
PMA-MW-1M	410.32	410.08	54.54	59.54	355.78	350.78	8.19	--	401.89
PMA-MW-2M	412.26	411.93	56.87	61.87	355.39	350.39	9.98	--	401.95
PMA-MW-3M	412.36	412.10	57.07	62.07	355.29	350.29	10.07	--	402.03
PMA-MW-5M	411.27	410.97	52.17	57.17	359.10	354.10	8.65	--	402.32
PS-MW-1M	409.37	412.59	37.78	42.78	371.59	366.59	10.52	--	402.07
Deep Hydrogeologic Unit (DHU 350 feet NAVD 88 - Bedrock)									
BSA-MW-2D	412.00	415.13	68.92	73.92	343.08	338.08	12.25	--	402.88
BSA-MW-3D	412.91	415.74	107.02	112.02	305.89	300.89	13.45	--	402.29
BSA-MW-4D	425.00	424.69	118.54	123.54	306.46	301.46	23.02	--	401.67
BSA-MW-5D	420.80	420.49	115.85	120.85	304.95	299.95	18.08	--	402.41
CPA-MW-1D	408.62	408.32	66.12	71.12	342.50	337.50	6.19	--	402.13
CPA-MW-2D	408.51	408.20	99.96	104.96	308.55	303.55	5.97	--	402.23
CPA-MW-3D	410.87	410.67	108.20	113.20	302.67	297.67	7.12	--	403.55
CPA-MW-4D	421.57	421.20	116.44	121.44	305.13	300.13	19.38	--	401.82
CPA-MW-5D	411.03	413.15	107.63	112.63	303.40	298.40	12.36	--	400.79
DNAPL-K-1	413.07	415.56	108.20	123.20	304.87	289.87	13.45	--	402.11
DNAPL-K-2	407.94	407.72	97.63	112.63	310.31	295.31	5.40	--	402.32
DNAPL-K-3	412.13	411.91	104.80	119.80	307.33	292.33	9.60	--	402.31
DNAPL-K-4	409.48	409.15	102.55	117.55	306.93	291.93	7.08	--	402.07
DNAPL-K-5	412.27	411.91	102.15	117.15	310.12	295.12	9.50	--	402.41
DNAPL-K-6	410.43	410.09	102.47	117.47	307.96	292.96	7.58	--	402.51
DNAPL-K-7	408.32	407.72	100.40	115.40	307.92	292.92	5.15	--	402.57
DNAPL-K-8	408.56	411.38	102.65	117.65	305.91	290.91	8.71	--	402.67

Table 1
Monitoring Well Gauging Information

Well ID	Construction Details						August 11 - 12, 2011		
	Ground Elevation (feet)*	Casing Elevation* (feet)	Depth to Top of Screen (feet bgs)	Depth to Bottom of Screen (feet bgs)	Top of Screen Elevation* (feet)	Bottom of Screen Elevation* (feet)	Depth to Water (feet btoc)	DNAPL Thickness (feet)	Water Elevation* (feet)
Deep Hydrogeologic Unit (DHU 350 feet NAVD 88 - Bedrock) (continued)									
DNAPL-K-9	406.45	405.97	97.42	112.42	309.03	294.03	2.20	--	403.77
DNAPL-K-10	413.50	413.25	105.43	120.43	308.07	293.07	11.08	--	402.17
DNAPL-K-11	412.20	411.78	105.46	120.46	306.74	291.74	9.10	--	402.68
GM-9C	409.54	411.21	88.00	108.00	321.54	301.54	16.50	--	394.71
GWE-1D	412.80	415.60	117.00	127.00	295.80	285.80	15.45	--	400.15
GWE-2D	417.45	417.14	127.00	137.00	290.45	280.45	16.25	--	400.89
GWE-3D	415.03	417.66	104.60	114.60	313.06	303.06	16.85	--	400.81
GWE-4D	406.05	405.74	74.00	80.00	332.05	326.05	4.56	--	401.18
GWE-10D	410.15	412.87	102.50	112.50	307.65	297.65	10.75	--	402.12
GWE-14D	420.47	422.90	90.00	96.00	330.47	324.47	21.47	--	401.43
PMA-MW-4D	411.22	410.88	68.84	73.84	342.38	337.38	8.92	--	401.96
PMA-MW-6D	407.63	407.32	96.49	101.49	311.14	306.14	3.65	--	403.67
PS-MW-6D	404.11	406.63	99.80	104.80	304.31	299.31	5.34	--	401.29
PS-MW-9D	403.92	403.52	100.40	105.40	303.52	298.52	0.51	--	403.01
PS-MW-10D	409.63	412.18	101.23	106.23	308.40	303.40	11.05	--	401.13
PS-MW-13D	405.80	405.53	106.08	111.08	299.72	294.72	2.91	--	402.62
PSMW-17D	420.22	423.26	121.25	126.25	298.97	293.97	21.90	--	401.36

* - Elevation based upon North American Vertical Datum (NAVD) 88 datum

bgs - below ground surface

btoc - Below top of casing

Table 2
Groundwater Analytical Detections

Sample ID	Sample Date	Units	Monochlorobiphenyl	Dichlorobiphenyl	Trichlorobiphenyl	Tetrachlorobiphenyl	Pentachlorobiphenyl	Hexachlorobiphenyl	Heptachlorobiphenyl	Octachlorobiphenyl	Nonachlorobiphenyl	Decachlorobiphenyl
Shallow Hydrogeologic Unit												
PMA-MW-1S-0811	8/22/2011	µg/L	<0.095	<0.095	<0.095	<0.19	<0.19	<0.19	<0.29	<0.29	<0.48	<0.48
PMA-MW-2S-0811	8/18/2011	µg/L	<0.096	<0.096	<0.096	<0.19	<0.19	<0.19	<0.29	<0.29	<0.48	<0.48
PMA-MW-3S-0811	8/18/2011	µg/L	<0.31	0.13	<0.1	<0.21	<0.21	<0.21	<0.31	<0.31	<0.51	<0.51
PMA-MW-4S-0811	8/22/2011	µg/L	3.5	35	170	330	290	510	450	79	<12	<12
Middle / Deep Hydrogeologic Unit												
PMA-MW-1M-0811	8/22/2011	µg/L	0.35	<0.097	<0.097	<0.19	<0.19	<0.19	<0.29	<0.29	<0.49	<0.49
PMA-MW-2M-0811	8/18/2011	µg/L	3.7	0.15	<0.095	<0.19	<0.19	0.36	0.31	<0.28	<0.47	<0.47
PMA-MW-3M-0811	8/18/2011	µg/L	1.1	<0.11	<0.11	<0.23	<0.23	<0.23	<0.34	<0.34	<0.56	<0.56
PMA-MW-3M-0811-AD	8/18/2011	µg/L	1.1	<0.1	<0.1	<0.21	<0.21	<0.21	<0.31	<0.31	<0.51	<0.51
PMA-MW-4D-0811	8/22/2011	µg/L	0.32	0.67	0.11	<0.2	<0.2	<0.2	<0.29	<0.29	<0.49	<0.49
PMA-MW-5M-0811	8/17/2011	µg/L	<0.099	<0.099	<0.099	<0.2	<0.2	<0.2	<0.3	<0.3	<0.49	<0.49
PMA-MW-6D-0811	8/18/2011	µg/L	<0.19	<0.1	<0.1	<0.2	<0.2	<0.2	<0.3	<0.3	<0.5	<0.5

Notes:

µg/L = micrograms per liter

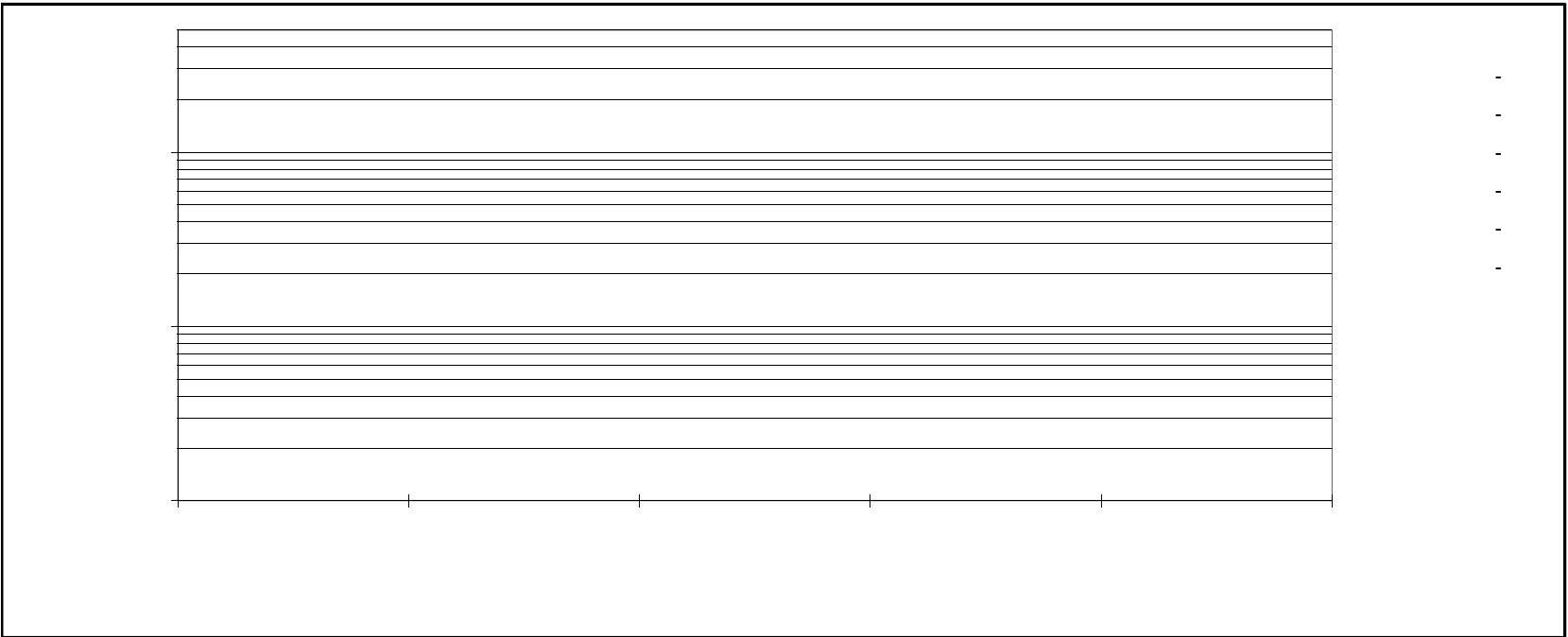
< = Result is non-detect, less than the reporting limit

AD = Analytical Duplicate

BOLD indicates concentration greater than the reporting limit

Table 3
Mann-Kendall Trend Analysis

Sampling Event	Quarter	TOTAL PCBs CONCENTRATION (ug/L)					
		PMA-MW-1M	PMA-MW-2M	PMA-MW-3S	PMA-MW-3M	PMA-MW-4D	PMA-MW-6D
1	2Q06	ND	2.3	0.66	5.18	NA	NA
2	3Q06	0.24	2.4	0.32	1.9	0.34	NA
3	4Q06	0.21	2.8	0.2	ND	0.1	NA
4	1Q07	0.17	2.1	0.35	0.77	2.07	NA
5	2Q07	0.26	3.3	0.8	ND	0.33	NA
6	3Q07	0.29	2.5	0.3	0.86	0.5	NA
7	4Q07	48	3.1	0.21	0.76	0.35	NA
8	1Q08	ND	1.7	0.25	0.39	0.23	NA
9	2Q08	0.18	3	0.64	0.92	0.27	NA
10	3Q08	0.38	4.3	0.26	1.3	0.44	0.21
11	4Q08	0.26	2.5	0.24	0.71	0.27	0.43
12	1Q09	0.16	2.9	0.79	1.4	2.73	0.32
13	2Q09	0.21	4.14	ND	1.3	0.59	0.29
14	3Q09	0.27	3.1	0.34	0.85	0.37	0.2
15	4Q09	0.27	2.7	2.03	0.85	0.61	0.3
16	1Q10	0.2	2.4	ND	0.87	0.54	0.19
17	2Q10	ND	3.9	0.63	0.82	0.72	0.33
18	3Q10	0.29	2.1	0.28	0.75	0.42	0.1
19	4Q10	0.31	2.199	0.68	0.73	0.31	0.65
20	1Q11	0.59	4.04	0.71	1.2	0.35	0.22
21	2Q11	0.37	3.7	0.23	0.94	1.03	0.18
22	3Q11	0.35	4.52	0.13	1.1	1.1	ND
Coefficient of Variation:		3.92	0.27	0.84	0.84	0.98	0.51
Mann-Kendall Statistic (S):		57	57	-2	-20	60	-14
Confidence in Trend:		97.5%	94.2%	51.3%	72.9%	96.3%	81.0%
Concentration Trend:		Increasing	Prob. Increasing	Stable	Stable	Increasing	Stable



Notes:

- 1. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0).
 > 90% = Probably Increasing or Decreasing; >95% = Increasing or Decreasing
- 2. Values represent detected values. Values below the detection limit(s) are listed as non-detect (ND).
- 3. NA = Not Analyzed

Appendix A

Groundwater Purging and Sampling Forms



Troll 9000
08/22/11

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name N MCNURLEN
Company Name URS
Project Name SOLUTIA
Site Name 3Q11 GW

Pump Information:

Pump Model/Type SS MONSOON
Tubing Type LDPE
Tubing Diameter 0.19 [in]
Tubing Length 28.44 [ft]
Pump placement from TOC 22.44 [ft]

Well Information:

Well Id PMA-MW-1S
Well diameter 2 [in]
Well total depth 24.91 [ft]
Depth to top of screen 19.94 [ft]
Screen length 60 [in]
Depth to Water 8.25 [ft]

Pumping information:

Final pumping rate 350 [mL/min]
Flowcell volume 758.57 [mL]
Calculated Sample Rate 131 [sec]
Sample rate 131 [sec]
Stabilized drawdown 0.45 [ft]

