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Ms. Addie Walker
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

March 6, 2014

Dear Ms. Walker,

Subject: VCC Progress Report #3
Auriga, Spartanburg Facility
BoW Site ID# 00225, VCC 13-5841-RP
AECOM Project No. 60280417

Please find enclosed the above referenced report. As requested by you, two hard copies and one electronic copy on CD are included.

If you have questions, please contact me at 404.965.9657.

Sincerely,

Bryon Dahlgren, PE
Project Manager

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AECOM Environment

Prepared for:
CNA Holdings LLC
Dallas, TX

Prepared by:
AECOM
Atlanta, GA
60280417
March 2014

Auriga Spartanburg
Voluntary Cleanup Contract 13-5841-RP
Progress Report #3
March 2014

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Auriga Spartanburg
Voluntary Cleanup Contract 13-5841-RP
Progress Report #3
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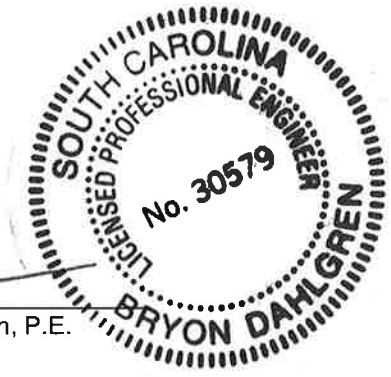

Prepared By Bryon Dahlgren, P.E.
Project Manager

Reviewed By Everett W. Glover, Jr. P.E.
Program Director

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1.0 Introduction

The purpose of this document is to provide to the South Carolina Department of Health and Environmental Control (DHEC) an update of activities at the Auriga facility in Spartanburg, South Carolina (SC) (site) under Voluntary Cleanup Contract13-5841-RP (VCC) signed March 12, 2013. Activity to be completed at the site was defined in the VCC work plan submitted April 26, 2013 and approved January 21, 2014. This progress report covers the period of September 1, 2013 through February 28, 2014.

As requested during a conversation with Addie Walker on January 21, 2014, the organization of this progress report has been modified to present sections grouped by operable unit. The chloroform plume in both the former DMT area and the Bruckner Road area are presented as a single operable unit.

A schedule of activities was presented in the VCC work plan. An updated version of the schedule is presented as Figure 1.

Two annual monitoring events are defined in the VCC work plan. The site-wide event is scheduled for completion in June of each year. The scope of June event is presented in Table 1. Table 1 of this report has been expanded from the VCC monitoring plan to include the additional performance monitoring wells. Installation of these wells is expected to be complete prior to the June 2014 event. A smaller event focused on the chloroform plume area is scheduled for completion in December of each year and presented in Table 2.

2.0 Chloroform in Groundwater

Chloroform at the site is identified as an aqueous plume extending south-southeast from the DMT area. No remaining or on-going source was identified. Continued delineation and remediation activities were established in the VCC work plan and separate documents.

2.1 Actions Completed During Reporting Period

The semiannual groundwater monitoring event associated with the chloroform plume was completed in early December. Samples were collected between December 2 and December 4. Three surface water locations were also sampled along Bruckner Creek. The monitoring locations are presented on Figure 2. The complete laboratory analytical results are attached to this progress report. A summary of groundwater results is presented on Table 3. A summary of surface water results is presented on Table 4.

Chloroform results were consistent with recent historic data. The results are presented on Figure 2. Chloroform remediation has been shown to be effective in areas of prior treatment. Additional areas for further remediation have been identified in recent studies. The December 2013 results are consistent with these established conclusions.

Direct Push Technology (DPT) investigations to complete delineation were approved by DHEC in September 2013. The temporary monitoring wells were installed and sampled in October 2013. The results were submitted to DHEC on November 22, 2013. Based on the results of the DPT work the chloroform delineation was determined to be complete.

Installation of performance monitoring wells began in December. Nine saprolite wells were installed in the former DMT vicinity. Five saprolite wells were installed on the 600 Bruckner Road property. Bedrock wells are also being installed paired with each of the saprolite wells. Installation of bedrock wells includes two packer test locations for vertical delineation of chloroform. The bedrock well installation activities began in early January and are expected to be completed in early March, during the next reporting period.

A lactate injection permit application was submitted to DHEC Underground Injection Control (UIC) on February 21, 2014.

2.2 Actions Scheduled For Next Reporting Period

Installation of bedrock performance monitoring wells will continue into the next reporting period. Once the well installations are complete a baseline sampling event of the 28 performance monitoring wells will be completed. This sampling event is expected to occur in late March or early April 2014.

A separate report will be prepared and submitted to DHEC after the baseline sampling data are received. This report will include the results of the baseline event, as well as final surveying and construction details for the wells.

After completion of the baseline sampling event and receipt of the UIC permit, sodium lactate injection activities will be initiated in both the former DMT vicinity and also the 600 Bruckner Road property. Injection is targeted to begin in April and is estimated to require two months to complete.

Activity is also anticipated west of Bruckner Road. The schedule of activities in this area is dependent on an access agreement.

The annual groundwater monitoring event will be completed in June 2014. This event will include monitoring of the wells in the December sampling plan, as well as the new performance monitoring wells. The complete monitoring plan is presented on Table 1. Table 1 is revised from the VCC annual monitoring plan to include the new performance monitoring wells.

Because injection is expected to be completed just before this event, the June 2014 results will not be considered to be the first quarterly performance monitoring. The performance monitoring wells will be sampled in September 2014 as the first post-injection performance monitoring event.

3.0 1,4-Dioxane in Groundwater

1,4-Dioxane has been identified in site groundwater. Several known sources of 1,4-dioxane impact to groundwater were removed in the mid to late 1990's including the in-ground basins associated with the wastewater treatment system and the sludge holding and sludge drying lagoons. Continued monitoring and evaluation was established as the course of action in the VCC work plan.

3.1 Actions Completed During Reporting Period

The VCC workplan was approved, including annual sampling of 1,4-dioxane as part of the site-wide groundwater and surface water monitoring program.

Analysis for 1,4-dioxane was included in the December sampling for locations south of I-85 (Table 3). There were no detections of 1,4-dioxane in groundwater samples with the exception of well RW-111. As a one-time enhancement to the sampling plan presented in the VCC work plan the sample from well RW-111 was analyzed for 1,4-dioxane using method M522. The result of this analysis was 0.000123 milligrams per liter (mg/L), below the DHEC action level of 0.00067 mg/L.

Detections in surface water ranged from 0.00237 mg/L to 0.00308 mg/L (Table 4). These results are consistent with prior historic data. The results are also consistent with the chloroform data in that concentrations decline with distance downstream as the creek approaches the Pacolet River. This observation supports the conclusion that the creek is a gaining stream and 1,4-dioxane entering the creek upstream is attenuated by groundwater discharge to the creek.

3.2 Actions Scheduled For Next Reporting Period

The baseline sampling of new performance monitoring wells will include analysis of 1,4-dioxane for the samples collected south of I-85.

The annual site-wide monitoring will be completed in June 2014. As shown on Table 1, 73 groundwater samples and 14 surface water samples are scheduled for 1,4-dioxane analysis. The 73 wells include MW-112 through RW-121, which are performance monitoring wells for the chloroform remediation.

4.0 DowTherm A™ in Groundwater

DowTherm A™ (DowTherm) is comprised of approximately 27% 1,1-biphenyl and 73% diphenyl ether. The presence of DowTherm A™ in soil and groundwater is interpreted to be residual impact from events prior to enhancements in plant operations and housekeeping. Continued monitoring and evaluation was established as the course of action in the VCC work plan.

4.1 Actions Completed During Reporting Period

The VCC workplan was approved, including annual sampling of DowTherm A™ as part of the site-wide groundwater and surface water monitoring program.

4.2 Actions Scheduled For Next Reporting Period

The baseline sampling of new performance monitoring wells will include analysis of DowTherm A™ for the samples collected south of I-85.

The annual site-wide monitoring will be completed in June 2014. As shown on Table 1, 46 groundwater samples and 12 surface water samples are scheduled for 1,1-biphenyl, and diphenyl ether analysis.

5.0 DowTherm A™ Phase Material

Separate phase DowTherm A™ has been removed in the area of wells MW-07 and MW-39 downgradient of the former Fiber 1 EQ basin since startup of an extraction and decanting system in August 2001.

5.1 Actions Completed During Reporting Period

The VCC workplan was approved, including annual sampling of DowTherm A™ as part of the site-wide groundwater and surface water monitoring program.

The investigation of phase DowTherm A™ in the vicinity of MW-7 was also approved as part of the VCC work plan.

5.2 Actions Scheduled For Next Reporting Period

The annual site-wide monitoring will be completed in June 2014. As shown on Table 1, 46 groundwater samples and 12 surface water samples are scheduled for 1,1-biphenyl and diphenyl ether analysis. Portions of this monitoring event will apply directly to the phase material investigation.

The current schedule project is presented on Figure 1. Planning of the field investigation is targeted for the next reporting period with field activities to occur later in 2014.

6.0 Other Chlorinated Solvents in Groundwater

Detection of other chlorinated compounds in groundwater have been identified in isolated areas. Detections consist primarily of tetrachloroethene (PCE), trichloroethene (TCE), and their degradation product cis-1,2-dichloroethene (cDCE). These compounds are primarily noted near well MW-99 west of the DMT area and north of the plant between well MW-40 and Lake Patrick. 1,1-Dichlorethene (1,1-DCE) has also been noted at isolated locations. Continued monitoring and evaluation was established as the course of action in the VCC work plan.

6.1 Actions Completed During Reporting Period

The VCC workplan was approved, including annual sampling of Volatile Organic Compounds (VOCs) as part of the site-wide groundwater and surface water monitoring program.

6.2 Actions Scheduled For Next Reporting Period

The annual site-wide monitoring will be completed in June 2014. As shown on Table 1, 31 groundwater samples and 12 surface water samples are scheduled for VOC analysis.

Baseline monitoring of the chloroform performance monitoring wells will also include full VOC analysis by Method 8260. The results produced from the performance monitoring events will contribute to the assessment of other chlorinated solvents in groundwater.

7.0 Cherokee Creek and Sediments and Ecological Habitat

In 2011, SCDHEC completed a macroinvertebrate study of the Pacolet River, including work along Cherokee Creek near the site. In response to the findings of that study SCDHEC requested additional actions including an ecological assessment and potential source evaluation. Most of the response required for this OU has been completed and is described in documents listed in Appendix B of the VCC and in Section 1 of the VCC Work Plan. Continued surface water monitoring and evaluation was established as the course of action in the VCC work plan.

7.1 Actions Completed During Reporting Period

The VCC workplan was approved, including annual sampling of Volatile Organic Compounds (VOCs) as part of the site-wide groundwater and surface water monitoring program.

7.2 Actions Scheduled For Next Reporting Period

Surface water monitoring will be included in the June 2014 annual sampling event.

8.0 Other Site-wide Activities

Because the June and December monitoring events encompass multiple operable units, they were defined in the VCC work plan as distinct operable unit. Details of these events specific to each operable unit are provided in the sections above.

8.1 Actions Completed During Reporting Period

The VCC work plan was approved, including the June and December monitoring events as shown on Tables 1 and 2. The December monitoring event was completed between December 2 and December 4, 2013. The results are summarized in Tables 3 and 4. Complete laboratory results are attached to this report. The results are discussed further in prior sections of this report.

8.2 Actions Scheduled For Next Reporting Period

The June sampling event will be completed during the next reporting period. As shown on Table 1, the June event will include the sampling plan approved in the VCC work plan modified to include the new performance monitoring wells.

9.0 Problems Encountered and Responses

Several periods of severe winter weather were encountered during the performance monitoring well installation activities which resulted as a delay in progress. The schedule presented on Figure 1 includes the current estimated schedule, including consideration of these delays.

No other problems were encountered.

