Swift Creek Environmental, Inc.

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June 21, 2016
Project #05-028

Ms. Janet K. Macdonald, P.G.
Inactive Hazardous Sites Branch - REC Program
North Carolina Department of Environmental Quality
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

Re: NAM Remedial Action Progress Report (8) -Year 3 – Semi Annual Ground Water Sampling
Adams-Mills Plant 2/33-Non UST Site
828 South Main Street
Mount Airy, Surry County, North Carolina 27520
Site ID #NONC0001226
Incident #14241
Ranking 50/E

Dear Ms. Macdonald:

Pursuant to NCDENR REC Guidance Implementation Document Section 15A NCAC 13C.0306 edited 12/12/12 and the Proposed Remedial Action Plan dated April 12, 2013, Swift Creek Environmental, Incorporated is submitting this NAM Remedial Action Progress Report - Year 2/3 Ground Water Sampling Events for the above referenced site. The Remediating Party Document Certification Statement (.0306(B)(2)) Form No. DC-I and the Registered Site Manager Document Certification Statement (.0306(b)(1)) Form No. DC-II is included as Attachment 1. The location of the site is presented as Figure 1 – Site Vicinity Map along with a Detailed Site Map presented as Figure 2 are included in Attachment 2.

On December 7, 2015 and March 24, 2016, Swift Creek Environmental, Incorporated collected ground water samples from the on-site monitor wells, MW7, MW8, MW9, MW10, MW11 and MW12. Monitor well, MW1 could not be sampled since an automobile was parked over top of the wellhead at the time of both sampling events. The sample locations are presented on Figure 2 – Detailed Site Map included in Attachment 2. Sampling was conducted in accordance with industry standard sample collection and preservation protocols following the EPA Region 4 Science and Ecosystem Support Division "Field Branches Quality System and Technical Procedures" Guidance Document and NC DWQ Laboratory Section Sample Submission Guidance Document dated, December 31, 2009.

Monitor well purge protocols and calibrations on all field instruments were performed. During well purging, physical parameters of the ground water was recorded. Included in Attachment 3 are copies of the completed Ground Water Sampling Logs. Immediately upon purging of each well, ground water samples were collected using a stainless steel submersible sampling pump with single use disposal Teflon/Polyethylene tubing at pump rates not exceeding 250 ml/minute as well as single use bailers. The samples were placed in laboratory supplied jars with proper preservatives and placed on ice for shipment to the laboratory. Chain of custody protocols was followed. QA/QC measures conducted throughout the duration of water sampling and analyses activities are included:

1. EPA Region 4 Decontamination and sampling protocols.
2. Laboratory analyses of method blanks.
3. Field and factory calibration of physical parameter instruments.
4. Completion of a laboratory data package.

Ground water levels were recorded using a clean, Slope Water Level Indicator measuring to 0.01 feet and decontaminated between each well using an Alconox/water wash and water rinse. The ground water elevations and depth to water for the 2 ground water gauging events is presented on Table 1. Based on this hydrologic data, ground water flow beneath the study area is multidirectional. Presented as Figures 3 and 4 in Attachment 2 are the December 7, 2015 and March 24, 2016 Potentiometric Surface Maps.

TABLE 1. *Elevation, Ground Water Level & Product Data*

Monitor Well	***Depth to GW (feet)***	***Product Thickness (feet)***	***Elevation - Top of Casing***	***Elevation - GW (feet)***
December 7, 2015				
MW1	NR	0	94.88	-
MW7	41.87	0	99.71	57.84
MW8	43.44	0	100.59	57.15
MW9	42.00	0	98.58	55.79
MW10	32.00	0	89.20	56.58
MW11	45.25	0	104.11	58.86
MW12	33.01	0	90.76	57.75
March 24, 2016				
MW1	NR	0	94.88	-
MW7	41.42	0	99.71	58.29
MW8	43.01	0	100.59	57.58
MW9	41.12	0	98.58	57.46
MW10	31.49	0	89.20	57.71
MW11	45.07	0	104.11	59.04
MW12	32.87	0	90.76	57.89

A summary of the water chemical testing for the December 7, 2015 and March 24, 2016 and previous historical ground water sampling events are presented in Table 2. Only analytes recorded above the LOD (Limit of Detection) are depicted on the table. The historical ground water table only depicts concentrations since 2011 when monitor wells MW7 through MW11 were installed for the RI (Remedial Investigation). Detected analytes are added to the historical table beginning on the date they are first recorded. The Ground Water Certificates of Analyses and Chain of Custody's are included in Attachment 4.

Both rounds of ground water sampling recorded 3 analytes 1,2-Dichloropropane, Tetrachloroethene and Chloride in MW7 – source area), 1 analyte Tetrachloroethene – MW10 and 1 analyte Tetrachloroethene – MW12 above North Carolina 15A NCAC 02L.0202 Ground Water Standards. Chloroform was also recorded to be above North Carolina 15A NCAC 02L.0202 Ground Water Standards in monitor well MW7 for the December 2015 sampling event only. The remaining analytes were either below the LOD or North Carolina 15A NCAC 02L.0202 Ground Water Standards. The recorded values are consistent with what has been historically observed at the site and the contaminant plume remains stable.

TABLE 2. *Summary of Ground Water Results above 15A NCAC 2L .0202 Standards*

Analyte	Date	MW1	MW7	MW8	MW9	MW10	MW11	MW12	Tap Water	15A NCAC 2L .0202 (4/2013)	Federal MCL
Chloroform (ug/l)	10/13/11	0.34J	29	11	24	1.4	1.4		89	70	NS
	3/9/13	0.66J	110	11	16	1.1	<1.0		0.66J		
	8/16/13	0.67	87.7	9.46	19.1	1.51	<0.2		NT		
	11/15/13	NT	85.6	9.43	7.55	0.45	<0.4		NT		
	2/15/14	NT	67.9	8.21	7.84	0.78	<0.4		NT		
	5/24/14	<0.4	70.7	7.25	7.52	0.77 J	<0.4	<0.4	NT		
	11/18/14	0.23 J	66	7.6	160	6.6	<1.0	0.26 J	NT		
	6/26/15	NT	66.2	7.20	14.4	0.56 J	<0.4	<0.4	NT		
	12/7/15	NT	70.9	6.94	17.3	0.68 J	<0.32	0.33 J			
	3/24/16	NT	58.4	5.30	22.8	<0.32	<0.32	<0.32			
Chloride (mg/l)	10/13/11	5.5	1100	520	190	11	55		NT	250	250
	3/9/13	7.9	2700	26	180	8.5	37		9.3		
	8/16/13	8.6	3210	19.8	175	17.0	29.4		NT		
	11/15/13	NT	3100	18	110	6.7	19		NT		
	2/15/14	NT	3310	22.5	145	10.4	23.9		NT		
	5/24/14	4.1 J	3400	16	130	8.3	17	6.4	NT		
	11/18/14	4.5	4200	21	160	6.6	28	7.3	NT		
	6/26/15	NT	2450	19.9	218	6.2	26.1	4.6	NT		
	12/7/15	NT	2790	20.8	179	10.8	32.3	4.28	NT		
	3/24/16	NT	3190	20.1	234	9.17	21.8	4.97	NT		
Cis-1,2-Dichloroethene (ug/l)	8/16/13	<0.2	<0.2	<0.2	<0.2	16	<0.2		NT	70	70
	11/15/13	NT	<0.4	<0.4	<0.4	2.9	<0.4		NT		
	2/15/14	NT	<0.4	<0.4	<0.4	6.02	<0.4		NT		
	5/24/14	<0.4	<0.4	<0.4	<0.4	6.42	<0.4	1.22	NT		
	11/18/14	<1.0	0.71 J	<1.0	<1.0	<1.0	<1.0	<1.0	NT		
	6/26/15	NT	<0.4	<0.4	<0.4	3.46	<0.4	1.76	NT		
	12/7/15	NT	<0.26	<0.26	<0.26	7.91	<0.26	1.48	NT		
	3/24/16	NT	<0.26	<0.26	<0.26	2.55	<0.26	1.30	NT		
Bromomethane (ug/l)	5/24/14	<0.2	0.71 J	<0.2	<0.2	<0.2	<0.2	<0.2	NT	NS	NS
	11/18/14	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	NT		
	6/26/15	NT	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	NT		
	12/7/15	NT	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	NT		
	3/24/16	NT	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	NT		

TABLE 2. *Summary of Ground Water Results above 15A NCAC 2L .0202 Standards*

Analyte	Date	MW1	MW7	MW8	MW9	MW10	MW11	MW12	Tap Water	15A NCAC 2L .0202 (4/2013)	Federal MCL
Bromodichloromethane (ug/l)	10/13/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0	0.6	NS
	3/9/13	<1.0	0.49J	<1.0	<1.0	<1.0	<1.0		<1.0		
	8/16/13	<0.2	0.65	<0.2	<0.2	<0.2	<0.2		NT		
	11/15/13	NT	<0.3	<0.3	<0.3	<0.3	<0.3		NT		
	2/15/14	NT	0.54 J	<0.3	<0.3	<0.3	<0.3		NT		
	5/24/12	<0.3	0.53 J	<0.3	<0.3	<0.3	<0.3	<0.3	NT		
	11/18/14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NT		
	6/26/15	NT	0.49	<0.3	<0.2	<0.2	<0.2	<0.2	NT		
	12/7/15	NT	0.53 J	<0.38	<0.38	<0.38	<0.38	<0.38	NT		
	3/24/16	NT	0.44 J	<0.38	<0.38	<0.86	<0.38	<0.38	NT		
MtBE (ug/l)	8/16/13	<0.2	<0.2	<0.2	<0.2	0.4	<0.2		NT	20	20-40
	11/15/13	NT	<0.4	<0.4	<0.4	<0.4	<0.4		NT		
	2/15/14	NT	<0.4	<0.4	<0.4	<0.4	<0.4		NT		
	5/24/14	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	NT		
	11/18/14	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	NT		
	6/26/15	NT	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	NT		
	12/7/15	NT	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	NT		
	3/24/16	NT	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	NT		
Methylene Chloride (ug/l)	8/16/13	<1	1.76 J	<1	1.70 J	<1	<1		NT	5	NS
	11/15/13	NT	2.22 J	<1	1.46	<1	<1		NT		
	2/15/14	NT	1.49 J	<1	<1	<1	<1		NT		
	5/24/13	<1	1.34 J	<1	<1	<1	<1	<1	NT		
	11/18/14	<5	1.5 J	<5	<5	<5	<5	<5	NT		
	6/26/15	NT	1.91 J	<1	1.22 J	<1	<1	<1	NT		
	12/7/15	NT	1.70 J	<1	1.26 J	<1	<1	<1	NT		
	3/24/16	NT	1.26 J	<1	1.01 J	<1	<1	<1	NT		
1,2,3-Trichlorobenzene (ug/l)	11/15/13	NT	0.34	<0.2	<0.2	<0.2	<0.2		NT	NS	NS
	2/15/14	NT	0.24 J	<0.2	<0.2	<0.2	<0.2		NT		
	5/24/14	<0.2	0.21 J	<0.2	<0.2	<0.2	<0.2	<0.2	NT		
	11/18/14	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	NT		
	6/26/15	NT	0.40 J	<0.2	<0.2	<0.2	<0.2	<0.2	NT		

TABLE 2. *Summary of Ground Water Results above 15A NCAC 2L .0202 Standards*

Analyte	Date	MW1	MW7	MW8	MW9	MW10	MW11	MW12	Tap Water	15A NCAC 2L .0202 (4/2013)	Federal MCL
1,2,3-Trichlorobenzene (ug/l)	12/7/15	NT	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	NT	NS	NS
	3/24/16	NT	0.27 J	<0.23	<0.23	<0.23	<0.23	<0.23	NT		
1,2,4-Trichlorobenzene (ug/l)	8/16/13	<0.3	1.07 J	<0.3	<0.3	<0.3	<0.3		NT	70	70
	11/15/13	NT	0.96	<0.2	<0.2	<0.2	<0.2		NT		
	2/15/14	NT	0.83 J	<0.2	<0.2	<0.2	<0.2		NT		
	5/24/14	<0.2	0.72 J	<0.2	<0.2	<0.2	<0.2	<0.2	NT		
	11/18/14	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	NT		
	6/26/15	NT	1.25	<0.2	<0.2	<0.2	<0.2	<0.2	NT		
	12/7/15	NT	0.56 J	<0.35	<0.35	<0.35	<0.35	<0.35	NT		
	3/24/16	NT	0.92 J	<0.35	<0.35	<0.35	<0.35	<0.35	NT		
1,2-Dichlorobenzene (ug/l)	8/16/13	<0.2	1.78 J	<0.2	<0.2	<0.2	<0.2		NT	20	NS
	11/15/13	NT	1.48	<0.2	<0.2	<0.2	<0.2		NT		
	2/15/14	NT	1.23	<0.2	<0.2	<0.2	<0.2		NT		
	5/24/14	<0.2	1.29	<0.2	<0.2	<0.2	<0.2	<0.2	NT		
	11/18/14	NT	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	NT		
	6/26/15	NT	0.95	<0.2	<0.2	<0.2	<0.2	<0.2	NT		
	12/7/15	NT	0.80 J	<0.34	<0.34	<0.34	<0.34	<0.34	NT		
	3/24/16	NT	1.07	<0.34	<0.34	<0.34	<0.34	<0.34	NT		
1,2-Dichloropropane (ug/l)	10/13/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0	0.6	5
	3/9/13	<1.0	4.7	<1.0	<1.0	<1.0	<1.0		<1.0		
	8/16/13	<0.3	4.38	<0.3	<0.3	<0.3	<0.3		NT		
	11/15/13	NT	3.77	<0.6	<0.6	<0.6	<0.6		NT		
	2/15/14	NT	2.92	<0.6	<0.6	<0.6	<0.6		NT		
	5/24/14	<0.6	3.02	<0.6	<0.6	<0.6	<0.6	<0.6	NT		
	11/18/14	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	NT		
	6/26/15	NT	2.83	<0.6	<0.6	<0.6	<0.6	<0.6	NT		
	12/7/15	NT	3.80	<0.30	<0.30	<0.30	<0.30	<0.30	NT		
	3/24/16	NT	3.68	<0.30	<0.30	<0.30	<0.30	<0.30	NT		
1,3-Dichlorobenzene (ug/l)	8/16/13	<0.2	0.63	<0.2	<0.2	<0.2	<0.2		NT	200	NS
	11/15/13	NT	0.51 J	<0.2	<0.2	<0.2	<0.2		NT		
	2/15/14	NT	0.43 J	<0.2	<0.2	<0.2	<0.2		NT		
	5/24/24	<0.2	0.44 J	<0.2	<0.2	<0.2	<0.2	<0.2	NT		

TABLE 2. *Summary of Ground Water Results above 15A NCAC 2L .0202 Standards*

Analyte	Date	MW1	MW7	MW8	MW9	MW10	MW11	MW12	Tap Water	15A NCAC 2L .0202 (4/2013)	Federal MCL
1,3-Dichlorobenzene (ug/l)	11/18/14	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	NT	200	NS
	6/26/15	NT	0.36	<0.2	<0.2	<0.2	<0.2	<0.2	NT		
	12/7/15	NT	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22			
	3/24/16	NT	0.25 J	<0.22	<0.22	<0.22	<0.22	<0.22			
1,4-Dichlorobenzene (ug/l)	8/16/13	<0.2	0.41	<0.2	<0.2	<0.2	<0.2		NT	6	NS
	11/15/13	NT	0.42	<0.2	<0.2	<0.2	<0.2		NT		
	2/15/14	NT	<0.4	<0.4	<0.4	<0.4	<0.4		NT		
	5/24/14	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	NT		
	11/18/14	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	NT		
	6/26/15	NT	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	NT		
	12/7/15	NT	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	NT		
	3/24/16	NT	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	NT		
2-Chlorotoluene (ug/l)	8/16/13	<0.2	0.45	<0.2	<0.2	<0.2	<0.2		NT	100	NS
	11/15/13	NT	<0.6	<0.6	<0.6	<0.6	<0.6		NT		
	2/15/14	NT	<0.6	<0.6	<0.6	<0.6	<0.6		NT		
	5/24/14	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	NT		
	11/18/14	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	NT		
	6/26/15	NT	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	NT		
	12/7/15	NT	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	NT		
	3/24/16	NT	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	NT		
Tetrachloroethene (ug/l)	10/13/11	<1.0	<1.0	<1.0	<1.0	3.1	<1.0		<1.0	0.7	5
	3/9/13	0.51J	2.3	<1.0	<1.0	8.5	<1.0		29		
	8/16/13	0.62 J	2.32	<0.2	<0.2	17.5	<0.2		NT		
	11/15/13	NT	1.68	<0.4	<0.4	6.66	<0.4		NT		
	2/15/14	NT	1.02	<0.4	<0.4	7.60	<0.4		NT		
	5/24/14	0.40 J	1.17	<0.4	<0.4	7.25	<0.4	3.84	NT		
	11/18/14	0.25 J	1.1	<1.0	<1.0	7.0	<1.0	5.6	NT		
	6/26/15	NT	1.43	<0.3	<0.4	5.88	<0.4	4.61	NT		
	12/7/15	NT	0.99 J	<0.37	<0.37	6.34	<0.37	2.92			
	3/24/16	NT	1.12	<0.37	<0.37	5.13	<0.37	4.08			
Trichloroethene (ug/l)	10/13/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0	3	5
	3/9/13	<1.0	0.59J	<1.0	<1.0	0.80J	<1.0		1.2		
	8/16/13	<0.2	0.51 J	<0.2	<0.2	2.07	<0.2		NT		
	11/15/13	NT	0.38 J	<0.3	<0.3	0.38 J	<0.3		NT		
	2/15/14	NT	0.31 J	<0.3	<0.3	0.72	<0.3		NT		

TABLE 2. *Summary of Ground Water Results above 15A NCAC 2L .0202 Standards*

Analyte	Date	MW1	MW7	MW8	MW9	MW10	MW11	MW12	Tap Water	15A NCAC 2L .0202 (4/2013)	Federal MCL
Trichloroethene (ug/l)	5/24/14	<0.3	0.36 J	<0.3	<0.3	0.81 J	<0.3	0.31 J	NT	3	5
	11/18/14	<1.0	0.23 J	<1.0	<1.0	0.44 J	<1.0	0.27 J	NT		
	6/26/15	NT	0.34	<0.3	<0.3	0.40 J	<0.3	0.31 J	NT		
	12/7/15	NT	<0.39	<0.39	<0.39	0.635 J	<0.39	<0.39	NT		
	3/24/16	NT	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	NT		
Naphthalene (ug/l)	6/26/15	NT	0.81 J	<0.5	<0.5	<0.5	<0.5	<0.5	NT	6	NS
	12/7/15	NT	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NT		
	3/24/16	NT	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NT		

Note:
ug/l = micrograms/liter
mg/l = milligrams/liter
red exceeds standard
J=<RL>MDL
NT = Not Tested
NS = No Standard

The next semi-annual NAM sampling event is scheduled for late September 2016. Should you have any questions regarding this project, please contact me at 804.991.3213.

Sincerely,

B. Thomas Houghton

B. Thomas Houghton, Principal
North Carolina Professional Geologist #1291
REC #140

cc: Ms. Shelly Lane - Landmark Asset Services

List of Attachments:

Attachment 1: Remediating Party Document Certification Statement (.0306(B)(2)) Form No. DC-I and the Registered Site Manager Document Certification Statement (.0306(b)(1)) Form No. DC-II
Attachment 2: Figure 1 - Site Vicinity Map
Figure 2 - Detailed Site Map
Figure 3 - Potentiometric Surface Map – December 2015
Figure 4 - Potentiometric Surface Map – March 2016
Attachment 3: Ground Water Sampling Logs
Attachment 4: Soil and Ground Water Certificates of Analyses and Chain of Custody
Attachment 5: References

REFERENCES

- Soil Conservation Service.
- Department of Natural Resources and Community Development. *Geologic Map of North Carolina, 1985.*
- Federal Emergency Management Agency (FEMA).
- U.S. Department of the Interior, Geological Survey. *7.5 Minute Topographic Map, Mount Airy, North Carolina Quadrangle*, *1996.*
- Adams Millis Letters dated, 2/22/93, 3/18/94.
- IEA Letter dated, 2/16/93.
- Aquaterra Reports dated, 3/15/94 and 5/17/96
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ATTACHMENT 1

Remediating Party Document Certification Statement (.0306(B)(2)) Form No. DC-I and the Registered Site Manager Document Certification Statement (.0306(b)(1)) Form No. DC-II

REC PROGRAM DOCUMENT CERTIFICATION FORM - PAGE 1 OF 2
IHSB SITE NAME Adams Mill Plant
DATE & NAME OF DOCUMENT NAM Progress Report Year 3 - Is
TYPE OF SUBMITTAL (circle all that apply): Report, Work plan, Work Phase Comp. Statement, Schedule Change

REMEDIATING PARTY DOCUMENT CERTIFICATION STATEMENT (.0306(B)(2))

"I certify under penalty of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Lisa A Sari
Name of Remediating Party

Lisa A. Sari
Signature of Remediating Party

06/22/2016
Date

NOTARIZATION

NC (Enter State)

FORSYTH **COUNTY**

I, Shelly S. Lane, a Notary Public of said County and State, do hereby certify that Lisa A. Sari did personally appear and sign before me this day, produced proper identification in the form of personally known, was duly sworn or affirmed, and declared that, to the best of his or her knowledge and belief, after thorough investigation, the information contained in the above certification is true and accurate, and he or she then signed this Certification in my presence.

WITNESS my hand and official seal this 22 day of June, 2016.

Shelly S. Lane
Notary Public (signature)

(OFFICIAL SEAL)

SHELLY S. LANE
NOTARY
MY COMMISSION EXPIRES 5/22/2017
PUBLIC
IREDELL COUNTY, NC

My commission expires: 05/22/2017

Document Certification Form No. DC - I
(Revised 8/11)

REC PROGRAM DOCUMENT CERTIFICATION FORM - PAGE 2 OF 2

IHSB SITE NAME Adams Mill Plant

DATE & NAME OF DOCUMENT HAM Progress Report Year 3 - 1st Sem

TYPE OF SUBMITTAL (circle all that apply): Report, Work plan, Work Phase Comp. Statement, Schedule Change

REGISTERED SITE MANAGER CERTIFICATION OF SIGNATURES

As the Registered Environmental Consultant for the Site for which this filing is made, I certify that the signatures included herewith are genuine and authentic original handwritten signatures and/or true, accurate, and complete copies of the genuine and authentic original handwritten signatures of the persons who purport to sign for this filing. I further certify that I have collected through reliable means the originals and/or copies of said signatures from the persons authorized to sign for this filing who, in fact, signed the originals thereof. Those persons and I understand and agree that any copies of signatures have the same legally binding effect as original handwritten signatures, and I certify that any person for whom I am submitting a copy of their signature has provided me with their express consent to submit said copy. Additionally, I certify that I am authorized to attest to the genuineness and authenticity of the signatures, both originals and any copies, being submitted herewith and that by signing below, I do in fact attest to the genuineness and authenticity of all the signatures, both originals and copies, being submitted for this filing.

B Thomas Houghton

Name of Registered Site Manager

Signature of Registered Site Manager

06/22/2016

Date

REGISTERED SITE MANAGER DOCUMENT CERTIFICATION STATEMENT (.0306(b)(1))

"I certify under penalty of law that I am personally familiar with the information contained in this submittal, including any and all supporting documents accompanying this certification, and that the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete and complies with the Inactive Hazardous Sites Response Act N.C.G.S. 130A-310, et seq, and the remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

B. Thomas Houghton

Name of Registered Site Manager

Signature of Registered Site Manager

06/22/2016

Date

NOTARIZATION

NC (Enter State)

FORSYTH COUNTY

I, Shelly S. Lane, a Notary Public of said County and State, do hereby certify that B. Thomas Houghton did personally appear and sign before me this day, produced proper identification in the form of personally known, was duly sworn or affirmed, and declared that, he or she is the duly authorized environmental consultant of the remediating party of the property referenced above and that, to the best of his or her knowledge and belief, after thorough investigation, the information contained in the above certifications is true and accurate, and he or she then signed these Certifications in my presence.

WITNESS my hand and official seal this 22 day of June, 2016.