Low-Flow Sampling Stabilization Summary

		Time	Temp [F]	pH [pH]	Cond [μ S/cm @25C]	Turb [NTU]	RDO [mg/L]	ORP [mV]
Stabilization Settings				+/-0.2	+/-20	+/-1	+/-0.2	+/-20
					+/-3 %	+/-10 %	+/-10 %	
Last 5 Readings	7:54:36	63.78	6.92	1069.04	0.51	0.20	-98.65	
	7:56:52	63.80	6.92	1072.27	1.41	0.17	-115.51	
	7:59:08	63.89	6.92	1073.41	5.32	0.10	-126.50	
	8:01:23	63.93	6.92	1074.06	7.00	0.11	-136.13	
	8:03:39	63.91	6.92	1072.72	-0.58	0.10	-143.06	
Variance in last 3 readings	7:59:08	0.09	0.00	1.14	3.92	-0.07	-11.00	
	8:01:23	0.04	0.00	0.65	1.68	0.01	-9.63	
	8:03:39	-0.02	0.00	-1.34	-7.58	-0.01	-6.93	

Notes:



Troll 9000
08/22/11

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name N MCNURLEN
Company Name URS
Project Name SOLUTIA
Site Name 3Q11 GW

Pump Information:

Pump Model/Type SS MONSOON
Tubing Type LDPE
Tubing Diameter 0.19 [in]
Tubing Length 62.8 [ft]
Pump placement from TOC 56.8 [ft]

Well Information:

Well Id PMA-MW-1M
Well diameter 2 [in]
Well total depth 59.61 [ft]
Depth to top of screen 54.3 [ft]
Screen length 60 [in]
Depth to Water 8.85 [ft]

Pumping information:

Final pumping rate 375 [mL/min]
Flowcell volume 950.14 [mL]
Calculated Sample Rate 153 [sec]
Sample rate 153 [sec]
Stabilized drawdown 0.05 [ft]

Low-Flow Sampling Stabilization Summary

		Time	Temp [F]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	RDO [mg/L]	ORP [mV]
Stabilization Settings				+/-0.2	+/-20	+/-1	+/-0.2	+/-20
					+/-3 %	+/-10 %	+/-10 %	
Last 5 Readings	8:48:02	64.05	6.93	2115.14	488.22	0.09	-204.38	
	8:50:41	63.93	6.93	2135.20	1065.91	0.07	-216.87	
	8:53:19	63.92	6.92	2134.64	4.00	0.05	-225.09	
	8:55:57	64.04	6.93	2148.53	11.78	0.04	-230.01	
	8:58:36	64.09	6.93	2141.89	31.03	0.04	-233.95	
Variance in last 3 readings	8:53:19	-0.01	0.00	-0.56	-1061.91	-0.01	-8.22	
	8:55:57	0.12	0.00	13.89	7.78	-0.01	-4.92	
	8:58:36	0.04	0.00	-6.63	19.26	0.00	-3.94	

Notes:

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PCB GW Quality
PROJECT NAME: Assessment PROJECT NUMBER: 21562682.00002 FIELD PERSONNEL: Nathan McNurlen, Jason Jackson
DATE: 8/18/11 WEATHER: Clear, 90° F
MONITORING WELL ID: PMA-MW-2S SAMPLE ID: PMA-MW-2S-0811

INITIAL DATA

Well Diameter: 2 in Water Column Height (do not include LNAPL or DNAPL): 17.28 ft Volume of Flow Through Cell): 750 mL
Measured Well Depth (btoc): 27.33 ft If Depth to Top of Screen is > Depth to Water AND Screen Length is < 4 feet, Minimum Purge Volume =
Constructed Well Depth (btoc): 27.33 ft Place Pump at: Total Well Depth - 0.5 (Screen Length + DNAPL Column Height) = _____ ft btoc (3 x Flow Through Cell Volume) 2,250 mL
Depth to Water (btoc): 10.05 ft If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft, Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): N/A ft Place Pump at: Total Well Depth - (0.5 X Water Column Height + DNAPL Column Height) = _____ ft btoc Wellbore PID/FID Reading: 0.0 ppm
Depth to Top of Screen (btoc): 22.33 ft If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = 24.83 ft btoc
Screen Length: 5 ft

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)	pH	Temp (°F)	Cond. (ms/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
0	11:20	10.15	6.68	69.5	1.15	0	0.43	237
1,200	11:23	10.15	6.72	69.3	1.16	9.22	0.17	222
2,400	11:26	10.15	6.74	68.4	1.18	3.95	0.03	208
3,600	11:29	10.15	6.75	68.3	1.18	2.26	0.00	201
4,800	11:32	10.15	6.76	68.7	1.19	1.00	0.00	195

Start Time: 11:20 Elapsed Time: 12 minutes Water Quality Meter ID: YSI 6920
Stop Time: 11:32 Average Purge Rate (mL/min): 400 Date Calibrated: 8/18/11

SAMPLING DATA

Sample Date: 8/18/11 Sample Time: 11:35 Analysis: Total PCBs
Sample Method: Low Flow Sample Flow Rate: 250 mL/min QA/QC Samples: _____

COMMENTS:

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: PCB GW Quality Assessment PROJECT NUMBER: 21562682.00002 FIELD PERSONNEL: Nathan McNurlen, Jason Jackson
DATE: 8/18/11 WEATHER: Clear, 90° F
MONITORING WELL ID: PMA-MW-2M SAMPLE ID: PMA-MW-2M-0811

INITIAL DATA

Well Diameter: 2 in Water Column Height (do not include LNAPL or DNAPL): 51.23 ft Volume of Flow Through Cell): 750 mL
Measured Well Depth (btoc): NM ft If Depth to Top of Screen is > Depth to Water AND Screen Length is < 4 feet, Minimum Purge Volume =
Constructed Well Depth (btoc): 61.54 ft Place Pump at: Total Well Depth - 0.5 (Screen Length + DNAPL Column Height) = _____ ft btoc (3 x Flow Through Cell Volume) 2,250 mL
Depth to Water (btoc): 10.31 ft If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft, Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): N/A ft Place Pump at: Total Well Depth - (0.5 X Water Column Height + DNAPL Column Height) = _____ ft btoc Wellbore PID/FID Reading: 0.0 ppm
Depth to Top of Screen (btoc): 56.54 ft If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = 59.04 ft btoc
Screen Length: 5 ft

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)	pH	Temp (°F)	Cond. (ms/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
0	11:55	10.33	7.71	72.0	2.04	0.00	0.00	-200
1,200	11:58	10.33	7.57	71.5	2.04	0.00	0.00	-204
2,400	12:01	10.33	7.46	72.0	2.02	0.00	0.00	-203
3,600	12:04	10.33	7.44	72.1	2.02	0.00	0.00	-205

Start Time: 11:55 Elapsed Time: 9:00 Water Quality Meter ID: YSI 6920
Stop Time: 12:04 Average Purge Rate (mL/min): 400 Date Calibrated: 8/18/11

SAMPLING DATA

Sample Date: 8/18/11 Sample Time: 12:10 Analysis: Total PCBs
Sample Method: Low Flow Sample Flow Rate: 250 mL/min QA/QC Samples: _____

COMMENTS:

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PCB GW Quality
PROJECT NAME: Assessment PROJECT NUMBER: 21562682.00002 FIELD PERSONNEL: Nathan McNurlen, Jason Jackson
DATE: 8/18/11 WEATHER: Clear, 90° F
MONITORING WELL ID: PMA-MW-3S SAMPLE ID: PMA-MW-3S-0811

INITIAL DATA

Well Diameter: 2 in Water Column Height (do not include LNAPL or DNAPL): 16.05 ft Volume of Flow Through Cell): 750 mL
Measured Well Depth (btoc): 27.38 ft If Depth to Top of Screen is > Depth to Water AND Screen Length is < 4 feet, Minimum Purge Volume =
Constructed Well Depth (btoc): 27.40 ft Place Pump at: Total Well Depth - 0.5 (Screen Length + DNAPL Column Height) = _____ ft btoc (3 x Flow Through Cell Volume) 2,250 mL
Depth to Water (btoc): 11.33 ft If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft, Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): N/A ft Place Pump at: Total Well Depth - (0.5 X Water Column Height + DNAPL Column Height) = _____ ft btoc Wellbore PID/FID Reading: 0.0 ppm
Depth to Top of Screen (btoc): 22.40 ft If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = 24.90 ft btoc
Screen Length: 5 ft

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)	pH	Temp (°F)	Cond. (ms/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
0	12:53	11.36	6.72	70.8	3.24	212	1.07	44
1,500	12:56	11.36	6.71	68.8	3.31	172	0.25	28
3,000	12:59	11.40	6.72	69.0	3.33	155	0.03	18
4,500	13:02	11.40	6.72	68.8	3.34	147	0.00	15
4,800	13:05	11.40	6.72	68.4	3.36	141	0.00	16

Start Time: 12:53 Elapsed Time: 12 minutes Water Quality Meter ID: YSI 6920
Stop Time: 13:05 Average Purge Rate (mL/min): 500 Date Calibrated: 8/18/11

SAMPLING DATA

Sample Date: 8/18/11 Sample Time: 13:10 Analysis: Total PCBs
Sample Method: Low Flow Sample Flow Rate: 250 mL/min QA/QC Samples: _____

COMMENTS:

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PCB GW Quality
PROJECT NAME: Assessment PROJECT NUMBER: 21562682.00002 FIELD PERSONNEL: Nathan McNurlen, Jason Jackson
DATE: 8/18/11 WEATHER: Clear 90° F
MONITORING WELL ID: PMA-MW-3M SAMPLE ID: PMA-MW-3M-0811

INITIAL DATA

Well Diameter: 2 in Water Column Height (do not include LNAPL or DNAPL): 51.44 ft Volume of Flow Through Cell): 750 mL
Measured Well Depth (btoc): 61.80 ft If Depth to Top of Screen is > Depth to Water AND Screen Length is < 4 feet, Minimum Purge Volume =
Constructed Well Depth (btoc): 61.81 ft Place Pump at: Total Well Depth - 0.5 (Screen Length + DNAPL Column Height) = _____ ft btoc (3 x Flow Through Cell Volume) 2,250 mL
Depth to Water (btoc): 10.36 ft If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft, Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): N/A ft Place Pump at: Total Well Depth - (0.5 X Water Column Height + DNAPL Column Height) = _____ ft btoc Wellbore PID/FID Reading: 0.0 ppm
Depth to Top of Screen (btoc): 56.81 ft If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = 59.31 ft btoc
Screen Length: 5 ft

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)	pH	Temp (°F)	Cond. (ms/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
0	13:28	10.39	8.84	73.9	2.40	10.3	0.09	-161
900	13:31	10.39	8.82	73.5	2.40	9.41	0.00	-172
1,800	13:34	10.39	8.83	73.8	2.39	9.28	0.00	-181
2,700	13:37	10.39	8.83	73.6	2.39	8.61	0.00	-185

Start Time: 13:28 Elapsed Time: 9 minutes Water Quality Meter ID: YSI 6920
Stop Time: 13:37 Average Purge Rate (mL/min): 300 Date Calibrated: 8/18/11

SAMPLING DATA

Sample Date: 8/18/11 Sample Time: 13:45 Analysis: Total PCBs
Sample Method: Low Flow Sample Flow Rate: 250 mL/min QA/QC Samples: Duplicate

COMMENTS:



Troll 9000
08/22/11

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name N MCNURLEN
Company Name URS
Project Name SOLUTIA
Site Name 3Q11 GW

Pump Information:

Pump Model/Type SS MONSOON
Tubing Type LDPE
Tubing Diameter 0.19 [in]
Tubing Length 28.83 [ft]
Pump placement from TOC 22.83 [ft]

Well Information:

Well Id PMA-MW-4S
Well diameter 2 [in]
Well total depth 25.35 [ft]
Depth to top of screen 20.23 [ft]
Screen length 60 [in]
Depth to Water 9.65 [ft]

Pumping information:

Final pumping rate 425 [mL/min]
Flowcell volume 760.74 [mL]
Calculated Sample Rate 108 [sec]
Sample rate 180 [sec]
Stabilized drawdown 0.05 [ft]

Low-Flow Sampling Stabilization Summary

		Time	Temp [F]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	RDO [mg/L]	ORP [mV]
Stabilization Settings				+/-0.2	+/-20	+/-1	+/-0.2	+/-20
					+/-3 %	+/-10 %	+/-10 %	
Last 5 Readings	9:53:07	66.24	6.83	2528.69	24.01	0.03	-205.96	
	9:56:13	66.17	6.83	2518.49	29.83	0.03	-219.13	
	9:59:19	66.25	6.83	2521.46	23.29	0.03	-231.11	
	10:02:25	66.26	6.83	2523.46	17.91	0.02	-240.77	
	10:05:32	66.34	6.83	2523.51	31.14	0.01	-248.51	
Variance in last 3 readings	9:59:19	0.07	0.00	2.97	-6.54	0.00	-11.98	
	10:02:25	0.01	0.00	2.00	-5.38	0.00	-9.66	
	10:05:32	0.08	0.00	0.06	13.24	-0.01	-7.74	

Notes:



Troll 9000
08/22/11

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name N MCNURLEN
Company Name URS
Project Name SOLUTIA
Site Name 3Q11 GW

Pump Information:

Pump Model/Type SS MONSOON
Tubing Type LDPE
Tubing Diameter 0.19 [in]
Tubing Length 76 [ft]
Pump placement from TOC 70 [ft]

Well Information:

Well Id PMA-MW-4D
Well diameter 2 [in]
Well total depth 73.35 [ft]
Depth to top of screen 68.5 [ft]
Screen length 60 [in]
Depth to Water 9.86 [ft]

Pumping information:

Final pumping rate 400 [mL/min]
Flowcell volume 1023.73 [mL]
Calculated Sample Rate 154 [sec]
Sample rate 154 [sec]
Stabilized drawdown