Tables

Table 1
Annual Monitoring Plan
Auriga Spartanburg Facility
AECOM Project No. 60280417

Sample Location	VOCs (8260)	1,4-Dioxane	DowTherm A ™ (1)	Natural Attenuation Parameters
Groundwater				
EW-01		X	X	
EW-02		X	X	
EW-07		X		
EW-14	X	X	X	
EW-15		X		
EW-16		X	X	
EW-17		X	X	
EW-20	X	X		
EW-22		X	X	
EW-26		X	X	
EW-27		X	X	
EW-28		X	X	
EW-30	X			X
EW-31		X		X
EW-32		X	X	
EW-36	X			X
EW-37	X	X		X
EW-38	X	X		
EW-39	X			X
EW-40	X			X
EW-41	X	X		X
EW-43		X	X	
EW-47	X	X		
EW-49	X	X	X	X
EW-50	X			X
EW-52	X	X	X	X
EW-53	X	X	X	X
MW-03	X	X		
MW-05		X	X	
MW-07		X	X	
MW-09A		X		
MW-26		X		
MW-39		X	X	
MW-40R		X	X	
MW-41		X		
MW-42		X	X	
MW-45	X			X
MW-46	X			X
MW-53		X	X	
MW-57		X		
MW-81		X	X	
MW-96		X	X	
MW-97		X	X	

Table 1
Annual Monitoring Plan
Auriga Spartanburg Facility
AECOM Project No. 60280417

Sample Location	VOCs (8260)	1,4-Dioxane	DowTherm A ™ (1)	Natural Attenuation Parameters
MW-98	X	X		
MW-99	X	X	X	X
MW-102		X	X	
MW-103	X	X	X	X
MW-105	X	X	X	X
MW-106	X	X	X	X
MW-107	X	X	X	X
MW-109	X	X	X	X
RW-08		X	X	
RW-24		X	X	
RW-29	X	X	X	X
RW-43		X	X	
RW-47	X			X
RW-48	X	X	X	X
RW-56		X		
RW-65	X	X	X	X
RW-79		X	X	
RW-80		X	X	
RW-82		X	X	
RW-83A		X	X	
RW-84		X	X	
RW-85		X	X	
RW-86		X	X	
RW-87		X	X	
RW-91		X	X	
RW-92		X	X	
RW-108	X	X	X	X
RW-110	X	X		X
RW-111	X	X		X
MW-112	X	X		X
RW-113	X	X		X
MW-114	X	X		X
RW-115	X	X		X
MW-116	X	X		X
RW-117	X	X		X
MW-118	X	X		X
RW-119	X	X		X
MW-120	X	X		X
RW-121	X	X		X
MW-122	X			X
RW-123	X			X
MW-124	X			X
RW-125	X			X
MW-126	X			X
RW-127	X			X
MW-128	X			X

Table 1
Annual Monitoring Plan
Auriga Spartanburg Facility
AECOM Project No. 60280417

Sample Location	VOCs (8260)	1,4-Dioxane	DowTherm A ™ (1)	Natural Attenuation Parameters
RW-129	X			X
RW-130	X			X
MW-131	X			X
RW-132	X			X
MW-133	X			X
RW-134	X			X
RW-135	X			X
MW-136	X			X
RW-137	X			X
MW-138	X			X
RW-139	X			X
Surface Water				
SW-01	X	X	X	
SW-02	X	X	X	
SW-03	X	X	X	
SW-04	X	X	X	
SW-05	X	X	X	
SW-06	X	X	X	
SW-07	X	X	X	
SW-08	X	X	X	
SW-09	X	X	X	
SW-10	X	X	X	
SW-11	X	X	X	
SW-12	X	X	X	
SW-13	X	X		
SW-14	X	X		

Notes

NA Parameters - Temperature, pH, dissolved oxygen (DO), oxidation-reduction potential (ORP), ortho phosphate, sulfate, sulfide, alkalinity, chloride, nitrate, nitrite, dissolved ferrous iron, dissolved manganese, and total organic carbon (TOC).
(1) - DowTherm A™ compoenents are 1,1-biphenyl and Diphenyl Ether

Table 2
December Chloroform Monitoring Plan
Auriga Spartanburg Facility
AECOM Project No. 60280417

Sample Location	VOCs	NA Params
Groundwater		
EW-31	X	X
EW-37	X	X
EW-41	X	X
EW-49	X	X
EW-52	X	X
EW-53	X	X
MW-99	X	X
MW-103	X	X
MW-105	X	X
MW-106	X	X
MW-107	X	X
MW-109	X	X
RW-29	X	X
RW-48	X	X
RW-65	X	X
RW-108	X	X
RW-110	X	X
RW-111	X	X
Surface Water		
SW-12	X	
SW-13	X	
SW-14	X	

Notes:
NA Params - Natural Attenuation Parameters:
Temperature, pH, dissolved oxygen (DO), ORP, alkalinity, chloride, dissolved ferrous iron, manganese, and total organic carbon (TOC)

Table 3
Summary of Groundwater Analytical Results
December 2013
Auriga Spartanburg Facility
AECOM Project No. 60280417

Parameter	Unit	EW-31 12/3/2013	EW-37 12/4/2013	EW-41 12/3/2013	EW-41 Dup 12/3/2013	EW-49 12/3/2013	EW-52 12/3/2013	EW-53 12/4/2013	MW-99 12/3/2013	MW-103 12/4/2013	MW-105 12/3/2013
Volatile Organics and 1,4-Dioxane											
chloroform	mg/L	<0.005	0.0836	0.0453	0.0437	<0.005	<0.005	0.0172	0.00887	<0.005	0.197
cis-1,2-dichloroethene	mg/L	<0.005	<0.005	<0.005	<0.005	0.00871	0.0643	<0.005	0.136	<0.005	0.0158
1,4-dioxane	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tetrachloroethene	mg/L	<0.005	0.00565	<0.005	<0.005	<0.005	<0.005	<0.005	0.187	<0.005	<0.005
trichloroethene	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.03	<0.005	<0.005
Field and Natural Attenuation Parameters											
alkalinity	mg/L	119	23.4	28.9	28.3	100	58.9	71.4	3.27	<1	9.27
chloride	mg/L	8.12	10.8	3.57	3.56	2.22	3.14	10.5	1.84	2.94	7.05
dissolved oxygen	mg/L	0.65	0.38	0.54	0.54	0.02	0.12	0.61	1.95	5.26	4.58
ferrous Fe	mg/L	1	4	2	2	0	3.5	4.2	0	0	0
groundwater elevation	feet MSL	671.52	722.05	671.34	671.34	727.84	723.88	698.54	732.24	692.62	718.18
manganese (dissolved)	mg/L	1.66	0.574	0.554	0.523	0.057	0.209	1.67	0.033	0.045	<0.01
ORP	mV	-65.7	40.2	10	10	-85.2	-49.2	-21.3	131	179.8	65.5
pH	su	6.92	5.54	5.78	5.78	8.34	6.98	6.34	5.12	4.55	5.4
specific conductance	umhos/cm	235	109	101	101	224	153	181	43	62	71
temperature	degrees C	14.59	17.89	15.34	15.34	16.48	16.64	18.08	19.13	15.93	18.29
total organic carbon	mg/L	<1	<1	<1	<1	1.05	<1	<1	<1	<1	<1
turbidity	NTU	9.37	160	38.5	38.5	1.4	43.9	20.1	0.41	6.05	3.7

Notes:

NA - Not Analyzed
degrees C - degress Celsius
feet MSL - feet above mean sea level
mg/L - milligrams per liter
mV - millivolts
NTU = nephelometric turbidity units
su - standard units
umhos/cm - micromhos/cm

Table 3
Summary of Groundwater Analytical Results
December 2013
Auriga Spartanburg Facility
AECOM Project No. 60280417

Parameter	Unit	MW-105 Dup 12/3/2013	MW-106 12/3/2013	MW-107 12/4/2013	MW-109 12/3/2013	RW-29 12/3/2013	RW-48 12/3/2013	RW-65 12/3/2013	RW-108 12/3/2013	RW-110 12/2/2013	RW-111 12/2/2013
Volatile Organics and 1,4-Dioxane											
chloroform	mg/L	0.193	0.0061	0.0873	0.813	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,2-dichloroethene	mg/L	0.0159	<0.005	<0.005	<0.025	<0.005	<0.005	0.00533	<0.005	<0.005	<0.005
1,4-dioxane	mg/L	NA	NA	NA	<0.002	NA	NA	NA	<0.002	<0.002	0.000123
tetrachloroethene	mg/L	<0.005	<0.005	<0.005	<0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trichloroethene	mg/L	<0.005	<0.005	<0.005	<0.025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Field and Natural Attenuation Parameters											
alkalinity	mg/L	9.81	<1	20.7	20.2	64.3	106	102	194	76.3	65.4
chloride	mg/L	7.14	4.09	2.03	3.52	1.53	2.53	12.5	5.21	3.44	1.53
dissolved oxygen	mg/L	4.58	6.94	4.54	6.41	0.07	0.09	0.35	1.63	1.04	2.74
ferrous Fe	mg/L	0	0	0	0.02	0	1.2	0.3	0.05	0.41	0.02
groundwater elevation	feet MSL	718.18	718.78	688.56	675.9	774.12	709.41	686.25	675.37	683.74	700
manganese (dissolved)	mg/L	<0.01	0.015	<0.01	<0.01	0.01	1.29	1.57	0.155	0.019	0.045
ORP	mV	65.5	89.6	115.2	177.3	-134	-150.2	-43.5	78.6	186.5	71.4
pH	su	5.4	4.7	5.33	5.57	7.41	6.83	7.2	7.82	5.82	7.22
specific conductance	umhos/cm	71	49	71	0.049	175	269	283	0.27	176	163
temperature	degrees C	18.29	17.24	15.59	19.09	17.04	17.08	16.04	17.4	17.57	16.26
total organic carbon	mg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
turbidity	NTU	3.7	2.47	2.2	5.75	3.31	214.7	1.53	6.58	99.6	1.14

Notes:

NA - Not Analyzed
degrees C - degress Celsius
feet MSL - feet above mean sea level
mg/L - milligrams per liter
mV - millivolts
NTU = nephelometric turbidity units
su - standard units
umhos/cm - micromhos/cm

Table 4
Summary of Surface Water Analytical Results
December 2013
Auriga Spartanburg Facility
AECOM Project No. 60280417

Parameter	Unit	SW-12 12/3/2013	SW-13 12/3/2013	SW-14 12/3/2013
1,4-dioxane	mg/L	0.00308	0.00253	0.00237
chloroform	mg/L	0.0203	0.0131	0.0086
dissolved oxygen	mg/L	10	9.24	10.2
ORP	mV	181.9	197	179
pH	su	5.66	5.54	7.3
specific conductance	umhos/cm	0.86	0.84	0.084
temperature	degrees C	12.83	12.43	11.98
turbidity	NTU	2.05	1.82	1.88

Notes

NA - Not Analyzed
degrees C - degress Celsius
mg/L - milligrams per liter
mV - millivolts
NTU = nephelometric turbidity units
su - standard units
umhos/cm - micromhos/cm