(OFFICIAL SEAL)

Notary Public (signature)

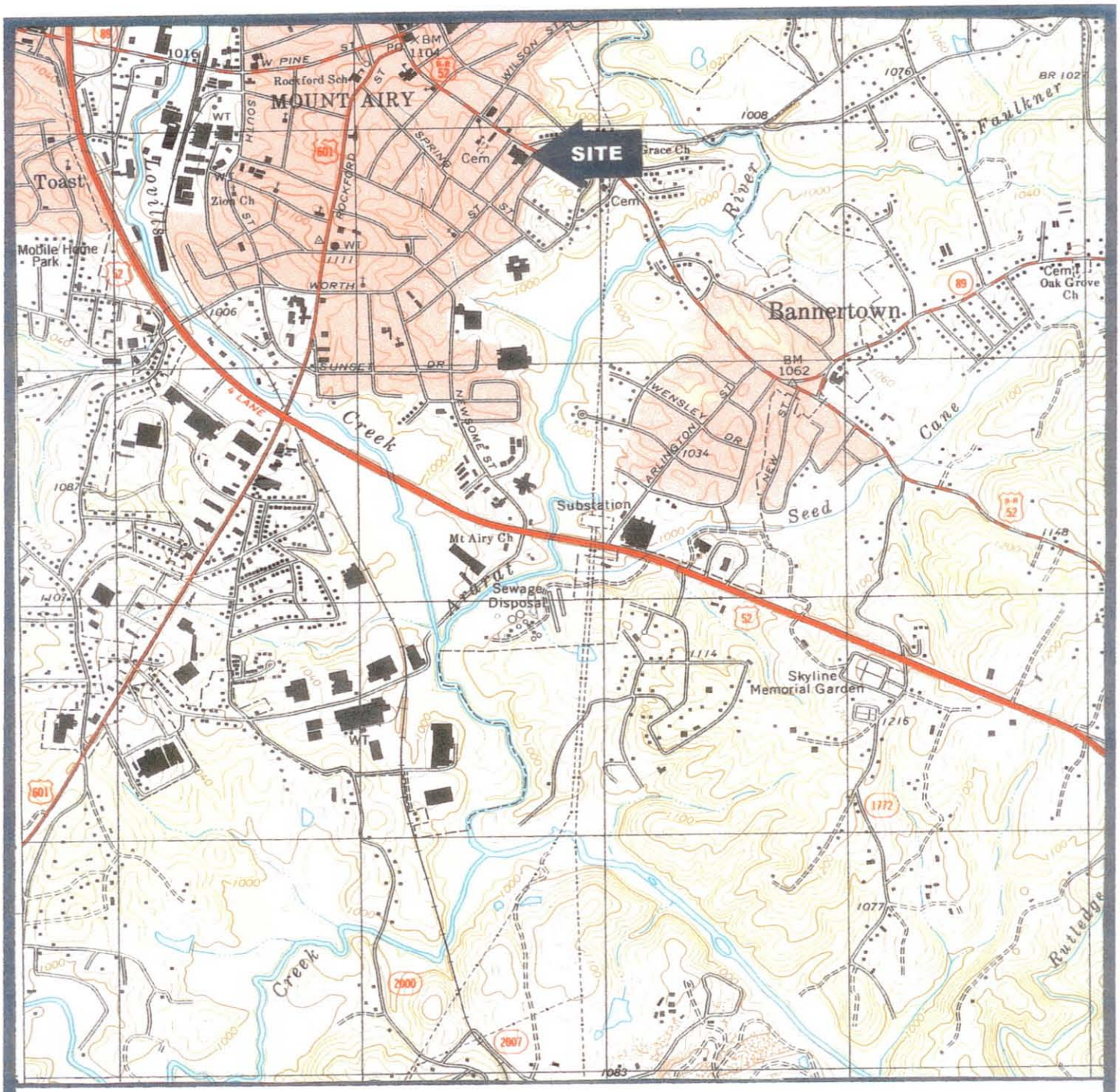
My commission expires: 05/22/2017

SHELLY S. LANE NOTARY PUBLIC MY COMMISSION EXPIRES 5/22/2017 IREDELL COUNTY, NC

Document Certification Form No. DC - II
(Revised 8/11)

ATTACHMENT 2

Figures



SCALE 1:24 000

1 1/2 0 1 MILE

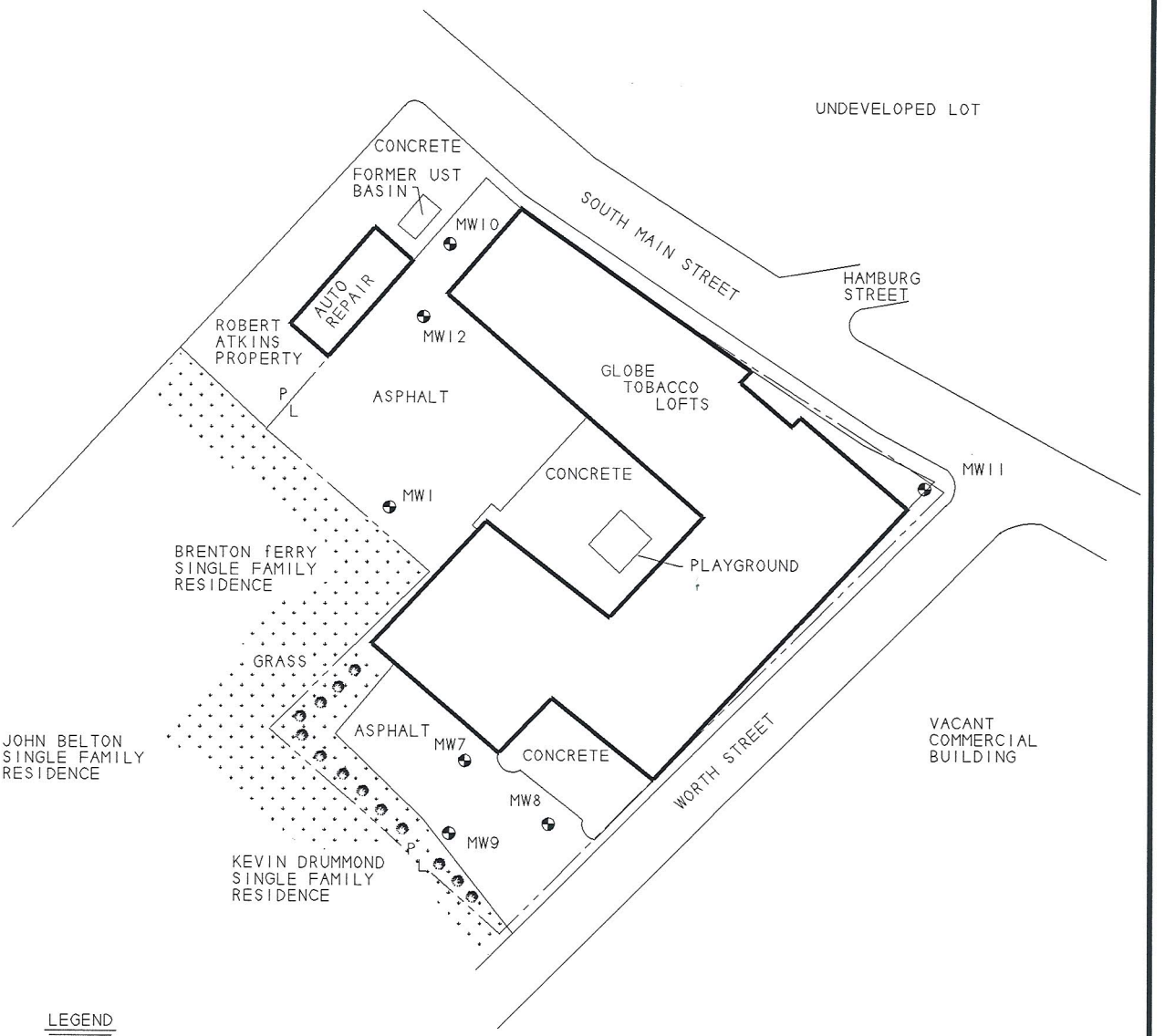
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

USGS 7.5 Minute Topographic Survey Map
Mt. Airy South, NC 1996

Swift Creek Environmental, Inc

8201 County Drive, Disputanta, VA 23842-6144

FIGURE NO.: FIGURE 1	
FIGURE NAME: SITE VICINITY MAP	
CLIENT: Landmark Asset	JOB NO.: 05-028
SITE: Globe Tobacco Lofts Mt. Airy, North Carolina	DATE: 04/2005



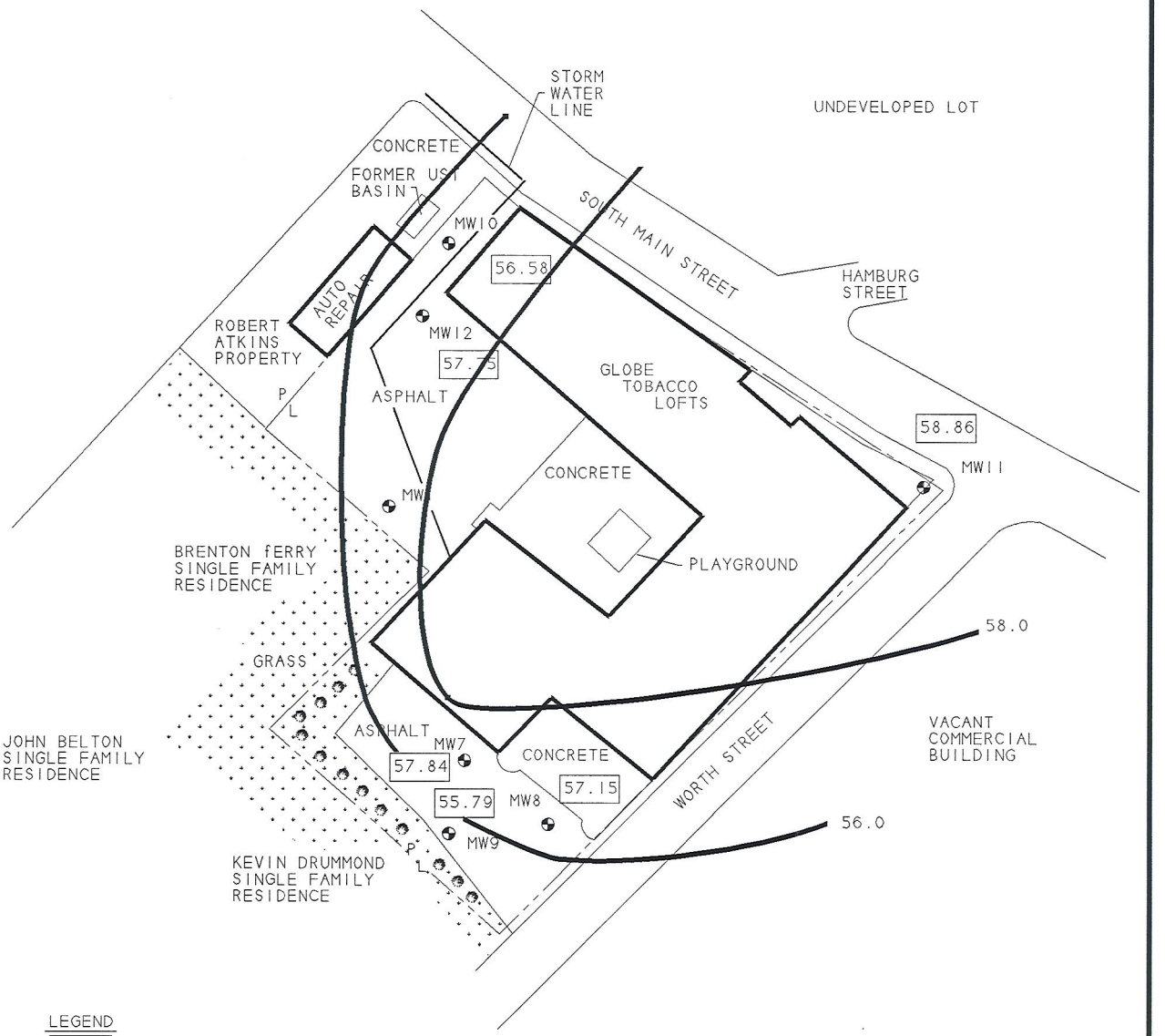
LEGEND

- MONITOR WELL
- SHRUB/TREE
- P L PROPERTY LINE

1 INCH = 80 FEET

Swift Creek Environmental, Inc.
8201 County Drive, Disputanta, VA 23842-6144

FIGURE NO: 2	
FIGURE NAME: DETAILED SITE MAP	
CLIENT: LANDMARK ASSET	JOB NO: 05-028
SITE: GLOBE TOBACCO	DATE: 06/15



LEGEND

MONITOR WELL

SHRUB/TREE

P L PROPERTY LINE

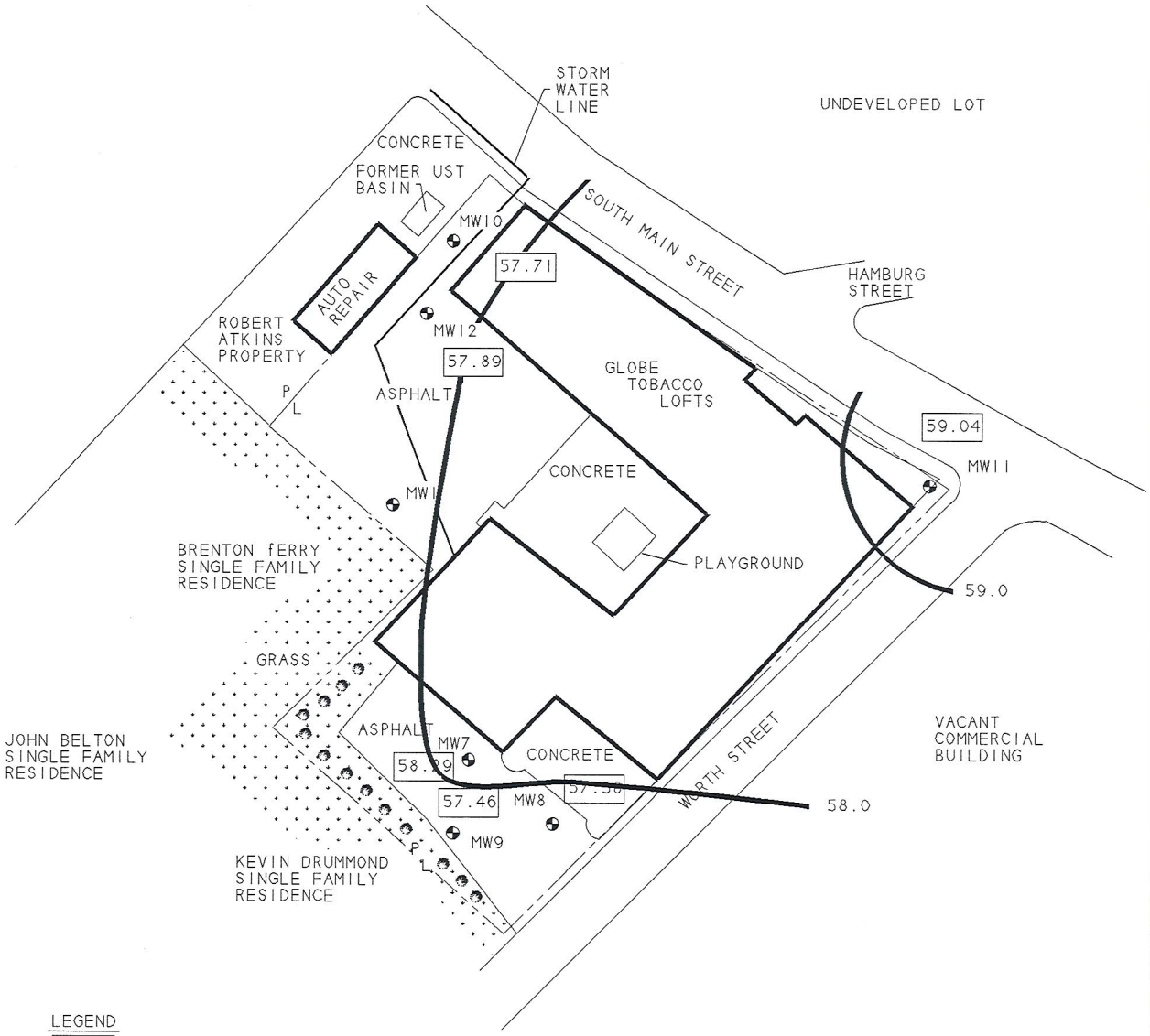
57.84 GROUND WATER ELEVATION AT WELLHEAD

1 INCH = 80 FEET

N

Swift Creek Environmental, Inc.
8201 County Drive, Disputanta, VA 23842-6144

FIGURE NO: 3	
FIGURE NAME: 12/15 POTENTIOMETRIC SURFACE	
CLIENT: LANDMARK ASSET	JOB NO: 05-028
SITE: GLOBE TOBACCO	DATE: 12/15



LEGEND

MONITOR WELL

SHRUB/TREE

P L PROPERTY LINE

57.84 GROUND WATER ELEVATION AT WELLHEAD

1 INCH = 80 FEET

Swift Creek Environmental, Inc.
8201 County Drive, Disputanta, VA 23842-6144

FIGURE NO: 4	
FIGURE NAME: 3/16 POTENTIOMETRIC SURFACE	
CLIENT: LANDMARK ASSET	JOB NO: 05-028
SITE: GLOBE TOBACCO	DATE: 03/16

ATTACHMENT 3

Ground Water Sampling Logs

GROUNDWATER SAMPLING LOG

SITE NAME: Globe Tobacco		SITE LOCATION: 828 S. Main St	
WELL NO: MW7	SAMPLE ID: SC-GT-MW7		DATE: 12/7/15

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 33 feet to 55 feet	STATIC DEPTH TO WATER (feet): 41.87	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (55 feet – 41.87 feet) X .16 gallons/foot = 2.1 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) ACTUAL MEASUREMENTS RECORDED
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 47	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 47	PURGING INITIATED AT: 1230	PURGING ENDED AT: 1303	TOTAL VOLUME PURGED (gallons): 6.3

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1240	2.1	2.5	.5	—	4.91	15.9	1111	2.22	72.3	clear	NA
1250	2.1	4.2	.5	43.94	4.91	15.9	1210	2.12	50.1	↓	
1303	2.1	6.3	.5	46.12	5.00	15.8	1193	2.01	16.3	↓	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: B Houghton / B Crandall	SAMPLER(S) SIGNATURE(S): B.H.	SAMPLING INITIATED AT: 1305	SAMPLING ENDED AT: 1310
PUMP OR TUBING DEPTH IN WELL (feet): 47	TUBING MATERIAL CODE: TPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP (Y) N TUBING Y N (replaced) DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW7	3	CG	40 ml	HCl			8260	ESP	150
MW7	1	PE	500 ml	—			Cl	EST	250

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

GROUNDWATER SAMPLING LOG

SITE NAME: GLOBE TOBACCO	SITE LOCATION: 828 S. MAIN ST
WELL NO: MW 8	SAMPLE ID: SC - GT - MW8
DATE: 12/7/15	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 33 feet to 55 feet	STATIC DEPTH TO WATER (feet): 43.44	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (55 feet – 43.44 feet) X .16 gallons/foot = 1.8 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) ACTUAL MEASUREMENTS RECORDED
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 50	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 50	PURGING INITIATED AT: 1305	PURGING ENDED AT: 1318	TOTAL VOLUME PURGED (gallons): 3.2

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1310	1.8	1.8	1	43.91	5.15	15.7	647	2.31	2.12	clear	N/A
1314	1.8	2.4	1	44.00	5.25	15.6	651	2.33	1.17	↓	
1318	1.8	3.2	1	45.63	5.21	15.1	651	2.36	6.34	↓	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: B Houghton / B Crandall	SAMPLER(S) SIGNATURE(S): B. H	SAMPLING INITIATED AT: 1320	SAMPLING ENDED AT: 1325
PUMP OR TUBING DEPTH IN WELL (feet): 50	TUBING MATERIAL CODE: T/PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW8	3	CG	40 ml	HCl			8260	ESP	150
MW8	1	PE	500 ml	—			Cl	ESP	250

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

GROUNDWATER SAMPLING LOG

SITE NAME: Globe Tobacco		SITE LOCATION: 828 S. Main St	
WELL NO: MW9	SAMPLE ID: SC-GT-MW9		DATE: 12-7-15

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 33 feet to 55 feet	STATIC DEPTH TO WATER (feet): 42.00	PURGE PUMP TYPE OR BAILER: EST

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (55 feet – 42 feet) X .16 gallons/foot = 2 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) ACTUAL MEASUREMENTS RECORDED
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 47	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 47	PURGING INITIATED AT: 1301	PURGING ENDED AT: 1335	TOTAL VOLUME PURGED (gallons): 6

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1313	2	2	.3	–	5.15	16.0	610	2.61	171	cloudy	chloride
1321	2	4	.3	–	5.21	15.9	567	2.53	195	↓	↓
1335	2	6	.3	46.10	5.09	15.4	567	2.31	201		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: B Houghton / R Crandall	SAMPLER(S) SIGNATURE(S): B.R	SAMPLING INITIATED AT: 1340	SAMPLING ENDED AT: 1347
PUMP OR TUBING DEPTH IN WELL (feet): 47	TUBING MATERIAL CODE: T	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW9	3	CG	40 ml	HCl			8260	ESP	150
MW9	1	PE	500 ml	–			CHLORIDE	EST/B	–

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

GROUNDWATER SAMPLING LOG

SITE NAME: GLOBE TOBACCO		SITE LOCATION: 828 S MAIN ST	
WELL NO: MW10	SAMPLE ID: SC-GT-MW10		DATE: 12/7/15

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 19 feet to 39 feet	STATIC DEPTH TO WATER (feet): 32.00	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (39 feet – 32.00 feet) X .16 gallons/foot = 1.1 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
ACTUAL MEASUREMENTS RECORDED
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 37	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 37	PURGING INITIATED AT: 1155	PURGING ENDED AT: 1204	TOTAL VOLUME PURGED (gallons): 3.3

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1157	1.1	1.1	.75	33.19	6.10	15.7	127	2.32	10.15	clear	NA
1200	1.1	2.2	.75	34.27	6.12	15.6	132	2.34	12.64	↓	
1204	1.1	3.3	.75	35.10	6.12	15.0	134	2.36	13.91	↓	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: B HOUGHTON / R CRANDALL	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1205	SAMPLING ENDED AT: 1210
PUMP OR TUBING DEPTH IN WELL (feet): 37	TUBING MATERIAL CODE: T/PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW10	3	CG	40ml	HCl			8260	ESP	250
MW10	1	PE	500ml	–			Cl	ESP	250

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

GROUNDWATER SAMPLING LOG

SITE NAME: GLOBE TOBACCO		SITE LOCATION: 829 S MAIN ST.	
WELL NO: MW11	SAMPLE ID: SC-GT-MW11		DATE: 12/7/15

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 40 feet to 60 feet	STATIC DEPTH TO WATER (feet): 45.25	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (60 feet – 45.25 feet) X .16 gallons/foot = 2.4 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) ACTUAL MEASUREMENTS RECORDED
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 50	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 50	PURGING INITIATED AT: 1120	PURGING ENDED AT: 1138	TOTAL VOLUME PURGED (gallons): 7.2

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1126	2.4	2.4	1	46.24	5.55	15.7	242	2.32	8.94	clear	NA
1130	2.4	4.8	1	–	5.55	15.7	251	2.71	10.11	↓	
1138	2.4	7.2	1	–	5.65	15.6	261	2.61	9.98	↓	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: B HOUGHTON / R CRANDOL	SAMPLER(S) SIGNATURE(S): B. R	SAMPLING INITIATED AT: 1140	SAMPLING ENDED AT: 1144
PUMP OR TUBING DEPTH IN WELL (feet): 50	TUBING MATERIAL CODE: PE/T	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
MW11	3	CG	40 ml	HCl			8260	ESP	250
MW11	1	PE	500 ml	–			Cl	ESP	250

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

GROUNDWATER SAMPLING LOG

SITE NAME: Globe Tobacco		SITE LOCATION: 828 S. Main St	
WELL NO: MW12	SAMPLE ID: SC-GT-MW12		DATE: 12/7/15

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 20 feet to 40 feet	STATIC DEPTH TO WATER (feet): 33.01	PURGE PUMP TYPE OR BAILER: EST

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (40 feet – 33.01 feet) X .16 gallons/foot = 1.1 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
ACTUAL MEASUREMENTS RECORDED
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 38	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 38	PURGING INITIATED AT: 1203	PURGING ENDED AT: 1225	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1210	1.1	1.1	.25	—	6.21	15.9	571	2.22	16.4	clear	
1217	1.1	2.2	.25	33.87	6.17	15.8	571	2.34	18.9		
1225	1.1	3.3	.25	34.00	6.17	15.9	571	2.07	22.3		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: B Houghton / R Crandall	SAMPLER(S) SIGNATURE(S): B. H	SAMPLING INITIATED AT: 1230	SAMPLING ENDED AT: 1239
PUMP OR TUBING DEPTH IN WELL (feet): 38	TUBING MATERIAL CODE:	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW12	3	CG	40 ml	HCl			8260	ESP	150
MW12	1	PE	500 ml	—			Cl	B	—

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

GROUNDWATER SAMPLING LOG

SITE NAME: GLOBE TOBACCO		SITE LOCATION: 828 S. MAIN ST
WELL NO: MW7	SAMPLE ID: SC - GT - MW 7	DATE: 3/24-16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 33 feet to 55 feet	STATIC DEPTH TO WATER (feet): 41.42	PURGE PUMP TYPE OR BAILER: EST

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (55 feet – 41.42 feet) X .16 gallons/foot = 2.2 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
ACTUAL MEASUREMENTS RECORDED
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 46	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 46	PURGING INITIATED AT: 1201	PURGING ENDED AT: 1230	TOTAL VOLUME PURGED (gallons): 6.6

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1211	2.2	2.2	.3	43.21	5.00	16.9	1017	—	13.72	Clear	Chlorine
1221	2.2	4.4	.3	—	5.00	17.2	1027	2.09	16.54	↓	↓
1230	2.2	6.6	.3	44.01	5.01	16.9	1016	2.08	13.94	↓	↓

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: B Houghton / B Grandall	SAMPLER(S) SIGNATURE(S): B. R	SAMPLING INITIATED AT: 1235	SAMPLING ENDED AT: 1241
PUMP OR TUBING DEPTH IN WELL (feet): 46-47	TUBING MATERIAL CODE: T / PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW7	2	CG	40 ml	HCl			8260	EST	150
MW7	1	PE	500 ml	—			—	EST/B	250/B

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

GROUNDWATER SAMPLING LOG

SITE NAME: Globe Tobacco		SITE LOCATION: 828 S. Main St	
WELL NO: MW8	SAMPLE ID: SC-GT-MW8		DATE: 3/24/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 33 feet to 55 feet	STATIC DEPTH TO WATER (feet): 43.01	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (55 feet – 43.01 feet) X .16 gallons/foot = 1.9 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) ACTUAL MEASUREMENTS RECORDED
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 50	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 50	PURGING INITIATED AT: 1140	PURGING ENDED AT: 1210	TOTAL VOLUME PURGED (gallons): 5.7

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1151	1.9	1.9	.3	–	5.55	16.3	721	3.21	6.10	clear	NA
1200	1.9	3.8	.3	–	5.55	16.9	636	3.33	6.10		
1210	1.9	5.7	.3	46.71	5.71	17.2	641	3.47	4.85		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: B Houghton / R Crandall	SAMPLER(S) SIGNATURE(S): B. R	SAMPLING INITIATED AT: 1215	SAMPLING ENDED AT: 1229
PUMP OR TUBING DEPTH IN WELL (feet): 50	TUBING MATERIAL CODE: Tpe	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW8	2	CG	40 ml	HCl			8260	ESP	150
MW8	1	PE	500 ml	–			Cl	ESP/B	150

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

GROUNDWATER SAMPLING LOG

SITE NAME: GLOBE TOBACCO		SITE LOCATION: 823 S. MAIN ST	
WELL NO: MW9	SAMPLE ID: SET CT - MW9		DATE: 3/24/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 35 feet to 55 feet	STATIC DEPTH TO WATER (feet): 41.12	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (55 feet – 41.12 feet) X .16 gallons/foot = 2.2 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
ACTUAL MEASUREMENT RECORDED
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 50	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 50	PURGING INITIATED AT: 1221	PURGING ENDED AT: 1250	TOTAL VOLUME PURGED (gallons): 6.6

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1230	2.2	2.2	.3	42.00	4.94	16.4	666	2.79	231	cloudy	chlorine
1239	2.2	4.4	.3	—	4.94	16.9	612	2.61	181	✓	✓
1250	2.2	6.6	.3	43.91	4.94	17.1	603	2.41	200	✓	✓

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: B. Houghton / R. Crandall	SAMPLER(S) SIGNATURE(S): B. T.	SAMPLING INITIATED AT: 1255	SAMPLING ENDED AT: 1305
PUMP OR TUBING DEPTH IN WELL (feet): 50	TUBING MATERIAL CODE: T/PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW9	2	CG	40 ml	HCl			8260	ESP	150
MW9	1	PE	500 ml	—			Cl	D	—

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

GROUNDWATER SAMPLING LOG

SITE NAME: GLOBE TOBACCO		SITE LOCATION: 828 S. MAIN ST	
WELL NO: MW10	SAMPLE ID: SC-GT-MW10		DATE: 3/24/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 19 feet to 39 feet	STATIC DEPTH TO WATER (feet): 31.49	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (39 feet – 31.49 feet) X .16 gallons/foot = 1.2 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
ACTUAL MEASUREMENTS RECORDED
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 36	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 36	PURGING INITIATED AT: 1100	PURGING ENDED AT: 1131	TOTAL VOLUME PURGED (gallons): 3.6

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1109	1.2	1.2	.25	31.79	6.22	16.4	217	3.33	16.54	CLEAR	N/A
1122	1.2	2.4	.25	32.01	6.22	16.9	222	2.84	16.87	↓	
1131	1.2	3.6	.25	32.03	6.17	16.9	223	2.81	16.33		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: B Houston / R Crandall	SAMPLER(S) SIGNATURE(S): B. R	SAMPLING INITIATED AT: 1140	SAMPLING ENDED AT: 1152
PUMP OR TUBING DEPTH IN WELL (feet): 36	TUBING MATERIAL CODE: TPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW10	2	CG	40 ml	HCl			8260	ESP	150
MW10	1	PE	500ml	–			Cl	TB	–

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

GROUNDWATER SAMPLING LOG

SITE NAME: Globe Tobacco		SITE LOCATION: 828 S. Main St.	
WELL NO: MW11	SAMPLE ID: SC - GT - MW11		DATE: 3/24/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 40 feet to 60 feet	STATIC DEPTH TO WATER (feet): 45.07	PURGE PUMP TYPE OR BAILER: EST

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (60 feet – 45.07 feet) X .16 gallons/foot = 2.2 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) ACTUAL MEASUREMENTS RECORDED
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 52	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 52	PURGING INITIATED AT: 1005	PURGING ENDED AT: 1045	TOTAL VOLUME PURGED (gallons): 6.6

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1019	2.2	2.2	.3	–	5.61	16.1	333	6.32	18.41	clear	n/a
1027	2.2	4.4	.3	–	5.63	16.1	–	2.47	10.94		
1045	2.2	6.6	.3	–	5.61	16.5	291	2.51	9.32		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: PD Houghton / R Crandall	SAMPLER(S) SIGNATURE(S): PD. H	SAMPLING INITIATED AT: 1050	SAMPLING ENDED AT: 1101
PUMP OR TUBING DEPTH IN WELL (feet): 52	TUBING MATERIAL CODE: T/PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW11	2	CG	40 ml	HCl			8260	ESP	750
MW11	1	PE	500 ml	–			–	ESP/B	250

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

GROUNDWATER SAMPLING LOG

SITE NAME: Globe Tobacco		SITE LOCATION: 828 S. Main St	
WELL NO: MW12	SAMPLE ID: SC-GT-MW12		DATE: 3/24/16

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 20 feet to 40 feet	STATIC DEPTH TO WATER (feet): 32.87	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (40 feet – 32.87 feet) X .16 gallons/foot = 1.1 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) ACTUAL MEASUREMENTS RECORDED
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 37	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 37	PURGING INITIATED AT: 1031	PURGING ENDED AT: 1109	TOTAL VOLUME PURGED (gallons): 3.3

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1042	1.1	1.1	.2	33.16	6.00	16.9	521	2.17	14.31	clear	None
1100	1.1	2.2	.2	34.12	6.09	16.9	524	2.18	10.01	↓	↓
1109	1.1	3.3	.2	—	6.11	—	584	2.32	17.12	↓	↓

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: B Hocking / R Crandall	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1115	SAMPLING ENDED AT: 1126
PUMP OR TUBING DEPTH IN WELL (feet): 37	TUBING MATERIAL CODE: T/PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y N (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW12	2	CG	40ml	HCl			8260	ESP	150
MW12	1	PE	500ml	—			Cl	B	

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

ATTACHMENT 4

Certificates of Analyses and Chain of Custody's

ANALYTICAL REPORT

December 21, 2015

Swift Creek Environmental, Inc.