Low-Flow Sampling Stabilization Summary

		Time	Temp [F]	pH [pH]	Cond [μ S/cm @25C]	Turb [NTU]	RDO [mg/L]	ORP [mV]
Stabilization Settings				+/-0.2	+/-20	+/-1	+/-0.2	+/-20
					+/-3 %	+/-10 %	+/-10 %	
Last 5 Readings		0:00:00	0.00	0.00	0.00	0.00	0.00	0.00
		10:32:31	66.71	6.79	1806.20	480.73	0.14	-164.33
		10:35:10	66.28	6.79	1881.41	307.91	0.10	-177.50
		10:37:49	66.30	6.79	1885.78	44.45	0.07	-186.22
		10:40:29	66.32	6.79	1930.95	40.28	0.05	-194.48
Variance in last 3 readings		10:35:10	-0.43	0.00	75.21	-172.83	-0.04	-13.17
		10:37:49	0.02	0.00	4.37	-263.45	-0.03	-8.73
		10:40:29	0.02	0.00	45.17	-4.17	-0.01	-8.26

Notes:



Troll 9000
08/17/11

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name N MCNURLEN
Company Name URS
Project Name SOLUTIA
Site Name 3Q11 GW

Pump Information:

Pump Model/Type SS MONSOON
Tubing Type LDPE
Tubing Diameter 0.19 [in]
Tubing Length 60.37 [ft]
Pump placement from TOC 54.37 [ft]

Well Information:

Well Id PMA-MW-5M
Well diameter 2 [in]
Well total depth 56.97 [ft]
Depth to top of screen 51.87 [ft]
Screen length 60 [in]
Depth to Water 7.95 [ft]

Pumping information:

Final pumping rate 300 [mL/min]
Flowcell volume 936.59 [mL]
Calculated Sample Rate 188 [sec]
Sample rate 188 [sec]
Stabilized drawdown 0.05 [ft]

Low-Flow Sampling Stabilization Summary

		Time	Temp [F]	pH [pH]	Cond [μ S/cm @25C]	Turb [NTU]	RDO [mg/L]	ORP [mV]
Stabilization Settings				+/-0.2	+/-20	+/-1	+/-0.2	+/-20
					+/-3 %	+/-10 %	+/-10 %	
Last 5 Readings		13:27:43	69.75	7.10	2579.39	2.44	0.18	-57.65
		13:30:57	69.32	7.08	2595.56	1.37	0.15	-56.70
		13:34:12	68.97	7.07	2608.67	0.79	0.12	-56.94
		13:37:27	69.29	7.06	2604.07	1.80	0.07	-56.81
		13:40:42	72.91	7.49	1.56	0.91	2.43	-77.50
Variance in last 3 readings		13:34:12	-0.34	-0.01	13.10	-0.58	-0.04	-0.25
		13:37:27	0.32	-0.01	-4.59	1.01	-0.05	0.14
		13:40:42	3.61	0.43	-2602.51	-0.89	2.36	-20.69

Notes: Last reading collected after flow cell drained. Ignore.

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PCB GW Quality
PROJECT NAME: Assessment PROJECT NUMBER: 21562682.00002 FIELD PERSONNEL: Nathan McNurlen, Jason Jackson
DATE: 8/18/11 WEATHER: Clear, 90° F
MONITORING WELL ID: PMA-MW-6D SAMPLE ID: PMA-MW-6D-0811

INITIAL DATA

Well Diameter: 2 in
Measured Well Depth (btoc): 101.09 ft
Constructed Well Depth (btoc): 101.18 ft
Depth to Water (btoc): 4.42 ft
Depth to LNAPL/DNAPL (btoc): N/A ft
Depth to Top of Screen (btoc): 96.18 ft
Screen Length: 5 ft

Water Column Height (do not include LNAPL or DNAPL): 96.67 ft
If Depth to Top of Screen is > Depth to Water AND Screen Length is < 4 feet,
Place Pump at: Total Well Depth - 0.5 (Screen Length + DNAPL Column Height) = _____ 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 = 98.68 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

		±0.2 units		±3 %		±10 % or 0.2 mg/L		±20 mV
Purge Volume (mL)	Time	Depth to Water (ft)	pH	Temp (°F)	Cond. (ms/cm)	Turbidity (NTUs)	DO (mg/l)	ORP (mv)
0	14:16	4.42	7.04	75.7	1.37	41.9	0.68	-129
1,500	14:19	4.42	7.04	74.4	1.38	24	0.24	-131
3,000	14:22	4.44	7.04	73.9	1.39	15.6	0.08	-133
4,500	14:25	4.44	7.04	73.5	1.40	7.10	0.00	-133
4,800	14:28	4.44	7.04	73.3	1.41	4.61	0.00	-134

Start Time: 14:16 Elapsed Time: 12 minutes Water Quality Meter ID: YSI 6920
Stop Time: 14:28 Average Purge Rate (mL/min): 500 Date Calibrated: 8/18/11

SAMPLING DATA

Sample Date: 8/18/11 Sample Time: 14:35 Analysis: Total PCBs
Sample Method: Low Flow Sample Flow Rate: 250 mL/min QA/QC Samples: Equipment Blank

COMMENTS:

Appendix B

Chains-of-Custody

Serial Number 044275

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

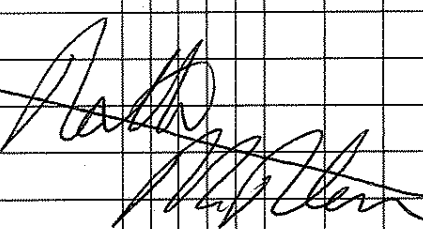
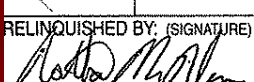
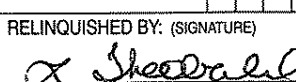
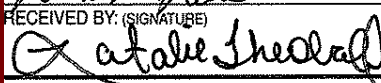
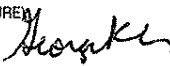
THE LEADER IN ENVIRONMENTAL TESTING

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Savannah, GA 31404

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☐ Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE W6K 3011 PCB GW Sampling		PROJECT NO. 21562682.00001	PROJECT LOCATION (STATE) IL	MATRIX TYPE	REQUIRED ANALYSIS										PAGE 1 OF 1
TAL (LAB) PROJECT MANAGER Lidia Gulizia		P.O. NUMBER 21562682.00001	CONTRACT NO.	COMPOSITE (C) OR GRAB (G) INDICATE AQUEOUS (WATER) SOLID OR SEMISOLID AIR NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	Ice Total PCBs by 680 PRESERVATIVE										STANDARD REPORT DELIVERY <input checked="" type="checkbox"/>
CLIENT (SITE) PM Dave Palmer		CLIENT PHONE 314-429-0100	CLIENT FAX 314-429-0462												DATE DUE 5/7/11
CLIENT NAME URS Corp.		CLIENT E-MAIL dave-palmer@urscorp.com													EXPEDITED REPORT DELIVERY (SURCHARGE) <input type="checkbox"/>
CLIENT ADDRESS 1001 Highlands Plaza Dr. W, St. Louis, MO 63110		COMPANY CONTRACTING THIS WORK (if applicable)													DATE DUE
NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1															
SAMPLE		SAMPLE IDENTIFICATION			NUMBER OF CONTAINERS SUBMITTED										REMARKS
DATE	TIME														
8/17/11	1445	PMA-MW-5M-0811			2										
															
RELINQUISHED BY: (SIGNATURE) 		DATE 8/17/11	TIME 1620	RELINQUISHED BY: (SIGNATURE) 		DATE 8/17/11	TIME 1620	RELINQUISHED BY: (SIGNATURE)		DATE	TIME				
RECEIVED BY: (SIGNATURE) 		DATE 8/17/11	TIME 1620	RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME				
LABORATORY USE ONLY															
RECEIVED FOR LABORATORY BY: (SIGNATURE) 		DATE 8/19/11	TIME 0937	CUSTODY INTACT YES <input type="radio"/> NO <input type="radio"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO. 680-71498	LABORATORY REMARKS 4.2°C								

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TA1,8240-680 (1008)

Serial Number 044453

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

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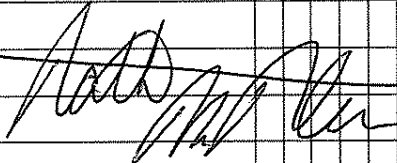
☒ TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

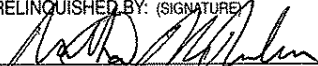
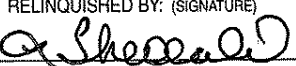
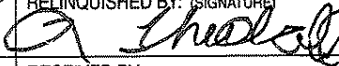
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Fax:

PROJECT REFERENCE Wok 3911 PCB GW Sampling	PROJECT NO. 21562682.00001	PROJECT LOCATION (STATE)	MATRIX TYPE	REQUIRED ANALYSIS	PAGE 1	OF 1
LAB (LAB) PROJECT MANAGER Lidia Guliz	P.O. NUMBER	CONTRACT NO.	COMPOSITE (C) OR GRAB (G) INDICATE AQUEOUS (WATER) SOLID OR SEMISOLID AIR NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	<div style="display: flex; justify-content: space-between;"> <div>PCB by 680</div> <div>PRESERVATIVE</div> </div>	STANDARD REPORT DELIVERY <input checked="" type="radio"/>	
CLIENT (SITE) PM Dave Palmer	CLIENT PHONE 314-429-0100	CLIENT FAX 314-429-0462			DATE DUE STA	
CLIENT NAME URS Corp	CLIENT E-MAIL dave-palmer@urscorp.com				EXPEDITED REPORT DELIVERY (SURCHARGE) <input type="radio"/>	
CLIENT ADDRESS 1001 Highlands Plaza Dr. W, St. Louis, MO, 63111		DATE DUE				
COMPANY CONTRACTING THIS WORK (if applicable)				NUMBER OF CONTAINERS SUBMITTED	REMARKS	

SAMPLE		SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED										REMARKS
DATE	TIME																	
8/22/11	0910	PMA-MW-15-0811		X				2										
8/22/11	0910	PMA-MW-15-0811-MS		X				2										
8/22/11	0910	PMA-MW-15-0811-MSD		X				2										
8/22/11	1000	PMA-MW-1M-0811		X				2										
8/22/11	1110	PMA-MW-45-0811		X				2										
8/22/11	1145	PMA-MW-40-0811		X				2										
																		

RELINQUISHED BY: (SIGNATURE) 	DATE 8/22/11	TIME 1715	RELINQUISHED BY: (SIGNATURE) 	DATE 8/22/11	TIME 1715	RELINQUISHED BY: (SIGNATURE) 	DATE 8/22/11	TIME 1830
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE) Beth A Daugherty	DATE 08/23/11	TIME 0946	CUSTODY INTACT YES <input type="radio"/> NO <input type="radio"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO. 680-71645	LABORATORY REMARKS Temp 4.4°C / 0.8°C
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Appendix C

Quality Assurance Report

QUALITY ASSURANCE REPORT

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

PCB Groundwater Quality Assessment Program 3rd Quarter 2011 Data Report

Prepared for

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

November 2011



URS Corporation
1001 Highland Plaza Drive West, Suite 300
St. Louis, MO 63110
(314) 429-0100
Project # 21562682.00002

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1.0 INTRODUCTION

This Quality Assurance Report presents the findings of a review of analytical data for groundwater samples collected in August of 2011 at the Solutia W.G. Krummrich plant as part of the 3rd Quarter 2011 PCB Groundwater Quality Assessment Program. The samples were collected by URS Corporation personnel and analyzed by TestAmerica Laboratories located in Savannah, Georgia using USEPA methodologies. Samples were analyzed for polychlorinated biphenyls (PCBs).

One hundred percent of the data were subjected to a data quality review (Level III validation); ten percent of these data were subjected to a full data validation (Level IV validation). Validation results are presented in the Full Validation of PCB Homologs Data – SDG KPM043 which follows the KPM043 Data Review in **Appendix D**. The Level III and IV validations were performed in order to confirm that the analytical data provided by TestAmerica were acceptable in quality for their intended use.

A total of 14 samples (ten investigative groundwater samples, one field duplicate, one matrix spike and matrix spike duplicate (MS/MSD) pair, and one equipment blank) were analyzed by TestAmerica. These samples were analyzed as part of Sample Delivery Group (SDG) KPM043 utilizing the following USEPA Method:

- Method 680 for PCBs

Samples were reviewed following procedures outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, (USEPA 2008) and the Revised PCB Groundwater Quality Assessment Work Plan, (Solutia 2009).

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

TABLE 1 Laboratory Data Qualifiers

Lab Qualifier	Definition
U	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 detect/nondetect (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, and field equipment blank samples
- Surrogate spike recoveries
- Laboratory control sample (LCS) recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) sample recoveries and Relative Percent Difference (RPD) values
- Field duplicate results
- Results reported from dilutions
- Internal standard responses

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.

The cooler receipt form indicated that three out of five coolers were received by the laboratory at 0.8°C, 0.8°C, and 1.6°C which is outside the 4°C ± 2°C criteria. The samples were received in good condition; therefore no qualification of data was required. One of two liters for sample PMA-MW-6D-0811 was received broken. The remaining unbroken liter contained sufficient sample to complete the requested analysis. Additionally, although the cooler receipt form notes insufficient sample volume was received for MS/MSD analysis, samples PMA-MW-5M-0811 and PMA-MW-1S-0811 contained sufficient sample volume to complete the requested analysis.

3.0 LABORATORY METHOD BLANK AND EQUIPMENT BLANK SAMPLES

Laboratory method blank samples evaluate the existence and magnitude of contamination problems resulting from laboratory activities. All laboratory method blank samples were analyzed at the method prescribed frequencies. No analytes were detected in the method blanks.

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

Blank ID	Parameter	Analyte	Concentration	Units
PMA-MW-6D-0811-EB	PCBs	Monochlorobiphenyl	0.19	ug/L

Qualifications due to blank contamination are included in the table below. Analytical data reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Field ID	Parameter	Analyte	New RL	Qualification
PMA-MW-3S-0811	PCBs	Monochlorobiphenyl	0.31	U
PMA-MW-6D-0811	PCBs	Monochlorobiphenyl	0.19	U

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 PCBs were spiked with surrogate compounds during sample preparation. USEPA National Functional Guidelines for Superfund Organic Methods Data Review state how data is qualified, if surrogate spike recoveries do not meet evaluation criteria. Surrogate recoveries were within evaluation criteria with the exception of those surrogates in data reviews discussed further in **Appendix D**. No qualifications of data were required due to surrogate recoveries.