Figures

ID	Task Mode	Task Name	Resource	Duration	Start	Finish	Predecessors
0		**Spartanburg VCC Work Plan Schedule**		**656 days**	**Tue 3/12/13**	**Tue 9/15/15**	
1		VCC signed	DHEC / Celanese	0 days	Tue 3/12/13	Tue 3/12/13	
2		**VCC Deliverables**		**243 days**	**Thu 4/25/13**	**Tue 4/1/14**	
3		**VCC Work Plan**		**194 days**	**Fri 4/26/13**	**Wed 1/22/14**	
4		VCC work plan submitted to DHEC	AECOM	1 day	Fri 4/26/13	Fri 4/26/13	1FS+45 edays
5		DHEC review of work plan	DHEC	192 days	Mon 4/29/13	Tue 1/21/14	4
6		Receive DHEC comments on Work Plan	DHEC	1 day	Wed 1/22/14	Wed 1/22/14	5
7		Response to Work plan Comments	AECOM	0 edays	Wed 1/22/14	Wed 1/22/14	6
8		Final Work Plan to DHEC	AECOM	0 days	Wed 1/22/14	Wed 1/22/14	7
9		VCC Health and Safety Plan Submitted	AECOM	0 days	Thu 4/25/13	Thu 4/25/13	
10		First VCC Progress Report	AECOM	0 days	Tue 5/7/13	Tue 5/7/13	
11		**Second VCC Progress Report**	**AECOM**	**0 days**	**Tue 9/17/13**	**Tue 9/17/13**	
13		**Third VCC Progress Report**	**AECOM**	**0 days**	**Mon 3/31/14**	**Mon 3/31/14**	
14		Include December 2013 chloroform monitoring	AECOM	0 days	Mon 3/31/14	Mon 3/31/14	
15		Continue seminannual progress reports (March / Sept)	AECOM	0 edays	Tue 4/1/14	Tue 4/1/14	
16		**Chloroform plume associated with former DMT area**		**643 days**	**Fri 3/29/13**	**Tue 9/15/15**	
17		**DMT chloroform**		**643 days**	**Fri 3/29/13**	**Tue 9/15/15**	
18		DMT plan submitted to DHEC	AECOM	0 days	Fri 3/29/13	Fri 3/29/13	
19		DHEC review of DMT plan	DHEC	53 days	Fri 3/29/13	Tue 6/11/13	
20		Response to DHEC comments	AECOM	25 days	Wed 6/12/13	Tue 7/16/13	
21		DHEC review of response	DHEC	36 days	Wed 7/17/13	Wed 9/4/13	
22		Approval of DMT plan with comments	DHEC	1 day	Thu 9/5/13	Thu 9/5/13	
23		Receive approval for delineation direct push monitoring	DHEC	0 days	Tue 9/17/13	Tue 9/17/13	
24		Right of way clearance from DOT	AECOM	0 days	Fri 9/20/13	Fri 9/20/13	54
25		schedule driller for DPTs	AECOM	0 days	Thu 10/3/13	Thu 10/3/13	55
26		Delineation DPTs	AECOM / Sub	4 days	Tue 10/15/13	Fri 10/18/13	56
27		Receive delineation data	Lab	0 days	Fri 11/22/13	Fri 11/22/13	26FS+25 days
28		Response to approval comments	AECOM	12 days	Fri 9/6/13	Mon 9/23/13	22

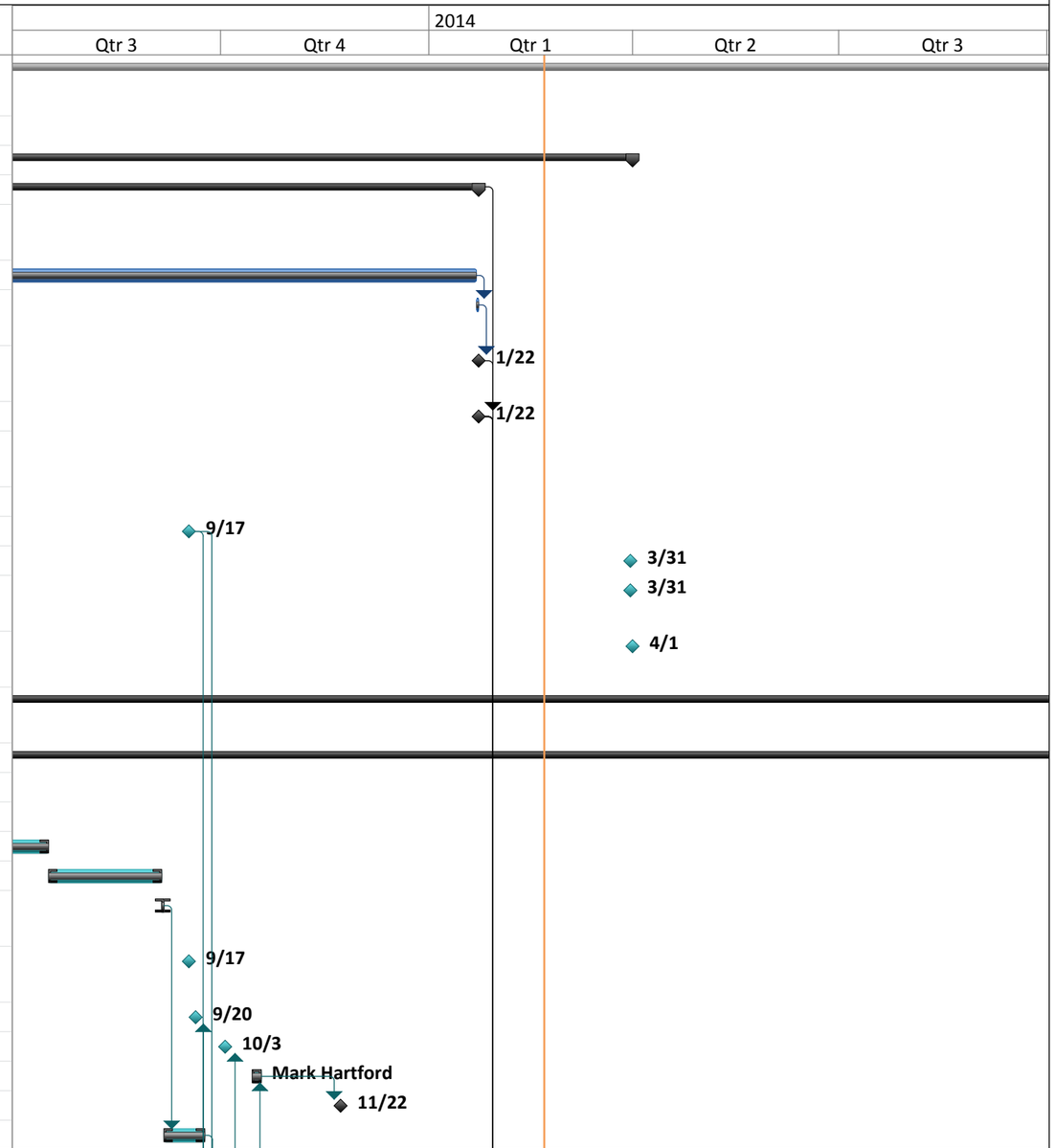

Figure 1
Work Plan Schedule
Date: Fri 2/21/14

Task	Project Summary	Inactive Milestone	Manual Summary Rollup	Deadline	
Split	External Tasks	Inactive Summary	Manual Summary	Progress	
Milestone	External Milestone	Manual Task	Start-only		
Summary	Inactive Task	Duration-only	Finish-only		

ID	Task Mode	Task Name	Resource	Duration	Start	Finish	Predecessors
29		DHEC review revised performance monitoring	DHEC	40 days	Tue 9/24/13	Mon 11/18/13	28
30		Receive final approval	DHEC	0 days	Tue 11/19/13	Tue 11/19/13	29
31		Submit UIC permit application	AECOM	0 days	Fri 2/21/14	Fri 2/21/14	
32		Receive UIC Permit	DHEC	0 days	Thu 3/20/14	Thu 3/20/14	31FS+20 days
33		Schedule driller and complete clearance	AECOM / Sub	10 days	Tue 11/19/13	Mon 12/2/13	30
34		Install performance monitoring wells and complete packer test	AECOM/ Sub	79 days	Tue 12/3/13	Fri 3/21/14	33
35		Receive lactate on site		0 days	Thu 4/10/14	Thu 4/10/14	32FS+15 days
36		Injection activities	AECOM / Sub	30 days	Fri 4/11/14	Thu 5/22/14	35
37		June Monitoring Event	AECOM / Sub	5 days	Mon 6/9/14	Fri 6/13/14	
38		Quarterly Performance Monitoring	AECOM / Sub	5 days	Mon 9/8/14	Fri 9/12/14	
39		December Monitoring Event	AECOM / Sub	5 days	Mon 12/1/14	Fri 12/5/14	
40		Quarterly Performance Monitoring	AECOM / Sub	5 days	Mon 3/2/15	Fri 3/6/15	
41		June 2015 Monitoring Event	AECOM/ Sub	5 days	Mon 6/8/15	Fri 6/12/15	
42		Receive final quarterly monitoring data	AECOM	0 days	Mon 7/27/15	Mon 7/27/15	41FS+45 edays
43		Data Assessment	AECOM	35 days	Tue 7/28/15	Mon 9/14/15	42
44		Propose next steps	AECOM	0 days	Mon 9/14/15	Mon 9/14/15	43
45		Long term monitoring with additional injection if needed	AECOM	1 day	Tue 9/15/15	Tue 9/15/15	44
46		**Bruckner Road chloroform**		**556 days**	**Tue 7/16/13**	**Tue 9/1/15**	
47		Submit response to DMT comments		0 days	Tue 7/16/13	Tue 7/16/13	
48		Remediation plan developed based on DMT area comments	AECOM	25 days	Tue 7/16/13	Mon 8/19/13	
49		Submit plan to DHEC	AECOM	1 day	Tue 8/20/13	Tue 8/20/13	
50		DHEC review of Bruckner Road plan	DHEC	14 days	Wed 8/21/13	Mon 9/9/13	49
51		Approval of Bruckner Road plan	DHEC	0 days	Tue 9/10/13	Tue 9/10/13	50
52		Submit revised monitoring plan to DHEC	AECOM	0 days	Mon 9/30/13	Mon 9/30/13	
53		DHEC approve revise monitoring plan	DHEC	36 days	Mon 9/30/13	Mon 11/18/13	52
54		Right of way clearance from DOT	AECOM	8 days	Tue 9/10/13	Thu 9/19/13	51
55		Schedule driller for DPTs	AECOM / sub	10 days	Fri 9/20/13	Thu 10/3/13	54

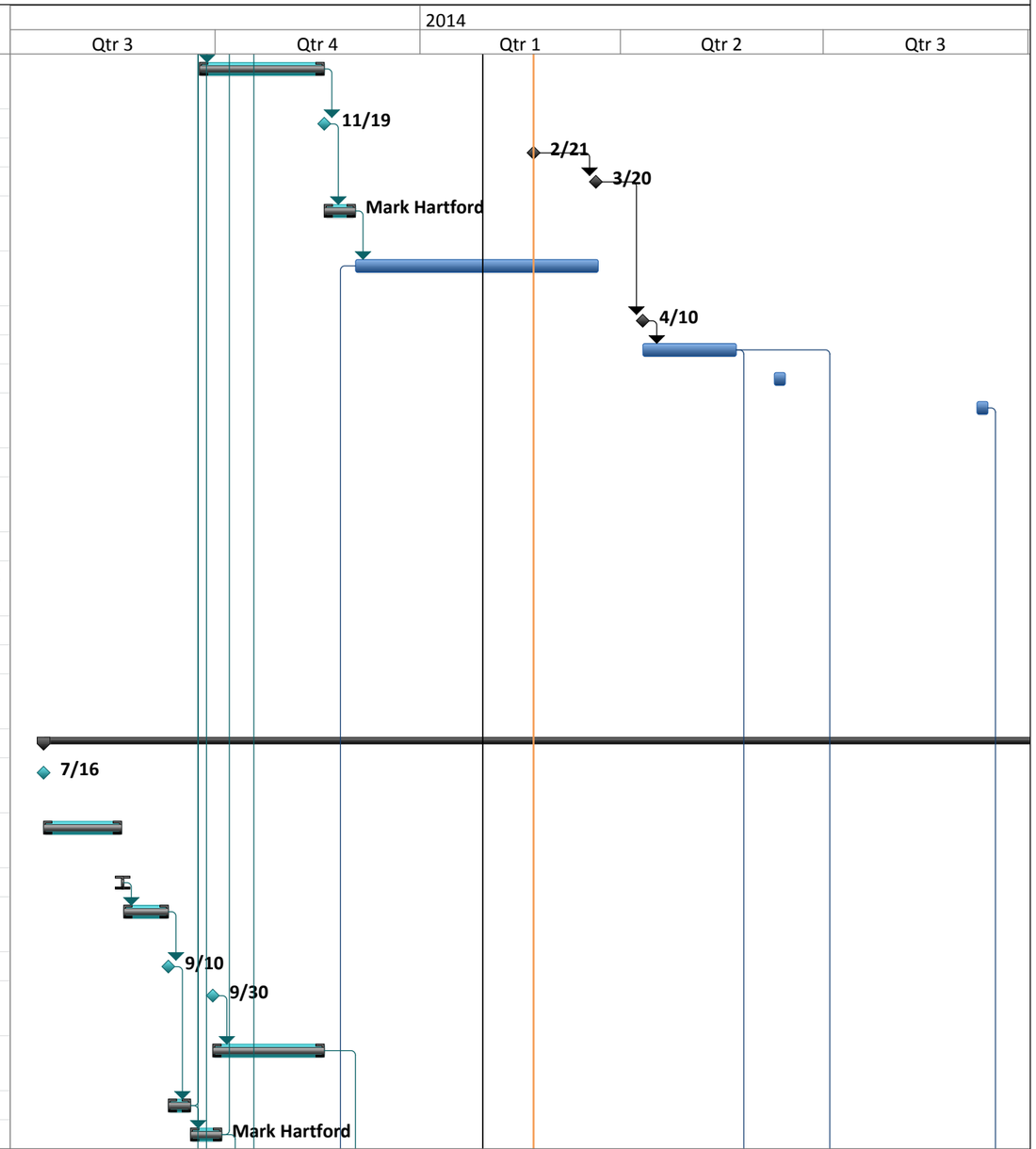

Figure 1
Work Plan Schedule
Date: Fri 2/21/14

Task
Split
Milestone
Summary
Project Summary
External Tasks
External Milestone
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Deadline
Progress