Sample Delivery Group:	L805914
Samples Received:	12/10/2015
Project Number:	05-028
Description:	Glob Tobacco
Site:	GLOB TOBACCO
Report To:	Mr. Tom Houghton 8201 County Drive Disputanta, VA 23842

Entire Report Reviewed By:

T. Alan Harvill
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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SC-GT-MW-7 L805914-01 GW

Collected by: Robert A. Crandall | Collected date/time: 12/07/15 13:05 | Received date/time: 12/10/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG834853	1	12/19/15 14:36	12/19/15 14:36	ACG
Wet Chemistry by Method 9056A	WG835162	100	12/15/15 11:03	12/15/15 11:03	NJM

SC-GT-MW-8 L805914-02 GW

Collected by: Robert A. Crandall | Collected date/time: 12/07/15 13:20 | Received date/time: 12/10/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG834853	1	12/19/15 14:54	12/19/15 14:54	ACG
Wet Chemistry by Method 9056A	WG835162	1	12/15/15 11:16	12/15/15 11:16	NJM

SC-GT-MW-9 L805914-03 GW

Collected by: Robert A. Crandall | Collected date/time: 12/07/15 13:40 | Received date/time: 12/10/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG834853	1	12/19/15 15:12	12/19/15 15:12	ACG
Wet Chemistry by Method 9056A	WG835162	10	12/15/15 11:30	12/15/15 11:30	NJM

SC-GT-MW-10 L805914-04 GW

Collected by: Robert A. Crandall | Collected date/time: 12/07/15 12:05 | Received date/time: 12/10/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG834853	1	12/19/15 15:30	12/19/15 15:30	ACG
Wet Chemistry by Method 9056A	WG835162	1	12/15/15 11:44	12/15/15 11:44	NJM

SC-GT-MW-11 L805914-05 GW

Collected by: Robert A. Crandall | Collected date/time: 12/07/15 11:40 | Received date/time: 12/10/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG834853	1	12/19/15 15:47	12/19/15 15:47	ACG
Wet Chemistry by Method 9056A	WG835162	1	12/15/15 11:58	12/15/15 11:58	NJM

SC-GT-MW-12 L805914-06 GW

Collected by: Robert A. Crandall | Collected date/time: 12/07/15 12:30 | Received date/time: 12/10/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG837111	1	12/20/15 02:04	12/20/15 02:04	JAH
Wet Chemistry by Method 9056A	WG835162	1	12/15/15 12:12	12/15/15 12:12	NJM

TRIP BLANK L805914-07 GW

Collected by: Robert A. Crandall | Collected date/time: 12/07/15 00:00 | Received date/time: 12/10/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG837111	1	12/20/15 02:22	12/20/15 02:22	JAH

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

T. Alan Harvill
Technical Service Representative

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	2790		5.19	100	100	12/15/2015 11:03	WG835162

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	12/19/2015 14:36	WG834853
Acrolein	U		0.00887	0.0500	1	12/19/2015 14:36	WG834853
Acrylonitrile	U		0.00187	0.0100	1	12/19/2015 14:36	WG834853
Benzene	U		0.000331	0.00100	1	12/19/2015 14:36	WG834853
Bromobenzene	U		0.000352	0.00100	1	12/19/2015 14:36	WG834853
Bromodichloromethane	0.000531	J	0.000380	0.00100	1	12/19/2015 14:36	WG834853
Bromoform	U		0.000469	0.00100	1	12/19/2015 14:36	WG834853
Bromomethane	U		0.000866	0.00500	1	12/19/2015 14:36	WG834853
n-Butylbenzene	U		0.000361	0.00100	1	12/19/2015 14:36	WG834853
sec-Butylbenzene	U		0.000365	0.00100	1	12/19/2015 14:36	WG834853
tert-Butylbenzene	U		0.000399	0.00100	1	12/19/2015 14:36	WG834853
Carbon tetrachloride	U		0.000379	0.00100	1	12/19/2015 14:36	WG834853
Chlorobenzene	U		0.000348	0.00100	1	12/19/2015 14:36	WG834853
Chlorodibromomethane	U		0.000327	0.00100	1	12/19/2015 14:36	WG834853
Chloroethane	U		0.000453	0.00500	1	12/19/2015 14:36	WG834853
2-Chloroethyl vinyl ether	U	J4	0.00301	0.0500	1	12/19/2015 14:36	WG834853
Chloroform	0.0709		0.000324	0.00500	1	12/19/2015 14:36	WG834853
Chloromethane	U		0.000276	0.00250	1	12/19/2015 14:36	WG834853
2-Chlorotoluene	U		0.000375	0.00100	1	12/19/2015 14:36	WG834853
4-Chlorotoluene	U		0.000351	0.00100	1	12/19/2015 14:36	WG834853
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	12/19/2015 14:36	WG834853
1,2-Dibromoethane	U		0.000381	0.00100	1	12/19/2015 14:36	WG834853
Dibromomethane	U		0.000346	0.00100	1	12/19/2015 14:36	WG834853
1,2-Dichlorobenzene	0.000800	J	0.000349	0.00100	1	12/19/2015 14:36	WG834853
1,3-Dichlorobenzene	U		0.000220	0.00100	1	12/19/2015 14:36	WG834853
1,4-Dichlorobenzene	U		0.000274	0.00100	1	12/19/2015 14:36	WG834853
Dichlorodifluoromethane	U		0.000551	0.00500	1	12/19/2015 14:36	WG834853
1,1-Dichloroethane	U		0.000259	0.00100	1	12/19/2015 14:36	WG834853
1,2-Dichloroethane	U		0.000361	0.00100	1	12/19/2015 14:36	WG834853
1,1-Dichloroethene	U		0.000398	0.00100	1	12/19/2015 14:36	WG834853
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	12/19/2015 14:36	WG834853
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	12/19/2015 14:36	WG834853
1,2-Dichloropropane	0.00380		0.000306	0.00100	1	12/19/2015 14:36	WG834853
1,1-Dichloropropene	U		0.000352	0.00100	1	12/19/2015 14:36	WG834853
1,3-Dichloropropane	U		0.000366	0.00100	1	12/19/2015 14:36	WG834853
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	12/19/2015 14:36	WG834853
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	12/19/2015 14:36	WG834853
2,2-Dichloropropane	U		0.000321	0.00100	1	12/19/2015 14:36	WG834853
Di-isopropyl ether	U		0.000320	0.00100	1	12/19/2015 14:36	WG834853
Ethylbenzene	U		0.000384	0.00100	1	12/19/2015 14:36	WG834853
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	12/19/2015 14:36	WG834853
Isopropylbenzene	U		0.000326	0.00100	1	12/19/2015 14:36	WG834853
p-Isopropyltoluene	U		0.000350	0.00100	1	12/19/2015 14:36	WG834853
2-Butanone (MEK)	U		0.00393	0.0100	1	12/19/2015 14:36	WG834853
Methylene Chloride	0.00170	J	0.00100	0.00500	1	12/19/2015 14:36	WG834853
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	12/19/2015 14:36	WG834853
Methyl tert-butyl ether	U		0.000367	0.00100	1	12/19/2015 14:36	WG834853
Naphthalene	U		0.00100	0.00500	1	12/19/2015 14:36	WG834853
n-Propylbenzene	U		0.000349	0.00100	1	12/19/2015 14:36	WG834853
Styrene	U		0.000307	0.00100	1	12/19/2015 14:36	WG834853

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	12/19/2015 14:36	WG834853
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	12/19/2015 14:36	WG834853
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	12/19/2015 14:36	WG834853
Tetrachloroethene	0.000997	J	0.000372	0.00100	1	12/19/2015 14:36	WG834853
Toluene	U		0.000780	0.00500	1	12/19/2015 14:36	WG834853
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	12/19/2015 14:36	WG834853
1,2,4-Trichlorobenzene	0.000561	J	0.000355	0.00100	1	12/19/2015 14:36	WG834853
1,1,1-Trichloroethane	U		0.000319	0.00100	1	12/19/2015 14:36	WG834853
1,1,2-Trichloroethane	U		0.000383	0.00100	1	12/19/2015 14:36	WG834853
Trichloroethene	U		0.000398	0.00100	1	12/19/2015 14:36	WG834853
Trichlorofluoromethane	U		0.00120	0.00500	1	12/19/2015 14:36	WG834853
1,2,3-Trichloropropane	U		0.000807	0.00250	1	12/19/2015 14:36	WG834853
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	12/19/2015 14:36	WG834853
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	12/19/2015 14:36	WG834853
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	12/19/2015 14:36	WG834853
Vinyl chloride	U		0.000259	0.00100	1	12/19/2015 14:36	WG834853
Xylenes, Total	U		0.00106	0.00300	1	12/19/2015 14:36	WG834853
(S) Toluene-d8	*106*			*90.0-115*		*12/19/2015 14:36*	WG834853
(S) Dibromofluoromethane	*104*			*79.0-121*		*12/19/2015 14:36*	WG834853
(S) 4-Bromofluorobenzene	*88.5*			*80.1-120*		*12/19/2015 14:36*	WG834853

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	20.8		0.0519	1.00	1	12/15/2015 11:16	WG835162

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	12/19/2015 14:54	WG834853
Acrolein	U		0.00887	0.0500	1	12/19/2015 14:54	WG834853
Acrylonitrile	U		0.00187	0.0100	1	12/19/2015 14:54	WG834853
Benzene	U		0.000331	0.00100	1	12/19/2015 14:54	WG834853
Bromobenzene	U		0.000352	0.00100	1	12/19/2015 14:54	WG834853
Bromodichloromethane	U		0.000380	0.00100	1	12/19/2015 14:54	WG834853
Bromoform	U		0.000469	0.00100	1	12/19/2015 14:54	WG834853
Bromomethane	U		0.000866	0.00500	1	12/19/2015 14:54	WG834853
n-Butylbenzene	U		0.000361	0.00100	1	12/19/2015 14:54	WG834853
sec-Butylbenzene	U		0.000365	0.00100	1	12/19/2015 14:54	WG834853
tert-Butylbenzene	U		0.000399	0.00100	1	12/19/2015 14:54	WG834853
Carbon tetrachloride	U		0.000379	0.00100	1	12/19/2015 14:54	WG834853
Chlorobenzene	U		0.000348	0.00100	1	12/19/2015 14:54	WG834853
Chlorodibromomethane	U		0.000327	0.00100	1	12/19/2015 14:54	WG834853
Chloroethane	U		0.000453	0.00500	1	12/19/2015 14:54	WG834853
2-Chloroethyl vinyl ether	U	J4	0.00301	0.0500	1	12/19/2015 14:54	WG834853
Chloroform	0.00694		0.000324	0.00500	1	12/19/2015 14:54	WG834853
Chloromethane	U		0.000276	0.00250	1	12/19/2015 14:54	WG834853
2-Chlorotoluene	U		0.000375	0.00100	1	12/19/2015 14:54	WG834853
4-Chlorotoluene	U		0.000351	0.00100	1	12/19/2015 14:54	WG834853
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	12/19/2015 14:54	WG834853
1,2-Dibromoethane	U		0.000381	0.00100	1	12/19/2015 14:54	WG834853
Dibromomethane	U		0.000346	0.00100	1	12/19/2015 14:54	WG834853
1,2-Dichlorobenzene	U		0.000349	0.00100	1	12/19/2015 14:54	WG834853
1,3-Dichlorobenzene	U		0.000220	0.00100	1	12/19/2015 14:54	WG834853
1,4-Dichlorobenzene	U		0.000274	0.00100	1	12/19/2015 14:54	WG834853
Dichlorodifluoromethane	U		0.000551	0.00500	1	12/19/2015 14:54	WG834853
1,1-Dichloroethane	U		0.000259	0.00100	1	12/19/2015 14:54	WG834853
1,2-Dichloroethane	U		0.000361	0.00100	1	12/19/2015 14:54	WG834853
1,1-Dichloroethene	U		0.000398	0.00100	1	12/19/2015 14:54	WG834853
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	12/19/2015 14:54	WG834853
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	12/19/2015 14:54	WG834853
1,2-Dichloropropane	U		0.000306	0.00100	1	12/19/2015 14:54	WG834853
1,1-Dichloropropene	U		0.000352	0.00100	1	12/19/2015 14:54	WG834853
1,3-Dichloropropane	U		0.000366	0.00100	1	12/19/2015 14:54	WG834853
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	12/19/2015 14:54	WG834853
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	12/19/2015 14:54	WG834853
2,2-Dichloropropane	U		0.000321	0.00100	1	12/19/2015 14:54	WG834853
Di-isopropyl ether	U		0.000320	0.00100	1	12/19/2015 14:54	WG834853
Ethylbenzene	U		0.000384	0.00100	1	12/19/2015 14:54	WG834853
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	12/19/2015 14:54	WG834853
Isopropylbenzene	U		0.000326	0.00100	1	12/19/2015 14:54	WG834853
p-Isopropyltoluene	U		0.000350	0.00100	1	12/19/2015 14:54	WG834853
2-Butanone (MEK)	U		0.00393	0.0100	1	12/19/2015 14:54	WG834853
Methylene Chloride	U		0.00100	0.00500	1	12/19/2015 14:54	WG834853
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	12/19/2015 14:54	WG834853
Methyl tert-butyl ether	U		0.000367	0.00100	1	12/19/2015 14:54	WG834853
Naphthalene	U		0.00100	0.00500	1	12/19/2015 14:54	WG834853
n-Propylbenzene	U		0.000349	0.00100	1	12/19/2015 14:54	WG834853
Styrene	U		0.000307	0.00100	1	12/19/2015 14:54	WG834853

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	12/19/2015 14:54	WG834853
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	12/19/2015 14:54	WG834853
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	12/19/2015 14:54	WG834853
Tetrachloroethene	U		0.000372	0.00100	1	12/19/2015 14:54	WG834853
Toluene	U		0.000780	0.00500	1	12/19/2015 14:54	WG834853
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	12/19/2015 14:54	WG834853
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	12/19/2015 14:54	WG834853
1,1,1-Trichloroethane	U		0.000319	0.00100	1	12/19/2015 14:54	WG834853
1,1,2-Trichloroethane	U		0.000383	0.00100	1	12/19/2015 14:54	WG834853
Trichloroethene	U		0.000398	0.00100	1	12/19/2015 14:54	WG834853
Trichlorofluoromethane	U		0.00120	0.00500	1	12/19/2015 14:54	WG834853
1,2,3-Trichloropropane	U		0.000807	0.00250	1	12/19/2015 14:54	WG834853
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	12/19/2015 14:54	WG834853
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	12/19/2015 14:54	WG834853
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	12/19/2015 14:54	WG834853
Vinyl chloride	U		0.000259	0.00100	1	12/19/2015 14:54	WG834853
Xylenes, Total	U		0.00106	0.00300	1	12/19/2015 14:54	WG834853
(S) Toluene-d8	*102*			*90.0-115*		*12/19/2015 14:54*	WG834853
(S) Dibromofluoromethane	*106*			*79.0-121*		*12/19/2015 14:54*	WG834853
(S) 4-Bromofluorobenzene	*83.1*			*80.1-120*		*12/19/2015 14:54*	WG834853

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	179		0.519	10.0	10	12/15/2015 11:30	WG835162

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	12/19/2015 15:12	WG834853
Acrolein	U		0.00887	0.0500	1	12/19/2015 15:12	WG834853
Acrylonitrile	U		0.00187	0.0100	1	12/19/2015 15:12	WG834853
Benzene	U		0.000331	0.00100	1	12/19/2015 15:12	WG834853
Bromobenzene	U		0.000352	0.00100	1	12/19/2015 15:12	WG834853
Bromodichloromethane	U		0.000380	0.00100	1	12/19/2015 15:12	WG834853
Bromoform	U		0.000469	0.00100	1	12/19/2015 15:12	WG834853
Bromomethane	U		0.000866	0.00500	1	12/19/2015 15:12	WG834853
n-Butylbenzene	U		0.000361	0.00100	1	12/19/2015 15:12	WG834853
sec-Butylbenzene	U		0.000365	0.00100	1	12/19/2015 15:12	WG834853
tert-Butylbenzene	U		0.000399	0.00100	1	12/19/2015 15:12	WG834853
Carbon tetrachloride	U		0.000379	0.00100	1	12/19/2015 15:12	WG834853
Chlorobenzene	U		0.000348	0.00100	1	12/19/2015 15:12	WG834853
Chlorodibromomethane	U		0.000327	0.00100	1	12/19/2015 15:12	WG834853
Chloroethane	U		0.000453	0.00500	1	12/19/2015 15:12	WG834853
2-Chloroethyl vinyl ether	U	J4	0.00301	0.0500	1	12/19/2015 15:12	WG834853
Chloroform	0.0173		0.000324	0.00500	1	12/19/2015 15:12	WG834853
Chloromethane	U		0.000276	0.00250	1	12/19/2015 15:12	WG834853
2-Chlorotoluene	U		0.000375	0.00100	1	12/19/2015 15:12	WG834853
4-Chlorotoluene	U		0.000351	0.00100	1	12/19/2015 15:12	WG834853
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	12/19/2015 15:12	WG834853
1,2-Dibromoethane	U		0.000381	0.00100	1	12/19/2015 15:12	WG834853
Dibromomethane	U		0.000346	0.00100	1	12/19/2015 15:12	WG834853
1,2-Dichlorobenzene	U		0.000349	0.00100	1	12/19/2015 15:12	WG834853
1,3-Dichlorobenzene	U		0.000220	0.00100	1	12/19/2015 15:12	WG834853
1,4-Dichlorobenzene	U		0.000274	0.00100	1	12/19/2015 15:12	WG834853
Dichlorodifluoromethane	U		0.000551	0.00500	1	12/19/2015 15:12	WG834853
1,1-Dichloroethane	U		0.000259	0.00100	1	12/19/2015 15:12	WG834853
1,2-Dichloroethane	U		0.000361	0.00100	1	12/19/2015 15:12	WG834853
1,1-Dichloroethene	U		0.000398	0.00100	1	12/19/2015 15:12	WG834853
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	12/19/2015 15:12	WG834853
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	12/19/2015 15:12	WG834853
1,2-Dichloropropane	U		0.000306	0.00100	1	12/19/2015 15:12	WG834853
1,1-Dichloropropene	U		0.000352	0.00100	1	12/19/2015 15:12	WG834853
1,3-Dichloropropane	U		0.000366	0.00100	1	12/19/2015 15:12	WG834853
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	12/19/2015 15:12	WG834853
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	12/19/2015 15:12	WG834853
2,2-Dichloropropane	U		0.000321	0.00100	1	12/19/2015 15:12	WG834853
Di-isopropyl ether	U		0.000320	0.00100	1	12/19/2015 15:12	WG834853
Ethylbenzene	U		0.000384	0.00100	1	12/19/2015 15:12	WG834853
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	12/19/2015 15:12	WG834853
Isopropylbenzene	U		0.000326	0.00100	1	12/19/2015 15:12	WG834853
p-Isopropyltoluene	U		0.000350	0.00100	1	12/19/2015 15:12	WG834853
2-Butanone (MEK)	U		0.00393	0.0100	1	12/19/2015 15:12	WG834853
Methylene Chloride	0.00126	J	0.00100	0.00500	1	12/19/2015 15:12	WG834853
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	12/19/2015 15:12	WG834853
Methyl tert-butyl ether	U		0.000367	0.00100	1	12/19/2015 15:12	WG834853
Naphthalene	U		0.00100	0.00500	1	12/19/2015 15:12	WG834853
n-Propylbenzene	U		0.000349	0.00100	1	12/19/2015 15:12	WG834853
Styrene	U		0.000307	0.00100	1	12/19/2015 15:12	WG834853

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	12/19/2015 15:12	WG834853
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	12/19/2015 15:12	WG834853
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	12/19/2015 15:12	WG834853
Tetrachloroethene	U		0.000372	0.00100	1	12/19/2015 15:12	WG834853
Toluene	U		0.000780	0.00500	1	12/19/2015 15:12	WG834853
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	12/19/2015 15:12	WG834853
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	12/19/2015 15:12	WG834853
1,1,1-Trichloroethane	U		0.000319	0.00100	1	12/19/2015 15:12	WG834853
1,1,2-Trichloroethane	U		0.000383	0.00100	1	12/19/2015 15:12	WG834853
Trichloroethene	U		0.000398	0.00100	1	12/19/2015 15:12	WG834853
Trichlorofluoromethane	U		0.00120	0.00500	1	12/19/2015 15:12	WG834853
1,2,3-Trichloropropane	U		0.000807	0.00250	1	12/19/2015 15:12	WG834853
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	12/19/2015 15:12	WG834853
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	12/19/2015 15:12	WG834853
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	12/19/2015 15:12	WG834853
Vinyl chloride	U		0.000259	0.00100	1	12/19/2015 15:12	WG834853
Xylenes, Total	U		0.00106	0.00300	1	12/19/2015 15:12	WG834853
(S) Toluene-d8	*104*			*90.0-115*		*12/19/2015 15:12*	WG834853
(S) Dibromofluoromethane	*103*			*79.0-121*		*12/19/2015 15:12*	WG834853
(S) 4-Bromofluorobenzene	*81.9*			*80.1-120*		*12/19/2015 15:12*	WG834853

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	10.8		0.0519	1.00	1	12/15/2015 11:44	WG835162

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	12/19/2015 15:30	WG834853
Acrolein	U		0.00887	0.0500	1	12/19/2015 15:30	WG834853
Acrylonitrile	U		0.00187	0.0100	1	12/19/2015 15:30	WG834853
Benzene	U		0.000331	0.00100	1	12/19/2015 15:30	WG834853
Bromobenzene	U		0.000352	0.00100	1	12/19/2015 15:30	WG834853
Bromodichloromethane	U		0.000380	0.00100	1	12/19/2015 15:30	WG834853
Bromoform	U		0.000469	0.00100	1	12/19/2015 15:30	WG834853
Bromomethane	U		0.000866	0.00500	1	12/19/2015 15:30	WG834853
n-Butylbenzene	U		0.000361	0.00100	1	12/19/2015 15:30	WG834853
sec-Butylbenzene	U		0.000365	0.00100	1	12/19/2015 15:30	WG834853
tert-Butylbenzene	U		0.000399	0.00100	1	12/19/2015 15:30	WG834853
Carbon tetrachloride	U		0.000379	0.00100	1	12/19/2015 15:30	WG834853
Chlorobenzene	U		0.000348	0.00100	1	12/19/2015 15:30	WG834853
Chlorodibromomethane	U		0.000327	0.00100	1	12/19/2015 15:30	WG834853
Chloroethane	U		0.000453	0.00500	1	12/19/2015 15:30	WG834853
2-Chloroethyl vinyl ether	U	J4	0.00301	0.0500	1	12/19/2015 15:30	WG834853
Chloroform	0.000686	J	0.000324	0.00500	1	12/19/2015 15:30	WG834853
Chloromethane	U		0.000276	0.00250	1	12/19/2015 15:30	WG834853
2-Chlorotoluene	U		0.000375	0.00100	1	12/19/2015 15:30	WG834853
4-Chlorotoluene	U		0.000351	0.00100	1	12/19/2015 15:30	WG834853
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	12/19/2015 15:30	WG834853
1,2-Dibromoethane	U		0.000381	0.00100	1	12/19/2015 15:30	WG834853
Dibromomethane	U		0.000346	0.00100	1	12/19/2015 15:30	WG834853
1,2-Dichlorobenzene	U		0.000349	0.00100	1	12/19/2015 15:30	WG834853
1,3-Dichlorobenzene	U		0.000220	0.00100	1	12/19/2015 15:30	WG834853
1,4-Dichlorobenzene	U		0.000274	0.00100	1	12/19/2015 15:30	WG834853
Dichlorodifluoromethane	U		0.000551	0.00500	1	12/19/2015 15:30	WG834853
1,1-Dichloroethane	U		0.000259	0.00100	1	12/19/2015 15:30	WG834853
1,2-Dichloroethane	U		0.000361	0.00100	1	12/19/2015 15:30	WG834853
1,1-Dichloroethene	U		0.000398	0.00100	1	12/19/2015 15:30	WG834853
cis-1,2-Dichloroethene	0.00791		0.000260	0.00100	1	12/19/2015 15:30	WG834853
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	12/19/2015 15:30	WG834853
1,2-Dichloropropane	U		0.000306	0.00100	1	12/19/2015 15:30	WG834853
1,1-Dichloropropene	U		0.000352	0.00100	1	12/19/2015 15:30	WG834853
1,3-Dichloropropane	U		0.000366	0.00100	1	12/19/2015 15:30	WG834853
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	12/19/2015 15:30	WG834853
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	12/19/2015 15:30	WG834853
2,2-Dichloropropane	U		0.000321	0.00100	1	12/19/2015 15:30	WG834853
Di-isopropyl ether	U		0.000320	0.00100	1	12/19/2015 15:30	WG834853
Ethylbenzene	U		0.000384	0.00100	1	12/19/2015 15:30	WG834853
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	12/19/2015 15:30	WG834853
Isopropylbenzene	U		0.000326	0.00100	1	12/19/2015 15:30	WG834853
p-Isopropyltoluene	U		0.000350	0.00100	1	12/19/2015 15:30	WG834853
2-Butanone (MEK)	U		0.00393	0.0100	1	12/19/2015 15:30	WG834853
Methylene Chloride	U		0.00100	0.00500	1	12/19/2015 15:30	WG834853
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	12/19/2015 15:30	WG834853
Methyl tert-butyl ether	U		0.000367	0.00100	1	12/19/2015 15:30	WG834853
Naphthalene	U		0.00100	0.00500	1	12/19/2015 15:30	WG834853
n-Propylbenzene	U		0.000349	0.00100	1	12/19/2015 15:30	WG834853
Styrene	U		0.000307	0.00100	1	12/19/2015 15:30	WG834853