5.0 LABORATORY CONTROL SAMPLE RECOVERIES

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

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

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

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

Sample PMA-MW-1S-0811 was spiked and analyzed for PCBs. Although not requested for MS/MSD analysis, sample PMA-MW-5M-0811 was spiked and analyzed for PCBs. All MS/MSD recoveries were within evaluation criteria. 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 ten investigative samples. This satisfies the requirement in the work plan (one per 10 investigative samples or 10 percent). Field duplicate results were within evaluation criteria.

8.0 INTERNAL STANDARD RESPONSES

Internal standard (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during each analytical run. For the PCBs (Method 680), the IS areas must be within +/- 30 percent of the preceding calibration verification (CV) IS value. Also, the IS retention times must be within 30 seconds of the preceding IS CV retention time. If the IS area count is outside criteria, Method 680 indicates the mean IS area obtained during the initial calibration (ICAL) (+/- 50 percent) should be used.

The internal standards area responses for PCBs were verified for the data review. IS responses met the criteria as described above. No qualification of data was required.

9.0 RESULTS REPORTED FROM DILUTIONS

Sample PMA-MW-4S-0811 was diluted and reanalyzed due to the high levels of PCBs in the sample. The diluted sample results for PCBs were reported at the lowest possible reporting limits.

Appendix D

Groundwater Analytical Results
(with Data Review/Validation Reports)

3Q 2011 PCB Data Review

Laboratory SDG: KPM043

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 9/29/2011

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

Work Plan: Revised PCB Groundwater Quality Assessment (Solutia 2009)

Sample Identification	
PMA-MW-5M-0811	PMA-MW-2S-0811
PMA-MW-2M-0811	PMA-MW-3S-0811
PMA-MW-3M-0811	PMA-MW-3M-0811-AD
PMA-MW-6D-0811	PMA-MW-6D0811-EB
PMA-MW-1S-0811	PMA-MW-1M-0811
PMA-MW-4S-0811	PMA-MW-4D-0811

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 PCB surrogates were diluted out and not recovered in sample PMA-MW-4S-0811. Although not mentioned in the laboratory case narrative, monochlorobiphenyl was detected in the equipment blank. Several samples were diluted due to high levels of target analytes. These issues are addressed further in the appropriate sections below.

The cooler receipt form indicated that three out of five coolers were received by the laboratory at 0.8°C, 0.8°C, and 1.6°C which is outside the 4°C ± 2°C criteria. The samples were received in good condition; therefore no qualification of data was required. One of two liters for sample PMA-MW-6D-0811 was received broken. The remaining unbroken liter contained sufficient sample to complete the requested analysis. Additionally, although the cooler receipt form indicated insufficient sample volume was received for MS/MSD analysis, samples PMA-MW-5M-0811 and PMA-MW-1S-0811 contained sufficient sample volume to complete the requested analysis.

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?

Yes

Blank ID	Parameter	Analyte	Concentration	Units
PMA-MW-6D-0811-EB	PCBs	Monochlorobiphenyl	0.19	ug/L

Qualifications due to blank contamination are included in the table below. Analytical data reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Field ID	Parameter	Analyte	New RL	Qualification
PMA-MW-3S-0811	PCBs	Monochlorobiphenyl	0.31	U
PMA-MW-6D-0811	PCBs	Monochlorobiphenyl	0.19	U

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Surrogates were diluted out and not recovered in sample PMA-MW-4S-0811. No qualification of data is required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

Yes, sample PMA-MW-1S-0811 was spiked and analyzed for PCBs. Although not requested for MS/MSD analysis, sample PMA-MW-5M-0811 was spiked and analyzed for PCBs.

Were MS/MSD recoveries within evaluation criteria?

Yes

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples performed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Sample ID	Field Duplicate ID
PMA-MW-3M-0811	PMA-MW-3M-0811-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

FULL VALIDATION OF PCB DATA – SDG KPM043

This section describes the full validation for five water samples which were prepared by USEPA SW-846 Method 680 and analyzed for polychlorinated biphenyls (PCBs) by USEPA SW-846 Method 680. Samples were analyzed by TestAmerica Laboratory of Savannah, Georgia, and submitted as part of sample delivery group (SDG) KPM043. Samples included as part of this validation are listed below:

Sample Identification	
PMA-MW-5M-0811	PMA-MW-6D-0811
PMA-MW-1S-0811	PMA-MW-3S-0811
PMA-MW-1M-0811	

QA/QC criteria were identified in the Revised Long-Term Monitoring Program (LTMP) Work Plan (Solutia 2009) and USEPA SW-846 Method 680. Evaluation of the analytical data followed procedures outlined in the USEPA Contract Program National Functional Guidelines for Superfund Organic Methods Data Review (USEPA 2008) where applicable to SW-846 Method 680.

Criteria evaluated included the following method performance criteria:

- Data package completeness
- Laboratory case narrative/cooler receipt form
- Holding times and sample preservation
- Instrument performance
- Initial calibration
- Calibration verification
- Blank samples
- Surrogate spike recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) samples
- Internal standard areas
- Laboratory control sample (LCS)
- Target compound identification and quantitation
- Overall data assessment

1.0 Data Package Completeness

The data package was reviewed to make certain that it contained the data contractually required in the deliverable. This included checking the data package for the results of each analyte requested for each field sample submitted in the analytical batch, along with requested QC documentation for the respective methods. The data package was complete for PCBs for this SDG.

1.2 Laboratory Case Narrative/Cooler Receipt Form

The laboratory case narrative indicated PCB surrogates were outside evaluation criteria. Although not mentioned in the laboratory case narrative, monochlorobiphenyl was detected in

the equipment blank. Several samples were diluted due to high levels of target analytes. These issues are addressed further in the appropriate sections below.

One of two liters for sample PMA-MW-6D-0811 was received broken. The remaining unbroken liter contained sufficient sample to complete the requested analysis. Additionally, although the cooler receipt form notes insufficient sample volume was received for MS/MSD analysis, samples PMA-MW-5M-0811 and PMA-MW-1S-0811 contained sufficient sample volume to complete the requested analysis; therefore no qualification of data was required.

1.3 Sample Preservation and Holding Times

Review of the sample collection and analysis dates involved comparing the chain-of-custody, the summary forms, the raw data forms, and the chromatograms for accuracy, consistency, and holding time compliance. The cooler receipt form indicated that three out of five coolers were received by the laboratory at 0.8°C, 0.8°C, and 1.6°C which was outside the 4°C ± 2°C criteria, and were extracted within 7 days of collection and analyzed within 40 days of extraction. No qualification of data was required due to sample preservation or holding time criteria.

1.4 Instrument Performance

GC/MS instrument performance checks were performed to ensure mass resolution, identification, and instrument sensitivity. Criteria for evaluation of instrument performance included possible transcription/calculation errors, adherence to instrument tuning frequency requirements, mass assignments, and ion abundance criteria. Instrument performance check samples were evaluated against the laboratory tuning criteria established in Method 680.

Based on the raw data, the ion abundance criteria were within evaluation criteria for all masses, therefore; no qualification of the data was required. The raw data forms were checked against the summary forms and no calculation or transcription errors were noted.

1.5 Initial Calibration

An Initial calibration (ICAL) was established to assess whether the instrument was capable of producing acceptable qualitative and quantitative data for volatile analysis. Samples as part of SDG KPM043 were analyzed using instrument MSF5973. The ICAL for instrument MSF5973 was established on 9/10/2011 prior to sample analysis and using at least five concentration standards to establish the initial calibration curve as required by Method 680. An average response factor (RF) was determined for each target analyte, and the RFs were reviewed and verified as greater than 0.05 for all target analytes.

Review of the initial calibration summary forms indicated calibration check compounds (CCCs) had percent relative standard deviations (%RSDs) ≤ 30%. All other target analytes had %RSDs less than 25%.

Recalculations of the RFs and %RSD for one compound per internal standard were performed, and no errors in calculation were noted.

1.6 Calibration Verification

Review of sample chromatograms indicated the calibration verifications (CVs) were performed at the required frequency of every 12 hours. Review of continuing calibration summary forms indicated all RFs met the evaluation criteria of greater than 0.05 for all target analytes. In

addition, percent differences (%Ds) met the evaluation criteria of less than or equal to 30% for CCCs and target analytes that were quantitated using linear calibration (response factor).

Recalculations of the RFs and %RSD for one compound per internal standard were performed, and no errors in calculation were noted.

1.7 Blank Samples

The purpose of method blank samples is to evaluate the existence and magnitude of contamination problems emanating from laboratory activities. Method blank samples were analyzed with each analytical batch as required by USEPA SW-846 Method 680. All target compounds in the method blank samples were reported as non-detect. The purpose of the equipment blank is to evaluate the existence and magnitude of contamination problems emanating from field activities. Analytes detected in the equipment blank are included in the table below.

Blank ID	Parameter	Analyte	Concentration	Units
PMA-MW-6D-0811-EB	PCBs	Monochlorobiphenyl	0.19	ug/L

Qualifications due to blank contamination are included in the table below. Analytical data reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Field ID	Parameter	Analyte	New RL	Qualification
PMA-MW-3S-0811	PCBs	Monochlorobiphenyl	0.31	U
PMA-MW-6D-0811	PCBs	Monochlorobiphenyl	0.19	U

1.8 Surrogate Spike Recoveries

Surrogate compounds were used to evaluate the overall laboratory sample preparation efficiency on a per-sample basis. Surrogate recoveries were within evaluation criteria for the validated samples.

A minimum of 10% of the surrogate recoveries were recalculated, and the summary forms versus the raw data were verified. No calculation or transcription errors were noted.

1.9 Matrix Spike/Matrix Spike Duplicate (MS/MSD) Samples

MS/MSD samples are analyzed to assess potential matrix effects. Samples PMA-MW-1S-0811 was spiked and analyzed for PCBs. Although not requested for MS/MSD analysis, sample PMA-MW-5M-0811 was spiked and analyzed for PCBs. All MS/MSD recoveries were within the method acceptance criteria for the validated samples. A minimum of 10% of the MS/MSD recoveries were recalculated and compared to the raw data; no calculation or transcription errors were noted. No qualification of data was required based on MS/MSD recoveries.

1.10 Internal Standard Areas and Retention Times

Internal standard (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during each analytical run. For the PCBs (Method 680), the IS areas must be within +/- 30 percent of the preceding calibration verification (CV) IS value. Also, the IS retention times must be within 30 seconds of the preceding IS CV retention time. If the IS area count is outside

criteria, Method 680 indicates the mean IS area obtained during the initial calibration (ICAL) (+/- 50 percent) should be used.

The IS areas for the CVs and the validated samples in this SDG were within evaluation criteria. No qualifications to the data based on IS areas or retention times were required.

1.11 Laboratory Control Sample (LCS)

Laboratory control samples were analyzed with each analytical batch to assess the accuracy of the analytical process. LCS recoveries were within evaluation criteria. No qualifications of data were required based on LCS recoveries.

A minimum of 10% of the spiking compound recoveries for the LCS were recalculated from the raw data and verified using the LCS summary forms, and no calculation or transcription errors were noted.

1.12 Target Compound Identification and Quantitation

For validation of the compound identification, chromatograms were reviewed to verify the major peaks were identified, the spectra of the identified compounds were verified against the library spectra, and the relative retention time was no greater than 0.06 different from the associated CV retention times. A minimum of 10% of the detected target analytes and spiking compounds were verified. No anomalies were noted with the identification of the target compounds in the samples.

For the validation of compound quantitation, 10% of the target analytes were recalculated from the raw data, and no calculation errors were noted. Additionally, the reporting limits were verified to determine if reporting limits (RLs) were adjusted for dilutions. No qualification of the data was required and review of the data indicated the correct RLs were reported.

1.13 Overall Data Assessment

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 and precision, based on LCS and surrogate data were achieved for this SDG. In addition, completeness defined to be the percentage of analytical results, which are judged to be valid was 100% for this SDG.

SDG KPM043

Results of Samples from Monitoring Wells:

PMA-MW-1S
PMA-MW-1M
PMA-MW-2S
PMA-MW-2M
PMA-MW-3S
PMA-MW-3M
PMA-MW-4S
PMA-MW-4D
PMA-MW-5M
PMA-MW-6D

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

TestAmerica Job ID: 680-71498-1
TestAmerica Sample Delivery Group: KPM043
Client Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

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

Attn: Mr. Jerry Rinaldi

Lidya Gulizia

Authorized for release by:
09/27/2011 10:25:26 AM

Lidya Gulizia
Project Manager II
lidya.gulizia@testamericainc.com

cc: Bob Billman

Dave Palmer

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Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAP and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Case Narrative

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Job ID: 680-71498-1

Laboratory: TestAmerica Savannah

Narrative

Job Narrative
680-71498-1 / SDG KPM043

Receipt

One of two liters for sample PMA-MW-6D arrived broken upon receipt at the laboratory. Sufficient sample volume was received to proceed with sample analysis.

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


GC/MS Semi VOA

Method(s) 680: The following sample(s) was diluted due to abundance of target analytes : PMA-MW-4S-0811 (680-71645-3). As such, surrogate recoveries are not reported, and elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Comments

No additional comments.