ID	Task Mode	Task Name	Resource	Duration	Start	Finish	Predecessors
56		Delineation DPTs	AECOM / sub	3 days	Thu 10/10/13	Mon 10/14/13	55FS+4 days
57		Install performance monitoring wells and complete packer test	AECOM / sub	79 days	Tue 12/3/13	Fri 3/21/14	34SS,53
58		Injection Activities	AECOM / sub	30 days	Fri 5/23/14	Thu 7/3/14	36
59		Quarterly Performance Monitoring	AECOM / sub	5 days	Mon 9/15/14	Fri 9/19/14	38
60		December Monitoring Event	AECOM / sub	5 days	Mon 12/1/14	Fri 12/5/14	39SS
61		Quarterly Performance Monitoring	AECOM / sub	5 days	Mon 3/9/15	Fri 3/13/15	40
62		June Monitoring Event	AECOM / sub	5 days	Mon 6/8/15	Fri 6/12/15	41SS
63		Receive final quarterly monitoring data	AECOM	0 days	Mon 7/27/15	Mon 7/27/15	42SS
64		Data Assessment	AECOM	25 days	Tue 7/28/15	Mon 8/31/15	63
65		Propose next steps	AECOM	0 days	Mon 8/31/15	Mon 8/31/15	64
66		Long term monitoring with additional injection if needed	AECOM	1 day	Tue 9/1/15	Tue 9/1/15	65
67		**1,4-Dioxane in groundwater**		**462 days**	**Mon 6/3/13**	**Tue 3/10/15**	
68		Establish monitoring plan in VCC work plan	AECOM / DHEC	1 day	Thu 1/23/14	Thu 1/23/14	8
69		Review data associated with 1,4-dioxane in central plant	AECOM	60 days	Mon 6/3/13	Fri 8/23/13	
70		Update conditions in Remedial Effectiveness update	AECOM	0 days	Tue 9/17/13	Tue 9/17/13	11
71		Update conditions in RI report	AECOM	0 days	Tue 3/10/15	Tue 3/10/15	104
72		**DowTherm A in groundwater**		**377 days**	**Mon 9/30/13**	**Tue 3/10/15**	
73		Establish monitoring plan in VCC work plan	AECOM / DHEC	1 day	Thu 1/23/14	Thu 1/23/14	8
74		Update conditions in Remedial Effectiveness update	AECOM	0 days	Mon 9/30/13	Mon 9/30/13	11
75		Update conditions in RI report	AECOM	0 days	Tue 3/10/15	Tue 3/10/15	104
76		**DowTherm A DNAPL**		**233 days**	**Thu 1/23/14**	**Mon 12/15/14**	
77		Establish monitoring plan in VCC work plan	AECOM / DHEC	1 day	Thu 1/23/14	Thu 1/23/14	8
78		Establish DNAPL investigation in VCC work plan	AECOM / DHEC	1 day	Thu 1/23/14	Thu 1/23/14	8
79		Complete chloroform related field activities and prep	AECOM / sub	20 days	Fri 7/4/14	Thu 7/31/14	36,58
80		Schedule contractor	AECOM	20 days	Fri 8/1/14	Thu 8/28/14	79

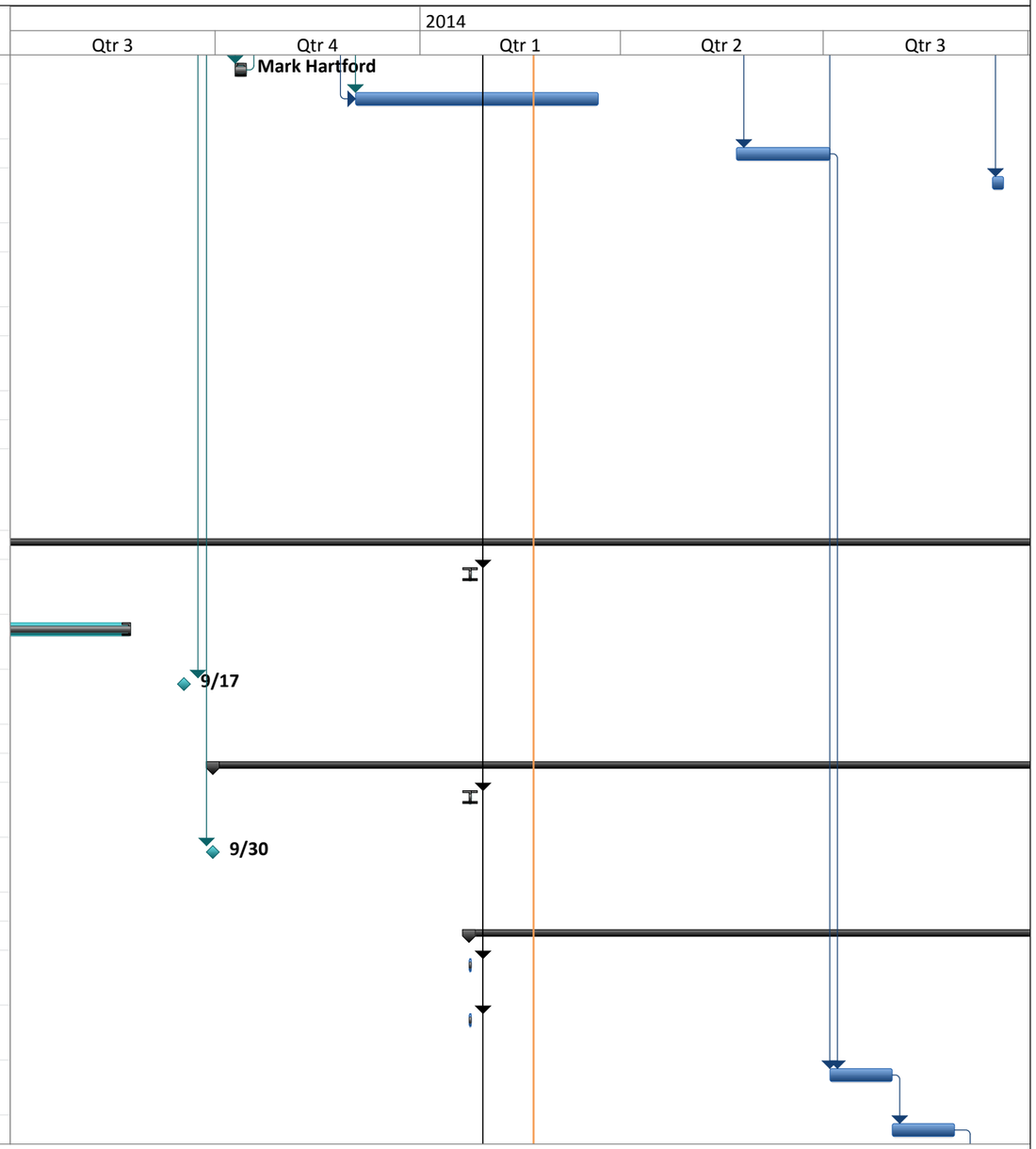

Figure 1
Work Plan Schedule
Date: Fri 2/21/14

Task	Project Summary	Inactive Milestone	Manual Summary Rollup	Deadline
Split	External Tasks	Inactive Summary	Manual Summary	Progress
Milestone	External Milestone	Manual Task	Start-only	
Summary	Inactive Task	Duration-only	Finish-only	

ID	Task Mode	Task Name	Resource	Duration	Start	Finish	Predecessors
81		Complete DowTherm A field investigation	AECOM / sub	20 days	Fri 9/5/14	Thu 10/2/14	80FS+5 days
82		Receive data	AECOM / lab	1 day	Fri 11/7/14	Fri 11/7/14	81FS+25 days
83		Review results	AECOM	25 days	Mon 11/10/14	Fri 12/12/14	82
84		Submit recommendations to DHEC in RI Report	AECOM	1 day	Mon 12/15/14	Mon 12/15/14	83,105
85	✓	**Other chlorinated solvents in groundwater**		**1 day**	**Thu 1/23/14**	**Thu 1/23/14**	
86	✓	include assessment of Fall 2012 investigation in VCC work plan	AECOM	1 day	Thu 1/23/14	Thu 1/23/14	8
87	✓	Establish monitoring plan in VCC work plan	AECOM/DHEC	1 day	Thu 1/23/14	Thu 1/23/14	8
88		**Cherokee Creek sediments and ecological habitat**		**294 days**	**Thu 1/23/14**	**Tue 3/10/15**	
89	✓	submit plan forward in VCC work plan	AECOM	1 day	Thu 1/23/14	Thu 1/23/14	3
90		review recommendations and update in RI	AECOM	1 day	Tue 3/10/15	Tue 3/10/15	108
91		**Site wide activities**		**452 days**	**Mon 6/17/13**	**Tue 3/10/15**	
92	✓	**June 2013 Annual Sampling**		**28 days**	**Mon 6/17/13**	**Wed 7/24/13**	
96		**December 2013 Monitoring**		**28 days**	**Mon 12/2/13**	**Wed 1/8/14**	
97		Sample collection	EFM / AECOM	2 days	Mon 12/2/13	Tue 12/3/13	
98	✓	Receive Data	AECOM / lab	0 days	Wed 1/8/14	Wed 1/8/14	97FS+25 days
99	✓	Data Validation	AECOM	1 day	Wed 1/8/14	Wed 1/8/14	98
100		**June 2014 Annual Sampling**		**27 days**	**Mon 6/9/14**	**Tue 7/15/14**	
101		Sample collection	EFM / AECOM	5 days	Mon 6/9/14	Fri 6/13/14	
102		Receive data from lab	AECOM / lab	1 day	Mon 7/14/14	Mon 7/14/14	101FS+20 days
103		Data Validation	AECOM	1 day	Tue 7/15/14	Tue 7/15/14	102
104		**Remedial Investigation Report**		**87 days**	**Mon 11/10/14**	**Tue 3/10/15**	
105		Complete work plan investigations	AECOM / DHEC / subs	1 day	Mon 11/10/14	Mon 11/10/14	103,82
106		draft RI	AECOM	50 days	Tue 11/11/14	Mon 1/19/15	105
107		review RI	Celanese	25 days	Tue 1/20/15	Mon 2/23/15	106
108		complete RI	AECOM	10 days	Tue 2/24/15	Mon 3/9/15	107
109		Submit RI	AECOM	1 day	Tue 3/10/15	Tue 3/10/15	108
110		Continue Monitoring as established in Work Plan	AECOM / EFM	1 eday	Tue 7/15/14	Wed 7/16/14	100