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	12/19/2015 15:30	WG834853
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	12/19/2015 15:30	WG834853
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	12/19/2015 15:30	WG834853
Tetrachloroethene	0.00634		0.000372	0.00100	1	12/19/2015 15:30	WG834853
Toluene	U		0.000780	0.00500	1	12/19/2015 15:30	WG834853
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	12/19/2015 15:30	WG834853
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	12/19/2015 15:30	WG834853
1,1,1-Trichloroethane	U		0.000319	0.00100	1	12/19/2015 15:30	WG834853
1,1,2-Trichloroethane	U		0.000383	0.00100	1	12/19/2015 15:30	WG834853
Trichloroethene	0.000635	J	0.000398	0.00100	1	12/19/2015 15:30	WG834853
Trichlorofluoromethane	U		0.00120	0.00500	1	12/19/2015 15:30	WG834853
1,2,3-Trichloropropane	U		0.000807	0.00250	1	12/19/2015 15:30	WG834853
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	12/19/2015 15:30	WG834853
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	12/19/2015 15:30	WG834853
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	12/19/2015 15:30	WG834853
Vinyl chloride	U		0.000259	0.00100	1	12/19/2015 15:30	WG834853
Xylenes, Total	U		0.00106	0.00300	1	12/19/2015 15:30	WG834853
(S) Toluene-d8	*105*			*90.0-115*		*12/19/2015 15:30*	WG834853
(S) Dibromofluoromethane	*104*			*79.0-121*		*12/19/2015 15:30*	WG834853
(S) 4-Bromofluorobenzene	*83.8*			*80.1-120*		*12/19/2015 15:30*	WG834853

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	32.3		0.0519	1.00	1	12/15/2015 11:58	WG835162

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	12/19/2015 15:47	WG834853
Acrolein	U		0.00887	0.0500	1	12/19/2015 15:47	WG834853
Acrylonitrile	U		0.00187	0.0100	1	12/19/2015 15:47	WG834853
Benzene	U		0.000331	0.00100	1	12/19/2015 15:47	WG834853
Bromobenzene	U		0.000352	0.00100	1	12/19/2015 15:47	WG834853
Bromodichloromethane	U		0.000380	0.00100	1	12/19/2015 15:47	WG834853
Bromoform	U		0.000469	0.00100	1	12/19/2015 15:47	WG834853
Bromomethane	U		0.000866	0.00500	1	12/19/2015 15:47	WG834853
n-Butylbenzene	U		0.000361	0.00100	1	12/19/2015 15:47	WG834853
sec-Butylbenzene	U		0.000365	0.00100	1	12/19/2015 15:47	WG834853
tert-Butylbenzene	U		0.000399	0.00100	1	12/19/2015 15:47	WG834853
Carbon tetrachloride	U		0.000379	0.00100	1	12/19/2015 15:47	WG834853
Chlorobenzene	U		0.000348	0.00100	1	12/19/2015 15:47	WG834853
Chlorodibromomethane	U		0.000327	0.00100	1	12/19/2015 15:47	WG834853
Chloroethane	U		0.000453	0.00500	1	12/19/2015 15:47	WG834853
2-Chloroethyl vinyl ether	U	J4	0.00301	0.0500	1	12/19/2015 15:47	WG834853
Chloroform	U		0.000324	0.00500	1	12/19/2015 15:47	WG834853
Chloromethane	U		0.000276	0.00250	1	12/19/2015 15:47	WG834853
2-Chlorotoluene	U		0.000375	0.00100	1	12/19/2015 15:47	WG834853
4-Chlorotoluene	U		0.000351	0.00100	1	12/19/2015 15:47	WG834853
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	12/19/2015 15:47	WG834853
1,2-Dibromoethane	U		0.000381	0.00100	1	12/19/2015 15:47	WG834853
Dibromomethane	U		0.000346	0.00100	1	12/19/2015 15:47	WG834853
1,2-Dichlorobenzene	U		0.000349	0.00100	1	12/19/2015 15:47	WG834853
1,3-Dichlorobenzene	U		0.000220	0.00100	1	12/19/2015 15:47	WG834853
1,4-Dichlorobenzene	U		0.000274	0.00100	1	12/19/2015 15:47	WG834853
Dichlorodifluoromethane	U		0.000551	0.00500	1	12/19/2015 15:47	WG834853
1,1-Dichloroethane	U		0.000259	0.00100	1	12/19/2015 15:47	WG834853
1,2-Dichloroethane	U		0.000361	0.00100	1	12/19/2015 15:47	WG834853
1,1-Dichloroethene	U		0.000398	0.00100	1	12/19/2015 15:47	WG834853
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	12/19/2015 15:47	WG834853
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	12/19/2015 15:47	WG834853
1,2-Dichloropropane	U		0.000306	0.00100	1	12/19/2015 15:47	WG834853
1,1-Dichloropropene	U		0.000352	0.00100	1	12/19/2015 15:47	WG834853
1,3-Dichloropropane	U		0.000366	0.00100	1	12/19/2015 15:47	WG834853
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	12/19/2015 15:47	WG834853
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	12/19/2015 15:47	WG834853
2,2-Dichloropropane	U		0.000321	0.00100	1	12/19/2015 15:47	WG834853
Di-isopropyl ether	U		0.000320	0.00100	1	12/19/2015 15:47	WG834853
Ethylbenzene	U		0.000384	0.00100	1	12/19/2015 15:47	WG834853
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	12/19/2015 15:47	WG834853
Isopropylbenzene	U		0.000326	0.00100	1	12/19/2015 15:47	WG834853
p-Isopropyltoluene	U		0.000350	0.00100	1	12/19/2015 15:47	WG834853
2-Butanone (MEK)	U		0.00393	0.0100	1	12/19/2015 15:47	WG834853
Methylene Chloride	U		0.00100	0.00500	1	12/19/2015 15:47	WG834853
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	12/19/2015 15:47	WG834853
Methyl tert-butyl ether	U		0.000367	0.00100	1	12/19/2015 15:47	WG834853
Naphthalene	U		0.00100	0.00500	1	12/19/2015 15:47	WG834853
n-Propylbenzene	U		0.000349	0.00100	1	12/19/2015 15:47	WG834853
Styrene	U		0.000307	0.00100	1	12/19/2015 15:47	WG834853

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	12/19/2015 15:47	WG834853
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	12/19/2015 15:47	WG834853
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	12/19/2015 15:47	WG834853
Tetrachloroethene	U		0.000372	0.00100	1	12/19/2015 15:47	WG834853
Toluene	U		0.000780	0.00500	1	12/19/2015 15:47	WG834853
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	12/19/2015 15:47	WG834853
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	12/19/2015 15:47	WG834853
1,1,1-Trichloroethane	U		0.000319	0.00100	1	12/19/2015 15:47	WG834853
1,1,2-Trichloroethane	U		0.000383	0.00100	1	12/19/2015 15:47	WG834853
Trichloroethene	U		0.000398	0.00100	1	12/19/2015 15:47	WG834853
Trichlorofluoromethane	U		0.00120	0.00500	1	12/19/2015 15:47	WG834853
1,2,3-Trichloropropane	U		0.000807	0.00250	1	12/19/2015 15:47	WG834853
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	12/19/2015 15:47	WG834853
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	12/19/2015 15:47	WG834853
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	12/19/2015 15:47	WG834853
Vinyl chloride	U		0.000259	0.00100	1	12/19/2015 15:47	WG834853
Xylenes, Total	U		0.00106	0.00300	1	12/19/2015 15:47	WG834853
(S) Toluene-d8	*103*			*90.0-115*		*12/19/2015 15:47*	WG834853
(S) Dibromofluoromethane	*103*			*79.0-121*		*12/19/2015 15:47*	WG834853
(S) 4-Bromofluorobenzene	*83.0*			*80.1-120*		*12/19/2015 15:47*	WG834853

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	4.28		0.0519	1.00	1	12/15/2015 12:12	WG835162

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	12/20/2015 02:04	WG837111
Acrolein	U		0.00887	0.0500	1	12/20/2015 02:04	WG837111
Acrylonitrile	U		0.00187	0.0100	1	12/20/2015 02:04	WG837111
Benzene	U		0.000331	0.00100	1	12/20/2015 02:04	WG837111
Bromobenzene	U		0.000352	0.00100	1	12/20/2015 02:04	WG837111
Bromodichloromethane	U		0.000380	0.00100	1	12/20/2015 02:04	WG837111
Bromoform	U		0.000469	0.00100	1	12/20/2015 02:04	WG837111
Bromomethane	U		0.000866	0.00500	1	12/20/2015 02:04	WG837111
n-Butylbenzene	U		0.000361	0.00100	1	12/20/2015 02:04	WG837111
sec-Butylbenzene	U		0.000365	0.00100	1	12/20/2015 02:04	WG837111
tert-Butylbenzene	U		0.000399	0.00100	1	12/20/2015 02:04	WG837111
Carbon tetrachloride	U		0.000379	0.00100	1	12/20/2015 02:04	WG837111
Chlorobenzene	U		0.000348	0.00100	1	12/20/2015 02:04	WG837111
Chlorodibromomethane	U		0.000327	0.00100	1	12/20/2015 02:04	WG837111
Chloroethane	U		0.000453	0.00500	1	12/20/2015 02:04	WG837111
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	12/20/2015 02:04	WG837111
Chloroform	0.000330	J	0.000324	0.00500	1	12/20/2015 02:04	WG837111
Chloromethane	U		0.000276	0.00250	1	12/20/2015 02:04	WG837111
2-Chlorotoluene	U	J4	0.000375	0.00100	1	12/20/2015 02:04	WG837111
4-Chlorotoluene	U		0.000351	0.00100	1	12/20/2015 02:04	WG837111
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	12/20/2015 02:04	WG837111
1,2-Dibromoethane	U		0.000381	0.00100	1	12/20/2015 02:04	WG837111
Dibromomethane	U		0.000346	0.00100	1	12/20/2015 02:04	WG837111
1,2-Dichlorobenzene	U		0.000349	0.00100	1	12/20/2015 02:04	WG837111
1,3-Dichlorobenzene	U		0.000220	0.00100	1	12/20/2015 02:04	WG837111
1,4-Dichlorobenzene	U		0.000274	0.00100	1	12/20/2015 02:04	WG837111
Dichlorodifluoromethane	U		0.000551	0.00500	1	12/20/2015 02:04	WG837111
1,1-Dichloroethane	U		0.000259	0.00100	1	12/20/2015 02:04	WG837111
1,2-Dichloroethane	U		0.000361	0.00100	1	12/20/2015 02:04	WG837111
1,1-Dichloroethene	U		0.000398	0.00100	1	12/20/2015 02:04	WG837111
cis-1,2-Dichloroethene	0.00148		0.000260	0.00100	1	12/20/2015 02:04	WG837111
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	12/20/2015 02:04	WG837111
1,2-Dichloropropane	U		0.000306	0.00100	1	12/20/2015 02:04	WG837111
1,1-Dichloropropene	U		0.000352	0.00100	1	12/20/2015 02:04	WG837111
1,3-Dichloropropane	U		0.000366	0.00100	1	12/20/2015 02:04	WG837111
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	12/20/2015 02:04	WG837111
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	12/20/2015 02:04	WG837111
2,2-Dichloropropane	U		0.000321	0.00100	1	12/20/2015 02:04	WG837111
Di-isopropyl ether	U		0.000320	0.00100	1	12/20/2015 02:04	WG837111
Ethylbenzene	U		0.000384	0.00100	1	12/20/2015 02:04	WG837111
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	12/20/2015 02:04	WG837111
Isopropylbenzene	U		0.000326	0.00100	1	12/20/2015 02:04	WG837111
p-Isopropyltoluene	U		0.000350	0.00100	1	12/20/2015 02:04	WG837111
2-Butanone (MEK)	U		0.00393	0.0100	1	12/20/2015 02:04	WG837111
Methylene Chloride	U		0.00100	0.00500	1	12/20/2015 02:04	WG837111
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	12/20/2015 02:04	WG837111
Methyl tert-butyl ether	U		0.000367	0.00100	1	12/20/2015 02:04	WG837111
Naphthalene	U		0.00100	0.00500	1	12/20/2015 02:04	WG837111
n-Propylbenzene	U		0.000349	0.00100	1	12/20/2015 02:04	WG837111
Styrene	U		0.000307	0.00100	1	12/20/2015 02:04	WG837111

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	12/20/2015 02:04	WG837111
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	12/20/2015 02:04	WG837111
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	12/20/2015 02:04	WG837111
Tetrachloroethene	0.00292		0.000372	0.00100	1	12/20/2015 02:04	WG837111
Toluene	U		0.000780	0.00500	1	12/20/2015 02:04	WG837111
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	12/20/2015 02:04	WG837111
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	12/20/2015 02:04	WG837111
1,1,1-Trichloroethane	U		0.000319	0.00100	1	12/20/2015 02:04	WG837111
1,1,2-Trichloroethane	U		0.000383	0.00100	1	12/20/2015 02:04	WG837111
Trichloroethene	U		0.000398	0.00100	1	12/20/2015 02:04	WG837111
Trichlorofluoromethane	U		0.00120	0.00500	1	12/20/2015 02:04	WG837111
1,2,3-Trichloropropane	U		0.000807	0.00250	1	12/20/2015 02:04	WG837111
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	12/20/2015 02:04	WG837111
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	12/20/2015 02:04	WG837111
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	12/20/2015 02:04	WG837111
Vinyl chloride	U		0.000259	0.00100	1	12/20/2015 02:04	WG837111
Xylenes, Total	U		0.00106	0.00300	1	12/20/2015 02:04	WG837111
(S) Toluene-d8	*110*			*90.0-115*		*12/20/2015 02:04*	WG837111
(S) Dibromofluoromethane	*106*			*79.0-121*		*12/20/2015 02:04*	WG837111
(S) 4-Bromofluorobenzene	*99.6*			*80.1-120*		*12/20/2015 02:04*	WG837111

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	12/20/2015 02:22	WG837111
Acrolein	U		0.00887	0.0500	1	12/20/2015 02:22	WG837111
Acrylonitrile	U		0.00187	0.0100	1	12/20/2015 02:22	WG837111
Benzene	U		0.000331	0.00100	1	12/20/2015 02:22	WG837111
Bromobenzene	U		0.000352	0.00100	1	12/20/2015 02:22	WG837111
Bromodichloromethane	U		0.000380	0.00100	1	12/20/2015 02:22	WG837111
Bromoform	U		0.000469	0.00100	1	12/20/2015 02:22	WG837111
Bromomethane	U		0.000866	0.00500	1	12/20/2015 02:22	WG837111
n-Butylbenzene	U		0.000361	0.00100	1	12/20/2015 02:22	WG837111
sec-Butylbenzene	U		0.000365	0.00100	1	12/20/2015 02:22	WG837111
tert-Butylbenzene	U		0.000399	0.00100	1	12/20/2015 02:22	WG837111
Carbon tetrachloride	U		0.000379	0.00100	1	12/20/2015 02:22	WG837111
Chlorobenzene	U		0.000348	0.00100	1	12/20/2015 02:22	WG837111
Chlorodibromomethane	U		0.000327	0.00100	1	12/20/2015 02:22	WG837111
Chloroethane	U		0.000453	0.00500	1	12/20/2015 02:22	WG837111
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	12/20/2015 02:22	WG837111
Chloroform	U		0.000324	0.00500	1	12/20/2015 02:22	WG837111
Chloromethane	U		0.000276	0.00250	1	12/20/2015 02:22	WG837111
2-Chlorotoluene	U	J4	0.000375	0.00100	1	12/20/2015 02:22	WG837111
4-Chlorotoluene	U		0.000351	0.00100	1	12/20/2015 02:22	WG837111
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	12/20/2015 02:22	WG837111
1,2-Dibromoethane	U		0.000381	0.00100	1	12/20/2015 02:22	WG837111
Dibromomethane	U		0.000346	0.00100	1	12/20/2015 02:22	WG837111
1,2-Dichlorobenzene	U		0.000349	0.00100	1	12/20/2015 02:22	WG837111
1,3-Dichlorobenzene	U		0.000220	0.00100	1	12/20/2015 02:22	WG837111
1,4-Dichlorobenzene	U		0.000274	0.00100	1	12/20/2015 02:22	WG837111
Dichlorodifluoromethane	U		0.000551	0.00500	1	12/20/2015 02:22	WG837111
1,1-Dichloroethane	U		0.000259	0.00100	1	12/20/2015 02:22	WG837111
1,2-Dichloroethane	U		0.000361	0.00100	1	12/20/2015 02:22	WG837111
1,1-Dichloroethene	U		0.000398	0.00100	1	12/20/2015 02:22	WG837111
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	12/20/2015 02:22	WG837111
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	12/20/2015 02:22	WG837111
1,2-Dichloropropane	U		0.000306	0.00100	1	12/20/2015 02:22	WG837111
1,1-Dichloropropene	U		0.000352	0.00100	1	12/20/2015 02:22	WG837111
1,3-Dichloropropane	U		0.000366	0.00100	1	12/20/2015 02:22	WG837111
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	12/20/2015 02:22	WG837111
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	12/20/2015 02:22	WG837111
2,2-Dichloropropane	U		0.000321	0.00100	1	12/20/2015 02:22	WG837111
Di-isopropyl ether	U		0.000320	0.00100	1	12/20/2015 02:22	WG837111
Ethylbenzene	U		0.000384	0.00100	1	12/20/2015 02:22	WG837111
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	12/20/2015 02:22	WG837111
Isopropylbenzene	U		0.000326	0.00100	1	12/20/2015 02:22	WG837111
p-Isopropyltoluene	U		0.000350	0.00100	1	12/20/2015 02:22	WG837111
2-Butanone (MEK)	U		0.00393	0.0100	1	12/20/2015 02:22	WG837111
Methylene Chloride	U		0.00100	0.00500	1	12/20/2015 02:22	WG837111
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	12/20/2015 02:22	WG837111
Methyl tert-butyl ether	U		0.000367	0.00100	1	12/20/2015 02:22	WG837111
Naphthalene	U		0.00100	0.00500	1	12/20/2015 02:22	WG837111
n-Propylbenzene	U		0.000349	0.00100	1	12/20/2015 02:22	WG837111
Styrene	U		0.000307	0.00100	1	12/20/2015 02:22	WG837111
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	12/20/2015 02:22	WG837111
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	12/20/2015 02:22	WG837111
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	12/20/2015 02:22	WG837111
Tetrachloroethene	U		0.000372	0.00100	1	12/20/2015 02:22	WG837111
Toluene	U		0.000780	0.00500	1	12/20/2015 02:22	WG837111
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	12/20/2015 02:22	WG837111

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	12/20/2015 02:22	WG837111
1,1,1-Trichloroethane	U		0.000319	0.00100	1	12/20/2015 02:22	WG837111
1,1,2-Trichloroethane	U		0.000383	0.00100	1	12/20/2015 02:22	WG837111
Trichloroethene	U		0.000398	0.00100	1	12/20/2015 02:22	WG837111
Trichlorofluoromethane	U		0.00120	0.00500	1	12/20/2015 02:22	WG837111
1,2,3-Trichloropropane	U		0.000807	0.00250	1	12/20/2015 02:22	WG837111
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	12/20/2015 02:22	WG837111
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	12/20/2015 02:22	WG837111
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	12/20/2015 02:22	WG837111
Vinyl chloride	U		0.000259	0.00100	1	12/20/2015 02:22	WG837111
Xylenes, Total	U		0.00106	0.00300	1	12/20/2015 02:22	WG837111
(S) Toluene-d8	*107*			*90.0-115*		*12/20/2015 02:22*	WG837111
(S) Dibromofluoromethane	*109*			*79.0-121*		*12/20/2015 02:22*	WG837111
(S) 4-Bromofluorobenzene	*99.6*			*80.1-120*		*12/20/2015 02:22*	WG837111

Method Blank (MB)

(MB) 12/15/15 08:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.0519	1.00

L805884-01 Original Sample (OS) • Duplicate (DUP)

(OS) 12/15/15 10:07 • (DUP) 12/15/15 10:21

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	22.3	22.2	1	0		15

L805990-01 Original Sample (OS) • Duplicate (DUP)

(OS) 12/15/15 14:31 • (DUP) 12/15/15 14:45

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	33.1	32.9	1	1		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/15/15 08:57 • (LCSD) 12/15/15 09:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	39.6	39.3	99	98	80-120			1	15

L805914-06 Original Sample (OS) • Matrix Spike (MS)

(OS) 12/15/15 12:12 • (MS) 12/15/15 12:26

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	4.28	54.0	99	1	80-120	

L805995-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/15/15 15:13 • (MS) 12/15/15 15:27 • (MSD) 12/15/15 15:41

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	50.6	95.6	99.5	90	98	1	80-120			4	15

Method Blank (MB)

(MB) 12/19/15 09:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0100	0.0500
Acrolein	U		0.00887	0.0500
Acrylonitrile	U		0.00187	0.0100
Benzene	U		0.000331	0.00100
Bromobenzene	U		0.000352	0.00100
Bromodichloromethane	U		0.000380	0.00100
Bromoform	U		0.000469	0.00100
Bromomethane	U		0.000866	0.00500
n-Butylbenzene	U		0.000361	0.00100
sec-Butylbenzene	U		0.000365	0.00100
tert-Butylbenzene	U		0.000399	0.00100
Carbon tetrachloride	U		0.000379	0.00100
Chlorobenzene	U		0.000348	0.00100
Chlorodibromomethane	U		0.000327	0.00100
Chloroethane	U		0.000453	0.00500
2-Chloroethyl vinyl ether	U		0.00301	0.0500
Chloroform	U		0.000324	0.00500
Chloromethane	U		0.000276	0.00250
2-Chlorotoluene	U		0.000375	0.00100
4-Chlorotoluene	U		0.000351	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500
1,2-Dibromoethane	U		0.000381	0.00100
Dibromomethane	U		0.000346	0.00100
1,2-Dichlorobenzene	U		0.000349	0.00100
1,3-Dichlorobenzene	U		0.000220	0.00100
1,4-Dichlorobenzene	U		0.000274	0.00100
Dichlorodifluoromethane	U		0.000551	0.00500
1,1-Dichloroethane	U		0.000259	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
1,1-Dichloroethene	U		0.000398	0.00100
cis-1,2-Dichloroethene	U		0.000260	0.00100
trans-1,2-Dichloroethene	U		0.000396	0.00100
1,2-Dichloropropane	U		0.000306	0.00100
1,1-Dichloropropene	U		0.000352	0.00100
1,3-Dichloropropane	U		0.000366	0.00100
cis-1,3-Dichloropropene	U		0.000418	0.00100

Method Blank (MB)