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Sample Summary

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-71498-1	PMA-MW-5M-0811	Water	08/17/11 14:45	08/18/11 09:37
680-71569-1	PMA-MW-2S-0811	Water	08/18/11 11:35	08/19/11 09:46
680-71569-2	PMA-MW-2M-0811	Water	08/18/11 12:10	08/19/11 09:46
680-71569-3	PMA-MW-3S-0811	Water	08/18/11 13:10	08/19/11 09:46
680-71569-4	PMA-MW-3M-0811	Water	08/18/11 13:45	08/19/11 09:46
680-71569-5	PMA-MW-3M-0811-AD	Water	08/18/11 13:45	08/19/11 09:46
680-71569-6	PMA-MW-6D-0811	Water	08/18/11 14:35	08/19/11 09:46
680-71569-7	PMA-MW-6D-0811-EB	Water	08/18/11 15:10	08/19/11 09:46
680-71645-1	PMA-MW-1S-0811	Water	08/22/11 09:10	08/23/11 09:46
680-71645-2	PMA-MW-1M-0811	Water	08/22/11 10:00	08/23/11 09:46
680-71645-3	PMA-MW-4S-0811	Water	08/22/11 11:10	08/23/11 09:46
680-71645-4	PMA-MW-4D-0811	Water	08/22/11 11:45	08/23/11 09:46

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Method Summary

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Method	Method Description	Protocol	Laboratory
680	Polychlorinated Biphenyls (PCBs) (GC/MS)	EPA	TAL SAV

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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Definitions/Glossary

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☆	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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Detection Summary

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Client Sample ID: PMA-MW-5M-0811

Lab Sample ID: 680-71498-1

No Detections

Client Sample ID: PMA-MW-2S-0811

Lab Sample ID: 680-71569-1

No Detections

Client Sample ID: PMA-MW-2M-0811

Lab Sample ID: 680-71569-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	3.7		0.095		ug/L	1		680	Total/NA
Dichlorobiphenyl	0.15		0.095		ug/L	1		680	Total/NA
Hexachlorobiphenyl	0.36		0.19		ug/L	1		680	Total/NA
Heptachlorobiphenyl	0.31		0.28		ug/L	1		680	Total/NA

Client Sample ID: PMA-MW-3S-0811

Lab Sample ID: 680-71569-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	0.31 u		0.10 0.31		ug/L	1		680	Total/NA
Dichlorobiphenyl	0.13		0.10		ug/L	1		680	Total/NA

Client Sample ID: PMA-MW-3M-0811

Lab Sample ID: 680-71569-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	1.1		0.11		ug/L	1		680	Total/NA

Client Sample ID: PMA-MW-3M-0811-AD

Lab Sample ID: 680-71569-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	1.1		0.10		ug/L	1		680	Total/NA

Client Sample ID: PMA-MW-6D-0811

Lab Sample ID: 680-71569-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	0.19 u		0.10 0.19		ug/L	1		680	Total/NA

Client Sample ID: PMA-MW-6D-0811-EB

Lab Sample ID: 680-71569-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	0.19		0.10		ug/L	1		680	Total/NA

Client Sample ID: PMA-MW-1S-0811

Lab Sample ID: 680-71645-1

No Detections

Client Sample ID: PMA-MW-1M-0811

Lab Sample ID: 680-71645-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	0.35		0.097		ug/L	1		680	Total/NA

Client Sample ID: PMA-MW-4S-0811

Lab Sample ID: 680-71645-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	3.5		2.4		ug/L	25		680	Total/NA
Dichlorobiphenyl	35		2.4		ug/L	25		680	Total/NA
Trichlorobiphenyl	170		2.4		ug/L	25		680	Total/NA

Detection Summary

Client: Solutia Inc.
Project/Site: WGG PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Client Sample ID: PMA-MW-4S-0811 (Continued)

Lab Sample ID: 680-71645-3


Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Tetrachlorobiphenyl	330		4.7		ug/L	25			680	Total/NA
Pentachlorobiphenyl	290		4.7		ug/L	25			680	Total/NA
Hexachlorobiphenyl	510		4.7		ug/L	25			680	Total/NA
Heptachlorobiphenyl	450		7.1		ug/L	25			680	Total/NA
Octachlorobiphenyl	79		7.1		ug/L	25			680	Total/NA

Client Sample ID: PMA-MW-4D-0811

Lab Sample ID: 680-71645-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Monochlorobiphenyl	0.32		0.098		ug/L	1			680	Total/NA
Dichlorobiphenyl	0.67		0.098		ug/L	1			680	Total/NA
Trichlorobiphenyl	0.11		0.098		ug/L	1			680	Total/NA

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Client Sample Results

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Client Sample ID: PMA-MW-5M-0811

Lab Sample ID: 680-71498-1

Date Collected: 08/17/11 14:45

Matrix: Water

Date Received: 08/18/11 09:37

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.099	U	0.099		ug/L		08/23/11 14:33	09/12/11 04:14	1
Dichlorobiphenyl	0.099	U	0.099		ug/L		08/23/11 14:33	09/12/11 04:14	1
Trichlorobiphenyl	0.099	U	0.099		ug/L		08/23/11 14:33	09/12/11 04:14	1
Tetrachlorobiphenyl	0.20	U	0.20		ug/L		08/23/11 14:33	09/12/11 04:14	1
Pentachlorobiphenyl	0.20	U	0.20		ug/L		08/23/11 14:33	09/12/11 04:14	1
Hexachlorobiphenyl	0.20	U	0.20		ug/L		08/23/11 14:33	09/12/11 04:14	1
Heptachlorobiphenyl	0.30	U	0.30		ug/L		08/23/11 14:33	09/12/11 04:14	1
Octachlorobiphenyl	0.30	U	0.30		ug/L		08/23/11 14:33	09/12/11 04:14	1
Nonachlorobiphenyl	0.49	U	0.49		ug/L		08/23/11 14:33	09/12/11 04:14	1
DCB Decachlorobiphenyl	0.49	U	0.49		ug/L		08/23/11 14:33	09/12/11 04:14	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	75		25 - 113				08/23/11 14:33	09/12/11 04:14	1

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Client Sample Results

Client: Solutia Inc.
Project/Site: W GK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Client Sample ID: PMA-MW-2S-0811

Lab Sample ID: 680-71569-1

Date Collected: 08/18/11 11:35


Matrix: Water

Date Received: 08/19/11 09:46

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.096	U	0.096		ug/L		08/23/11 14:33	09/11/11 18:33	1
Dichlorobiphenyl	0.096	U	0.096		ug/L		08/23/11 14:33	09/11/11 18:33	1
Trichlorobiphenyl	0.096	U	0.096		ug/L		08/23/11 14:33	09/11/11 18:33	1
Tetrachlorobiphenyl	0.19	U	0.19		ug/L		08/23/11 14:33	09/11/11 18:33	1
Pentachlorobiphenyl	0.19	U	0.19		ug/L		08/23/11 14:33	09/11/11 18:33	1
Hexachlorobiphenyl	0.19	U	0.19		ug/L		08/23/11 14:33	09/11/11 18:33	1
Heptachlorobiphenyl	0.29	U	0.29		ug/L		08/23/11 14:33	09/11/11 18:33	1
Octachlorobiphenyl	0.29	U	0.29		ug/L		08/23/11 14:33	09/11/11 18:33	1
Nonachlorobiphenyl	0.48	U	0.48		ug/L		08/23/11 14:33	09/11/11 18:33	1
DCB Decachlorobiphenyl	0.48	U	0.48		ug/L		08/23/11 14:33	09/11/11 18:33	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	78		25 - 113				08/23/11 14:33	09/11/11 18:33	1

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Client Sample Results

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Client Sample ID: PMA-MW-2M-0811

Lab Sample ID: 680-71569-2

Date Collected: 08/18/11 12:10

Matrix: Water

Date Received: 08/19/11 09:46

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	3.7		0.095		ug/L		08/23/11 14:33	09/11/11 19:03	1
Dichlorobiphenyl	0.15		0.095		ug/L		08/23/11 14:33	09/11/11 19:03	1
Trichlorobiphenyl	0.095	U	0.095		ug/L		08/23/11 14:33	09/11/11 19:03	1
Tetrachlorobiphenyl	0.19	U	0.19		ug/L		08/23/11 14:33	09/11/11 19:03	1
Pentachlorobiphenyl	0.19	U	0.19		ug/L		08/23/11 14:33	09/11/11 19:03	1
Hexachlorobiphenyl	0.36		0.19		ug/L		08/23/11 14:33	09/11/11 19:03	1
Heptachlorobiphenyl	0.31		0.28		ug/L		08/23/11 14:33	09/11/11 19:03	1
Octachlorobiphenyl	0.28	U	0.28		ug/L		08/23/11 14:33	09/11/11 19:03	1
Nonachlorobiphenyl	0.47	U	0.47		ug/L		08/23/11 14:33	09/11/11 19:03	1
DCB Decachlorobiphenyl	0.47	U	0.47		ug/L		08/23/11 14:33	09/11/11 19:03	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	73		25 - 113				08/23/11 14:33	09/11/11 19:03	1

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Client Sample Results

Client: Solutia Inc.
Project/Site: WGG PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Client Sample ID: PMA-MW-3S-0811

Lab Sample ID: 680-71569-3

Date Collected: 08/18/11 13:10

Matrix: Water

Date Received: 08/19/11 09:46

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.31 <i>u</i>		0.10 <i>0.31</i>		ug/L		08/23/11 14:33	09/11/11 19:34	1
Dichlorobiphenyl	0.13		0.10		ug/L		08/23/11 14:33	09/11/11 19:34	1
Trichlorobiphenyl	0.10	U	0.10		ug/L		08/23/11 14:33	09/11/11 19:34	1
Tetrachlorobiphenyl	0.21	U	0.21		ug/L		08/23/11 14:33	09/11/11 19:34	1
Pentachlorobiphenyl	0.21	U	0.21		ug/L		08/23/11 14:33	09/11/11 19:34	1
Hexachlorobiphenyl	0.21	U	0.21		ug/L		08/23/11 14:33	09/11/11 19:34	1
Heptachlorobiphenyl	0.31	U	0.31		ug/L		08/23/11 14:33	09/11/11 19:34	1
Octachlorobiphenyl	0.31	U	0.31		ug/L		08/23/11 14:33	09/11/11 19:34	1
Nonachlorobiphenyl	0.51	U	0.51		ug/L		08/23/11 14:33	09/11/11 19:34	1
DCB Decachlorobiphenyl	0.51	U	0.51		ug/L		08/23/11 14:33	09/11/11 19:34	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	84		25 - 113				08/23/11 14:33	09/11/11 19:34	1

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Client Sample Results

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Client Sample ID: PMA-MW-3M-0811

Lab Sample ID: 680-71569-4


Date Collected: 08/18/11 13:45

Matrix: Water

Date Received: 08/19/11 09:46

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	1.1		0.11		ug/L		08/23/11 14:33	09/11/11 20:04	1
Dichlorobiphenyl	0.11	U	0.11		ug/L		08/23/11 14:33	09/11/11 20:04	1
Trichlorobiphenyl	0.11	U	0.11		ug/L		08/23/11 14:33	09/11/11 20:04	1
Tetrachlorobiphenyl	0.23	U	0.23		ug/L		08/23/11 14:33	09/11/11 20:04	1
Pentachlorobiphenyl	0.23	U	0.23		ug/L		08/23/11 14:33	09/11/11 20:04	1
Hexachlorobiphenyl	0.23	U	0.23		ug/L		08/23/11 14:33	09/11/11 20:04	1
Heptachlorobiphenyl	0.34	U	0.34		ug/L		08/23/11 14:33	09/11/11 20:04	1
Octachlorobiphenyl	0.34	U	0.34		ug/L		08/23/11 14:33	09/11/11 20:04	1
Nonachlorobiphenyl	0.56	U	0.56		ug/L		08/23/11 14:33	09/11/11 20:04	1
DCB Decachlorobiphenyl	0.56	U	0.56		ug/L		08/23/11 14:33	09/11/11 20:04	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	80		25 - 113				08/23/11 14:33	09/11/11 20:04	1

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Client Sample Results

Client: Solutia Inc.
Project/Site: W GK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Client Sample ID: PMA-MW-3M-0811-AD

Lab Sample ID: 680-71569-5


Date Collected: 08/18/11 13:45

Matrix: Water

Date Received: 08/19/11 09:46

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	1.1		0.10		ug/L		08/23/11 14:33	09/11/11 20:35	1
Dichlorobiphenyl	0.10	U	0.10		ug/L		08/23/11 14:33	09/11/11 20:35	1
Trichlorobiphenyl	0.10	U	0.10		ug/L		08/23/11 14:33	09/11/11 20:35	1
Tetrachlorobiphenyl	0.21	U	0.21		ug/L		08/23/11 14:33	09/11/11 20:35	1
Pentachlorobiphenyl	0.21	U	0.21		ug/L		08/23/11 14:33	09/11/11 20:35	1
Hexachlorobiphenyl	0.21	U	0.21		ug/L		08/23/11 14:33	09/11/11 20:35	1
Heptachlorobiphenyl	0.31	U	0.31		ug/L		08/23/11 14:33	09/11/11 20:35	1
Octachlorobiphenyl	0.31	U	0.31		ug/L		08/23/11 14:33	09/11/11 20:35	1
Nonachlorobiphenyl	0.51	U	0.51		ug/L		08/23/11 14:33	09/11/11 20:35	1
DCB Decachlorobiphenyl	0.51	U	0.51		ug/L		08/23/11 14:33	09/11/11 20:35	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	78		25 - 113				08/23/11 14:33	09/11/11 20:35	1

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SEP 29 2011 

Client Sample Results

Client: Solutia Inc.
Project/Site: W GK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Client Sample ID: PMA-MW-6D-0811

Lab Sample ID: 680-71569-6

Date Collected: 08/18/11 14:35

Matrix: Water

Date Received: 08/19/11 09:46

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.10 <i>u</i>		0.10 <i>0.19</i>		ug/L		08/23/11 14:33	09/14/11 21:04	1
Dichlorobiphenyl	0.10	U	0.10		ug/L		08/23/11 14:33	09/14/11 21:04	1
Trichlorobiphenyl	0.10	U	0.10		ug/L		08/23/11 14:33	09/14/11 21:04	1
Tetrachlorobiphenyl	0.20	U	0.20		ug/L		08/23/11 14:33	09/14/11 21:04	1
Pentachlorobiphenyl	0.20	U	0.20		ug/L		08/23/11 14:33	09/14/11 21:04	1
Hexachlorobiphenyl	0.20	U	0.20		ug/L		08/23/11 14:33	09/14/11 21:04	1
Heptachlorobiphenyl	0.30	U	0.30		ug/L		08/23/11 14:33	09/14/11 21:04	1
Octachlorobiphenyl	0.30	U	0.30		ug/L		08/23/11 14:33	09/14/11 21:04	1
Nonachlorobiphenyl	0.50	U	0.50		ug/L		08/23/11 14:33	09/14/11 21:04	1
DCB Decachlorobiphenyl	0.50	U	0.50		ug/L		08/23/11 14:33	09/14/11 21:04	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	74		25 - 113				08/23/11 14:33	09/14/11 21:04	1