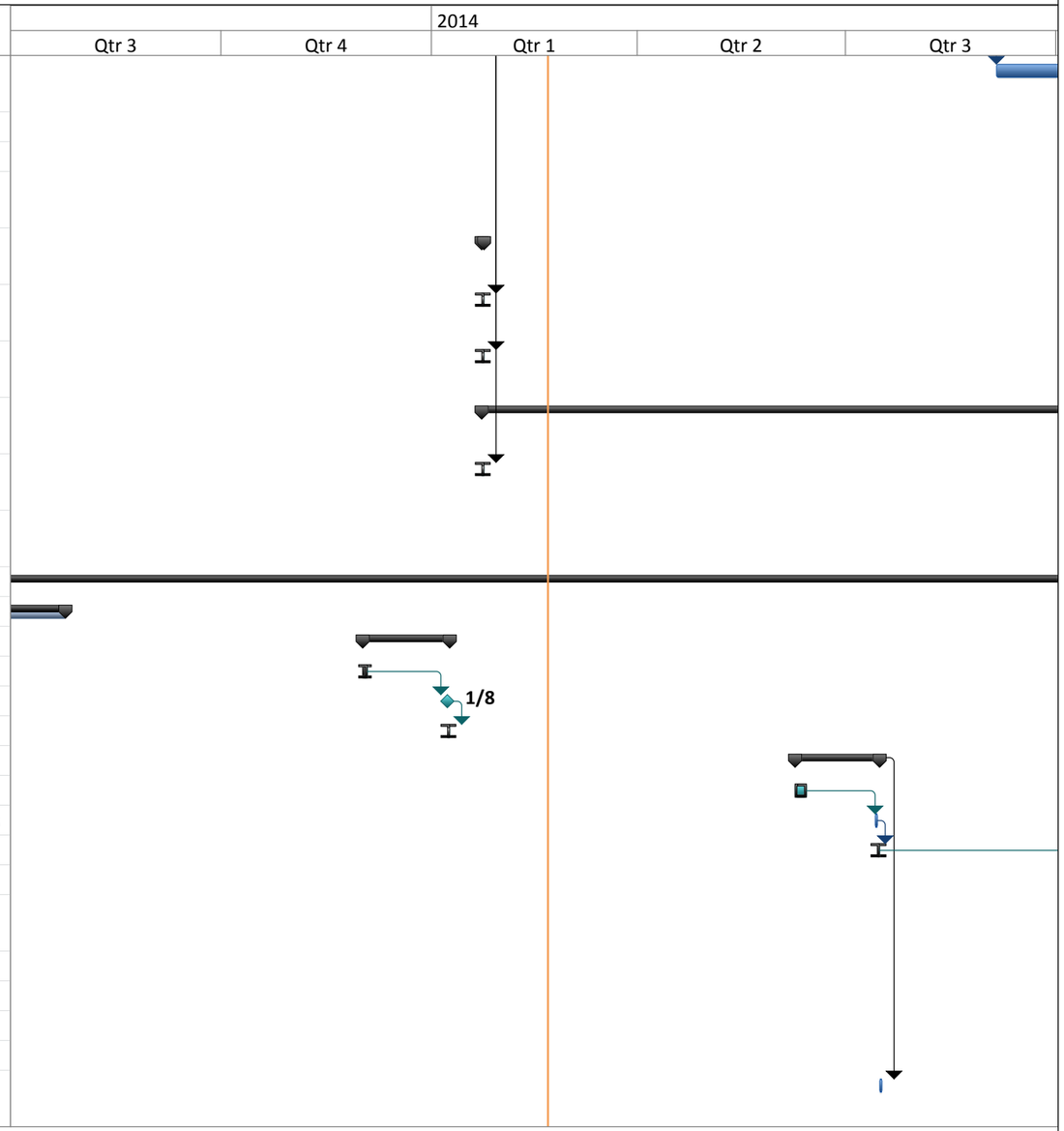

Figure 1
Work Plan Schedule
Date: Fri 2/21/14

Task
Split
Milestone
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Project Summary
External Tasks
External Milestone
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Deadline
Progress

2/14/2014

L:\Group\earth\ATLANTA Cadd Files\79748 Spartanburg\79748162 December 2013 Sampling Locations.dwg

FORMER DMT PLANT AREA

MGI GAS PROCESSING FACILITY

OUTFALL 003

OUTFALL 004

EW-41

EW-31

EW-37

EW-49

EW-53

RW-65

MW-99

MW-103

MW-107

RW-48

MW-105

MW-106

EW-52

RW-108

MW-109

TO BACKGROUND WELL RW-29

I-85 (SOUTHBOUND)

I-85 (NORTHBOUND)

SW-12

RW-110

RW-111

CREEK

SW-13

SW-14

ROAD

BRUCKNER

N

TRUE

PLANT

LEGEND

MONITORING WELL LOCATION

SURFACE WATER SAMPLE LOCATION

0' 200' 400'

SCALE

AECOM

FIGURE 2

DECEMBER 2013 SAMPLING LOCATIONS

AURIGA SPARTANBURG FACILITY
SPARTANBURG, SOUTH CAROLINA

FEBRUARY 2014

60280417

FORMER DMT PLANT AREA

MGI GAS PROCESSING FACILITY

OUTFALL 003

EW-41 0.0453

EW-31 <0.005

RW-65 <0.005

EW-37 0.0836

EW-49 <0.005

EW-53 0.0172

MW-99 0.00887

MW-103 <0.005

MW-107 0.0873

RW-48 <0.005

TO BACKGROUND WELL RW-29

EW-52 <0.005

MW-105 0.197

MW-106 0.0061

RW-108 <0.005

MW-109 0.813

I-85 (SOUTHBOUND)

I-85 (NORTHBOUND)

OUTFALL 004

SW-12 0.0203

CREEK

RW-110 <0.005

SW-13 0.0131

RW-111 <0.005

ROAD

BRUCKNER

SW-14 0.0086

N

TRUE

PLANT

LEGEND

- MONITORING WELL LOCATION
- SURFACE WATER SAMPLE LOCATION
- 0.00887 CHLOROFORM IN GROUNDWATER RESULTS IN mg/L

0' 300' 600'

SCALE

AECOM

FIGURE 3
CHLOROFORM IN GROUNDWATER
DECEMBER 2013

AURIGA SPARTANBURG FACILITY
SPARTANBURG, SOUTH CAROLINA

FEBRUARY 2014 60280417

2/17/2014

L:\Group\earth\ATLANTA Cadd Files\79748 Spartanburg\79748163 December 2013 Chloroform Results.dwg

3/4/2014 2:48 PM

L:\Group\earth\ATLANTA Cadd Files\79748 Spartanburg\79748164 December 2013 Dioxane Results.dwg

I-85 (SOUTHBOUND)

I-85 (NORTHBOUND)

BRUCKNER ROAD

RW-108
<0.002

MW-109
<0.002

CREEK

SW-12
0.00308

CREEK

RW-110
< 0.002

SW-13
0.00253

RW-111
0.000123

CREEK

SW-14
0.00237

N

TRUE

PLANT N

LEGEND

- MONITORING WELL LOCATION
- SURFACE WATER SAMPLE LOCATION
- 0.00308 1,4-DIOXANE IN GROUNDWATER RESULTS IN mg/L

0 50 100 200

SCALE IN FEET

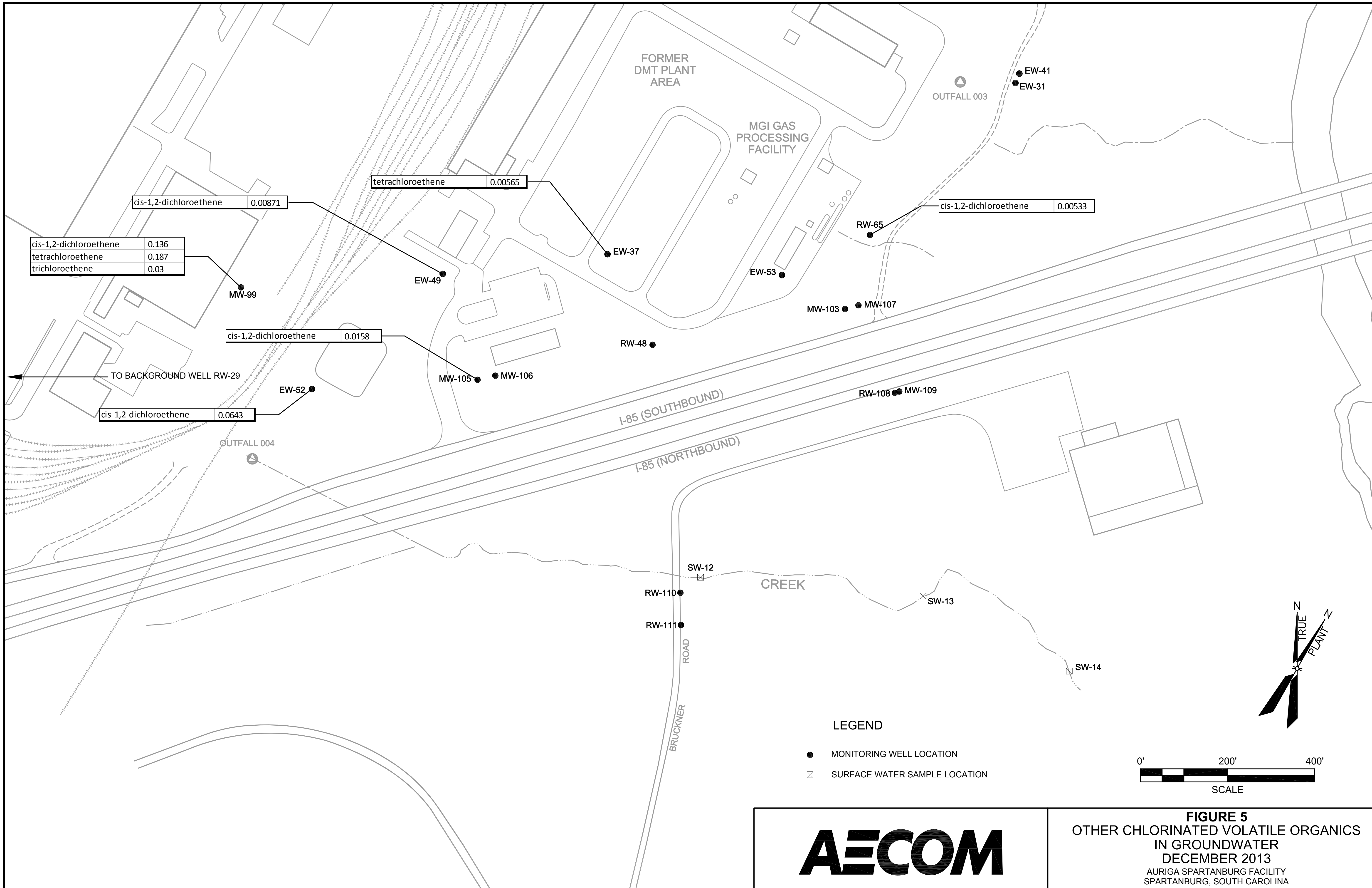
AECOM

FIGURE 4
1,4-DIOXANE IN GROUNDWATER
DECEMBER 2013

AURIGA SPARTANBURG FACILITY
SPARTANBURG, SOUTH CAROLINA

FEBRUARY 2014

60280417



2/17/2014

L:\Group\earth\ATLANTA Cadd Files\79748 Spartanburg\79748165 December 2013 Other CVOCs in Groundwater.dwg

AECOM

FIGURE 5
OTHER CHLORINATED VOLATILE ORGANICS IN GROUNDWATER
DECEMBER 2013
AURIGA SPARTANBURG FACILITY
SPARTANBURG, SOUTH CAROLINA

FEBRUARY 2014

60280417

Appendix A

Field Sheets and Lab Report

TAILGATE SAFETY MEETING

EFM, Inc.