(MB) 12/19/15 09:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
trans-1,3-Dichloropropene	U		0.000419	0.00100
2,2-Dichloropropane	U		0.000321	0.00100
Di-isopropyl ether	U		0.000320	0.00100
Ethylbenzene	U		0.000384	0.00100
Hexachloro-1,3-butadiene	U		0.000256	0.00100
Isopropylbenzene	U		0.000326	0.00100
p-Isopropyltoluene	U		0.000350	0.00100
2-Butanone (MEK)	U		0.00393	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100
Methyl tert-butyl ether	U		0.000367	0.00100
Naphthalene	U		0.00100	0.00500
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100
n-Propylbenzene	U		0.000349	0.00100
Tetrachloroethene	U		0.000372	0.00100
Styrene	U		0.000307	0.00100
Toluene	U		0.000780	0.00500
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100
1,2,4-Trichlorobenzene	U		0.000355	0.00100
1,1,1-Trichloroethane	U		0.000319	0.00100
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100
1,1,2-Trichloroethane	U		0.000383	0.00100
1,2,3-Trichlorobenzene	U		0.000230	0.00100
Trichloroethene	U		0.000398	0.00100
Trichlorofluoromethane	U		0.00120	0.00500
1,2,3-Trichloropropane	U		0.000807	0.00250
1,2,3-Trimethylbenzene	U		0.000321	0.00100
Vinyl chloride	U		0.000259	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*104*			*90.0-115*
(S) Dibromofluoromethane	*103*			*79.0-121*
(S) 4-Bromofluorobenzene	*81.2*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/19/15 08:45 • (LCSD) 12/19/15 09:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acrolein	0.125	0.119	0.118	95.3	94.4	40.4-172			0.860	20
Acetone	0.125	0.128	0.129	102	104	28.7-175			1.37	20.9
Acrylonitrile	0.125	0.140	0.140	112	112	58.2-145			0.0600	20
Benzene	0.0250	0.0251	0.0253	100	101	73.0-122			0.970	20
Bromodichloromethane	0.0250	0.0260	0.0267	104	107	75.5-121			2.36	20
Bromobenzene	0.0250	0.0232	0.0245	92.6	98.1	81.5-115			5.76	20
Bromoform	0.0250	0.0268	0.0281	107	112	71.5-131			4.69	20
Bromomethane	0.0250	0.0261	0.0252	105	101	22.4-187			3.52	20
n-Butylbenzene	0.0250	0.0256	0.0264	103	106	75.9-134			2.89	20
sec-Butylbenzene	0.0250	0.0238	0.0252	95.3	101	80.6-126			5.63	20
tert-Butylbenzene	0.0250	0.0239	0.0254	95.7	102	79.3-127			5.94	20
Carbon tetrachloride	0.0250	0.0274	0.0272	109	109	70.9-129			0.780	20
Chlorobenzene	0.0250	0.0239	0.0252	95.5	101	79.7-122			5.47	20
Chlorodibromomethane	0.0250	0.0252	0.0267	101	107	78.2-124			5.69	20
Chloroethane	0.0250	0.0222	0.0215	88.9	86.0	41.2-153			3.41	20
2-Chloroethyl vinyl ether	0.125	0.429	0.409	343	328	23.4-162	E J4	E J4	4.70	23.5
Chloroform	0.0250	0.0256	0.0255	103	102	73.2-125			0.640	20
Chloromethane	0.0250	0.0271	0.0261	108	104	55.8-134			3.76	20
2-Chlorotoluene	0.0250	0.0242	0.0255	96.6	102	76.4-125			5.29	20
4-Chlorotoluene	0.0250	0.0235	0.0250	94.0	100	81.5-121			6.20	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0249	0.0234	99.5	93.5	64.8-131			6.20	20
1,2-Dibromoethane	0.0250	0.0235	0.0255	93.9	102	79.8-122			8.43	20
Dibromomethane	0.0250	0.0254	0.0270	102	108	79.5-118			6.17	20
1,2-Dichlorobenzene	0.0250	0.0257	0.0256	103	102	84.7-118			0.200	20
1,3-Dichlorobenzene	0.0250	0.0239	0.0249	95.7	99.5	77.6-127			3.99	20
1,4-Dichlorobenzene	0.0250	0.0238	0.0242	95.1	96.9	82.2-114			1.88	20
Dichlorodifluoromethane	0.0250	0.0223	0.0223	89.4	89.0	56.0-134			0.360	20
1,1-Dichloroethane	0.0250	0.0259	0.0261	104	105	71.7-127			0.860	20
1,2-Dichloroethane	0.0250	0.0231	0.0229	92.6	91.5	65.3-126			1.23	20
1,1-Dichloroethene	0.0250	0.0217	0.0220	86.8	88.0	59.9-137			1.32	20
trans-1,2-Dichloroethene	0.0250	0.0244	0.0243	97.6	97.4	72.6-125			0.230	20
cis-1,2-Dichloroethene	0.0250	0.0252	0.0250	101	100	77.3-122			0.840	20
1,2-Dichloropropane	0.0250	0.0282	0.0286	113	114	77.4-125			1.37	20
1,1-Dichloropropene	0.0250	0.0243	0.0248	97.3	99.3	72.5-127			2.03	20
cis-1,3-Dichloropropene	0.0250	0.0282	0.0283	113	113	77.7-124			0.570	20
1,3-Dichloropropane	0.0250	0.0231	0.0244	92.5	97.7	80.6-115			5.46	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/19/15 08:45 • (LCSD) 12/19/15 09:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
trans-1,3-Dichloropropene	0.0250	0.0266	0.0285	106	114	73.5-127			7.01	20
2,2-Dichloropropane	0.0250	0.0285	0.0272	114	109	61.3-134			4.70	20
Ethylbenzene	0.0250	0.0232	0.0251	92.9	100	80.9-121			7.72	20
Di-isopropyl ether	0.0250	0.0284	0.0294	114	118	65.1-135			3.42	20
Hexachloro-1,3-butadiene	0.0250	0.0252	0.0239	101	95.4	73.7-133			5.43	20
Isopropylbenzene	0.0250	0.0239	0.0251	95.6	100	81.6-124			4.96	20
p-Isopropyltoluene	0.0250	0.0240	0.0258	96.1	103	77.6-129			7.05	20
2-Butanone (MEK)	0.125	0.150	0.150	120	120	46.4-155			0.390	20
Methylene Chloride	0.0250	0.0216	0.0221	86.5	88.3	69.5-120			2.10	20
4-Methyl-2-pentanone (MIBK)	0.125	0.127	0.135	102	108	63.3-138			5.62	20
Methyl tert-butyl ether	0.0250	0.0239	0.0243	95.7	97.3	70.1-125			1.64	20
Naphthalene	0.0250	0.0223	0.0223	89.0	89.2	69.7-134			0.230	20
n-Propylbenzene	0.0250	0.0239	0.0255	95.7	102	81.9-122			6.40	20
Styrene	0.0250	0.0214	0.0221	85.4	88.2	79.9-124			3.24	20
1,1,2,2-Tetrachloroethane	0.0250	0.0237	0.0259	94.9	104	79.3-123			8.78	20
1,1,1,2-Tetrachloroethane	0.0250	0.0249	0.0260	99.8	104	78.5-125			4.23	20
Tetrachloroethene	0.0250	0.0245	0.0242	97.9	97.0	73.5-130			0.940	20
Toluene	0.0250	0.0252	0.0254	101	102	77.9-116			0.930	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0258	0.0258	103	103	62.0-141			0.240	20
1,2,4-Trichlorobenzene	0.0250	0.0243	0.0240	97.1	96.2	76.1-136			0.940	20
1,2,3-Trichlorobenzene	0.0250	0.0237	0.0228	94.7	91.2	75.7-134			3.73	20
1,1,1-Trichloroethane	0.0250	0.0247	0.0256	98.6	102	71.1-129			3.72	20
1,1,2-Trichloroethane	0.0250	0.0235	0.0249	93.8	99.4	81.6-120			5.78	20
Trichloroethene	0.0250	0.0264	0.0264	105	106	79.5-121			0.210	20
Trichlorofluoromethane	0.0250	0.0245	0.0232	97.9	92.9	49.1-157			5.16	20
1,2,3-Trichloropropane	0.0250	0.0243	0.0247	97.0	98.8	74.9-124			1.79	20
1,2,3-Trimethylbenzene	0.0250	0.0253	0.0257	101	103	79.9-118			1.66	20
1,2,4-Trimethylbenzene	0.0250	0.0236	0.0253	94.5	101	79.0-122			6.89	20
1,3,5-Trimethylbenzene	0.0250	0.0242	0.0256	97.0	103	81.0-123			5.60	20
Vinyl chloride	0.0250	0.0220	0.0225	87.9	89.9	61.5-134			2.26	20
Xylenes, Total	0.0750	0.0712	0.0752	95.0	100	79.2-122			5.39	20
(S) Toluene-d8				*105*	*104*	*90.0-115*				
(S) Dibromofluoromethane				*101*	*98.0*	*79.0-121*				
(S) 4-Bromofluorobenzene				*87.1*	*89.5*	*80.1-120*				

L805952-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/19/15 11:57 • (MS) 12/19/15 11:05 • (MSD) 12/19/15 11:22

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acrolein	0.125	ND	0.121	0.106	97.0	84.7	1	34.0-194			13.6	21.5
Acetone	0.125	0.00158	0.0732	0.0567	57.3	44.1	1	25.0-156		J3	25.3	21.5
Acrylonitrile	0.125	ND	0.172	0.151	137	120	1	55.9-161			13.2	20
Benzene	0.0250	ND	0.0263	0.0266	105	106	1	58.6-133			1.17	20
Bromodichloromethane	0.0250	ND	0.0262	0.0262	105	105	1	69.2-127			0.180	20
Bromobenzene	0.0250	ND	0.0254	0.0248	102	99.1	1	70.6-125			2.62	20
Bromoform	0.0250	ND	0.0298	0.0277	119	111	1	66.3-140			7.27	20
Bromomethane	0.0250	ND	0.0273	0.0267	109	107	1	16.6-183			2.16	20.5
n-Butylbenzene	0.0250	ND	0.0275	0.0280	110	112	1	64.8-145			1.78	20
sec-Butylbenzene	0.0250	ND	0.0256	0.0262	103	105	1	66.8-139			2.22	20
tert-Butylbenzene	0.0250	ND	0.0257	0.0263	103	105	1	67.1-138			2.46	20
Carbon tetrachloride	0.0250	ND	0.0280	0.0285	112	114	1	60.6-139			1.53	20
Chlorobenzene	0.0250	ND	0.0255	0.0255	102	102	1	70.1-130			0.170	20
Chlorodibromomethane	0.0250	ND	0.0272	0.0264	109	106	1	71.6-132			2.95	20
Chloroethane	0.0250	0.000348	0.0235	0.0234	92.5	92.2	1	33.3-155			0.310	20
2-Chloroethyl vinyl ether	0.125	ND	0.0125	0.0136	10.0	10.9	1	5.00-149			8.23	40
Chloroform	0.0250	ND	0.0260	0.0260	104	104	1	66.1-133			0.0300	20
Chloromethane	0.0250	ND	0.0281	0.0282	113	113	1	40.7-139			0.390	20
2-Chlorotoluene	0.0250	ND	0.0255	0.0250	102	100	1	66.9-134			1.97	20
4-Chlorotoluene	0.0250	ND	0.0257	0.0255	103	102	1	66.8-134			0.730	20
1,2-Dibromo-3-Chloropropane	0.0250	ND	0.0281	0.0249	112	99.7	1	63.9-142			11.9	20.2
1,2-Dibromoethane	0.0250	ND	0.0254	0.0250	102	100	1	73.8-131			1.61	20
Dibromomethane	0.0250	ND	0.0265	0.0255	106	102	1	72.8-127			3.99	20
1,2-Dichlorobenzene	0.0250	ND	0.0263	0.0256	105	102	1	77.4-127			2.83	20
1,3-Dichlorobenzene	0.0250	ND	0.0256	0.0247	103	98.7	1	67.9-136			3.84	20
1,4-Dichlorobenzene	0.0250	ND	0.0249	0.0246	99.4	98.4	1	74.4-123			1.01	20
Dichlorodifluoromethane	0.0250	ND	0.0252	0.0240	101	96.1	1	42.2-146			4.86	20
1,1-Dichloroethane	0.0250	0.0168	0.0376	0.0371	83.4	81.4	1	64.0-134			1.29	20
1,2-Dichloroethane	0.0250	ND	0.0244	0.0239	97.4	95.5	1	60.7-132			1.97	20
1,1-Dichloroethene	0.0250	0.0103	0.0265	0.0264	64.6	64.1	1	48.8-144			0.500	20
cis-1,2-Dichloroethene	0.0250	0.00193	0.0279	0.0272	104	101	1	60.6-136			2.37	20
trans-1,2-Dichloroethene	0.0250	ND	0.0252	0.0259	101	104	1	61.0-132			2.95	20
1,2-Dichloropropane	0.0250	ND	0.0286	0.0292	115	117	1	69.7-130			2.05	20
1,1-Dichloropropene	0.0250	ND	0.0258	0.0264	103	106	1	61.5-136			2.40	20
cis-1,3-Dichloropropene	0.0250	ND	0.0276	0.0274	111	110	1	71.1-129			0.770	20
1,3-Dichloropropane	0.0250	ND	0.0256	0.0251	102	101	1	74.3-123			1.68	20

L805952-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/19/15 11:57 • (MS) 12/19/15 11:05 • (MSD) 12/19/15 11:22

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
trans-1,3-Dichloropropene	0.0250	ND	0.0279	0.0276	112	110	1	66.3-136			1.20	20
2,2-Dichloropropane	0.0250	ND	0.0288	0.0300	115	120	1	54.9-142			3.96	20
Di-isopropyl ether	0.0250	ND	0.0312	0.0310	125	124	1	59.9-140			0.500	20
Ethylbenzene	0.0250	ND	0.0280	0.0259	112	104	1	62.7-136			7.89	20
Hexachloro-1,3-butadiene	0.0250	ND	0.0254	0.0267	101	107	1	61.1-144			5.18	20.1
Isopropylbenzene	0.0250	ND	0.0256	0.0260	103	104	1	67.4-136			1.34	20
p-Isopropyltoluene	0.0250	ND	0.0262	0.0262	105	105	1	62.8-143			0.170	20
2-Butanone (MEK)	0.125	ND	0.121	0.102	96.8	81.4	1	45.0-156			17.3	20.8
Methylene Chloride	0.0250	0.000283	0.0235	0.0229	93.0	90.5	1	61.5-125			2.62	20
4-Methyl-2-pentanone (MIBK)	0.125	ND	0.148	0.131	119	105	1	60.7-150			12.6	20
Methyl tert-butyl ether	0.0250	ND	0.0264	0.0260	105	104	1	61.4-136			1.36	20
Naphthalene	0.0250	0.000268	0.0262	0.0234	104	92.6	1	61.8-143			11.4	20
n-Propylbenzene	0.0250	ND	0.0266	0.0262	107	105	1	63.2-139			1.70	20
Styrene	0.0250	ND	0.0230	0.0224	92.1	89.6	1	68.2-133			2.75	20
1,1,2,2-Tetrachloroethane	0.0250	ND	0.0284	0.0258	114	103	1	64.9-145			9.47	20
1,1,1,2-Tetrachloroethane	0.0250	ND	0.0259	0.0263	103	105	1	70.5-132			1.50	20
Tetrachloroethene	0.0250	ND	0.0255	0.0252	102	101	1	57.4-141			1.21	20
Toluene	0.0250	ND	0.0252	0.0256	101	102	1	67.8-124			1.56	20
1,1,2-Trichlorotrifluoroethane	0.0250	ND	0.0267	0.0271	107	108	1	53.7-150			1.41	20
1,2,4-Trichlorobenzene	0.0250	ND	0.0262	0.0246	105	98.2	1	67.0-146			6.53	20
1,2,3-Trichlorobenzene	0.0250	0.000261	0.0246	0.0234	97.4	92.7	1	65.7-143			4.89	20
1,1,1-Trichloroethane	0.0250	ND	0.0260	0.0267	104	107	1	58.7-134			2.53	20
1,1,2-Trichloroethane	0.0250	ND	0.0260	0.0250	104	99.8	1	74.1-130			3.89	20
Trichloroethene	0.0250	ND	0.0258	0.0267	103	107	1	48.9-148			3.62	20
Trichlorofluoromethane	0.0250	ND	0.0257	0.0255	103	102	1	39.9-165			0.820	20
1,2,3-Trichloropropane	0.0250	ND	0.0255	0.0241	102	96.2	1	71.5-134			5.77	20
1,2,3-Trimethylbenzene	0.0250	ND	0.0279	0.0264	112	106	1	62.7-133			5.44	20
1,2,4-Trimethylbenzene	0.0250	0.000217	0.0362	0.0269	144	107	1	60.5-137	J5	J3	29.3	20
1,3,5-Trimethylbenzene	0.0250	ND	0.0281	0.0263	112	105	1	67.9-134			6.46	20
Vinyl chloride	0.0250	0.000651	0.0241	0.0234	93.7	90.9	1	44.3-143			2.89	20
Xylenes, Total	0.0750	0.000225	0.0888	0.0784	118	104	1	65.6-133			12.5	20
(S) Toluene-d8					*102*	*102*		*90.0-115*				
(S) Dibromofluoromethane					*101*	*100*		*79.0-121*				
(S) 4-Bromofluorobenzene					*91.8*	*89.4*		*80.1-120*				

Method Blank (MB)

(MB) 12/19/15 21:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0100	0.0500
Acrolein	U		0.00887	0.0500
Acrylonitrile	U		0.00187	0.0100
Benzene	U		0.000331	0.00100
Bromobenzene	U		0.000352	0.00100
Bromodichloromethane	U		0.000380	0.00100
Bromoform	U		0.000469	0.00100
Bromomethane	U		0.000866	0.00500
n-Butylbenzene	U		0.000361	0.00100
sec-Butylbenzene	U		0.000365	0.00100
tert-Butylbenzene	U		0.000399	0.00100
Carbon tetrachloride	U		0.000379	0.00100
Chlorobenzene	U		0.000348	0.00100
Chlorodibromomethane	U		0.000327	0.00100
Chloroethane	U		0.000453	0.00500
2-Chloroethyl vinyl ether	U		0.00301	0.0500
Chloroform	U		0.000324	0.00500
Chloromethane	U		0.000276	0.00250
2-Chlorotoluene	U		0.000375	0.00100
4-Chlorotoluene	U		0.000351	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500
1,2-Dibromoethane	U		0.000381	0.00100
Dibromomethane	U		0.000346	0.00100
1,2-Dichlorobenzene	U		0.000349	0.00100
1,3-Dichlorobenzene	U		0.000220	0.00100
1,4-Dichlorobenzene	U		0.000274	0.00100
Dichlorodifluoromethane	U		0.000551	0.00500
1,1-Dichloroethane	U		0.000259	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
1,1-Dichloroethene	U		0.000398	0.00100
cis-1,2-Dichloroethene	U		0.000260	0.00100
trans-1,2-Dichloroethene	U		0.000396	0.00100
1,2-Dichloropropane	U		0.000306	0.00100
1,1-Dichloropropene	U		0.000352	0.00100
1,3-Dichloropropane	U		0.000366	0.00100
cis-1,3-Dichloropropene	U		0.000418	0.00100

Method Blank (MB)

(MB) 12/19/15 21:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
trans-1,3-Dichloropropene	U		0.000419	0.00100
2,2-Dichloropropane	U		0.000321	0.00100
Di-isopropyl ether	U		0.000320	0.00100
Ethylbenzene	U		0.000384	0.00100
Hexachloro-1,3-butadiene	U		0.000256	0.00100
Isopropylbenzene	U		0.000326	0.00100
p-Isopropyltoluene	U		0.000350	0.00100
2-Butanone (MEK)	U		0.00393	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100
Methyl tert-butyl ether	U		0.000367	0.00100
Naphthalene	U		0.00100	0.00500
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100
Tetrachloroethene	U		0.000372	0.00100
n-Propylbenzene	U		0.000349	0.00100
Styrene	U		0.000307	0.00100
Toluene	U		0.000780	0.00500
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100
1,1,1-Trichloroethane	U		0.000319	0.00100
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100
1,1,2-Trichloroethane	U		0.000383	0.00100
1,2,3-Trichlorobenzene	U		0.000230	0.00100
Trichloroethene	U		0.000398	0.00100
Trichlorofluoromethane	U		0.00120	0.00500
1,2,4-Trichlorobenzene	U		0.000355	0.00100
1,2,3-Trichloropropane	U		0.000807	0.00250
1,2,3-Trimethylbenzene	U		0.000321	0.00100
Vinyl chloride	U		0.000259	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*108*			*90.0-115*
(S) Dibromofluoromethane	*106*			*79.0-121*
(S) 4-Bromofluorobenzene	*99.4*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/19/15 19:49 • (LCSD) 12/19/15 20:07

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.141	0.144	113	115	28.7-175			2.13	20.9
Acrolein	0.125	0.102	0.109	81.7	87.4	40.4-172			6.67	20
Acrylonitrile	0.125	0.139	0.136	111	109	58.2-145			2.10	20
Benzene	0.0250	0.0261	0.0261	104	104	73.0-122			0.0700	20
Bromodichloromethane	0.0250	0.0249	0.0257	99.5	103	75.5-121			3.08	20
Bromobenzene	0.0250	0.0237	0.0245	94.7	98.0	81.5-115			3.43	20
Bromoform	0.0250	0.0208	0.0211	83.3	84.3	71.5-131			1.10	20
Bromomethane	0.0250	0.0389	0.0362	156	145	22.4-187			7.07	20
n-Butylbenzene	0.0250	0.0245	0.0246	97.8	98.3	75.9-134			0.530	20
sec-Butylbenzene	0.0250	0.0243	0.0251	97.2	100	80.6-126			3.14	20
tert-Butylbenzene	0.0250	0.0243	0.0245	97.3	97.9	79.3-127			0.620	20
Carbon tetrachloride	0.0250	0.0243	0.0244	97.1	97.6	70.9-129			0.570	20
Chlorobenzene	0.0250	0.0231	0.0235	92.5	94.1	79.7-122			1.69	20
Chlorodibromomethane	0.0250	0.0219	0.0224	87.5	89.6	78.2-124			2.31	20
Chloroethane	0.0250	0.0321	0.0310	128	124	41.2-153			3.26	20
2-Chloroethyl vinyl ether	0.125	0.122	0.129	97.9	103	23.4-162			5.32	23.5
Chloroform	0.0250	0.0256	0.0257	103	103	73.2-125			0.240	20
Chloromethane	0.0250	0.0256	0.0236	102	94.3	55.8-134			8.30	20
2-Chlorotoluene	0.0250	0.0175	0.0184	70.0	73.6	76.4-125	J4	J4	4.97	20
4-Chlorotoluene	0.0250	0.0243	0.0243	97.1	97.3	81.5-121			0.250	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0186	0.0187	74.6	74.6	64.8-131			0.0700	20
1,2-Dibromoethane	0.0250	0.0219	0.0223	87.8	89.3	79.8-122			1.72	20
Dibromomethane	0.0250	0.0243	0.0248	97.3	99.1	79.5-118			1.82	20
1,2-Dichlorobenzene	0.0250	0.0228	0.0228	91.2	91.4	84.7-118			0.130	20
1,3-Dichlorobenzene	0.0250	0.0230	0.0233	91.8	93.2	77.6-127			1.43	20
1,4-Dichlorobenzene	0.0250	0.0223	0.0224	89.1	89.6	82.2-114			0.550	20
Dichlorodifluoromethane	0.0250	0.0273	0.0264	109	106	56.0-134			3.25	20
1,1-Dichloroethane	0.0250	0.0262	0.0257	105	103	71.7-127			1.95	20
1,2-Dichloroethane	0.0250	0.0265	0.0263	106	105	65.3-126			0.690	20
1,1-Dichloroethene	0.0250	0.0287	0.0292	115	117	59.9-137			1.52	20
trans-1,2-Dichloroethene	0.0250	0.0251	0.0246	100	98.4	72.6-125			2.00	20
cis-1,2-Dichloroethene	0.0250	0.0259	0.0255	103	102	77.3-122			1.43	20
1,2-Dichloropropane	0.0250	0.0252	0.0260	101	104	77.4-125			3.06	20
1,1-Dichloropropene	0.0250	0.0246	0.0251	98.5	100	72.5-127			1.79	20
cis-1,3-Dichloropropene	0.0250	0.0249	0.0261	99.8	105	77.7-124			4.70	20
1,3-Dichloropropane	0.0250	0.0226	0.0233	90.4	93.0	80.6-115			2.87	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 12/19/15 19:49 • (LCSD) 12/19/15 20:07

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
trans-1,3-Dichloropropene	0.0250	0.0243	0.0258	97.2	103	73.5-127			5.92	20
2,2-Dichloropropane	0.0250	0.0253	0.0270	101	108	61.3-134			6.48	20
Ethylbenzene	0.0250	0.0237	0.0236	94.7	94.4	80.9-121			0.250	20
Di-isopropyl ether	0.0250	0.0266	0.0263	106	105	65.1-135			1.24	20
Hexachloro-1,3-butadiene	0.0250	0.0204	0.0210	81.6	84.1	73.7-133			3.09	20
Isopropylbenzene	0.0250	0.0238	0.0243	95.1	97.4	81.6-124			2.30	20
p-Isopropyltoluene	0.0250	0.0243	0.0247	97.3	98.9	77.6-129			1.65	20
2-Butanone (MEK)	0.125	0.130	0.135	104	108	46.4-155			3.63	20
Methylene Chloride	0.0250	0.0241	0.0234	96.5	93.5	69.5-120			3.24	20
4-Methyl-2-pentanone (MIBK)	0.125	0.119	0.127	94.8	101	63.3-138			6.58	20
Methyl tert-butyl ether	0.0250	0.0253	0.0252	101	101	70.1-125			0.380	20
Naphthalene	0.0250	0.0204	0.0208	81.5	83.4	69.7-134			2.31	20
n-Propylbenzene	0.0250	0.0239	0.0248	95.7	99.0	81.9-122			3.45	20
Styrene	0.0250	0.0241	0.0240	96.2	96.0	79.9-124			0.190	20
1,1,2,2-Tetrachloroethane	0.0250	0.0224	0.0230	89.7	91.9	79.3-123			2.45	20
1,1,1,2-Tetrachloroethane	0.0250	0.0226	0.0224	90.3	89.7	78.5-125			0.680	20
Tetrachloroethene	0.0250	0.0214	0.0222	85.5	88.7	73.5-130			3.68	20
Toluene	0.0250	0.0234	0.0242	93.5	96.8	77.9-116			3.45	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0308	0.0305	123	122	62.0-141			1.04	20
1,2,3-Trichlorobenzene	0.0250	0.0210	0.0213	83.8	85.1	75.7-134			1.48	20
1,1,1-Trichloroethane	0.0250	0.0270	0.0272	108	109	71.1-129			0.520	20
1,2,4-Trichlorobenzene	0.0250	0.0207	0.0211	82.7	84.2	76.1-136			1.82	20
1,1,2-Trichloroethane	0.0250	0.0226	0.0229	90.4	91.5	81.6-120			1.24	20
Trichloroethene	0.0250	0.0241	0.0251	96.5	100	79.5-121			3.93	20
Trichlorofluoromethane	0.0250	0.0348	0.0336	139	135	49.1-157			3.29	20
1,2,3-Trichloropropane	0.0250	0.0230	0.0238	92.1	95.0	74.9-124			3.12	20
1,2,3-Trimethylbenzene	0.0250	0.0232	0.0235	93.0	94.1	79.9-118			1.28	20
1,2,4-Trimethylbenzene	0.0250	0.0241	0.0243	96.5	97.1	79.0-122			0.580	20
1,3,5-Trimethylbenzene	0.0250	0.0240	0.0249	96.0	99.5	81.0-123			3.57	20
Vinyl chloride	0.0250	0.0257	0.0253	103	101	61.5-134			1.62	20
Xylenes, Total	0.0750	0.0708	0.0713	94.4	95.0	79.2-122			0.680	20
(S) Toluene-d8				*109*	*112*	*90.0-115*				
(S) Dibromofluoromethane				*105*	*103*	*79.0-121*				
(S) 4-Bromofluorobenzene				*103*	*103*	*80.1-120*				

L807447-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/19/15 21:42 • (MS) 12/19/15 23:50 • (MSD) 12/20/15 00:08