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SEP 29 2011 *mm*

Client Sample Results

Client: Solutia Inc.
Project/Site: W GK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Client Sample ID: PMA-MW-6D-0811-EB

Lab Sample ID: 680-71569-7

Date Collected: 08/18/11 15:10

Matrix: Water

Date Received: 08/19/11 09:46

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.19		0.10		ug/L		08/23/11 14:33	09/11/11 21:05	1
Dichlorobiphenyl	0.10	U	0.10		ug/L		08/23/11 14:33	09/11/11 21:05	1
Trichlorobiphenyl	0.10	U	0.10		ug/L		08/23/11 14:33	09/11/11 21:05	1
Tetrachlorobiphenyl	0.20	U	0.20		ug/L		08/23/11 14:33	09/11/11 21:05	1
Pentachlorobiphenyl	0.20	U	0.20		ug/L		08/23/11 14:33	09/11/11 21:05	1
Hexachlorobiphenyl	0.20	U	0.20		ug/L		08/23/11 14:33	09/11/11 21:05	1
Heptachlorobiphenyl	0.30	U	0.30		ug/L		08/23/11 14:33	09/11/11 21:05	1
Octachlorobiphenyl	0.30	U	0.30		ug/L		08/23/11 14:33	09/11/11 21:05	1
Nonachlorobiphenyl	0.50	U	0.50		ug/L		08/23/11 14:33	09/11/11 21:05	1
DCB Decachlorobiphenyl	0.50	U	0.50		ug/L		08/23/11 14:33	09/11/11 21:05	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	72		25 - 113				08/23/11 14:33	09/11/11 21:05	1

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SEP 29 2011

[Signature]

Client Sample Results

Client: Solutia Inc.
Project/Site: W GK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Client Sample ID: PMA-MW-1S-0811

Lab Sample ID: 680-71645-1

Date Collected: 08/22/11 09:10

Matrix: Water

Date Received: 08/23/11 09:46

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.095	U	0.095		ug/L		08/29/11 14:52	09/11/11 21:36	1
Dichlorobiphenyl	0.095	U	0.095		ug/L		08/29/11 14:52	09/11/11 21:36	1
Trichlorobiphenyl	0.095	U	0.095		ug/L		08/29/11 14:52	09/11/11 21:36	1
Tetrachlorobiphenyl	0.19	U	0.19		ug/L		08/29/11 14:52	09/11/11 21:36	1
Pentachlorobiphenyl	0.19	U	0.19		ug/L		08/29/11 14:52	09/11/11 21:36	1
Hexachlorobiphenyl	0.19	U	0.19		ug/L		08/29/11 14:52	09/11/11 21:36	1
Heptachlorobiphenyl	0.29	U	0.29		ug/L		08/29/11 14:52	09/11/11 21:36	1
Octachlorobiphenyl	0.29	U	0.29		ug/L		08/29/11 14:52	09/11/11 21:36	1
Nonachlorobiphenyl	0.48	U	0.48		ug/L		08/29/11 14:52	09/11/11 21:36	1
DCB Decachlorobiphenyl	0.48	U	0.48		ug/L		08/29/11 14:52	09/11/11 21:36	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	96		25 - 113				08/29/11 14:52	09/11/11 21:36	1

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SEP 29 2011
NM

Client Sample Results

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Client Sample ID: PMA-MW-1M-0811

Lab Sample ID: 680-71645-2

Date Collected: 08/22/11 10:00


Matrix: Water

Date Received: 08/23/11 09:46

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.35		0.097		ug/L		08/29/11 14:52	09/12/11 03:14	1
Dichlorobiphenyl	0.097	U	0.097		ug/L		08/29/11 14:52	09/12/11 03:14	1
Trichlorobiphenyl	0.097	U	0.097		ug/L		08/29/11 14:52	09/12/11 03:14	1
Tetrachlorobiphenyl	0.19	U	0.19		ug/L		08/29/11 14:52	09/12/11 03:14	1
Pentachlorobiphenyl	0.19	U	0.19		ug/L		08/29/11 14:52	09/12/11 03:14	1
Hexachlorobiphenyl	0.19	U	0.19		ug/L		08/29/11 14:52	09/12/11 03:14	1
Heptachlorobiphenyl	0.29	U	0.29		ug/L		08/29/11 14:52	09/12/11 03:14	1
Octachlorobiphenyl	0.29	U	0.29		ug/L		08/29/11 14:52	09/12/11 03:14	1
Nonachlorobiphenyl	0.49	U	0.49		ug/L		08/29/11 14:52	09/12/11 03:14	1
DCB Decachlorobiphenyl	0.49	U	0.49		ug/L		08/29/11 14:52	09/12/11 03:14	1

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	88		25 - 113	08/29/11 14:52	09/12/11 03:14	1

SEP 29 2011 

Client Sample Results

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Client Sample ID: PMA-MW-4S-0811

Lab Sample ID: 680-71645-3

Date Collected: 08/22/11 11:10


Matrix: Water

Date Received: 08/23/11 09:46

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	3.5		2.4		ug/L		08/29/11 14:52	09/16/11 19:15	25
Dichlorobiphenyl	35		2.4		ug/L		08/29/11 14:52	09/16/11 19:15	25
Trichlorobiphenyl	170		2.4		ug/L		08/29/11 14:52	09/16/11 19:15	25
Tetrachlorobiphenyl	330		4.7		ug/L		08/29/11 14:52	09/16/11 19:15	25
Pentachlorobiphenyl	290		4.7		ug/L		08/29/11 14:52	09/16/11 19:15	25
Hexachlorobiphenyl	510		4.7		ug/L		08/29/11 14:52	09/16/11 19:15	25
Heptachlorobiphenyl	450		7.1		ug/L		08/29/11 14:52	09/16/11 19:15	25
Octachlorobiphenyl	79		7.1		ug/L		08/29/11 14:52	09/16/11 19:15	25
Nonachlorobiphenyl	12	U	12		ug/L		08/29/11 14:52	09/16/11 19:15	25
DCB Decachlorobiphenyl	12	U	12		ug/L		08/29/11 14:52	09/16/11 19:15	25

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	0		25 - 113	08/29/11 14:52	09/16/11 19:15	25

SEP 29 2011 

Client Sample Results

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Client Sample ID: PMA-MW-4D-0811

Lab Sample ID: 680-71645-4

Date Collected: 08/22/11 11:45

Matrix: Water

Date Received: 08/23/11 09:46

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.32		0.098		ug/L		08/29/11 14:52	09/11/11 22:07	1
Dichlorobiphenyl	0.67		0.098		ug/L		08/29/11 14:52	09/11/11 22:07	1
Trichlorobiphenyl	0.11		0.098		ug/L		08/29/11 14:52	09/11/11 22:07	1
Tetrachlorobiphenyl	0.20	U	0.20		ug/L		08/29/11 14:52	09/11/11 22:07	1
Pentachlorobiphenyl	0.20	U	0.20		ug/L		08/29/11 14:52	09/11/11 22:07	1
Hexachlorobiphenyl	0.20	U	0.20		ug/L		08/29/11 14:52	09/11/11 22:07	1
Heptachlorobiphenyl	0.29	U	0.29		ug/L		08/29/11 14:52	09/11/11 22:07	1
Octachlorobiphenyl	0.29	U	0.29		ug/L		08/29/11 14:52	09/11/11 22:07	1
Nonachlorobiphenyl	0.49	U	0.49		ug/L		08/29/11 14:52	09/11/11 22:07	1
DCB Decachlorobiphenyl	0.49	U	0.49		ug/L		08/29/11 14:52	09/11/11 22:07	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	84		25 - 113				08/29/11 14:52	09/11/11 22:07	1

SEP 29 2011

Surrogate Summary

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	13DCB (25-113)	
680-71498-1	PMA-MW-5M-0811	75	
680-71498-1 MS	PMA-MW-5M-0811	70	
680-71498-1 MSD	PMA-MW-5M-0811	78	
680-71569-1	PMA-MW-2S-0811	78	
680-71569-2	PMA-MW-2M-0811	73	
680-71569-3	PMA-MW-3S-0811	84	
680-71569-4	PMA-MW-3M-0811	80	
680-71569-5	PMA-MW-3M-0811-AD	78	
680-71569-6	PMA-MW-6D-0811	74	
680-71569-7	PMA-MW-6D-0811-EB	72	
680-71645-1	PMA-MW-1S-0811	96	
680-71645-1 MS	PMA-MW-1S-0811	81	
680-71645-1 MSD	PMA-MW-1S-0811	78	
680-71645-2	PMA-MW-1M-0811	88	
680-71645-3	PMA-MW-4S-0811	0 D	
680-71645-4	PMA-MW-4D-0811	84	
LCS 680-212600/10-A	Lab Control Sample	71	
LCS 680-213186/6-A	Lab Control Sample	86	
MB 680-212600/9-A	Method Blank	85	
MB 680-213186/5-A	Method Blank	89	

Surrogate Legend

13DCB = Decachlorobiphenyl-13C12

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SEP 29 2011 *MM*

QC Sample Results

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Lab Sample ID: MB 680-212600/9-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 214609

Prep Batch: 212600

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Monochlorobiphenyl	0.10	U	0.10		ug/L		08/23/11 14:33	09/10/11 22:08	1
Dichlorobiphenyl	0.10	U	0.10		ug/L		08/23/11 14:33	09/10/11 22:08	1
Trichlorobiphenyl	0.10	U	0.10		ug/L		08/23/11 14:33	09/10/11 22:08	1
Tetrachlorobiphenyl	0.20	U	0.20		ug/L		08/23/11 14:33	09/10/11 22:08	1
Pentachlorobiphenyl	0.20	U	0.20		ug/L		08/23/11 14:33	09/10/11 22:08	1
Hexachlorobiphenyl	0.20	U	0.20		ug/L		08/23/11 14:33	09/10/11 22:08	1
Heptachlorobiphenyl	0.30	U	0.30		ug/L		08/23/11 14:33	09/10/11 22:08	1
Octachlorobiphenyl	0.30	U	0.30		ug/L		08/23/11 14:33	09/10/11 22:08	1
Nonachlorobiphenyl	0.50	U	0.50		ug/L		08/23/11 14:33	09/10/11 22:08	1
DCB Decachlorobiphenyl	0.50	U	0.50		ug/L		08/23/11 14:33	09/10/11 22:08	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
Decachlorobiphenyl-13C12	85		25 - 113	08/23/11 14:33	09/10/11 22:08	1

Lab Sample ID: LCS 680-212600/10-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 214609

Prep Batch: 212600

Analyte	Spike	LCS	LCS	Unit	D	% Rec	% Rec.
	Added	Result	Qualifier				Limits
Monochlorobiphenyl	2.00	0.872		ug/L		44	10 - 125
Dichlorobiphenyl	2.00	0.926		ug/L		46	10 - 110
Trichlorobiphenyl	2.00	0.974		ug/L		49	17 - 110
Tetrachlorobiphenyl	4.00	1.98		ug/L		50	18 - 110
Pentachlorobiphenyl	4.00	2.19		ug/L		55	34 - 110
Hexachlorobiphenyl	4.00	2.16		ug/L		54	31 - 110
Heptachlorobiphenyl	6.00	3.31		ug/L		55	33 - 110
Octachlorobiphenyl	6.00	3.52		ug/L		59	33 - 110
DCB Decachlorobiphenyl	10.0	6.19		ug/L		62	26 - 115

Surrogate	LCS	LCS	Limits
	% Recovery	Qualifier	
Decachlorobiphenyl-13C12	71		25 - 113

Lab Sample ID: 680-71498-1 MS

Client Sample ID: PMA-MW-5M-0811

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 214618

Prep Batch: 212600

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	% Rec	% Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Monochlorobiphenyl	0.099	U	1.97	0.868		ug/L		41	10 - 125
Dichlorobiphenyl	0.099	U	1.97	0.982		ug/L		48	10 - 110
Trichlorobiphenyl	0.099	U	1.97	1.06		ug/L		54	17 - 110
Tetrachlorobiphenyl	0.20	U	3.93	2.04		ug/L		52	18 - 110
Pentachlorobiphenyl	0.20	U	3.93	2.35		ug/L		60	34 - 110
Hexachlorobiphenyl	0.20	U	3.93	2.29		ug/L		58	31 - 110
Heptachlorobiphenyl	0.30	U	5.90	3.59		ug/L		61	33 - 110
Octachlorobiphenyl	0.30	U	5.90	3.69		ug/L		62	33 - 110
DCB Decachlorobiphenyl	0.49	U	9.83	6.41		ug/L		65	26 - 115

SEP 29 2011

QC Sample Results

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS) (Continued)

Lab Sample ID: 680-71498-1 MS
Matrix: Water
Analysis Batch: 214618

Client Sample ID: PMA-MW-5M-0811
Prep Type: Total/NA
Prep Batch: 212600

Surrogate	MS MS % Recovery	Qualifier	Limits
Decachlorobiphenyl-13C12	70		25 - 113

Lab Sample ID: 680-71498-1 MSD
Matrix: Water
Analysis Batch: 214618

Client Sample ID: PMA-MW-5M-0811
Prep Type: Total/NA
Prep Batch: 212600

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Monochlorobiphenyl	0.099	U	2.08	1.03		ug/L		46	10 - 125	17	40
Dichlorobiphenyl	0.099	U	2.08	1.17		ug/L		55	10 - 110	18	40
Trichlorobiphenyl	0.099	U	2.08	1.25		ug/L		60	17 - 110	17	40
Tetrachlorobiphenyl	0.20	U	4.16	2.38		ug/L		57	18 - 110	15	40
Pentachlorobiphenyl	0.20	U	4.16	2.71		ug/L		65	34 - 110	14	40
Hexachlorobiphenyl	0.20	U	4.16	2.71		ug/L		65	31 - 110	17	40
Heptachlorobiphenyl	0.30	U	6.24	4.11		ug/L		66	33 - 110	14	40
Octachlorobiphenyl	0.30	U	6.24	4.31		ug/L		69	33 - 110	16	40
DCB Decachlorobiphenyl	0.49	U	10.4	7.67		ug/L		74	26 - 115	18	40
Surrogate	MSD MSD % Recovery	Qualifier	Limits								
Decachlorobiphenyl-13C12	78		25 - 113								