PROJECT: SPARTANBURG

PROJECT NO.:

DATE: 12/4/13

TIME: 0720

TYPE OF TRAINING

Site Specific H&S Meeting _____ Tailgate Safety Meeting ✓

HASP Reading / Review _____ Other: _____

TRAINING PRESENTED BY: JEFF LEAVER

TOPICS COVERED: PPE, LIFTING COOLERS, DRIVING OFF ROAD, TRIPS + FALLS

ATTENDEES

Name (print)	Signature
JEFF LEAVER	Jeff Leaver
RICH LANE	Rich Lane

SITE SUPERVISOR: Jeff Leaver DATE: 12/4/13

EQUIPMENT CALIBRATION FORM

Client: CELANESE **Project #:** SPARTANBURG

INSTRUMENT: YSI 556 / HACH 2100P

SERIAL NO.: 09K101305 / 28078

Date	Time	Parameter	Calibration Reading	Calibration Recorded By RL
		4.00	4.01	Lot# 2AK644 Exp: 9/2014
		7.00	6.98	Lot# 2AL203 Exp: 12/2014
12/3/13	0710	pH 10.00	10.00	Lot# 2AJ108 Exp: 10/2014
12/3/13	0722	Specific Conductivity	1,413 uS	Lot# 2AE324 Exp: 10/2014
12/3/13	0730	ORP	242 MV	5587 2/2018
12/3/13	0740	Dissolved Oxygen	10.22 %	NA
12/3/13	0752	Turbidity	0,1,10	NA
NA	NA	Temperature	NA	NA
NA	NA	Ambient Air Pressure	NA	NA
NA	NA	NA	NA	NA

INSTRUMENT: YSI 556 / HACH 2100Q

SERIAL NO.: 10H100442 / 09120C

Date	Time	Parameter	Calibration Reading	Calibration Recorded By RL
		4.00	4.00	Lot# 2AK644 Exp: 9/2014
		7.00	7.02	Lot# 2AL203 Exp: 12/2014
12/3/13	0710	pH 10.00	9.97	Lot# 2AJ108 Exp: 10/2014
12/3/13	0722	Specific Conductivity	1,413 uS	Lot# 2AR324 Exp: 10/2014
12/3/13	0730	ORP	243 MV	5587 2/2018
12/3/13	0740	Dissolved Oxygen	10.50 %	NA
12/3/13	0752	Turbidity	0,1,10	NA
NA	NA	Temperature	NA	NA
NA	NA	Ambient Air Pressure	NA	NA
NA	NA	NA	NA	NA

EQUIPMENT CALIBRATION FORM

Client: CELANESE **Project #:** SPARTANBURG

INSTRUMENT: YSI 55C / HACH 2100P

SERIAL NO.: 09K101305 / 28078

Date	Time	Parameter	Calibration Reading	Calibration Recorded By
12/4/13	0705	pH 4.00	4.00	Lot# 2AK64 Exp: 9/2014
		pH 7.00	7.01	Lot# 2AL203 Exp: 12/2014
		pH 10.00	10.02	Lot# 2AJ103 Exp: 10/2014
12/4/13	0716	Specific Conductivity	1,413 uS	Lot# 2AE324 Exp: 10/2014
12/4/13	0725	ORP	242 MV	5587 2/2018
12/4/13	0730	Dissolved Oxygen	10.15 %	NA
12/4/13	0744	Turbidity	0, 1, 10	NA
NA	NA	Temperature	NA	NA
NA	NA	Ambient Air Pressure	NA	NA
NA	NA	NA	NA	NA

INSTRUMENT: YSI 556 / HACH 2100Q

SERIAL NO.: 10H100442 / 091200

Date	Time	Parameter	Calibration Reading	Calibration Recorded By
12/4/13	0705	pH 4.00	3.99	Lot# 2AK64 Exp: 9/2014
		pH 7.00	7.01	Lot# 2AL203 Exp: 12/2014
		pH 10.00	10.00	Lot# 2AJ103 Exp: 10/2014
12/4/13	0716	Specific Conductivity	1,413 uS	Lot# 2AE324 Exp: 10/2014
12/4/13	0725	ORP	242 MV	5587 2/2018
12/4/13	0730	Dissolved Oxygen	10.66 %	NA
12/4/13	0744	Turbidity	0, 1, 10	NA
NA	NA	Temperature	NA	NA
NA	NA	Ambient Air Pressure	NA	NA
NA	NA	NA	NA	NA

AECOM

Water Level Measurements

Project No: _____ **Site:** SPARTANBURG

Well ID	Date	Depth to NAPL	Depth to Water	Comments
EW-31	12/3/13	—	21.89	
EW-37		—	29.36	
EW-41		—	24.21	
EW-49		—	22.18	
EW-52		—	17.71	
EW-53		—	53.72	
MW-99		—	47.68	
MW-103		—	35.33	
MW-105		—	14.56	
MW-106		—	15.16	
MW-107		—	38.48	BROKEN LID, NO LOCK
MW-109		—		
RW-29		—	42.33	
RW-48		—	38.25	
RW-65		—	37.60	NO CAP
RW-108		—		
RW-110		—		
RW-111	↓	—		

Signature: Jeff Leaver **Date:** 12/3/13 **Page:** 1 of 1

Well/Piezo ID: MW-106

Ground Water Sample Collection Record

Client: Celanese Corporation
Project No:
Site Location: Spartanburg, SC
Weather Conds: overcast 50's Collector(s) R Lane

Date: 12/3/13
Time: Start 1445 am/pm
Finish 1535 am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☒ Piezometer ☐

a. Total Well Length 26.0
b. Water Table Depth 15.16
c. Casing Material PVC
d. Casing Diameter 2"
e. Length of Water Column 10.84 (a-b)
f. Calculated Well Volume (see back) 1.76

WELL PURGING DATA

a. Purge Method _____ Low Flow

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) N/A PURGE RATE 200 ml/min
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556	09K101305
HACH	2100P	28078

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	ORP MV	D.O. mg/l	TURB ntu	Color/ Odor	DTW
1450	Initial	17.68	5.15	51	82.3	8.62	5.12	clear no	15.18
1455	2000	17.39	4.84	50	91.6	6.93	3.87		15.20
1500	3000	17.33	4.80	50	93.3	6.96	3.14		15.20
1505	4000	17.29	4.75	49	92.7	6.94	2.72		15.20
1510	5000	17.27	4.73	48	91.9	6.92	2.58		15.20
1515	6000	17.24	4.70	49	89.6	6.94	2.47	↓ ↓	15.20

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☒	☐	☐
Have parameters stabilized	☒	☐	☐

If no or N/A - Explain below.

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
MW-106	VOA	3	NONE	8260	1520
N/A	VOA	3	HCL	1,4-Dioxane	N/A
N/A	2.2L	1	NONE	Dow Therm A	N/A
MW-106	VARIOUS		VARIOUS	Natural Attenuation	1520

Comments Fe+2 = 0.0 mg/l

Signature Rich Lane Date 12/3/13

Well/Piezo ID: RW-48

Ground Water Sample Collection Record

Client: Celanese Corporation
Project No:
Site Location: Spartanburg, SC
Weather Conds: Cloudy 57° Collector(s) JEFF LEAVER

Date: 12/3/13
Time: Start 1610 am/pm
Finish 1740 am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☑ Piezometer ☐

a. Total Well Length 109.15
b. Water Table Depth 38.25
c. Casing Material STEEL
d. Casing Diameter 4"
e. Length of Water Column 70.90 (a-b)
f. Calculated Well Volume (see back) 46.3

WELL PURGING DATA

a. Purge Method _____ Low Flow

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) N/A PURGE RATE 220 ml/min
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556	10H100442
HACH		091.20C

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page #_____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	ORP MV	D.O. mg/l	TURB ntu	Color/ Odor	DTW
1614	Initial	17.36	6.96	277	-57.3	1.90	447.0	BEAVER NO	38.41
1620	2,200	17.52	6.91	276	-127.5	0.66	310.4		38.43
1630	4,400	17.28	6.90	277	-140.0	0.30	266.1	↓	38.44
1640	6,600	17.17	6.88	274	-144.9	0.19	240.8	TAN	38.46
1650	8,800	17.15	6.87	272	-147.6	0.11	227.6		38.47
1700	11,000	17.11	6.84	269	-149.3	0.09	218.0		38.49
1720	15,400	17.08	6.83	269	-150.2	0.09	214.7	↓	38.53

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☑	☐	☐
Has required turbidity been reached	☑	☐	☐
Have parameters stabilized	☑	☐	☐

If no or N/A - Explain below.

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
RW-48	VOA	3	NONE	8260	1724
N/A	VOA	3	HCL	1,4-Dioxane	N/A
N/A	2.2L	1	NONE	Dow Therm A	N/A
RW-48	VARIOUS		VARIOUS	Natural Attenuation	1724

Comments Fe+2 = 1.2 mg/l

Signature Jeff Leaver Date 12/3/13

Well/Piezo ID: RW-65

Ground Water Sample Collection Record

Client: Celanese Corporation
Project No:
Site Location: Spartanburg, SC
Weather Conds: CLOUDY 60° Collector(s) JEFF LEAVER

Date: 12/3/13
Time: Start 1480 am/pm
Finish 1550 am/pm

WATER LEVEL DATA: (measured from Top of Casing) Well ☒ Piezometer ☐

a. Total Well Length 173.00 c. Casing Material SS e. Length of Water Column 135.40 (a-b)

b. Water Table Depth 37.60 d. Casing Diameter 2" f. Calculated Well Volume (see back) 22.1

WELL PURGING DATA

a. Purge Method Low Flow

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) N/A PURGE RATE 200 ml/min
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556	10H100442
HACH		091200

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	ORP MV	D.O. mg/l	TURB ntu	Color/ Odor	DTW
1455	Initial	16.36	7.18	284	20.2	1.11	5.91	CLEAR / NO	37.94
1500	2,000	16.34	7.09	287	-29.4	0.34	4.50		37.98
1505	3,000	16.23	7.14	286	-28.0	0.31	2.97		38.00
1510	4,000	16.11	7.17	285	-31.9	0.27	2.44		38.02
1515	5,000	16.08	7.19	284	-41.3	0.30	2.08		38.04
1520	6,000	16.05	7.20	284	-42.4	0.33	1.76		38.05
1525	7,000	16.04	7.20	283	-43.5	0.35	1.53	↓ / ↓	38.07

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☒	☐	☐
Have parameters stabilized	☒	☐	☐

If no or N/A - Explain below.

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
RW-65	VOA	3	NONE	8260	1530
N/A	VOA	3	HCL	1,4-Dioxane	N/A
N/A	2.2L	1	NONE	Dow Therm A	N/A
RW-65	VARIOUS		VARIOUS	Natural Attenuation	1530

Comments Fe+2 = 0.3 mg/l NO CAP

Signature Jeff Leaver Date 12/3/13

Well/Piezo ID: Ew-41

Ground Water Sample Collection Record

Client: Celanese Corporation
Project No:
Site Location: Spartanburg, SC
Weather Conds: Overcast 50's Collector(s) R Lane

Date: 12/3/13
Time: Start 1540 am/pm
Finish 1625 am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☒ Piezometer ☐

a. Total Well Length 64.0
b. Water Table Depth 24.21
c. Casing Material Steel
d. Casing Diameter 6"
e. Length of Water Column 39.79 (a-b)
f. Calculated Well Volume (see back) 58.0

WELL PURGING DATA

a. Purge Method _____ Low Flow

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) N/A PURGE RATE 100 ml/min
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556	09K101305
HACH	2100?	23078

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page #_____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	ORP MV	D.O. mg/l	TURB ntu	Color/ Odor	DTW
1540	Initial	15.50	6.00	93	8.1	6.43	93.7	clear no	24.23
1545	1000	15.43	5.80	98	13.4	1.44	49.6		24.23
1550	1500	15.39	5.81	100	10.7	0.84	41.4		24.23
1555	2000	15.34	5.80	101	11.5	0.67	39.1		24.23
1600	2500	15.36	5.79	100	12.4	0.60	37.9		24.23
1605	3000	15.34	5.78	101	10.6	0.54	38.5	↓	24.24
								↓	

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☒	☐	☐
Have parameters stabilized	☒	☐	☐

If no or N/A - Explain below.

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
Ew-41	VOA	3	NONE	8260	1610
N/A	VOA	3	HCL	1,4-Dioxane	N/A
N/A	2.2L	1	NONE	Dow Therm A	N/A
Ew-41	VARIOUS		VARIOUS	Natural Attenuation	1610

Comments Fe+2 = 2.0 mg/l Dup Taken DW-11 @ 1700

Signature R Lane Date 12/3/13

Well/Piezo ID: Ew-31

Ground Water Sample Collection Record

Client: Celanese Corporation
Project No:
Site Location: Spartanburg, SC
Weather Conds: Overcast 50s Collector(s) R Lane

Date: 12/ 3/13
Time: Start 1630 am/pm
Finish 1730 am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☑ Piezometer ☐

a. Total Well Length 110.5
b. Water Table Depth 21.89
c. Casing Material Steel
d. Casing Diameter 6"
e. Length of Water Column 88.61 (a-b)
f. Calculated Well Volume (see back) 129.3

WELL PURGING DATA

a. Purge Method _____ Low Flow

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) N/A PURGE RATE 200 ml/min
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556	09K101305
HACH	2100P	28078

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	ORP MV	D.O. mg/l	TURB ntu	Color/ Odor	DTW
1635	Initial	14.73	6.33	226	-12.3	6.79	24.6	clear/no	21.93
1640	2000	14.67	6.77	231	-38.6	1.61	18.7		21.93
1645	3000	14.61	6.82	233	-47.2	0.96	18.1		21.93
1650	4000	14.58	6.85	232	-55.5	0.81	14.7		21.94
1655	5000	14.52	6.89	233	-61.7	0.74	11.0		21.94
1700	6000	14.50	6.91	234	-63.4	0.68	9.63		21.95
1705	7000	14.59	6.92	235	-65.7	0.65	9.37	↓ ↓	21.95

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☑	☐	☐
Has required turbidity been reached	☑	☐	☐
Have parameters stabilized	☑	☐	☐

If no or N/A - Explain below.