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.00228	0.0593	0.0684	45.6	52.9	1	25.0-156			14.2	21.5
Acrolein	0.125	ND	0.0143	0.0193	11.5	15.5	1	34.0-194	J6	J3 J6	29.7	21.5
Acrylonitrile	0.125	ND	0.137	0.149	110	120	1	55.9-161			8.31	20
Benzene	0.0250	ND	0.0251	0.0267	100	107	1	58.6-133			6.21	20
Bromobenzene	0.0250	ND	0.0227	0.0244	90.8	97.8	1	70.6-125			7.46	20
Bromodichloromethane	0.0250	ND	0.0235	0.0255	94.1	102	1	69.2-127			8.21	20
Bromoform	0.0250	ND	0.0186	0.0210	74.2	83.9	1	66.3-140			12.3	20
Bromomethane	0.0250	ND	0.0383	0.0408	153	163	1	16.6-183			6.13	20.5
n-Butylbenzene	0.0250	ND	0.0246	0.0263	98.4	105	1	64.8-145			6.86	20
sec-Butylbenzene	0.0250	ND	0.0239	0.0252	95.5	101	1	66.8-139			5.48	20
tert-Butylbenzene	0.0250	ND	0.0234	0.0245	93.5	97.8	1	67.1-138			4.57	20
Carbon tetrachloride	0.0250	ND	0.0242	0.0255	96.9	102	1	60.6-139			5.12	20
Chlorobenzene	0.0250	ND	0.0220	0.0236	87.8	94.3	1	70.1-130			7.13	20
Chlorodibromomethane	0.0250	ND	0.0205	0.0220	82.1	88.1	1	71.6-132			6.99	20
Chloroethane	0.0250	ND	0.0308	0.0316	123	126	1	33.3-155			2.49	20
2-Chloroethyl vinyl ether	0.125	ND	0.125	0.136	100	109	1	5.00-149			8.47	40
Chloroform	0.0250	ND	0.0252	0.0265	101	106	1	66.1-133			4.89	20
Chloromethane	0.0250	ND	0.0238	0.0250	95.1	100	1	40.7-139			5.04	20
2-Chlorotoluene	0.0250	ND	0.0178	0.0187	71.2	74.7	1	66.9-134			4.77	20
4-Chlorotoluene	0.0250	ND	0.0231	0.0246	92.3	98.6	1	66.8-134			6.54	20
1,2-Dibromo-3-Chloropropane	0.0250	ND	0.0183	0.0205	73.2	82.1	1	63.9-142			11.5	20.2
1,2-Dibromoethane	0.0250	ND	0.0205	0.0221	82.1	88.5	1	73.8-131			7.51	20
1,2-Dichlorobenzene	0.0250	ND	0.0222	0.0240	88.8	96.1	1	77.4-127			7.93	20
Dibromomethane	0.0250	ND	0.0230	0.0252	92.0	101	1	72.8-127			9.03	20
1,3-Dichlorobenzene	0.0250	ND	0.0224	0.0236	89.7	94.3	1	67.9-136			5.06	20
1,4-Dichlorobenzene	0.0250	ND	0.0218	0.0236	87.2	94.3	1	74.4-123			7.83	20
Dichlorodifluoromethane	0.0250	ND	0.0268	0.0289	107	116	1	42.2-146			7.52	20
1,1-Dichloroethane	0.0250	ND	0.0258	0.0271	103	108	1	64.0-134			4.73	20
1,2-Dichloroethane	0.0250	ND	0.0259	0.0278	103	111	1	60.7-132			7.22	20
1,1-Dichloroethene	0.0250	ND	0.0296	0.0303	118	121	1	48.8-144			2.45	20
trans-1,2-Dichloroethene	0.0250	ND	0.0248	0.0259	99.1	104	1	61.0-132			4.62	20
cis-1,2-Dichloroethene	0.0250	ND	0.0247	0.0261	98.9	104	1	60.6-136			5.27	20
1,2-Dichloropropane	0.0250	ND	0.0244	0.0261	97.6	105	1	69.7-130			6.95	20
1,1-Dichloropropene	0.0250	ND	0.0252	0.0264	101	106	1	61.5-136			4.49	20
1,3-Dichloropropane	0.0250	ND	0.0214	0.0229	85.8	91.6	1	74.3-123			6.62	20
cis-1,3-Dichloropropene	0.0250	ND	0.0238	0.0257	95.2	103	1	71.1-129			7.68	20

L807447-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/19/15 21:42 • (MS) 12/19/15 23:50 • (MSD) 12/20/15 00:08

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
trans-1,3-Dichloropropene	0.0250	ND	0.0236	0.0256	94.4	102	1	66.3-136			7.98	20
2,2-Dichloropropane	0.0250	ND	0.0279	0.0285	111	114	1	54.9-142			2.32	20
Ethylbenzene	0.0250	ND	0.0224	0.0240	89.7	96.0	1	62.7-136			6.86	20
Di-isopropyl ether	0.0250	ND	0.0262	0.0275	105	110	1	59.9-140			4.75	20
Hexachloro-1,3-butadiene	0.0250	ND	0.0212	0.0220	84.9	88.1	1	61.1-144			3.67	20.1
Isopropylbenzene	0.0250	ND	0.0229	0.0246	91.8	98.2	1	67.4-136			6.81	20
p-Isopropyltoluene	0.0250	ND	0.0241	0.0252	96.2	101	1	62.8-143			4.65	20
Methylene Chloride	0.0250	ND	0.0232	0.0248	92.8	99.3	1	61.5-125			6.75	20
2-Butanone (MEK)	0.125	ND	0.132	0.148	105	119	1	45.0-156			11.8	20.8
4-Methyl-2-pentanone (MIBK)	0.125	ND	0.117	0.133	93.7	107	1	60.7-150			12.9	20
Methyl tert-butyl ether	0.0250	ND	0.0249	0.0263	99.8	105	1	61.4-136			5.10	20
Naphthalene	0.0250	ND	0.0203	0.0222	81.1	88.6	1	61.8-143			8.87	20
n-Propylbenzene	0.0250	ND	0.0234	0.0250	93.6	99.9	1	63.2-139			6.46	20
Styrene	0.0250	ND	0.0223	0.0239	89.2	95.7	1	68.2-133			7.12	20
1,1,1,2-Tetrachloroethane	0.0250	ND	0.0213	0.0227	85.1	91.0	1	70.5-132			6.63	20
1,1,2,2-Tetrachloroethane	0.0250	ND	0.0210	0.0226	83.9	90.3	1	64.9-145			7.39	20
Tetrachloroethene	0.0250	ND	0.0208	0.0222	83.3	88.7	1	57.4-141			6.28	20
Toluene	0.0250	ND	0.0227	0.0239	91.0	95.5	1	67.8-124			4.89	20
1,1,2-Trichlorotrifluoroethane	0.0250	ND	0.0318	0.0337	127	135	1	53.7-150			5.82	20
1,2,3-Trichlorobenzene	0.0250	ND	0.0213	0.0230	85.2	92.1	1	65.7-143			7.84	20
1,1,1-Trichloroethane	0.0250	ND	0.0272	0.0285	109	114	1	58.7-134			4.74	20
1,2,4-Trichlorobenzene	0.0250	ND	0.0217	0.0227	86.7	90.7	1	67.0-146			4.44	20
1,1,2-Trichloroethane	0.0250	ND	0.0212	0.0228	84.8	91.2	1	74.1-130			7.31	20
Trichloroethene	0.0250	ND	0.0241	0.0258	96.4	103	1	48.9-148			6.69	20
Trichlorofluoromethane	0.0250	ND	0.0329	0.0359	132	144	1	39.9-165			8.84	20
1,2,3-Trichloropropane	0.0250	ND	0.0220	0.0239	87.9	95.5	1	71.5-134			8.34	20
1,2,3-Trimethylbenzene	0.0250	ND	0.0230	0.0241	92.1	96.5	1	62.7-133			4.58	20
1,2,4-Trimethylbenzene	0.0250	ND	0.0228	0.0246	91.4	98.3	1	60.5-137			7.29	20
1,3,5-Trimethylbenzene	0.0250	ND	0.0231	0.0246	92.4	98.4	1	67.9-134			6.31	20
Vinyl chloride	0.0250	ND	0.0253	0.0268	101	107	1	44.3-143			5.92	20
Xylenes, Total	0.0750	ND	0.0682	0.0714	90.9	95.2	1	65.6-133			4.59	20
(S) Toluene-d8					*111*	*109*		*90.0-115*				
(S) Dibromofluoromethane					*108*	*107*		*79.0-121*				
(S) 4-Bromofluorobenzene					*103*	*102*		*80.1-120*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

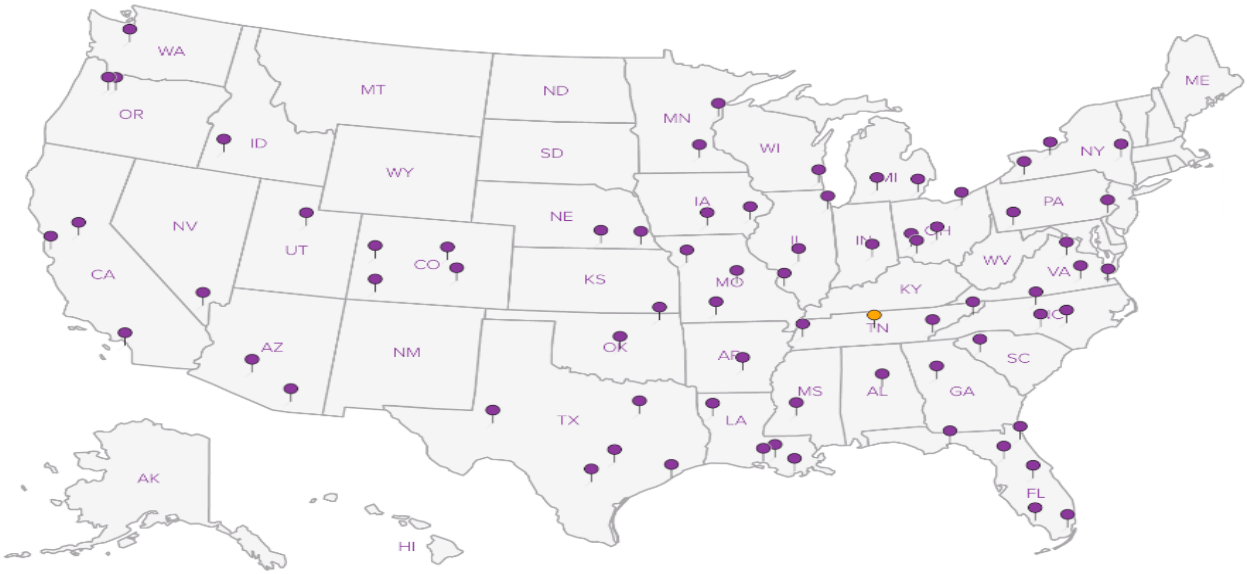
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
A2LA – ISO 17025 [5]	1461.02
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



AIR WATER & SOIL LABORATORIES, INC.

1941 REYMET ROAD
RICHMOND, VIRGINIA 23237
(804) 358-8295 PHONE
(804)358-8297 FAX

Chain of Custody
Form #: D1331
Rev. 1.0
Effective: Feb 14, 2014

K230

CHAIN OF CUSTODY

PAGE 1 OF 1

COMPANY NAME: Swift Creek Environmental	INVOICE TO: Swift Creek Environmental	PROJECT NAME/Quote #: Globe Tobacco
CONTACT: Tom Houghton	INVOICE CONTACT: Tom Houghton	SITE NAME: Glob Tobacco
ADDRESS: 8201 County Drive, Disputanta, VA	INVOICE ADDRESS: 8201 County Drive, Disputanta	PROJECT NUMBER: 05-028
PHONE #: 804-991-3213	INVOICE PHONE #: 804-991-3213	P.O. #: 05-028
FAX #:	EMAIL: Swiftcreekinc@aol.com	Pretreatment Program:
Is sample for compliance reporting? YES NO	Is sample from a chlorinated supply? YES NO	PWS I.D. #:
SAMPLER NAME (PRINT): Robert A. Crandall	SAMPLER SIGNATURE: Ro Crandall	Turn Around Time: Day(s)

Matrix Codes: WW=Waste Water/Storm Water GW=Ground Water DW=Drinking Water S=Soil/Solids OR=Organic A=Air WP=Wipe OT=Other_____

CLIENT SAMPLE I.D.	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Time Preserved	Matrix (See Codes)	Number of Containers	VOC 8260	Chloride							COMMENTS (Preservative Codes: N=Nitric Acid C=Hydrochloric Acid S=Sulfuric Acid H=Sodium Hydroxide A=Ascorbic Acid Z=Zinc Acetate T=Sodium Thiosulfate M=Methanol; PLEASE NOTE PRESERVATIVE(S), INTERFERENCE CHECKS or PUMP RATE (L/min))
1) SC-GT-MW-7	X					12/7/15	1305		GW	4	X	X							L805914-01
2) SC-GT-MW-8							1320		GW		X	X							-02
3) SC-GT-MW-9							1340		GW		X	X							-03
4) SC-GT-MW-10							1205		GW		X	X							-04
5) SC-GT-MW-11							1140		GW		X	X							-05
6) SC-GT-MW-12							1230		GW		X	X							-06
7) Trip Blank										2	X								-07
8)																			
9)																			
10)																			

RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME
Ro Crandall	12-8-15 1624	Guy Deem	12-10-15 900
RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME
RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME
			8900

QC Data Package
- Level I ☐
- Level II ☐
- Level III ☐
- Level IV ☐

LAB USE ONLY

COOLER TEMP 24°C °C

Cooler ✓ Tall

Bottle 6194 7387 26 Containers

D1331 AWS COC_v140214.xls

ANALYTICAL REPORT

April 04, 2016

Swift Creek Environmental, Inc.

Sample Delivery Group:	L825736
Samples Received:	03/25/2016
Project Number:	05-028
Description:	Globe Tobacco
Report To:	Mr. Tom Houghton 8201 County Drive Disputanta, VA 23842

Entire Report Reviewed By:

T. Alan Harvill
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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SC-GT-MW-7 L825736-01 GW

Collected by: Bobby Crandell | Collected date/time: 03/24/16 12:35 | Received date/time: 03/25/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG859994	1	04/01/16 05:00	04/01/16 05:00	JHH
Wet Chemistry by Method 9056A	WG860278	100	03/30/16 21:32	03/30/16 21:32	DJD

SC-GT-MW-8 L825736-02 GW

Collected by: Bobby Crandell | Collected date/time: 03/24/16 12:15 | Received date/time: 03/25/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG859994	1	04/01/16 05:19	04/01/16 05:19	JHH
Wet Chemistry by Method 9056A	WG860279	1	03/30/16 10:13	03/30/16 10:13	CM

SC-GT-MW-9 L825736-03 GW

Collected by: Bobby Crandell | Collected date/time: 03/24/16 12:55 | Received date/time: 03/25/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG859994	1	04/01/16 05:40	04/01/16 05:40	JHH
Wet Chemistry by Method 9056A	WG860279	10	03/30/16 10:43	03/30/16 10:43	CM

SC-GT-MW-10 L825736-04 GW

Collected by: Bobby Crandell | Collected date/time: 03/24/16 11:40 | Received date/time: 03/25/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG859994	1	04/01/16 05:59	04/01/16 05:59	JHH
Wet Chemistry by Method 9056A	WG860279	1	03/30/16 10:58	03/30/16 10:58	CM

SC-GT-MW-11 L825736-05 GW

Collected by: Bobby Crandell | Collected date/time: 03/24/16 10:50 | Received date/time: 03/25/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG859994	1	04/01/16 06:19	04/01/16 06:19	JHH
Wet Chemistry by Method 9056A	WG860279	1	03/30/16 11:57	03/30/16 11:57	CM

SC-GT-MW-12 L825736-06 GW

Collected by: Bobby Crandell | Collected date/time: 03/24/16 11:15 | Received date/time: 03/25/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG859994	1	04/01/16 06:39	04/01/16 06:39	JHH
Wet Chemistry by Method 9056A	WG860279	1	03/30/16 12:12	03/30/16 12:12	CM

TRIP BLANK L825736-07 GW

Collected by: Bobby Crandell | Collected date/time: 03/24/16 00:00 | Received date/time: 03/25/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG859994	1	04/01/16 02:43	04/01/16 02:43	JHH

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

T. Alan Harvill
Technical Service Representative

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	3190		5.19	100	100	03/30/2016 21:32	WG860278

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	04/01/2016 05:00	WG859994
Acrolein	U	J4	0.00887	0.0500	1	04/01/2016 05:00	WG859994
Acrylonitrile	U		0.00187	0.0100	1	04/01/2016 05:00	WG859994
Benzene	U		0.000331	0.00100	1	04/01/2016 05:00	WG859994
Bromobenzene	U		0.000352	0.00100	1	04/01/2016 05:00	WG859994
Bromodichloromethane	0.000445	J	0.000380	0.00100	1	04/01/2016 05:00	WG859994
Bromoform	U		0.000469	0.00100	1	04/01/2016 05:00	WG859994
Bromomethane	U		0.000866	0.00500	1	04/01/2016 05:00	WG859994
n-Butylbenzene	U		0.000361	0.00100	1	04/01/2016 05:00	WG859994
sec-Butylbenzene	U		0.000365	0.00100	1	04/01/2016 05:00	WG859994
tert-Butylbenzene	U		0.000399	0.00100	1	04/01/2016 05:00	WG859994
Carbon tetrachloride	U		0.000379	0.00100	1	04/01/2016 05:00	WG859994
Chlorobenzene	U		0.000348	0.00100	1	04/01/2016 05:00	WG859994
Chlorodibromomethane	U		0.000327	0.00100	1	04/01/2016 05:00	WG859994
Chloroethane	U		0.000453	0.00500	1	04/01/2016 05:00	WG859994
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	04/01/2016 05:00	WG859994
Chloroform	0.0584		0.000324	0.00500	1	04/01/2016 05:00	WG859994
Chloromethane	U		0.000276	0.00250	1	04/01/2016 05:00	WG859994
2-Chlorotoluene	U		0.000375	0.00100	1	04/01/2016 05:00	WG859994
4-Chlorotoluene	U		0.000351	0.00100	1	04/01/2016 05:00	WG859994
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	04/01/2016 05:00	WG859994
1,2-Dibromoethane	U		0.000381	0.00100	1	04/01/2016 05:00	WG859994
Dibromomethane	U		0.000346	0.00100	1	04/01/2016 05:00	WG859994
1,2-Dichlorobenzene	0.00107		0.000349	0.00100	1	04/01/2016 05:00	WG859994
1,3-Dichlorobenzene	0.000254	J	0.000220	0.00100	1	04/01/2016 05:00	WG859994
1,4-Dichlorobenzene	U		0.000274	0.00100	1	04/01/2016 05:00	WG859994
Dichlorodifluoromethane	U		0.000551	0.00500	1	04/01/2016 05:00	WG859994
1,1-Dichloroethane	U		0.000259	0.00100	1	04/01/2016 05:00	WG859994
1,2-Dichloroethane	U		0.000361	0.00100	1	04/01/2016 05:00	WG859994
1,1-Dichloroethene	U		0.000398	0.00100	1	04/01/2016 05:00	WG859994
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	04/01/2016 05:00	WG859994
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	04/01/2016 05:00	WG859994
1,2-Dichloropropane	0.00368		0.000306	0.00100	1	04/01/2016 05:00	WG859994
1,1-Dichloropropene	U		0.000352	0.00100	1	04/01/2016 05:00	WG859994
1,3-Dichloropropane	U		0.000366	0.00100	1	04/01/2016 05:00	WG859994
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	04/01/2016 05:00	WG859994
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	04/01/2016 05:00	WG859994
2,2-Dichloropropane	U		0.000321	0.00100	1	04/01/2016 05:00	WG859994
Di-isopropyl ether	U		0.000320	0.00100	1	04/01/2016 05:00	WG859994
Ethylbenzene	U		0.000384	0.00100	1	04/01/2016 05:00	WG859994
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	04/01/2016 05:00	WG859994
Isopropylbenzene	U		0.000326	0.00100	1	04/01/2016 05:00	WG859994
p-Isopropyltoluene	U		0.000350	0.00100	1	04/01/2016 05:00	WG859994
2-Butanone (MEK)	U		0.00393	0.0100	1	04/01/2016 05:00	WG859994
Methylene Chloride	0.00126	J	0.00100	0.00500	1	04/01/2016 05:00	WG859994
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	04/01/2016 05:00	WG859994
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/01/2016 05:00	WG859994
Naphthalene	U		0.00100	0.00500	1	04/01/2016 05:00	WG859994
n-Propylbenzene	U		0.000349	0.00100	1	04/01/2016 05:00	WG859994
Styrene	U		0.000307	0.00100	1	04/01/2016 05:00	WG859994

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	04/01/2016 05:00	WG859994
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	04/01/2016 05:00	WG859994
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	04/01/2016 05:00	WG859994
Tetrachloroethene	0.00112		0.000372	0.00100	1	04/01/2016 05:00	WG859994
Toluene	U		0.000780	0.00500	1	04/01/2016 05:00	WG859994
1,2,3-Trichlorobenzene	0.000275	J	0.000230	0.00100	1	04/01/2016 05:00	WG859994
1,2,4-Trichlorobenzene	0.000919	J	0.000355	0.00100	1	04/01/2016 05:00	WG859994
1,1,1-Trichloroethane	U		0.000319	0.00100	1	04/01/2016 05:00	WG859994
1,1,2-Trichloroethane	U		0.000383	0.00100	1	04/01/2016 05:00	WG859994
Trichloroethene	U		0.000398	0.00100	1	04/01/2016 05:00	WG859994
Trichlorofluoromethane	U		0.00120	0.00500	1	04/01/2016 05:00	WG859994
1,2,3-Trichloropropane	U		0.000807	0.00250	1	04/01/2016 05:00	WG859994
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	04/01/2016 05:00	WG859994
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	04/01/2016 05:00	WG859994
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	04/01/2016 05:00	WG859994
Vinyl chloride	U		0.000259	0.00100	1	04/01/2016 05:00	WG859994
Xylenes, Total	U		0.00106	0.00300	1	04/01/2016 05:00	WG859994
(S) Toluene-d8	*104*			*90.0-115*		*04/01/2016 05:00*	WG859994
(S) Dibromofluoromethane	*107*			*79.0-121*		*04/01/2016 05:00*	WG859994
(S) 4-Bromofluorobenzene	*106*			*80.1-120*		*04/01/2016 05:00*	WG859994

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	20.1		0.0519	1.00	1	03/30/2016 10:13	WG860279

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	04/01/2016 05:19	WG859994
Acrolein	U	J4	0.00887	0.0500	1	04/01/2016 05:19	WG859994
Acrylonitrile	U		0.00187	0.0100	1	04/01/2016 05:19	WG859994
Benzene	U		0.000331	0.00100	1	04/01/2016 05:19	WG859994
Bromobenzene	U		0.000352	0.00100	1	04/01/2016 05:19	WG859994
Bromodichloromethane	U		0.000380	0.00100	1	04/01/2016 05:19	WG859994
Bromoform	U		0.000469	0.00100	1	04/01/2016 05:19	WG859994
Bromomethane	U		0.000866	0.00500	1	04/01/2016 05:19	WG859994
n-Butylbenzene	U		0.000361	0.00100	1	04/01/2016 05:19	WG859994
sec-Butylbenzene	U		0.000365	0.00100	1	04/01/2016 05:19	WG859994
tert-Butylbenzene	U		0.000399	0.00100	1	04/01/2016 05:19	WG859994
Carbon tetrachloride	U		0.000379	0.00100	1	04/01/2016 05:19	WG859994
Chlorobenzene	U		0.000348	0.00100	1	04/01/2016 05:19	WG859994
Chlorodibromomethane	U		0.000327	0.00100	1	04/01/2016 05:19	WG859994
Chloroethane	U		0.000453	0.00500	1	04/01/2016 05:19	WG859994
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	04/01/2016 05:19	WG859994
Chloroform	0.00530		0.000324	0.00500	1	04/01/2016 05:19	WG859994
Chloromethane	U		0.000276	0.00250	1	04/01/2016 05:19	WG859994
2-Chlorotoluene	U		0.000375	0.00100	1	04/01/2016 05:19	WG859994
4-Chlorotoluene	U		0.000351	0.00100	1	04/01/2016 05:19	WG859994
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	04/01/2016 05:19	WG859994
1,2-Dibromoethane	U		0.000381	0.00100	1	04/01/2016 05:19	WG859994
Dibromomethane	U		0.000346	0.00100	1	04/01/2016 05:19	WG859994
1,2-Dichlorobenzene	U		0.000349	0.00100	1	04/01/2016 05:19	WG859994
1,3-Dichlorobenzene	U		0.000220	0.00100	1	04/01/2016 05:19	WG859994
1,4-Dichlorobenzene	U		0.000274	0.00100	1	04/01/2016 05:19	WG859994
Dichlorodifluoromethane	U		0.000551	0.00500	1	04/01/2016 05:19	WG859994
1,1-Dichloroethane	U		0.000259	0.00100	1	04/01/2016 05:19	WG859994
1,2-Dichloroethane	U		0.000361	0.00100	1	04/01/2016 05:19	WG859994
1,1-Dichloroethene	U		0.000398	0.00100	1	04/01/2016 05:19	WG859994
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	04/01/2016 05:19	WG859994
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	04/01/2016 05:19	WG859994
1,2-Dichloropropane	U		0.000306	0.00100	1	04/01/2016 05:19	WG859994
1,1-Dichloropropene	U		0.000352	0.00100	1	04/01/2016 05:19	WG859994
1,3-Dichloropropane	U		0.000366	0.00100	1	04/01/2016 05:19	WG859994
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	04/01/2016 05:19	WG859994
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	04/01/2016 05:19	WG859994
2,2-Dichloropropane	U		0.000321	0.00100	1	04/01/2016 05:19	WG859994
Di-isopropyl ether	U		0.000320	0.00100	1	04/01/2016 05:19	WG859994
Ethylbenzene	U		0.000384	0.00100	1	04/01/2016 05:19	WG859994
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	04/01/2016 05:19	WG859994
Isopropylbenzene	U		0.000326	0.00100	1	04/01/2016 05:19	WG859994
p-Isopropyltoluene	U		0.000350	0.00100	1	04/01/2016 05:19	WG859994
2-Butanone (MEK)	U		0.00393	0.0100	1	04/01/2016 05:19	WG859994
Methylene Chloride	U		0.00100	0.00500	1	04/01/2016 05:19	WG859994
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	04/01/2016 05:19	WG859994
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/01/2016 05:19	WG859994
Naphthalene	U		0.00100	0.00500	1	04/01/2016 05:19	WG859994
n-Propylbenzene	U		0.000349	0.00100	1	04/01/2016 05:19	WG859994
Styrene	U		0.000307	0.00100	1	04/01/2016 05:19	WG859994

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	04/01/2016 05:19	WG859994
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	04/01/2016 05:19	WG859994
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	04/01/2016 05:19	WG859994
Tetrachloroethene	U		0.000372	0.00100	1	04/01/2016 05:19	WG859994
Toluene	U		0.000780	0.00500	1	04/01/2016 05:19	WG859994
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	04/01/2016 05:19	WG859994
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	04/01/2016 05:19	WG859994
1,1,1-Trichloroethane	U		0.000319	0.00100	1	04/01/2016 05:19	WG859994
1,1,2-Trichloroethane	U		0.000383	0.00100	1	04/01/2016 05:19	WG859994
Trichloroethene	U		0.000398	0.00100	1	04/01/2016 05:19	WG859994
Trichlorofluoromethane	U		0.00120	0.00500	1	04/01/2016 05:19	WG859994
1,2,3-Trichloropropane	U		0.000807	0.00250	1	04/01/2016 05:19	WG859994
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	04/01/2016 05:19	WG859994
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	04/01/2016 05:19	WG859994
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	04/01/2016 05:19	WG859994
Vinyl chloride	U		0.000259	0.00100	1	04/01/2016 05:19	WG859994
Xylenes, Total	U		0.00106	0.00300	1	04/01/2016 05:19	WG859994
(S) Toluene-d8	*108*			*90.0-115*		*04/01/2016 05:19*	WG859994
(S) Dibromofluoromethane	*103*			*79.0-121*		*04/01/2016 05:19*	WG859994
(S) 4-Bromofluorobenzene	*104*			*80.1-120*		*04/01/2016 05:19*	WG859994

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	234		0.519	10.0	10	03/30/2016 10:43	WG860279