Lab Sample ID: MB 680-213186/5-A
Matrix: Water
Analysis Batch: 214611

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 213186

Analyte	MB MB Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.10	U	0.10		ug/L		08/29/11 14:52	09/11/11 17:32	1
Dichlorobiphenyl	0.10	U	0.10		ug/L		08/29/11 14:52	09/11/11 17:32	1
Trichlorobiphenyl	0.10	U	0.10		ug/L		08/29/11 14:52	09/11/11 17:32	1
Tetrachlorobiphenyl	0.20	U	0.20		ug/L		08/29/11 14:52	09/11/11 17:32	1
Pentachlorobiphenyl	0.20	U	0.20		ug/L		08/29/11 14:52	09/11/11 17:32	1
Hexachlorobiphenyl	0.20	U	0.20		ug/L		08/29/11 14:52	09/11/11 17:32	1
Heptachlorobiphenyl	0.30	U	0.30		ug/L		08/29/11 14:52	09/11/11 17:32	1
Octachlorobiphenyl	0.30	U	0.30		ug/L		08/29/11 14:52	09/11/11 17:32	1
Nonachlorobiphenyl	0.50	U	0.50		ug/L		08/29/11 14:52	09/11/11 17:32	1
DCB Decachlorobiphenyl	0.50	U	0.50		ug/L		08/29/11 14:52	09/11/11 17:32	1
Surrogate	MB MB % Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	89		25 - 113				08/29/11 14:52	09/11/11 17:32	1

Lab Sample ID: LCS 680-213186/6-A
Matrix: Water
Analysis Batch: 214611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 213186

Analyte	Spike Added	LCS LCS Result	Qualifier	Unit	D	% Rec	% Rec. Limits
Monochlorobiphenyl	2.00	0.984		ug/L		49	10 - 125
Dichlorobiphenyl	2.00	1.07		ug/L		54	10 - 110
Trichlorobiphenyl	2.00	1.17		ug/L		58	17 - 110
Tetrachlorobiphenyl	4.00	2.32		ug/L		58	18 - 110
Pentachlorobiphenyl	4.00	2.75		ug/L		69	34 - 110

MM

QC Sample Results

Client: Solutia Inc.
Project/Site: WGG PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS) (Continued)

Lab Sample ID: LCS 680-213186/6-A
Matrix: Water
Analysis Batch: 214611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 213186

Analyte	Spike Added	LCS		Unit	D	% Rec	% Rec. Limits	
		Result	Qualifier					
Hexachlorobiphenyl	4.00	2.68		ug/L		67	31 - 110	
Heptachlorobiphenyl	6.00	4.14		ug/L		69	33 - 110	
Octachlorobiphenyl	6.00	4.33		ug/L		72	33 - 110	
DCB Decachlorobiphenyl	10.0	7.81		ug/L		78	26 - 115	
LCS LCS								
Surrogate	% Recovery	Qualifier	Limits					
Decachlorobiphenyl-13C12	86		25 - 113					

Lab Sample ID: 680-71645-1 MS
Matrix: Water
Analysis Batch: 214941

Client Sample ID: PMA-MW-1S-0811
Prep Type: Total/NA
Prep Batch: 213186

Analyte	Sample		Spike Added	MS		Unit	D	% Rec	% Rec. Limits	
	Result	Qualifier		Result	Qualifier					
Monochlorobiphenyl	0.095	U	1.91	1.07		ug/L		56	10 - 125	
Dichlorobiphenyl	0.095	U	1.91	1.13		ug/L		59	10 - 110	
Trichlorobiphenyl	0.095	U	1.91	1.19		ug/L		62	17 - 110	
Tetrachlorobiphenyl	0.19	U	3.81	2.39		ug/L		63	18 - 110	
Pentachlorobiphenyl	0.19	U	3.81	2.66		ug/L		70	34 - 110	
Hexachlorobiphenyl	0.19	U	3.81	2.48		ug/L		65	31 - 110	
Heptachlorobiphenyl	0.29	U	5.72	4.00		ug/L		70	33 - 110	
Octachlorobiphenyl	0.29	U	5.72	4.02		ug/L		70	33 - 110	
DCB Decachlorobiphenyl	0.48	U	9.53	6.92		ug/L		73	26 - 115	
MS MS										
Surrogate	% Recovery	Qualifier	Limits							
Decachlorobiphenyl-13C12	81		25 - 113							

Lab Sample ID: 680-71645-1 MSD
Matrix: Water
Analysis Batch: 214618

Client Sample ID: PMA-MW-1S-0811
Prep Type: Total/NA
Prep Batch: 213186

Analyte	Sample		Spike Added	MSD		Unit	D	% Rec	% Rec. RPD		Limit
	Result	Qualifier		Result	Qualifier				Limits		
Monochlorobiphenyl	0.095	U	1.92	0.787		ug/L		41	10 - 125	31	40
Dichlorobiphenyl	0.095	U	1.92	0.977		ug/L		51	10 - 110	14	40
Trichlorobiphenyl	0.095	U	1.92	1.05		ug/L		54	17 - 110	13	40
Tetrachlorobiphenyl	0.19	U	3.85	2.02		ug/L		52	18 - 110	17	40
Pentachlorobiphenyl	0.19	U	3.85	2.39		ug/L		62	34 - 110	10	40
Hexachlorobiphenyl	0.19	U	3.85	2.34		ug/L		61	31 - 110	6	40
Heptachlorobiphenyl	0.29	U	5.77	3.70		ug/L		64	33 - 110	8	40
Octachlorobiphenyl	0.29	U	5.77	3.93		ug/L		68	33 - 110	2	40
DCB Decachlorobiphenyl	0.48	U	9.61	7.16		ug/L		75	26 - 115	3	40
MSD MSD											
Surrogate	% Recovery	Qualifier	Limits								
Decachlorobiphenyl-13C12	78		25 - 113								

SEP 29 2011

MM

QC Association Summary

Client: Solutia Inc.
Project/Site: WGG PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

GC/MS Semi VOA

Prep Batch: 212600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-71498-1	PMA-MW-5M-0811	Total/NA	Water	680	
680-71498-1 MS	PMA-MW-5M-0811	Total/NA	Water	680	
680-71498-1 MSD	PMA-MW-5M-0811	Total/NA	Water	680	
680-71569-1	PMA-MW-2S-0811	Total/NA	Water	680	
680-71569-2	PMA-MW-2M-0811	Total/NA	Water	680	
680-71569-3	PMA-MW-3S-0811	Total/NA	Water	680	
680-71569-4	PMA-MW-3M-0811	Total/NA	Water	680	
680-71569-5	PMA-MW-3M-0811-AD	Total/NA	Water	680	
680-71569-6	PMA-MW-6D-0811	Total/NA	Water	680	
680-71569-7	PMA-MW-6D-0811-EB	Total/NA	Water	680	
LCS 680-212600/10-A	Lab Control Sample	Total/NA	Water	680	
MB 680-212600/9-A	Method Blank	Total/NA	Water	680	

Prep Batch: 213186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-71645-1	PMA-MW-1S-0811	Total/NA	Water	680	
680-71645-1 MS	PMA-MW-1S-0811	Total/NA	Water	680	
680-71645-1 MSD	PMA-MW-1S-0811	Total/NA	Water	680	
680-71645-2	PMA-MW-1M-0811	Total/NA	Water	680	
680-71645-3	PMA-MW-4S-0811	Total/NA	Water	680	
680-71645-4	PMA-MW-4D-0811	Total/NA	Water	680	
LCS 680-213186/6-A	Lab Control Sample	Total/NA	Water	680	
MB 680-213186/5-A	Method Blank	Total/NA	Water	680	

Analysis Batch: 214609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-212600/10-A	Lab Control Sample	Total/NA	Water	680	212600
MB 680-212600/9-A	Method Blank	Total/NA	Water	680	212600

Analysis Batch: 214611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-71569-1	PMA-MW-2S-0811	Total/NA	Water	680	212600
680-71569-2	PMA-MW-2M-0811	Total/NA	Water	680	212600
680-71569-3	PMA-MW-3S-0811	Total/NA	Water	680	212600
680-71569-4	PMA-MW-3M-0811	Total/NA	Water	680	212600
680-71569-5	PMA-MW-3M-0811-AD	Total/NA	Water	680	212600
680-71569-7	PMA-MW-6D-0811-EB	Total/NA	Water	680	212600
680-71645-1	PMA-MW-1S-0811	Total/NA	Water	680	213186
680-71645-4	PMA-MW-4D-0811	Total/NA	Water	680	213186
LCS 680-213186/6-A	Lab Control Sample	Total/NA	Water	680	213186
MB 680-213186/5-A	Method Blank	Total/NA	Water	680	213186

Analysis Batch: 214618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-71498-1	PMA-MW-5M-0811	Total/NA	Water	680	212600
680-71498-1 MS	PMA-MW-5M-0811	Total/NA	Water	680	212600
680-71498-1 MSD	PMA-MW-5M-0811	Total/NA	Water	680	212600
680-71645-1 MSD	PMA-MW-1S-0811	Total/NA	Water	680	213186
680-71645-2	PMA-MW-1M-0811	Total/NA	Water	680	213186

SEP 29 2011

TestAmerica Savannah

QC Association Summary

Client: Solutia Inc.
Project/Site: W GK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

GC/MS Semi VOA (Continued)


Analysis Batch: 214941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-71569-6	PMA-MW-6D-0811	Total/NA	Water	680	212600
680-71645-1 MS	PMA-MW-1S-0811	Total/NA	Water	680	213186

Analysis Batch: 215039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-71645-3	PMA-MW-4S-0811	Total/NA	Water	680	213186



SEP 29 2011 

Lab Chronicle

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Client Sample ID: PMA-MW-5M-0811

Date Collected: 08/17/11 14:45

Date Received: 08/18/11 09:37

Lab Sample ID: 680-71498-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			505.3 mL	0.5 mL	212600	08/23/11 14:33	RBS	TAL SAV
Total/NA	Analysis	680		1			214618	09/12/11 04:14	ND	TAL SAV

Client Sample ID: PMA-MW-2S-0811

Date Collected: 08/18/11 11:35

Date Received: 08/19/11 09:46

Lab Sample ID: 680-71569-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			1042.7 mL	1 mL	212600	08/23/11 14:33	RBS	TAL SAV
Total/NA	Analysis	680		1			214611	09/11/11 18:33	ND	TAL SAV

Client Sample ID: PMA-MW-2M-0811

Date Collected: 08/18/11 12:10

Date Received: 08/19/11 09:46

Lab Sample ID: 680-71569-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			1054.3 mL	1 mL	212600	08/23/11 14:33	RBS	TAL SAV
Total/NA	Analysis	680		1			214611	09/11/11 19:03	ND	TAL SAV

Client Sample ID: PMA-MW-3S-0811

Date Collected: 08/18/11 13:10

Date Received: 08/19/11 09:46

Lab Sample ID: 680-71569-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			971.9 mL	1 mL	212600	08/23/11 14:33	RBS	TAL SAV
Total/NA	Analysis	680		1			214611	09/11/11 19:34	ND	TAL SAV

Client Sample ID: PMA-MW-3M-0811

Date Collected: 08/18/11 13:45

Date Received: 08/19/11 09:46

Lab Sample ID: 680-71569-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			888.8 mL	1 mL	212600	08/23/11 14:33	RBS	TAL SAV
Total/NA	Analysis	680		1			214611	09/11/11 20:04	ND	TAL SAV

Client Sample ID: PMA-MW-3M-0811-AD

Date Collected: 08/18/11 13:45

Date Received: 08/19/11 09:46

Lab Sample ID: 680-71569-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			974.4 mL	1 mL	212600	08/23/11 14:33	RBS	TAL SAV
Total/NA	Analysis	680		1			214611	09/11/11 20:35	ND	TAL SAV

Lab Chronicle

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Client Sample ID: PMA-MW-6D-0811

Lab Sample ID: 680-71569-6

Date Collected: 08/18/11 14:35

Matrix: Water

Date Received: 08/19/11 09:46

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			500.2 mL	0.5 mL	212600	08/23/11 14:33	RBS	TAL SAV
Total/NA	Analysis	680		1			214941	09/14/11 21:04	ND	TAL SAV

Client Sample ID: PMA-MW-6D-0811-EB

Lab Sample ID: 680-71569-7

Date Collected: 08/18/11 15:10

Matrix: Water

Date Received: 08/19/11 09:46

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			1002.9 mL	1 mL	212600	08/23/11 14:33	RBS	TAL SAV
Total/NA	Analysis	680		1			214611	09/11/11 21:05	ND	TAL SAV

Client Sample ID: PMA-MW-1S-0811

Lab Sample ID: 680-71645-1

Date Collected: 08/22/11 09:10

Matrix: Water

Date Received: 08/23/11 09:46

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			1049.3 mL	1 mL	213186	08/29/11 14:52	RBS	TAL SAV
Total/NA	Analysis	680		1			214611	09/11/11 21:36	ND	TAL SAV

Client Sample ID: PMA-MW-1M-0811

Lab Sample ID: 680-71645-2

Date Collected: 08/22/11 10:00

Matrix: Water

Date Received: 08/23/11 09:46

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			1029.9 mL	1 mL	213186	08/29/11 14:52	RBS	TAL SAV
Total/NA	Analysis	680		1			214618	09/12/11 03:14	ND	TAL SAV

Client Sample ID: PMA-MW-4S-0811

Lab Sample ID: 680-71645-3

Date Collected: 08/22/11 11:10

Matrix: Water

Date Received: 08/23/11 09:46

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			1060.0 mL	1 mL	213186	08/29/11 14:52	RBS	TAL SAV
Total/NA	Analysis	680		25			215039	09/16/11 19:15	ND	TAL SAV