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
Ew-31	VOA	3	NONE	8260	1715
n/a	VOA	3	HCL	1,4-Dioxane	N/A
n/a	2.2L	1	NONE	Dow Therm A	N/A
Ew-31	VARIOUS		VARIOUS	Natural Attenuation	1715

Comments Fe+2 = 1.0 mg/l

Signature Rich Lane Date 12/ 3 /13

Well/Piezo ID: Ew-37

Ground Water Sample Collection Record

Client: Celanese Corporation
Project No:
Site Location: Spartanburg, SC
Weather Conds: Overcast 50s Collector(s) R Lane

Date: 12/ 4 /13
Time: Start 0815 am/pm
Finish 0905 am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☒ Piezometer ☐

a. Total Well Length 37.0
b. Water Table Depth 29.36
c. Casing Material steel
d. Casing Diameter 6"
e. Length of Water Column 57.64 (a-b)
f. Calculated Well Volume (see back) 84.1

WELL PURGING DATA

a. Purge Method Low Flow

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) N/A PURGE RATE 200 ml/min
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556	09K101305
HACH	2100P	28018

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	ORP MV	D.O. mg/l	TURB ntu	Color/ Odor	DTW
0820	Initial	17.59	5.63	110	47.9	4.72	220	clear no	29.38
0825	2000	18.02	5.51	110	50.4	1.46	186	↓ ↓	29.38
0830	3000	17.93	5.58	109	48.3	0.91	168		29.38
0835	4000	17.91	5.56	110	44.9	0.64	163		29.38
0840	5000	17.90	5.55	109	41.7	0.43	165		29.38
0845	6000	17.89	5.54	109	40.2	0.38	160	↓ ↓	29.38

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☑	☐	☐
Has required turbidity been reached	☑	☐	☐
Have parameters stabilized	☑	☐	☐

If no or N/A - Explain below.

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
Ew-37	VOA	3	NONE	8260	0850
n/a	VOA	3	HCL	1,4-Dioxane	N/A
n/a	2.2L	1	NONE	Dow Therm A	N/A
Ew-37	VARIOUS		VARIOUS	Natural Attenuation	0850

Comments Fe+2 = 4.0 mg/l

Signature Rich Lane Date 12/ 4 /13

Well/Piezo ID: EW-53

Ground Water Sample Collection Record

Client: Celanese Corporation
Project No:
Site Location: Spartanburg, SC
Weather Conds: overcast 50's Collector(s) J2 Lane

Date: 12/4/13
Time: Start 0930 am/pm
Finish 1020 am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☑ Piezometer ☐

a. Total Well Length 131.0
b. Water Table Depth 53.72
c. Casing Material Steel
d. Casing Diameter 6"
e. Length of Water Column 83.28 (a-b)
f. Calculated Well Volume (see back) 121.5

WELL PURGING DATA

a. Purge Method _____ Low Flow

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) N/A PURGE RATE 200 ml/min
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

	Make	Model	Serial Number
	YSI	556	09K101305
	HACH	2100P	28018

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page #_____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	ORP MV	D.O. mg/l	TURB ntu	Color/ Odor	DTW
0935	Initial	17.60	6.09	186	-16.0	3.76	37.8	Clear no	53.79
0940	2000	17.82	6.23	183	-19.4	1.30	26.2		53.74
0945	3000	17.91	6.33	182	-19.7	0.88	21.7		53.75
0950	4000	17.99	6.34	181	-18.5	0.74	20.4		53.25
0955	5000	18.04	6.35	182	-20.1	0.66	19.8		53.75
1000	6000	18.08	6.34	181	-21.3	0.61	20.1	↓	53.76

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☑	☐	☐
Has required turbidity been reached	☑	☐	☐
Have parameters stabilized	☑	☐	☐

If no or N/A - Explain below.

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
EW-53	VOA	3	NONE	8260	1005
N/A	VOA	3	HCL	1,4-Dioxane	N/A
N/A	2.2L	1	NONE	Dow Therm A	N/A
EW-53	VARIOUS		VARIOUS	Natural Attenuation	1005

Comments Fe+2 = 4.2 mg/l

Signature Rich Lane Date 12/4/13

Well/Piezo ID: MW-103

Ground Water Sample Collection Record

Client: Celanese Corporation
Project No:
Site Location: Spartanburg, SC
Weather Conds: Cloudy 55-0 Collector(s) JEFF LEAVER

Date: 12/4/13
Time: Start 0935 am/pm
Finish 1035 am/pm

WATER LEVEL DATA: (measured from Top of Casing) Well ☑ Piezometer ☐

a. Total Well Length 58.00 c. Casing Material PVC e. Length of Water Column 22.67 (a-b)

b. Water Table Depth 35.33 d. Casing Diameter 2" f. Calculated Well Volume (see back) 3.7

WELL PURGING DATA

a. Purge Method _____ Low Flow

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) N/A PURGE RATE 100 ml/min
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556	10A100442
HACH		09120C

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	ORP MV	D.O. mg/l	TURB ntu	Color/ Odor	DTW
0940	Initial	15.37	5.06	65	135.9	7.50	34.7	Cloudy / no	35.47
0945	1,000	15.51	4.78	65	150.1	5.33	19.0	clear /	35.49
0950	1,500	15.77	4.62	64	160.7	5.30	11.4	" / "	35.51
0955	2,000	15.87	4.57	63	177.4	5.22	9.17	" / "	35.54
1000	2,500	15.91	4.55	62	179.0	5.19	6.68	" / "	35.55
1005	3,000	15.97	4.55	62	179.8	5.26	6.05	↓ / ↓	35.56

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☑	☐	☐
Has required turbidity been reached	☑	☐	☐
Have parameters stabilized	☑	☐	☐

If no or N/A - Explain below.

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
MW-103	VOA	3	NONE	8260	1010
N/A	VOA	3	HCL	1,4-Dioxane	N/A
N/A	2.2L	1	NONE	Dow Therm A	N/A
MW-103	VARIOUS		VARIOUS	Natural Attenuation	1010

Comments Fe+2 = 0.0 mg/l

Signature Jeff Leaver Date 12/4/13

Well/Piezo ID: MW-107

Ground Water Sample Collection Record

Client: Celanese Corporation
Project No:
Site Location: Spartanburg, SC
Weather Conds: cloudy 54° Collector(s) JEFF LEAVER
Date: 12/4/13
Time: Start 0820 am/pm
Finish 0925 am/pm

WATER LEVEL DATA: (measured from Top of Casing) Well ☑ Piezometer ☐

a. Total Well Length 120.70 c. Casing Material PVC e. Length of Water Column 82.22 (a-b)
b. Water Table Depth 38.48 d. Casing Diameter 2" f. Calculated Well Volume (see back) 13.4

WELL PURGING DATA

a. Purge Method _____ Low Flow

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) N/A PURGE RATE 100 ml/min
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556	10H10C442
HACH		01120C

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	ORP MV	D.O. mg/l	TURB ntu	Color/ Odor		DTW
0826	Initial	16.03	6.70	77	61.4	6.94	970	CLEAR	NO	38.64
0835	1,500	15.41	6.08	79	100.2	5.76	6.63		NO	38.67
0840	2,000	14.85	5.67	81	107.3	4.93	4.91		NO	38.68
0845	2,500	15.50	5.39	76	112.1	4.71	4.17		NO	38.68
0850	3,000	15.56	5.35	73	114.0	4.60	3.94		NO	38.69
0855	3,500	15.59	5.33	71	115.2	4.54	3.20	↓	NO	38.69

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☑	☐	☐
Has required turbidity been reached	☑	☐	☐
Have parameters stabilized	☑	☐	☐

If no or N/A - Explain below.

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
MW-107	VOA	3	NONE	8260	0900
N/A	VOA	3	HCL	1,4-Dioxane	N/A
N/A	2.2L	1	NONE	Dow Therm A	N/A
MW-107	VARIOUS		VARIOUS	Natural Attenuation	0900

Comments Fe+2 = 0.0 mg/l BROKEN LID, NO LOCK

Signature Jeff Leaver Date 12/4/13

Well/Piezo ID: MW-105

Ground Water Sample Collection Record

Client: Celanese Corporation
Project No:
Site Location: Spartanburg, SC
Weather Conds: Overcast 50's Collector(s) R Lane

Date: 12/3/13
Time: Start 1330 am/pm
Finish 1420 am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☒ Piezometer ☐

a. Total Well Length 44.0
b. Water Table Depth 14.56
c. Casing Material PVC
d. Casing Diameter 2"
e. Length of Water Column 29.44 (a-b)
f. Calculated Well Volume (see back) 4.79

WELL PURGING DATA

a. Purge Method _____ Low Flow

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) N/A PURGE RATE 200 ml/min
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556	09K101305
HACH	2100?	28078

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	ORP MV	D.O. mg/l	TURB ntu	Color/ Odor	DTW
1335	Initial	18.10	5.57	75	64.1	6.82	7.92	clear: no	14.59
1340	2000	18.16	5.48	73	68.7	4.79	6.71	↓ ↓	14.60
1345	3000	18.19	5.43	71	67.0	4.56	5.06		14.60
1350	4000	18.22	5.41	72	65.4	4.57	4.43		14.61
1355	5000	18.25	5.40	71	64.9	4.59	3.96		14.61
1400	6000	18.29	5.40	71	65.5	4.56	3.70	↓ ↓	14.61

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☒	☐	☐
Have parameters stabilized	☒	☐	☐

If no or N/A - Explain below.

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
MW-105	VOA	3	NONE	8260	1405
N/A	VOA	3	HCL	1,4-Dioxane	N/A
N/A	2.2L	1	NONE	Dow Therm A	N/A
MW-105	VARIOUS		VARIOUS	Natural Attenuation	1405

Comments Fe+2 = 0.0 mg/l Dup Taken DW-12 @ 1200

Signature R Lane Date 12/3/13

Well/Piezo ID: EW-49

Ground Water Sample Collection Record

Client: Celanese Corporation
Project No:
Site Location: Spartanburg, SC
Weather Conds: Overcast 50's Collector(s) R Lane

Date: 12/3/13
Time: Start 0910 am/pm
Finish 1000 am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☑ Piezometer ☐

a. Total Well Length 77.0
b. Water Table Depth 22.18
c. Casing Material Steel
d. Casing Diameter 6"
e. Length of Water Column 54.82 (a-b)
f. Calculated Well Volume (see back) 80.0

WELL PURGING DATA

a. Purge Method _____ Low Flow

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) N/A PURGE RATE 200 ml/min
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556	09K101305
HACH	2100P	28078

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page #_____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	ORP MV	D.O. mg/l	TURB ntu	Color/ Odor	DTW
0915	Initial	15.93	7.94	257	-19.4	2.67	2.08	clear nc	22.20
0920	2000	16.12	8.11	243	-52.0	1.66	1.72	↓	22.20
0925	3000	16.29	8.28	231	-61.4	0.91	1.49	↓	22.21
0930	4000	16.36	8.30	227	-75.9	0.79	1.52	↓	22.21
0935	5000	16.41	8.32	225	-81.3	0.70	1.47	↓	22.21
0940	6000	16.48	8.34	224	-85.2	0.62	1.40	↓	22.21

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☑	☐	☐
Has required turbidity been reached	☑	☐	☐
Have parameters stabilized	☑	☐	☐

If no or N/A - Explain below.