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	04/01/2016 05:40	WG859994
Acrolein	U	J4	0.00887	0.0500	1	04/01/2016 05:40	WG859994
Acrylonitrile	U		0.00187	0.0100	1	04/01/2016 05:40	WG859994
Benzene	U		0.000331	0.00100	1	04/01/2016 05:40	WG859994
Bromobenzene	U		0.000352	0.00100	1	04/01/2016 05:40	WG859994
Bromodichloromethane	U		0.000380	0.00100	1	04/01/2016 05:40	WG859994
Bromoform	U		0.000469	0.00100	1	04/01/2016 05:40	WG859994
Bromomethane	U		0.000866	0.00500	1	04/01/2016 05:40	WG859994
n-Butylbenzene	U		0.000361	0.00100	1	04/01/2016 05:40	WG859994
sec-Butylbenzene	U		0.000365	0.00100	1	04/01/2016 05:40	WG859994
tert-Butylbenzene	U		0.000399	0.00100	1	04/01/2016 05:40	WG859994
Carbon tetrachloride	U		0.000379	0.00100	1	04/01/2016 05:40	WG859994
Chlorobenzene	U		0.000348	0.00100	1	04/01/2016 05:40	WG859994
Chlorodibromomethane	U		0.000327	0.00100	1	04/01/2016 05:40	WG859994
Chloroethane	U		0.000453	0.00500	1	04/01/2016 05:40	WG859994
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	04/01/2016 05:40	WG859994
Chloroform	0.0238		0.000324	0.00500	1	04/01/2016 05:40	WG859994
Chloromethane	U		0.000276	0.00250	1	04/01/2016 05:40	WG859994
2-Chlorotoluene	U		0.000375	0.00100	1	04/01/2016 05:40	WG859994
4-Chlorotoluene	U		0.000351	0.00100	1	04/01/2016 05:40	WG859994
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	04/01/2016 05:40	WG859994
1,2-Dibromoethane	U		0.000381	0.00100	1	04/01/2016 05:40	WG859994
Dibromomethane	U		0.000346	0.00100	1	04/01/2016 05:40	WG859994
1,2-Dichlorobenzene	U		0.000349	0.00100	1	04/01/2016 05:40	WG859994
1,3-Dichlorobenzene	U		0.000220	0.00100	1	04/01/2016 05:40	WG859994
1,4-Dichlorobenzene	U		0.000274	0.00100	1	04/01/2016 05:40	WG859994
Dichlorodifluoromethane	U		0.000551	0.00500	1	04/01/2016 05:40	WG859994
1,1-Dichloroethane	U		0.000259	0.00100	1	04/01/2016 05:40	WG859994
1,2-Dichloroethane	U		0.000361	0.00100	1	04/01/2016 05:40	WG859994
1,1-Dichloroethene	U		0.000398	0.00100	1	04/01/2016 05:40	WG859994
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	04/01/2016 05:40	WG859994
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	04/01/2016 05:40	WG859994
1,2-Dichloropropane	U		0.000306	0.00100	1	04/01/2016 05:40	WG859994
1,1-Dichloropropene	U		0.000352	0.00100	1	04/01/2016 05:40	WG859994
1,3-Dichloropropane	U		0.000366	0.00100	1	04/01/2016 05:40	WG859994
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	04/01/2016 05:40	WG859994
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	04/01/2016 05:40	WG859994
2,2-Dichloropropane	U		0.000321	0.00100	1	04/01/2016 05:40	WG859994
Di-isopropyl ether	U		0.000320	0.00100	1	04/01/2016 05:40	WG859994
Ethylbenzene	U		0.000384	0.00100	1	04/01/2016 05:40	WG859994
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	04/01/2016 05:40	WG859994
Isopropylbenzene	U		0.000326	0.00100	1	04/01/2016 05:40	WG859994
p-Isopropyltoluene	U		0.000350	0.00100	1	04/01/2016 05:40	WG859994
2-Butanone (MEK)	U		0.00393	0.0100	1	04/01/2016 05:40	WG859994
Methylene Chloride	0.00101	J	0.00100	0.00500	1	04/01/2016 05:40	WG859994
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	04/01/2016 05:40	WG859994
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/01/2016 05:40	WG859994
Naphthalene	U		0.00100	0.00500	1	04/01/2016 05:40	WG859994
n-Propylbenzene	U		0.000349	0.00100	1	04/01/2016 05:40	WG859994
Styrene	U		0.000307	0.00100	1	04/01/2016 05:40	WG859994

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	04/01/2016 05:40	WG859994
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	04/01/2016 05:40	WG859994
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	04/01/2016 05:40	WG859994
Tetrachloroethene	U		0.000372	0.00100	1	04/01/2016 05:40	WG859994
Toluene	U		0.000780	0.00500	1	04/01/2016 05:40	WG859994
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	04/01/2016 05:40	WG859994
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	04/01/2016 05:40	WG859994
1,1,1-Trichloroethane	U		0.000319	0.00100	1	04/01/2016 05:40	WG859994
1,1,2-Trichloroethane	U		0.000383	0.00100	1	04/01/2016 05:40	WG859994
Trichloroethene	U		0.000398	0.00100	1	04/01/2016 05:40	WG859994
Trichlorofluoromethane	U		0.00120	0.00500	1	04/01/2016 05:40	WG859994
1,2,3-Trichloropropane	U		0.000807	0.00250	1	04/01/2016 05:40	WG859994
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	04/01/2016 05:40	WG859994
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	04/01/2016 05:40	WG859994
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	04/01/2016 05:40	WG859994
Vinyl chloride	U		0.000259	0.00100	1	04/01/2016 05:40	WG859994
Xylenes, Total	U		0.00106	0.00300	1	04/01/2016 05:40	WG859994
(S) Toluene-d8	*106*			*90.0-115*		*04/01/2016 05:40*	WG859994
(S) Dibromofluoromethane	*104*			*79.0-121*		*04/01/2016 05:40*	WG859994
(S) 4-Bromofluorobenzene	*105*			*80.1-120*		*04/01/2016 05:40*	WG859994

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	9.17		0.0519	1.00	1	03/30/2016 10:58	WG860279

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	04/01/2016 05:59	WG859994
Acrolein	U	J4	0.00887	0.0500	1	04/01/2016 05:59	WG859994
Acrylonitrile	U		0.00187	0.0100	1	04/01/2016 05:59	WG859994
Benzene	U		0.000331	0.00100	1	04/01/2016 05:59	WG859994
Bromobenzene	U		0.000352	0.00100	1	04/01/2016 05:59	WG859994
Bromodichloromethane	U		0.000380	0.00100	1	04/01/2016 05:59	WG859994
Bromoform	U		0.000469	0.00100	1	04/01/2016 05:59	WG859994
Bromomethane	U		0.000866	0.00500	1	04/01/2016 05:59	WG859994
n-Butylbenzene	U		0.000361	0.00100	1	04/01/2016 05:59	WG859994
sec-Butylbenzene	U		0.000365	0.00100	1	04/01/2016 05:59	WG859994
tert-Butylbenzene	U		0.000399	0.00100	1	04/01/2016 05:59	WG859994
Carbon tetrachloride	U		0.000379	0.00100	1	04/01/2016 05:59	WG859994
Chlorobenzene	U		0.000348	0.00100	1	04/01/2016 05:59	WG859994
Chlorodibromomethane	U		0.000327	0.00100	1	04/01/2016 05:59	WG859994
Chloroethane	U		0.000453	0.00500	1	04/01/2016 05:59	WG859994
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	04/01/2016 05:59	WG859994
Chloroform	U		0.000324	0.00500	1	04/01/2016 05:59	WG859994
Chloromethane	U		0.000276	0.00250	1	04/01/2016 05:59	WG859994
2-Chlorotoluene	U		0.000375	0.00100	1	04/01/2016 05:59	WG859994
4-Chlorotoluene	U		0.000351	0.00100	1	04/01/2016 05:59	WG859994
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	04/01/2016 05:59	WG859994
1,2-Dibromoethane	U		0.000381	0.00100	1	04/01/2016 05:59	WG859994
Dibromomethane	U		0.000346	0.00100	1	04/01/2016 05:59	WG859994
1,2-Dichlorobenzene	U		0.000349	0.00100	1	04/01/2016 05:59	WG859994
1,3-Dichlorobenzene	U		0.000220	0.00100	1	04/01/2016 05:59	WG859994
1,4-Dichlorobenzene	U		0.000274	0.00100	1	04/01/2016 05:59	WG859994
Dichlorodifluoromethane	U		0.000551	0.00500	1	04/01/2016 05:59	WG859994
1,1-Dichloroethane	U		0.000259	0.00100	1	04/01/2016 05:59	WG859994
1,2-Dichloroethane	U		0.000361	0.00100	1	04/01/2016 05:59	WG859994
1,1-Dichloroethene	U		0.000398	0.00100	1	04/01/2016 05:59	WG859994
cis-1,2-Dichloroethene	0.00255		0.000260	0.00100	1	04/01/2016 05:59	WG859994
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	04/01/2016 05:59	WG859994
1,2-Dichloropropane	U		0.000306	0.00100	1	04/01/2016 05:59	WG859994
1,1-Dichloropropene	U		0.000352	0.00100	1	04/01/2016 05:59	WG859994
1,3-Dichloropropane	U		0.000366	0.00100	1	04/01/2016 05:59	WG859994
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	04/01/2016 05:59	WG859994
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	04/01/2016 05:59	WG859994
2,2-Dichloropropane	U		0.000321	0.00100	1	04/01/2016 05:59	WG859994
Di-isopropyl ether	U		0.000320	0.00100	1	04/01/2016 05:59	WG859994
Ethylbenzene	U		0.000384	0.00100	1	04/01/2016 05:59	WG859994
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	04/01/2016 05:59	WG859994
Isopropylbenzene	U		0.000326	0.00100	1	04/01/2016 05:59	WG859994
p-Isopropyltoluene	U		0.000350	0.00100	1	04/01/2016 05:59	WG859994
2-Butanone (MEK)	U		0.00393	0.0100	1	04/01/2016 05:59	WG859994
Methylene Chloride	U		0.00100	0.00500	1	04/01/2016 05:59	WG859994
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	04/01/2016 05:59	WG859994
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/01/2016 05:59	WG859994
Naphthalene	U		0.00100	0.00500	1	04/01/2016 05:59	WG859994
n-Propylbenzene	U		0.000349	0.00100	1	04/01/2016 05:59	WG859994
Styrene	U		0.000307	0.00100	1	04/01/2016 05:59	WG859994

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	04/01/2016 05:59	WG859994
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	04/01/2016 05:59	WG859994
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	04/01/2016 05:59	WG859994
Tetrachloroethene	0.00513		0.000372	0.00100	1	04/01/2016 05:59	WG859994
Toluene	U		0.000780	0.00500	1	04/01/2016 05:59	WG859994
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	04/01/2016 05:59	WG859994
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	04/01/2016 05:59	WG859994
1,1,1-Trichloroethane	U		0.000319	0.00100	1	04/01/2016 05:59	WG859994
1,1,2-Trichloroethane	U		0.000383	0.00100	1	04/01/2016 05:59	WG859994
Trichloroethene	U		0.000398	0.00100	1	04/01/2016 05:59	WG859994
Trichlorofluoromethane	U		0.00120	0.00500	1	04/01/2016 05:59	WG859994
1,2,3-Trichloropropane	U		0.000807	0.00250	1	04/01/2016 05:59	WG859994
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	04/01/2016 05:59	WG859994
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	04/01/2016 05:59	WG859994
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	04/01/2016 05:59	WG859994
Vinyl chloride	U		0.000259	0.00100	1	04/01/2016 05:59	WG859994
Xylenes, Total	U		0.00106	0.00300	1	04/01/2016 05:59	WG859994
(S) Toluene-d8	*103*			*90.0-115*		*04/01/2016 05:59*	WG859994
(S) Dibromofluoromethane	*103*			*79.0-121*		*04/01/2016 05:59*	WG859994
(S) 4-Bromofluorobenzene	*108*			*80.1-120*		*04/01/2016 05:59*	WG859994

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	21.8		0.0519	1.00	1	03/30/2016 11:57	WG860279

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	04/01/2016 06:19	WG859994
Acrolein	U	J4	0.00887	0.0500	1	04/01/2016 06:19	WG859994
Acrylonitrile	U		0.00187	0.0100	1	04/01/2016 06:19	WG859994
Benzene	U		0.000331	0.00100	1	04/01/2016 06:19	WG859994
Bromobenzene	U		0.000352	0.00100	1	04/01/2016 06:19	WG859994
Bromodichloromethane	U		0.000380	0.00100	1	04/01/2016 06:19	WG859994
Bromoform	U		0.000469	0.00100	1	04/01/2016 06:19	WG859994
Bromomethane	U		0.000866	0.00500	1	04/01/2016 06:19	WG859994
n-Butylbenzene	U		0.000361	0.00100	1	04/01/2016 06:19	WG859994
sec-Butylbenzene	U		0.000365	0.00100	1	04/01/2016 06:19	WG859994
tert-Butylbenzene	U		0.000399	0.00100	1	04/01/2016 06:19	WG859994
Carbon tetrachloride	U		0.000379	0.00100	1	04/01/2016 06:19	WG859994
Chlorobenzene	U		0.000348	0.00100	1	04/01/2016 06:19	WG859994
Chlorodibromomethane	U		0.000327	0.00100	1	04/01/2016 06:19	WG859994
Chloroethane	U		0.000453	0.00500	1	04/01/2016 06:19	WG859994
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	04/01/2016 06:19	WG859994
Chloroform	U		0.000324	0.00500	1	04/01/2016 06:19	WG859994
Chloromethane	U		0.000276	0.00250	1	04/01/2016 06:19	WG859994
2-Chlorotoluene	U		0.000375	0.00100	1	04/01/2016 06:19	WG859994
4-Chlorotoluene	U		0.000351	0.00100	1	04/01/2016 06:19	WG859994
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	04/01/2016 06:19	WG859994
1,2-Dibromoethane	U		0.000381	0.00100	1	04/01/2016 06:19	WG859994
Dibromomethane	U		0.000346	0.00100	1	04/01/2016 06:19	WG859994
1,2-Dichlorobenzene	U		0.000349	0.00100	1	04/01/2016 06:19	WG859994
1,3-Dichlorobenzene	U		0.000220	0.00100	1	04/01/2016 06:19	WG859994
1,4-Dichlorobenzene	U		0.000274	0.00100	1	04/01/2016 06:19	WG859994
Dichlorodifluoromethane	U		0.000551	0.00500	1	04/01/2016 06:19	WG859994
1,1-Dichloroethane	U		0.000259	0.00100	1	04/01/2016 06:19	WG859994
1,2-Dichloroethane	U		0.000361	0.00100	1	04/01/2016 06:19	WG859994
1,1-Dichloroethene	U		0.000398	0.00100	1	04/01/2016 06:19	WG859994
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	04/01/2016 06:19	WG859994
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	04/01/2016 06:19	WG859994
1,2-Dichloropropane	U		0.000306	0.00100	1	04/01/2016 06:19	WG859994
1,1-Dichloropropene	U		0.000352	0.00100	1	04/01/2016 06:19	WG859994
1,3-Dichloropropane	U		0.000366	0.00100	1	04/01/2016 06:19	WG859994
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	04/01/2016 06:19	WG859994
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	04/01/2016 06:19	WG859994
2,2-Dichloropropane	U		0.000321	0.00100	1	04/01/2016 06:19	WG859994
Di-isopropyl ether	U		0.000320	0.00100	1	04/01/2016 06:19	WG859994
Ethylbenzene	U		0.000384	0.00100	1	04/01/2016 06:19	WG859994
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	04/01/2016 06:19	WG859994
Isopropylbenzene	U		0.000326	0.00100	1	04/01/2016 06:19	WG859994
p-Isopropyltoluene	U		0.000350	0.00100	1	04/01/2016 06:19	WG859994
2-Butanone (MEK)	U		0.00393	0.0100	1	04/01/2016 06:19	WG859994
Methylene Chloride	U		0.00100	0.00500	1	04/01/2016 06:19	WG859994
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	04/01/2016 06:19	WG859994
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/01/2016 06:19	WG859994
Naphthalene	U		0.00100	0.00500	1	04/01/2016 06:19	WG859994
n-Propylbenzene	U		0.000349	0.00100	1	04/01/2016 06:19	WG859994
Styrene	U		0.000307	0.00100	1	04/01/2016 06:19	WG859994

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	04/01/2016 06:19	WG859994
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	04/01/2016 06:19	WG859994
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	04/01/2016 06:19	WG859994
Tetrachloroethene	U		0.000372	0.00100	1	04/01/2016 06:19	WG859994
Toluene	U		0.000780	0.00500	1	04/01/2016 06:19	WG859994
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	04/01/2016 06:19	WG859994
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	04/01/2016 06:19	WG859994
1,1,1-Trichloroethane	U		0.000319	0.00100	1	04/01/2016 06:19	WG859994
1,1,2-Trichloroethane	U		0.000383	0.00100	1	04/01/2016 06:19	WG859994
Trichloroethene	U		0.000398	0.00100	1	04/01/2016 06:19	WG859994
Trichlorofluoromethane	U		0.00120	0.00500	1	04/01/2016 06:19	WG859994
1,2,3-Trichloropropane	U		0.000807	0.00250	1	04/01/2016 06:19	WG859994
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	04/01/2016 06:19	WG859994
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	04/01/2016 06:19	WG859994
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	04/01/2016 06:19	WG859994
Vinyl chloride	U		0.000259	0.00100	1	04/01/2016 06:19	WG859994
Xylenes, Total	U		0.00106	0.00300	1	04/01/2016 06:19	WG859994
(S) Toluene-d8	*103*			*90.0-115*		*04/01/2016 06:19*	WG859994
(S) Dibromofluoromethane	*105*			*79.0-121*		*04/01/2016 06:19*	WG859994
(S) 4-Bromofluorobenzene	*105*			*80.1-120*		*04/01/2016 06:19*	WG859994

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	4.97		0.0519	1.00	1	03/30/2016 12:12	WG860279

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	04/01/2016 06:39	WG859994
Acrolein	U	J4	0.00887	0.0500	1	04/01/2016 06:39	WG859994
Acrylonitrile	U		0.00187	0.0100	1	04/01/2016 06:39	WG859994
Benzene	U		0.000331	0.00100	1	04/01/2016 06:39	WG859994
Bromobenzene	U		0.000352	0.00100	1	04/01/2016 06:39	WG859994
Bromodichloromethane	U		0.000380	0.00100	1	04/01/2016 06:39	WG859994
Bromoform	U		0.000469	0.00100	1	04/01/2016 06:39	WG859994
Bromomethane	U		0.000866	0.00500	1	04/01/2016 06:39	WG859994
n-Butylbenzene	U		0.000361	0.00100	1	04/01/2016 06:39	WG859994
sec-Butylbenzene	U		0.000365	0.00100	1	04/01/2016 06:39	WG859994
tert-Butylbenzene	U		0.000399	0.00100	1	04/01/2016 06:39	WG859994
Carbon tetrachloride	U		0.000379	0.00100	1	04/01/2016 06:39	WG859994
Chlorobenzene	U		0.000348	0.00100	1	04/01/2016 06:39	WG859994
Chlorodibromomethane	U		0.000327	0.00100	1	04/01/2016 06:39	WG859994
Chloroethane	U		0.000453	0.00500	1	04/01/2016 06:39	WG859994
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	04/01/2016 06:39	WG859994
Chloroform	U		0.000324	0.00500	1	04/01/2016 06:39	WG859994
Chloromethane	U		0.000276	0.00250	1	04/01/2016 06:39	WG859994
2-Chlorotoluene	U		0.000375	0.00100	1	04/01/2016 06:39	WG859994
4-Chlorotoluene	U		0.000351	0.00100	1	04/01/2016 06:39	WG859994
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	04/01/2016 06:39	WG859994
1,2-Dibromoethane	U		0.000381	0.00100	1	04/01/2016 06:39	WG859994
Dibromomethane	U		0.000346	0.00100	1	04/01/2016 06:39	WG859994
1,2-Dichlorobenzene	U		0.000349	0.00100	1	04/01/2016 06:39	WG859994
1,3-Dichlorobenzene	U		0.000220	0.00100	1	04/01/2016 06:39	WG859994
1,4-Dichlorobenzene	U		0.000274	0.00100	1	04/01/2016 06:39	WG859994
Dichlorodifluoromethane	U		0.000551	0.00500	1	04/01/2016 06:39	WG859994
1,1-Dichloroethane	U		0.000259	0.00100	1	04/01/2016 06:39	WG859994
1,2-Dichloroethane	U		0.000361	0.00100	1	04/01/2016 06:39	WG859994
1,1-Dichloroethene	U		0.000398	0.00100	1	04/01/2016 06:39	WG859994
cis-1,2-Dichloroethene	0.00130		0.000260	0.00100	1	04/01/2016 06:39	WG859994
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	04/01/2016 06:39	WG859994
1,2-Dichloropropane	U		0.000306	0.00100	1	04/01/2016 06:39	WG859994
1,1-Dichloropropene	U		0.000352	0.00100	1	04/01/2016 06:39	WG859994
1,3-Dichloropropane	U		0.000366	0.00100	1	04/01/2016 06:39	WG859994
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	04/01/2016 06:39	WG859994
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	04/01/2016 06:39	WG859994
2,2-Dichloropropane	U		0.000321	0.00100	1	04/01/2016 06:39	WG859994
Di-isopropyl ether	U		0.000320	0.00100	1	04/01/2016 06:39	WG859994
Ethylbenzene	U		0.000384	0.00100	1	04/01/2016 06:39	WG859994
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	04/01/2016 06:39	WG859994
Isopropylbenzene	U		0.000326	0.00100	1	04/01/2016 06:39	WG859994
p-Isopropyltoluene	U		0.000350	0.00100	1	04/01/2016 06:39	WG859994
2-Butanone (MEK)	U		0.00393	0.0100	1	04/01/2016 06:39	WG859994
Methylene Chloride	U		0.00100	0.00500	1	04/01/2016 06:39	WG859994
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	04/01/2016 06:39	WG859994
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/01/2016 06:39	WG859994
Naphthalene	U		0.00100	0.00500	1	04/01/2016 06:39	WG859994
n-Propylbenzene	U		0.000349	0.00100	1	04/01/2016 06:39	WG859994
Styrene	U		0.000307	0.00100	1	04/01/2016 06:39	WG859994

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	04/01/2016 06:39	WG859994
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	04/01/2016 06:39	WG859994
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	04/01/2016 06:39	WG859994
Tetrachloroethene	0.00408		0.000372	0.00100	1	04/01/2016 06:39	WG859994
Toluene	U		0.000780	0.00500	1	04/01/2016 06:39	WG859994
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	04/01/2016 06:39	WG859994
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	04/01/2016 06:39	WG859994
1,1,1-Trichloroethane	U		0.000319	0.00100	1	04/01/2016 06:39	WG859994
1,1,2-Trichloroethane	U		0.000383	0.00100	1	04/01/2016 06:39	WG859994
Trichloroethene	U		0.000398	0.00100	1	04/01/2016 06:39	WG859994
Trichlorofluoromethane	U		0.00120	0.00500	1	04/01/2016 06:39	WG859994
1,2,3-Trichloropropane	U		0.000807	0.00250	1	04/01/2016 06:39	WG859994
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	04/01/2016 06:39	WG859994
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	04/01/2016 06:39	WG859994
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	04/01/2016 06:39	WG859994
Vinyl chloride	U		0.000259	0.00100	1	04/01/2016 06:39	WG859994
Xylenes, Total	U		0.00106	0.00300	1	04/01/2016 06:39	WG859994
(S) Toluene-d8	*103*			*90.0-115*		*04/01/2016 06:39*	WG859994
(S) Dibromofluoromethane	*104*			*79.0-121*		*04/01/2016 06:39*	WG859994
(S) 4-Bromofluorobenzene	*113*			*80.1-120*		*04/01/2016 06:39*	WG859994

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	04/01/2016 02:43	WG859994
Acrolein	U	J4	0.00887	0.0500	1	04/01/2016 02:43	WG859994
Acrylonitrile	U		0.00187	0.0100	1	04/01/2016 02:43	WG859994
Benzene	U		0.000331	0.00100	1	04/01/2016 02:43	WG859994
Bromobenzene	U		0.000352	0.00100	1	04/01/2016 02:43	WG859994
Bromodichloromethane	U		0.000380	0.00100	1	04/01/2016 02:43	WG859994
Bromoform	U		0.000469	0.00100	1	04/01/2016 02:43	WG859994
Bromomethane	U		0.000866	0.00500	1	04/01/2016 02:43	WG859994
n-Butylbenzene	U		0.000361	0.00100	1	04/01/2016 02:43	WG859994
sec-Butylbenzene	U		0.000365	0.00100	1	04/01/2016 02:43	WG859994
tert-Butylbenzene	U		0.000399	0.00100	1	04/01/2016 02:43	WG859994
Carbon tetrachloride	U		0.000379	0.00100	1	04/01/2016 02:43	WG859994
Chlorobenzene	U		0.000348	0.00100	1	04/01/2016 02:43	WG859994
Chlorodibromomethane	U		0.000327	0.00100	1	04/01/2016 02:43	WG859994
Chloroethane	U		0.000453	0.00500	1	04/01/2016 02:43	WG859994
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	04/01/2016 02:43	WG859994
Chloroform	U		0.000324	0.00500	1	04/01/2016 02:43	WG859994
Chloromethane	U		0.000276	0.00250	1	04/01/2016 02:43	WG859994
2-Chlorotoluene	U		0.000375	0.00100	1	04/01/2016 02:43	WG859994
4-Chlorotoluene	U		0.000351	0.00100	1	04/01/2016 02:43	WG859994
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	04/01/2016 02:43	WG859994
1,2-Dibromoethane	U		0.000381	0.00100	1	04/01/2016 02:43	WG859994
Dibromomethane	U		0.000346	0.00100	1	04/01/2016 02:43	WG859994
1,2-Dichlorobenzene	U		0.000349	0.00100	1	04/01/2016 02:43	WG859994
1,3-Dichlorobenzene	U		0.000220	0.00100	1	04/01/2016 02:43	WG859994
1,4-Dichlorobenzene	U		0.000274	0.00100	1	04/01/2016 02:43	WG859994
Dichlorodifluoromethane	U		0.000551	0.00500	1	04/01/2016 02:43	WG859994
1,1-Dichloroethane	U		0.000259	0.00100	1	04/01/2016 02:43	WG859994
1,2-Dichloroethane	U		0.000361	0.00100	1	04/01/2016 02:43	WG859994
1,1-Dichloroethene	U		0.000398	0.00100	1	04/01/2016 02:43	WG859994
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	04/01/2016 02:43	WG859994
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	04/01/2016 02:43	WG859994
1,2-Dichloropropane	U		0.000306	0.00100	1	04/01/2016 02:43	WG859994
1,1-Dichloropropene	U		0.000352	0.00100	1	04/01/2016 02:43	WG859994
1,3-Dichloropropane	U		0.000366	0.00100	1	04/01/2016 02:43	WG859994
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	04/01/2016 02:43	WG859994
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	04/01/2016 02:43	WG859994
2,2-Dichloropropane	U		0.000321	0.00100	1	04/01/2016 02:43	WG859994
Di-isopropyl ether	U		0.000320	0.00100	1	04/01/2016 02:43	WG859994
Ethylbenzene	U		0.000384	0.00100	1	04/01/2016 02:43	WG859994
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	04/01/2016 02:43	WG859994
Isopropylbenzene	U		0.000326	0.00100	1	04/01/2016 02:43	WG859994
p-Isopropyltoluene	U		0.000350	0.00100	1	04/01/2016 02:43	WG859994
2-Butanone (MEK)	U		0.00393	0.0100	1	04/01/2016 02:43	WG859994
Methylene Chloride	U		0.00100	0.00500	1	04/01/2016 02:43	WG859994
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	04/01/2016 02:43	WG859994
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/01/2016 02:43	WG859994
Naphthalene	U		0.00100	0.00500	1	04/01/2016 02:43	WG859994
n-Propylbenzene	U		0.000349	0.00100	1	04/01/2016 02:43	WG859994
Styrene	U		0.000307	0.00100	1	04/01/2016 02:43	WG859994
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	04/01/2016 02:43	WG859994
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	04/01/2016 02:43	WG859994
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	04/01/2016 02:43	WG859994
Tetrachloroethene	U		0.000372	0.00100	1	04/01/2016 02:43	WG859994
Toluene	U		0.000780	0.00500	1	04/01/2016 02:43	WG859994
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	04/01/2016 02:43	WG859994