Client Sample ID: PMA-MW-4D-0811

Lab Sample ID: 680-71645-4

Date Collected: 08/22/11 11:45

Matrix: Water

Date Received: 08/23/11 09:46

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	680			1025.0 mL	1 mL	213186	08/29/11 14:52	RBS	TAL SAV
Total/NA	Analysis	680		1			214611	09/11/11 22:07	ND	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Serial Number 044275

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

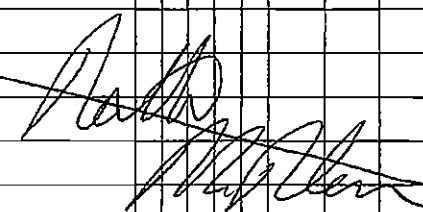
THE LEADER IN ENVIRONMENTAL TESTING

☒ 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 <i>W6K 3011 PCB GW Sampling</i>		PROJECT NO. <i>21562682.00001</i>	PROJECT LOCATION (STATE) <i>IL</i>	MATRIX TYPE	REQUIRED ANALYSIS										PAGE <i>1</i>	OF <i>1</i>							
TAL (LAB) PROJECT MANAGER <i>Lidia Gulizia</i>		P.O. NUMBER <i>21562682.00001</i>	CONTRACT NO.	COMPOSITE (C) OR GRAB (G) INDICATE AQUEOUS (WATER) SOLID OR SEMISOLID AIR NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	<i>ice</i>	<i>Total PCBs by 680</i>	<i>PRESERVATIVE</i>									STANDARD REPORT DELIVERY <input checked="" type="checkbox"/>	DATE DUE <i>5/14</i>						
CLIENT (SITE) PM <i>Dave Palmer</i>		CLIENT PHONE <i>314-429-0100</i>	CLIENT FAX <i>314-429-0462</i>													CLIENT E-MAIL <i>dave-palmer@urscorp.com</i>	EXPEDITED REPORT DELIVERY (SURCHARGE) <input type="checkbox"/>	DATE DUE					
CLIENT NAME <i>URS Corp.</i>		CLIENT ADDRESS <i>1001 Highlands Plaza Dr. W, St. Louis, MO 63110</i>														NUMBER OF COOLERS SUBMITTED PER SHIPMENT: <i>1</i>							
COMPANY CONTRACTING THIS WORK (if applicable)																							
SAMPLE		SAMPLE IDENTIFICATION			NUMBER OF CONTAINERS SUBMITTED										REMARKS								
DATE	TIME																						
<i>8/17/11</i>	<i>1445</i>	<i>PMA-MW-5M-0811</i>			<i>GX</i>		<i>2</i>																
																							
RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>		DATE <i>8/17/11</i>	TIME <i>1620</i>	RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>		DATE <i>8/17/11</i>	TIME <i>1620</i>	RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>		DATE <i>8/17/11</i>	TIME <i>1620</i>	RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>		DATE <i>8/17/11</i>	TIME <i>1620</i>								
RECEIVED BY: (SIGNATURE) <i>[Signature]</i>		DATE <i>8/17/11</i>	TIME <i>1620</i>	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>		DATE <i>8/17/11</i>	TIME <i>1620</i>	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>		DATE <i>8/17/11</i>	TIME <i>1620</i>	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>		DATE <i>8/17/11</i>	TIME <i>1620</i>								
LABORATORY USE ONLY																							
RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>[Signature]</i>		DATE <i>8/19/11</i>	TIME <i>0937</i>	CUSTODY INTACT YES <input type="radio"/> NO <input type="radio"/>		CUSTODY SEAL NO.		SAVANNAH LOG NO. <i>680-71498</i>		LABORATORY REMARKS <i>4.2°C</i>													

SEP 29 2011 JMM

Serial Number 044454

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

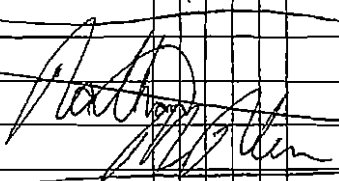
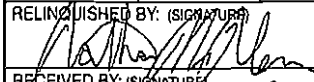
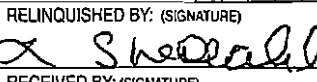
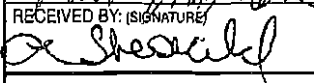
THE LEADER IN ENVIRONMENTAL TESTING

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 W6K 3911 R6 GW Sampling		PROJECT NO. 21562682.00001	PROJECT LOCATION (STATE)	MATRIX TYPE	REQUIRED ANALYSIS										PAGE	OF		
TAL (LAB) PROJECT MANAGER Lidia Gulizia		P.O. NUMBER	CONTRACT NO.	COMPOSITE (C) OR GRAB (G) INDICATE AQUEOUS (WATER) SOLID OR SEMISOLID AIR NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	<div style="display: flex; justify-content: space-between;"> <div> <p>STANDARD REPORT DELIVERY</p> <p>DATE DUE 5/27</p> <p>EXPEDITED REPORT DELIVERY (SURCHARGE)</p> <p>DATE DUE</p> </div> <div> <p>NUMBER OF COOLERS SUBMITTED PER SHIPMENT:</p> </div> </div>										REMARKS			
CLIENT (SITE) PM Dave Palmer		CLIENT PHONE 314-429-0100	CLIENT FAX 314-429-0462															
CLIENT NAME URS Corp.		CLIENT E-MAIL dave_palmer@urscorp.com																
CLIENT ADDRESS 1001 Highlands Plaza Dr. W., St. Louis, MO 63110																		
COMPANY CONTRACTING THIS WORK (if applicable)				<div style="display: flex; justify-content: space-between;"> <div> <p>DATE</p> <p>TIME</p> <p>SAMPLE IDENTIFICATION</p> </div> <div> <p>NUMBER OF CONTAINERS SUBMITTED</p> </div> </div>														
8/18/11		1135	PMA-MW-25-0811	X	2													
8/18/11		1210	PMA-MW-27-0811	X	2													
8/18/11		1310	PMA-MW-35-0811	X	2													
8/18/11		1345	PMA-MW-3M-0811	X	2													
8/18/11		1345	PMA-MW-3M-0811-AD	X	2													
8/18/11		1435	PMA-MW-60-0811	X	2													
8/16/11		1510	PMA-MW-60-0811-EB	X	2													
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		8/16/11	1625			8/16/11	1735											
RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME							
		8/18/11	1625															
LABORATORY USE ONLY																		
RECEIVED FOR LABORATORY BY: (SIGNATURE)		DATE	TIME	CUSTODY INTACT YES <input type="radio"/> NO <input type="radio"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS											
Betha Daughtrey		8/19/11	0946			680-71569	Temps 0.8°C, 1.6°C											

Serial Number 044453

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

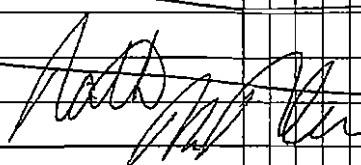
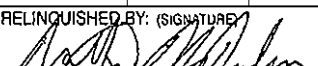
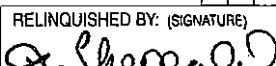
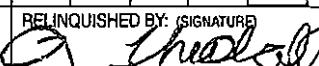
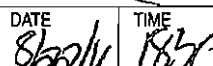
THE LEADER IN ENVIRONMENTAL TESTING

☒ 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 106K 3911 PCB CW Sampling		PROJECT NO. 21562682.00001	PROJECT LOCATION (STATE)	MATRIX TYPE	REQUIRED ANALYSIS										PAGE 1	OF 1
TAL (LAB) PROJECT MANAGER Lidia Gulizia		P.O. NUMBER	CONTRACT NO.	COMPOSITE (C) OR GRAB (G) INDICATE AQUEOUS (WATER) SOLID OR SEMISOLID AIR NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px;">ICE</div> <div style="margin: 0 10px;">PCB by 680</div> <div style="border: 1px solid black; padding: 2px; font-weight: bold; font-size: 1.2em;">PRESERVATIVE</div> </div>										STANDARD REPORT DELIVERY <input checked="" type="radio"/>	
CLIENT (SITE) PM Dave Palmer		CLIENT PHONE 314-429-0100	CLIENT FAX 314-429-0462												DATE DUE STA	
CLIENT NAME URS Corp		CLIENT E-MAIL dave-palmer@urscorp.com													EXPEDITED REPORT DELIVERY (SURCHARGE) <input type="radio"/>	
CLIENT ADDRESS 1001 Highlands Plaza Dr. W, St. Louis, MO, 63111															DATE DUE	
COMPANY CONTRACTING THIS WORK (if applicable)															NUMBER OF COOLERS SUBMITTED PER SHIPMENT:	
SAMPLE		SAMPLE IDENTIFICATION			NUMBER OF CONTAINERS SUBMITTED										REMARKS	
DATE	TIME															
8/22/11	0910	PMA-MW-15-0811			X											
8/22/11	0910	PMA-MW-15-0811-MS			X											
8/22/11	0910	PMA-MW-15-0811-MSD			X											
8/22/11	1000	PMA-MW-1M-0811			X											
8/22/11	1110	PMA-MW-45-0811			X											
8/22/11	1145	PMA-MW-40-0811			X											
																
RELINQUISHED BY: (SIGNATURE) 		DATE 8/22/11	TIME 1715	RELINQUISHED BY: (SIGNATURE) 		DATE 8/22/11	TIME 1715	RELINQUISHED BY: (SIGNATURE) 		DATE 8/22/11	TIME 1830	RELINQUISHED BY: (SIGNATURE) 		DATE 8/22/11	TIME 1830	
RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME	
LABORATORY USE ONLY																
RECEIVED FOR LABORATORY BY: (SIGNATURE) Beth A. Daugherty		DATE 08/23/11	TIME 0946	CUSTODY INTACT YES <input type="radio"/> NO <input type="radio"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO. 680-71645	LABORATORY REMARKS Temp 4.4°C / 0.8°C									

SEP 29 2011

Login Sample Receipt Checklist

Client: Solutia Inc.

Job Number: 680-71498-1

SDG Number: KPM043

Login Number: 71498

List Source: TestAmerica Savannah

List Number: 1

Creator: Conner, Keaton

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	Insufficient volume received for MS/MSD.
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

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Login Sample Receipt Checklist

Client: Solutia Inc.

Job Number: 680-71498-1

SDG Number: KPM043

Login Number: 71569

List Source: TestAmerica Savannah

List Number: 1

Creator: Daughtry, Beth

Question	Answer	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	0.8, 1.6 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	MW-6D: Rec'd 1 liter amber broken
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Login Sample Receipt Checklist

Client: Solutia Inc.

Job Number: 680-71498-1

SDG Number: KPM043

Login Number: 71645

List Source: TestAmerica Savannah

List Number: 1

Creator: Daughtry, Beth

Question	Answer	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	4.4 and 0.8 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Certification Summary

Client: Solutia Inc.
Project/Site: WGK PCB GW Quality - 3Q11 - AUG 2011

TestAmerica Job ID: 680-71498-1
SDG: KPM043

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Savannah	A2LA	DoD ELAP		0399-01
TestAmerica Savannah	A2LA	ISO/IEC 17025		399.01
TestAmerica Savannah	Alabama	State Program	4	41450
TestAmerica Savannah	Arkansas	Arkansas DOH	6	N/A
TestAmerica Savannah	Arkansas	State Program	6	88-0692
TestAmerica Savannah	California	NELAC	9	3217CA
TestAmerica Savannah	Colorado	State Program	8	N/A
TestAmerica Savannah	Connecticut	State Program	1	PH-0161
TestAmerica Savannah	Delaware	State Program	3	N/A
TestAmerica Savannah	Florida	NELAC	4	E87052
TestAmerica Savannah	Georgia	Georgia EPD	4	N/A
TestAmerica Savannah	Georgia	State Program	4	803
TestAmerica Savannah	Guam	State Program	9	09-005r
TestAmerica Savannah	Hawaii	State Program	9	N/A
TestAmerica Savannah	Illinois	NELAC	5	200022
TestAmerica Savannah	Indiana	State Program	5	N/A
TestAmerica Savannah	Iowa	State Program	7	353
TestAmerica Savannah	Kentucky	Kentucky UST	4	18
TestAmerica Savannah	Kentucky	State Program	4	90084
TestAmerica Savannah	Louisiana	NELAC	6	LA100015
TestAmerica Savannah	Louisiana	NELAC	6	30690
TestAmerica Savannah	Maine	State Program	1	GA00006
TestAmerica Savannah	Maryland	State Program	3	250
TestAmerica Savannah	Massachusetts	State Program	1	M-GA006
TestAmerica Savannah	Michigan	State Program	5	9925
TestAmerica Savannah	Mississippi	State Program	4	N/A
TestAmerica Savannah	Montana	State Program	8	CERT0081
TestAmerica Savannah	Nebraska	State Program	7	TestAmerica-Savannah
TestAmerica Savannah	New Jersey	NELAC	2	GA769
TestAmerica Savannah	New Mexico	State Program	6	N/A
TestAmerica Savannah	New York	NELAC	2	10842
TestAmerica Savannah	North Carolina	North Carolina DENR	4	269
TestAmerica Savannah	North Carolina	North Carolina PHL	4	13701
TestAmerica Savannah	Pennsylvania	NELAC	3	68-00474
TestAmerica Savannah	Puerto Rico	State Program	2	GA00006
TestAmerica Savannah	Rhode Island	State Program	1	LAO00244
TestAmerica Savannah	South Carolina	State Program	4	98001
TestAmerica Savannah	Tennessee	State Program	4	TN02961
TestAmerica Savannah	Texas	NELAC	6	T104704185-08-TX
TestAmerica Savannah	USDA	USDA		SAV 3-04
TestAmerica Savannah	Vermont	State Program	1	87052
TestAmerica Savannah	Virginia	NELAC Secondary AB	3	460161
TestAmerica Savannah	Virginia	State Program	3	302
TestAmerica Savannah	Washington	State Program	10	C1794
TestAmerica Savannah	West Virginia	West Virginia DEP	3	94
TestAmerica Savannah	West Virginia	West Virginia DHHR (DW)	3	9950C
TestAmerica Savannah	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

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