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	04/01/2016 02:43	WG859994
1,1,1-Trichloroethane	U		0.000319	0.00100	1	04/01/2016 02:43	WG859994
1,1,2-Trichloroethane	U		0.000383	0.00100	1	04/01/2016 02:43	WG859994
Trichloroethene	U		0.000398	0.00100	1	04/01/2016 02:43	WG859994
Trichlorofluoromethane	U		0.00120	0.00500	1	04/01/2016 02:43	WG859994
1,2,3-Trichloropropane	U		0.000807	0.00250	1	04/01/2016 02:43	WG859994
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	04/01/2016 02:43	WG859994
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	04/01/2016 02:43	WG859994
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	04/01/2016 02:43	WG859994
Vinyl chloride	U		0.000259	0.00100	1	04/01/2016 02:43	WG859994
Xylenes, Total	U		0.00106	0.00300	1	04/01/2016 02:43	WG859994
(S) Toluene-d8	*104*			*90.0-115*		*04/01/2016 02:43*	WG859994
(S) Dibromofluoromethane	*105*			*79.0-121*		*04/01/2016 02:43*	WG859994
(S) 4-Bromofluorobenzene	*106*			*80.1-120*		*04/01/2016 02:43*	WG859994

Method Blank (MB)

(MB) R3125257-1 03/30/16 07:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	0.059		0.0519	1.00

Original Sample (OS) • Duplicate (DUP)

(OS) L825671-02 03/30/16 16:08 • (DUP) R3125257-4 03/30/16 16:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7.13	7.33	1	3		15

Original Sample (OS) • Duplicate (DUP)

(OS) L825671-05 03/30/16 21:01 • (DUP) R3125257-8 03/30/16 21:17

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	2.65	2.60	1	2		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3125257-2 03/30/16 07:16 • (LCSD) R3125257-3 03/30/16 07:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	39.3	39.3	98	98	80-120			0	15

Original Sample (OS) • Matrix Spike (MS)

(OS) L825671-03 03/30/16 17:10 • (MS) R3125257-5 03/30/16 17:26

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	1.67	53.9	104	1	80-120	

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L825671-04 03/30/16 20:15 • (MS) R3125257-6 03/30/16 20:30 • (MSD) R3125257-7 03/30/16 20:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	3.62	56.0	56.1	105	105	1	80-120			0	15

Method Blank (MB)

(MB) R3125151-4 03/30/16 08:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.0519	1.00

Original Sample (OS) • Duplicate (DUP)

(OS) L825736-02 03/30/16 10:13 • (DUP) R3125151-7 03/30/16 10:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	20.1	20.8	1	4		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3125151-5 03/30/16 08:56 • (LCSD) R3125151-6 03/30/16 09:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	39.2	40.0	98	100	80-120			2	15

Original Sample (OS) • Matrix Spike (MS)

(OS) L825736-04 03/30/16 10:58 • (MS) R3125151-8 03/30/16 11:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	9.17	58.9	99	1	80-120	

Method Blank (MB)

(MB) R3125535-3 04/01/16 00:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0100	0.0500
Acrolein	U		0.00887	0.0500
Acrylonitrile	U		0.00187	0.0100
Benzene	U		0.000331	0.00100
Bromobenzene	U		0.000352	0.00100
Bromodichloromethane	U		0.000380	0.00100
Bromoform	U		0.000469	0.00100
Bromomethane	U		0.000866	0.00500
n-Butylbenzene	U		0.000361	0.00100
sec-Butylbenzene	U		0.000365	0.00100
tert-Butylbenzene	U		0.000399	0.00100
Carbon tetrachloride	U		0.000379	0.00100
Chlorobenzene	U		0.000348	0.00100
Chlorodibromomethane	U		0.000327	0.00100
Chloroethane	U		0.000453	0.00500
2-Chloroethyl vinyl ether	U		0.00301	0.0500
Chloroform	U		0.000324	0.00500
Chloromethane	U		0.000276	0.00250
2-Chlorotoluene	U		0.000375	0.00100
4-Chlorotoluene	U		0.000351	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500
1,2-Dibromoethane	U		0.000381	0.00100
Dibromomethane	U		0.000346	0.00100
1,2-Dichlorobenzene	U		0.000349	0.00100
1,3-Dichlorobenzene	U		0.000220	0.00100
1,4-Dichlorobenzene	U		0.000274	0.00100
Dichlorodifluoromethane	U		0.000551	0.00500
1,1-Dichloroethane	U		0.000259	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
1,1-Dichloroethene	U		0.000398	0.00100
cis-1,2-Dichloroethene	U		0.000260	0.00100
trans-1,2-Dichloroethene	U		0.000396	0.00100
1,2-Dichloropropane	U		0.000306	0.00100
1,1-Dichloropropene	U		0.000352	0.00100
1,3-Dichloropropane	U		0.000366	0.00100
cis-1,3-Dichloropropene	U		0.000418	0.00100

Method Blank (MB)

(MB) R3125535-3 04/01/16 00:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
trans-1,3-Dichloropropene	U		0.000419	0.00100
2,2-Dichloropropane	U		0.000321	0.00100
Di-isopropyl ether	U		0.000320	0.00100
Ethylbenzene	U		0.000384	0.00100
Hexachloro-1,3-butadiene	U		0.000256	0.00100
Isopropylbenzene	U		0.000326	0.00100
p-Isopropyltoluene	U		0.000350	0.00100
2-Butanone (MEK)	U		0.00393	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100
Methyl tert-butyl ether	U		0.000367	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000349	0.00100
Styrene	U		0.000307	0.00100
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100
Tetrachloroethene	U		0.000372	0.00100
Toluene	U		0.000780	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100
1,2,3-Trichlorobenzene	U		0.000230	0.00100
1,2,4-Trichlorobenzene	U		0.000355	0.00100
1,1,1-Trichloroethane	U		0.000319	0.00100
1,1,2-Trichloroethane	U		0.000383	0.00100
Trichloroethene	U		0.000398	0.00100
Trichlorofluoromethane	U		0.00120	0.00500
1,2,3-Trichloropropane	U		0.000807	0.00250
1,2,3-Trimethylbenzene	U		0.000321	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Vinyl chloride	U		0.000259	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*104*			*90.0-115*
(S) Dibromofluoromethane	*103*			*79.0-121*
(S) 4-Bromofluorobenzene	*107*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3125535-1 03/31/16 23:22 • (LCSD) R3125535-2 03/31/16 23:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.182	0.180	146	144	28.7-175			1.18	20.9
Acrolein	0.125	0.326	0.382	261	305	40.4-172	J4	J4	15.7	20
Acrylonitrile	0.125	0.130	0.122	104	97.3	58.2-145			6.67	20
Benzene	0.0250	0.0234	0.0239	93.6	95.4	73.0-122			2.01	20
Bromobenzene	0.0250	0.0254	0.0256	101	102	81.5-115			0.790	20
Bromodichloromethane	0.0250	0.0249	0.0251	99.5	100	75.5-121			0.870	20
Bromoform	0.0250	0.0268	0.0271	107	108	71.5-131			0.960	20
Bromomethane	0.0250	0.0241	0.0283	96.6	113	22.4-187			16.0	20
n-Butylbenzene	0.0250	0.0266	0.0274	106	110	75.9-134			3.12	20
sec-Butylbenzene	0.0250	0.0263	0.0274	105	110	80.6-126			4.08	20
tert-Butylbenzene	0.0250	0.0265	0.0272	106	109	79.3-127			2.92	20
Carbon tetrachloride	0.0250	0.0246	0.0252	98.3	101	70.9-129			2.34	20
Chlorobenzene	0.0250	0.0263	0.0266	105	106	79.7-122			1.08	20
Chlorodibromomethane	0.0250	0.0270	0.0272	108	109	78.2-124			0.550	20
Chloroethane	0.0250	0.0239	0.0271	95.5	108	41.2-153			12.7	20
2-Chloroethyl vinyl ether	0.125	0.107	0.105	85.4	83.8	23.4-162			1.83	23.5
Chloroform	0.0250	0.0242	0.0244	96.8	97.7	73.2-125			0.920	20
Chloromethane	0.0250	0.0237	0.0263	94.8	105	55.8-134			10.4	20
2-Chlorotoluene	0.0250	0.0266	0.0271	106	108	76.4-125			1.73	20
4-Chlorotoluene	0.0250	0.0260	0.0266	104	106	81.5-121			2.11	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0279	0.0277	112	111	64.8-131			0.920	20
1,2-Dibromoethane	0.0250	0.0274	0.0269	109	108	79.8-122			1.61	20
Dibromomethane	0.0250	0.0260	0.0263	104	105	79.5-118			1.12	20
1,2-Dichlorobenzene	0.0250	0.0266	0.0270	106	108	84.7-118			1.29	20
1,3-Dichlorobenzene	0.0250	0.0266	0.0274	106	110	77.6-127			2.95	20
1,4-Dichlorobenzene	0.0250	0.0255	0.0262	102	105	82.2-114			3.01	20
Dichlorodifluoromethane	0.0250	0.0283	0.0292	113	117	56.0-134			3.08	20
1,1-Dichloroethane	0.0250	0.0242	0.0241	96.6	96.4	71.7-127			0.250	20
1,2-Dichloroethane	0.0250	0.0248	0.0248	99.2	99.1	65.3-126			0.200	20
1,1-Dichloroethene	0.0250	0.0277	0.0286	111	115	59.9-137			3.20	20
cis-1,2-Dichloroethene	0.0250	0.0240	0.0245	96.1	97.9	77.3-122			1.79	20
trans-1,2-Dichloroethene	0.0250	0.0242	0.0261	96.6	105	72.6-125			7.83	20
1,2-Dichloropropane	0.0250	0.0247	0.0251	98.6	100	77.4-125			1.73	20
1,1-Dichloropropene	0.0250	0.0239	0.0247	95.8	98.8	72.5-127			3.12	20
1,3-Dichloropropane	0.0250	0.0266	0.0265	107	106	80.6-115			0.700	20
cis-1,3-Dichloropropene	0.0250	0.0258	0.0259	103	104	77.7-124			0.570	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3125535-1 03/31/16 23:22 • (LCSD) R3125535-2 03/31/16 23:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
trans-1,3-Dichloropropene	0.0250	0.0259	0.0263	104	105	73.5-127			1.18	20
2,2-Dichloropropane	0.0250	0.0238	0.0254	95.1	101	61.3-134			6.39	20
Di-isopropyl ether	0.0250	0.0240	0.0260	95.8	104	65.1-135			8.35	20
Ethylbenzene	0.0250	0.0261	0.0266	104	107	80.9-121			2.04	20
Hexachloro-1,3-butadiene	0.0250	0.0268	0.0288	107	115	73.7-133			7.14	20
Isopropylbenzene	0.0250	0.0261	0.0266	104	107	81.6-124			1.96	20
p-Isopropyltoluene	0.0250	0.0269	0.0279	108	112	77.6-129			3.76	20
2-Butanone (MEK)	0.125	0.151	0.142	121	113	46.4-155			6.77	20
Methylene Chloride	0.0250	0.0218	0.0233	87.4	93.2	69.5-120			6.48	20
4-Methyl-2-pentanone (MIBK)	0.125	0.137	0.132	110	106	63.3-138			3.67	20
Methyl tert-butyl ether	0.0250	0.0251	0.0260	101	104	70.1-125			3.52	20
Naphthalene	0.0250	0.0268	0.0271	107	108	69.7-134			1.11	20
n-Propylbenzene	0.0250	0.0260	0.0267	104	107	81.9-122			2.53	20
Styrene	0.0250	0.0274	0.0275	110	110	79.9-124			0.300	20
1,1,1,2-Tetrachloroethane	0.0250	0.0265	0.0270	106	108	78.5-125			1.71	20
1,1,2,2-Tetrachloroethane	0.0250	0.0278	0.0273	111	109	79.3-123			1.97	20
Tetrachloroethene	0.0250	0.0264	0.0266	105	107	73.5-130			1.03	20
Toluene	0.0250	0.0233	0.0238	93.4	95.2	77.9-116			1.90	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0267	0.0281	107	113	62.0-141			5.27	20
1,2,3-Trichlorobenzene	0.0250	0.0279	0.0290	112	116	75.7-134			3.73	20
1,2,4-Trichlorobenzene	0.0250	0.0277	0.0286	111	115	76.1-136			3.44	20
1,1,1-Trichloroethane	0.0250	0.0247	0.0251	98.8	100	71.1-129			1.63	20
1,1,2-Trichloroethane	0.0250	0.0263	0.0269	105	108	81.6-120			2.31	20
Trichloroethene	0.0250	0.0250	0.0257	99.8	103	79.5-121			3.10	20
Trichlorofluoromethane	0.0250	0.0227	0.0248	90.7	99.2	49.1-157			8.91	20
1,2,3-Trichloropropane	0.0250	0.0270	0.0257	108	103	74.9-124			5.02	20
1,2,3-Trimethylbenzene	0.0250	0.0262	0.0270	105	108	79.9-118			3.21	20
1,2,4-Trimethylbenzene	0.0250	0.0263	0.0271	105	108	79.0-122			2.93	20
1,3,5-Trimethylbenzene	0.0250	0.0266	0.0274	107	110	81.0-123			2.85	20
Vinyl chloride	0.0250	0.0263	0.0286	105	115	61.5-134			8.57	20
Xylenes, Total	0.0750	0.0782	0.0803	104	107	79.2-122			2.60	20
(S) Toluene-d8				*104*	*105*	*90.0-115*				
(S) Dibromofluoromethane				*102*	*101*	*79.0-121*				
(S) 4-Bromofluorobenzene				*105*	*104*	*80.1-120*				

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L825715-04 04/01/16 03:03 • (MS) R3125535-4 04/01/16 01:23 • (MSD) R3125535-5 04/01/16 01:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.00112	0.0746	0.0757	58.8	59.7	1	25.0-156			1.43	21.5
Acrolein	0.125	ND	0.262	0.203	209	163	1	34.0-194	J5	J3	25.2	21.5
Acrylonitrile	0.125	ND	0.123	0.136	98.1	108	1	55.9-161			9.94	20
Benzene	0.0250	ND	0.0228	0.0242	91.2	96.7	1	58.6-133			5.91	20
Bromobenzene	0.0250	ND	0.0248	0.0258	99.2	103	1	70.6-125			3.75	20
Bromodichloromethane	0.0250	ND	0.0246	0.0260	98.4	104	1	69.2-127			5.63	20
Bromoform	0.0250	ND	0.0270	0.0284	108	114	1	66.3-140			5.27	20
Bromomethane	0.0250	ND	0.0243	0.0295	97.1	118	1	16.6-183			19.4	20.5
n-Butylbenzene	0.0250	ND	0.0264	0.0278	106	111	1	64.8-145			5.15	20
sec-Butylbenzene	0.0250	ND	0.0259	0.0266	103	106	1	66.8-139			2.76	20
tert-Butylbenzene	0.0250	ND	0.0257	0.0266	103	106	1	67.1-138			3.34	20
Carbon tetrachloride	0.0250	ND	0.0239	0.0220	95.8	87.9	1	60.6-139			8.56	20
Chlorobenzene	0.0250	ND	0.0254	0.0267	102	107	1	70.1-130			5.02	20
Chlorodibromomethane	0.0250	ND	0.0263	0.0282	105	113	1	71.6-132			7.07	20
Chloroethane	0.0250	ND	0.0241	0.0256	96.4	102	1	33.3-155			6.01	20
2-Chloroethyl vinyl ether	0.125	ND	0.0595	0.0389	47.6	31.1	1	5.00-149		J3	41.9	40
Chloroform	0.0250	ND	0.0234	0.0248	93.7	99.3	1	66.1-133			5.77	20
Chloromethane	0.0250	ND	0.0235	0.0262	94.0	105	1	40.7-139			11.0	20
2-Chlorotoluene	0.0250	ND	0.0255	0.0268	102	107	1	66.9-134			4.89	20
4-Chlorotoluene	0.0250	ND	0.0254	0.0261	102	105	1	66.8-134			2.69	20
1,2-Dibromo-3-Chloropropane	0.0250	ND	0.0272	0.0302	109	121	1	63.9-142			10.3	20.2
1,2-Dibromoethane	0.0250	ND	0.0260	0.0284	104	114	1	73.8-131			8.56	20
Dibromomethane	0.0250	ND	0.0257	0.0273	103	109	1	72.8-127			6.11	20
1,2-Dichlorobenzene	0.0250	ND	0.0260	0.0281	104	112	1	77.4-127			7.65	20
1,3-Dichlorobenzene	0.0250	ND	0.0264	0.0272	106	109	1	67.9-136			2.67	20
1,4-Dichlorobenzene	0.0250	ND	0.0255	0.0273	102	109	1	74.4-123			6.76	20
Dichlorodifluoromethane	0.0250	ND	0.0290	0.0311	116	124	1	42.2-146			6.78	20
1,1-Dichloroethane	0.0250	ND	0.0233	0.0245	93.3	97.9	1	64.0-134			4.79	20
1,2-Dichloroethane	0.0250	ND	0.0242	0.0261	96.7	104	1	60.7-132			7.59	20
1,1-Dichloroethene	0.0250	ND	0.0263	0.0256	105	102	1	48.8-144			2.63	20
cis-1,2-Dichloroethene	0.0250	0.000473	0.0238	0.0251	93.3	98.6	1	60.6-136			5.45	20
trans-1,2-Dichloroethene	0.0250	ND	0.0236	0.0250	94.5	100	1	61.0-132			5.72	20
1,2-Dichloropropane	0.0250	ND	0.0244	0.0255	97.4	102	1	69.7-130			4.61	20
1,1-Dichloropropene	0.0250	ND	0.0233	0.0244	93.3	97.6	1	61.5-136			4.42	20
1,3-Dichloropropane	0.0250	ND	0.0257	0.0275	103	110	1	74.3-123			6.76	20
cis-1,3-Dichloropropene	0.0250	ND	0.0252	0.0268	101	107	1	71.1-129			6.33	20

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L825715-04 04/01/16 03:03 • (MS) R3125535-4 04/01/16 01:23 • (MSD) R3125535-5 04/01/16 01:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
trans-1,3-Dichloropropene	0.0250	ND	0.0254	0.0274	102	110	1	66.3-136			7.56	20
2,2-Dichloropropane	0.0250	ND	0.0232	0.0246	93.0	98.4	1	54.9-142			5.63	20
Di-isopropyl ether	0.0250	ND	0.0231	0.0248	92.6	99.1	1	59.9-140			6.81	20
Ethylbenzene	0.0250	ND	0.0254	0.0263	102	105	1	62.7-136			3.28	20
Hexachloro-1,3-butadiene	0.0250	ND	0.0266	0.0290	106	116	1	61.1-144			8.53	20.1
Isopropylbenzene	0.0250	ND	0.0253	0.0261	101	104	1	67.4-136			3.24	20
p-Isopropyltoluene	0.0250	ND	0.0265	0.0271	106	108	1	62.8-143			1.93	20
2-Butanone (MEK)	0.125	ND	0.0973	0.108	77.9	86.6	1	45.0-156			10.7	20.8
Methylene Chloride	0.0250	ND	0.0212	0.0216	84.9	86.4	1	61.5-125			1.76	20
4-Methyl-2-pentanone (MIBK)	0.125	ND	0.126	0.141	101	113	1	60.7-150			10.7	20
Methyl tert-butyl ether	0.0250	ND	0.0241	0.0249	96.3	99.5	1	61.4-136			3.28	20
Naphthalene	0.0250	ND	0.0259	0.0281	104	112	1	61.8-143			8.21	20
n-Propylbenzene	0.0250	ND	0.0253	0.0261	101	104	1	63.2-139			3.18	20
Styrene	0.0250	ND	0.0265	0.0278	106	111	1	68.2-133			4.74	20
1,1,1,2-Tetrachloroethane	0.0250	ND	0.0260	0.0271	104	108	1	70.5-132			4.34	20
1,1,2,2-Tetrachloroethane	0.0250	ND	0.0277	0.0297	111	119	1	64.9-145			7.01	20
Tetrachloroethene	0.0250	0.0123	0.0356	0.0369	93.0	98.4	1	57.4-141			3.71	20
Toluene	0.0250	ND	0.0227	0.0240	90.9	96.0	1	67.8-124			5.53	20
1,1,2-Trichlorotrifluoroethane	0.0250	ND	0.0263	0.0257	105	103	1	53.7-150			2.24	20
1,2,3-Trichlorobenzene	0.0250	ND	0.0274	0.0299	110	120	1	65.7-143			8.80	20
1,2,4-Trichlorobenzene	0.0250	ND	0.0278	0.0306	111	122	1	67.0-146			9.61	20
1,1,1-Trichloroethane	0.0250	ND	0.0239	0.0254	95.6	102	1	58.7-134			6.20	20
1,1,2-Trichloroethane	0.0250	ND	0.0259	0.0273	104	109	1	74.1-130			4.99	20
Trichloroethene	0.0250	0.000255	0.0245	0.0262	96.9	104	1	48.9-148			6.74	20
Trichlorofluoromethane	0.0250	ND	0.0229	0.0232	91.4	92.9	1	39.9-165			1.62	20
1,2,3-Trichloropropane	0.0250	ND	0.0258	0.0279	103	112	1	71.5-134			7.77	20
1,2,3-Trimethylbenzene	0.0250	ND	0.0257	0.0273	103	109	1	62.7-133			5.69	20
1,2,4-Trimethylbenzene	0.0250	ND	0.0258	0.0266	103	106	1	60.5-137			3.07	20
1,3,5-Trimethylbenzene	0.0250	ND	0.0260	0.0267	104	107	1	67.9-134			2.47	20
Vinyl chloride	0.0250	ND	0.0263	0.0278	105	111	1	44.3-143			5.54	20
Xylenes, Total	0.0750	ND	0.0770	0.0789	103	105	1	65.6-133			2.41	20
(S) Toluene-d8					*104*	*104*		*90.0-115*				
(S) Dibromofluoromethane					*103*	*104*		*79.0-121*				
(S) 4-Bromofluorobenzene					*104*	*103*		*80.1-120*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

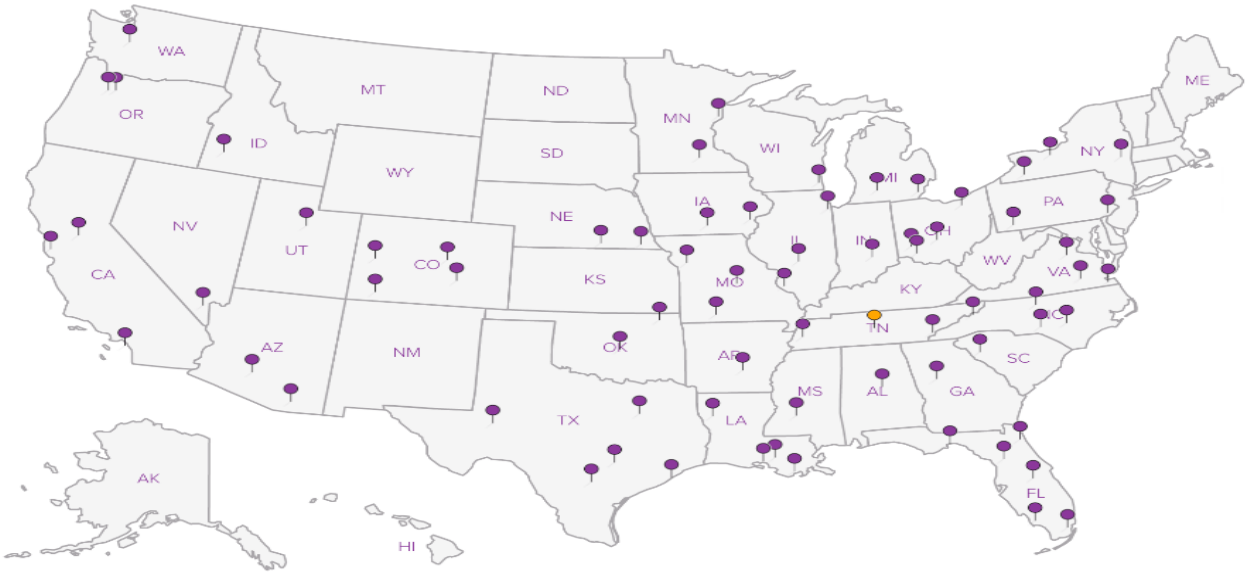
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
A2LA – ISO 17025 [5]	1461.02
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Swift Creek Environmental, Inc.
8201 County Drive
Disputanta, VA 23842

Billing Information:
Mr. Tom Houghton
8201 County Dr.
Disputanta, VA 23842

Report to: Mr. Tom Houghton
Email To: swiftcreekinc@aol.com

Project Description: Globe Tobacco
City/State Collected:

Phone:
Fax:
Client Project # 05-028
Lab Project # SWICRKDVA-GLOBE

Collected by (print): Bobby Crandell
Site/Facility ID #
P.O. #

Collected by (signature):
Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed
Email? ___No X__Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L825736
B050
Acctnum: SWICRKDVA
Template: T110741
Prelogin: P546457
TSR: 364 - T. Alan Harvill
PB: 3-18-16
Shipped Via: FedEx Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CHLORIDE 125mlHDPE-NoPres	V8260 40mlAmb-HCl	Rem./Contaminant	Sample # (lab only)
SC-GT-MW-7	Grab	GW		3-24-16	1235	3	X	X		-01
SC-GT-MW-8		GW			1215	3	X	X		-02
SC-GT-MW-9		GW			1255	3	X	X		-03
SC-GT-MW-10		GW			1140	3	X	X		-04
SC-GT-MW-11		GW			1050	3	X	X		-05
SC-GT-MW-12		GW			1115	3	X	X		-06
~~TRIP~~ RAC		GW				3	X	X		
		GW				3	X	X		
		GW				3	X	X		
Trip Blank					db	~~2~~ 1		X		-07

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks:

pH _____ Temp _____ 617101225041
Flow _____ Other _____

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	3-24-16	1510	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____
Temp: 3.1 °C Bottles Received: 29
Date: 3-25-16 Time: 0900

Hold #
Condition: (lab use only) Jw OK
COC Seal Intact: ✓ Y ___N ___NA
pH Checked: NCF:

ATTACHMENT 5

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- Swift Creek Environmental Incorporated 3rd Quarterly NAM Report, March 19, 2014
- Swift Creek Environmental Incorporated 4th Quarterly NAM Report/RI/CAPIA, June 24, 2014
  Swift Creek Environmental Incorporated off-Site Access Request Letter, October 14, 2014
- Swift Creek Environmental Incorporated 1st Semi Annual Year 2 Report, January 28, 2015
- Swift Creek Environmental Incorporated 2nd Semi Annual Year 2 Report, October 28, 2015
- NIOSH - MSDS Mn and Na Chloride.
- NJDEP, Ambient Levels of Metals in New Jersey Soils, May 2003.