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
EW-49	VOA	3	NONE	8260	0945
n/a	VOA	3	HCL	1,4-Dioxane	N/A
n/a	2.2L	1	NONE	Dow Therm A	N/A
EW-49	VARIOUS		VARIOUS	Natural Attenuation	0945

Comments Fe+2 = 0.0 mg/l

Signature Rich Lane Date 12/3/13

Well/Piezo ID: EW-52

Ground Water Sample Collection Record

Client: Celanese Corporation
Project No:
Site Location: Spartanburg, SC
Weather Conds: Pt cloudy 50's Collector(s) R Lane

Date: 12/3/13
Time: Start 1005 am/pm
Finish 1100 am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☑ Piezometer ☐

a. Total Well Length 120.0
b. Water Table Depth 17.71
c. Casing Material Steel
d. Casing Diameter 6"
e. Length of Water Column 102.29 (a-b)
f. Calculated Well Volume (see back) 149.3

WELL PURGING DATA

a. Purge Method _____ Low Flow

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) N/A PURGE RATE 200 ml/min
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

	Make	Model	Serial Number
	YSI	556	09K101305
	HACH	2100P	28078

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	ORP MV	D.O. mg/l	TURB ntu	Color/ Odor	DTW
1010	Initial	16.22	7.43	144	-62.0	2.04	91.4	clear/no	17.73
1015	2000	16.38	7.19	148	-57.5	1.26	68.6		17.73
1020	3000	16.44	7.11	150	-54.7	1.03	54.8		17.73
1025	4000	16.51	7.07	151	-51.4	0.91	47.1		17.73
1030	5000	16.55	7.04	153	-49.4	0.84	44.8		17.74
1035	6000	16.59	7.00	154	-50.0	0.79	45.6		17.74
1040	7000	16.64	6.98	153	-49.2	0.72	43.9	↓	17.74

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☑	☐	☐
Has required turbidity been reached	☑	☐	☐
Have parameters stabilized	☑	☐	☐

If no or N/A - Explain below.

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
EW-52	VOA	3	NONE	8260	1045
n/a	VOA	3	HCL	1,4-Dioxane	N/A
n/a	2.2L	1	NONE	Dow Therm A	N/A
EW-52	VARIOUS		VARIOUS	Natural Attenuation	1045

Comments Fe+2 = 3.5 mg/l Orange particles in samples

Signature Ruth Lane Date 12/3/13

Well/Piezo ID: MW-99

Ground Water Sample Collection Record

Client: Celanese Corporation
Project No:
Site Location: Spartanburg, SC
Weather Conds: P SUNNY 50° Collector(s) JEFF LEAVER

Date: 12/3/13
Time: Start 0910 am/pm
Finish 1100 am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☒ Piezometer ☐

a. Total Well Length 65.97
b. Water Table Depth 47.68
c. Casing Material PVC
d. Casing Diameter 2"
e. Length of Water Column 18.29 (a-b)
f. Calculated Well Volume (see back) 3.0

WELL PURGING DATA

a. Purge Method _____ Low Flow

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) N/A PURGE RATE 200 ml/min
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

	Make	Model	Serial Number
	YSI	556	10H100442
	HACH	2100Q	091200

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	ORP MV	D.O. mg/l	TURB ntu	Color/ Odor	DTW
0916	Initial	17.89	8.70	55	53.6	3.27	150	TAN NC	47.84
0930	4,000	18.70	7.22	48	88.3	1.96	138	TAN NO	47.90
0950	8,000	18.96	6.01	48	105.7	1.72	70.4	TAN NO	47.93
1010	12,000	18.99	5.28	46	123.1	1.82	29.0	CLEAR NO	47.97
1020	14,000	19.03	5.19	44	127.6	1.86	16.1	CLEAR NO	48.00
1030	16,000	19.10	5.14	44	129.4	1.91	9.77	CLEAR NO	48.03
1040	18,000	19.13	5.12	43	131.0	1.95	6.41	CLEAR NO	48.03

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☒	☐	☐
Have parameters stabilized	☒	☐	☐

If no or N/A - Explain below.

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
MW-99	VOA	3	NONE	8260	1044
~~———~~	~~VOA~~	~~3~~	~~HCL~~	~~1,4 Dioxane~~	~~N/A~~
~~———~~	~~2.2L~~	~~1~~	~~NONE~~	~~Dow Therm A~~	~~N/A~~
MW-99	VARIOUS		VARIOUS	Natural Attenuation	1044

Comments Fe+2 = 0.0 mg/l
TOOK FIELD BLANK (MW-202 @1000)

Signature Jeff Leaver Date 12/3/13

Well/Piezo ID: RW-29

Ground Water Sample Collection Record

Client: Celanese Corporation
Project No:
Site Location: Spartanburg, SC
Weather Conds: Cloudy 54° Collector(s) JEFF LEAVER
Date: 12/3/13
Time: Start 1130 am/pm
Finish 1225 am/pm

WATER LEVEL DATA: (measured from Top of Casing) Well [x] Piezometer [ ]

a. Total Well Length 134.00 c. Casing Material Steel e. Length of Water Column 91.67 (a-b)
b. Water Table Depth 42.33 d. Casing Diameter 4" f. Calculated Well Volume (see back) 60.0

WELL PURGING DATA

a. Purge Method _____ Low Flow

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) N/A PURGE RATE 300 ml/min
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556	10H100442
HACH		091200

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page #_____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	ORP MV	D.O. mg/l	TURB ntu	Color/ Odor	DTW
1137	Initial	16.75	6.10	175	-35.8	1.72	11.7	CLEAR NO	42.50
1145	4,500	16.94	6.97	177	-110.1	0.40	9.04	CLEAR NO	42.52
1150	6,000	16.92	6.71	177	-114.0	0.22	5.50	CLEAR NO	42.52
1155	7,500	16.97	7.10	176	-122.8	0.14	5.17	CLEAR NO	42.53
1200	9,000	17.00	7.36	175	-131.4	0.10	4.22	CLEAR NO	42.53
1205	10,500	17.02	7.40	175	-133.2	0.09	3.40	CLEAR NO	42.53
1209	11,700	17.04	7.41	175	-134.6	0.07	3.31	CLEAR NO	42.54

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	[x]	[ ]	[ ]
Has required turbidity been reached	[x]	[ ]	[ ]
Have parameters stabilized	[x]	[ ]	[ ]

If no or N/A - Explain below.

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
RW-29	VOA	3	NONE	8260	1210
—	VOA	3	HCL	1,4-Dioxane	N/A
—	2.2L	1	NONE	Dow Therm A	N/A
RW-29	VARIOUS		VARIOUS	Natural Attenuation	1210

Comments Fe+2 = 5.0 mg/l

Signature Jeff Leaver Date 12/3/13

AECOM

DAILY REPORT

PROJECT NUMBER: 60280417 DATE: 12/3/13 REPORT NUMBER: 01

PROJECT & LOCATION: Auriga Site, Spartanburg, SC

CLIENT: Celanese AECOM FIELD REPRESENTATIVE: ~~Hartford~~ M. Law

SUBCONTRACTOR: ~~AE Drilling Services~~

SUBCONTRACTOR PERSONNEL ON SITE:

BRIEF SUMMARY OF WORK PERFORMED: Sample monitoring wells & surface water locations

START TIME	DESCRIPTION OF ACTIVTIES: REMARKS
0838	MOB to progress park to pickup equipment
0905	MOB to Site
0938	Onsite with Mark Hartfield, waiting on Drillers.
1014	H&S meeting, drillers onsite.
1028	Calibrate YSI S/N 05D1437 AR
	DO: 9.46 mg/L pH4: 4.00 Cond: 1.147 mS/cm
	Sat Temp: 17.59 °C pH7: 7.04 ORP: 244.00 mv
	pH3: 10.06
1115	Sampled SW-14 for VOCs & 1,4-Dioxane
1135	Sampled SW-13 " "
1150	Sampled SW-12 " "
1400	Sampled MW-109 for VOCs & 1,4-Dioxane & MNA parameters
1435	Sampled RW-108 " "
1506	Met David & Floyd Conner at second gate to facility.
1528	Final equipment exchange with Mark H.; MOB back to progress park to drop off equipment; End of Day

FIELD REPRESENTATIVES SIGNATURE: DATE: 12/3/13

AECOM

DAILY REPORT

PROJECT NUMBER: 60280417 DATE: 12-2-13 REPORT NUMBER:

PROJECT & LOCATION: Auriga Site, Spartanburg, SC

CLIENT: Celanese AECOM FIELD REPRESENTATIVE: Hartford

SUBCONTRACTOR: AE Drilling Services

SUBCONTRACTOR PERSONNEL ON SITE: ~~Daniel Bergman~~, Tecoy Creasman

BRIEF SUMMARY OF WORK PERFORMED:

START TIME	DESCRIPTION OF ACTIVTIES: REMARKS
730	Load Supplies at Greenville office and Equipment center.
830	Travel to Spartanburg
1030	Purchase Ice & Water at Ingles.
1130	Receive Bottleware from Davis & Floyd
1145	Lunch
1215	Drop EFM coolers at WWTP
1230	Sort Equipment at Brackner Rd.
1300	Set up on RW-110 -
	YSI Calibrated by Eric Olson in Greenville this morning
1430	Collect RW-110
1540	Collect RW-111 with 1,4-Dioxane to ALS by M522
1610	Clean up Pack samples
1630	offload some equipment at Brackner Bldg.
1700	off s.t.
1730	Ship samples via Fedex to ALS

FIELD REPRESENTATIVES SIGNATURE: Mark Hartford DATE: 12-2-13

Well/Piezo ID:	RW-111

Ground Water Sample Collection Record

Client:	Celanese	Date:	12/2/13
Project No:	60280417	Time: Start	1520 am/pm
Site Location:	Spartanburg, SC	Finish	1540 am/pm
Weather Conds:		Collector(s)	Hartford

WATER LEVEL DATA: (measured from Top of Casing) PVC

Well ☑ Piezometer ☐

a. Total Well Length 61 c. Casing Material ~~SS~~ e. Length of Water Column 52.88 (a-b)

b. Water Table Depth 8.12 d. Casing Diameter 2-in f. Calculated Well Volume (see back) 8.6 Gal

WELL PURGING DATA

a. Purge Method Peristaltic Pump 250 ml/min Reverse Flow for VOCs

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ _____ well volumes) _____
- Maximum Allowable Turbidity _____ NTUs
- Stabilization of parameters _____

Sample 1540

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556	

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page #_____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	TURBIDITY NTUs	D.O. mg/l	ORP MV	Odor	DTW
1526	500	16.49	7.24	166	3.94	9.49	85.1		8.51
1530	1000	16.33	7.19	164	1.49	2.76	62.9		8.55
1534	2500	16.29	7.20	164	1.16	2.75	71.6		8.58
1539	3500	16.26	7.22	163	1.14	2.74	71.4		8.58

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☐	☐	☐
Has required turbidity been reached	☐	☐	☐
Have parameters stabilized	☐	☐	☐

If no or N/A - Explain below.

Fe^{+2} 0.02 mg/l

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
	glass	3		VOCs (8260)	
	glass	3		1,4-Dioxane	
				MNA x	

Comments _____

Signature _____ Date ___/ /

Method 522 TO ALS

Well/Piezo ID:	RW-110

Ground Water Sample Collection Record

Client:	Celanese	Date:	12/2/13
Project No:	60280417	Time: Start	1320 am/pm
Site Location:	Spartanburg, SC	Finish	1430 am/pm
Weather Conds:	Clear 45°	Collector(s)	Hartford

WATER LEVEL DATA: (measured from Top of Casing) PVC

Well ☑ Piezometer ☐

a. Total Well Length 66.48 c. Casing Material ~~SS~~ e. Length of Water Column 44.6 (a-b)

b. Water Table Depth 21.88 d. Casing Diameter 2-in f. Calculated Well Volume (see back) 7.1 Gal

WELL PURGING DATA

a. Purge Method Grundfos Pump

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ _____ well volumes) _____
- Maximum Allowable Turbidity _____ NTUs
- Stabilization of parameters _____

c. Field Testing Equipment Used: Make YSI Model 556 Serial Number _____

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	TURBIDITY NTUs	D.O. mg/l	ORP MV	Odor	DTW
1324	~~1 600~~ 1 gal	15.78	6.26	176	36.11	0.39	190.4		36.1
1328	3	16.18	5.86	177	99.49	1.31	191.1		43.7
1332	4	16.96	5.81	177	100.6	0.69	184.5		50.8
1336	5	17.16	5.86	176	100.4	0.95	186.3		58.8
1340	6	17.57	5.82	176	99.6	1.04	186.5		67.4
1343	Bag								

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☐	☐	☐
Has required turbidity been reached	☐	☐	☐
Have parameters stabilized	☐	☐	☐

If no or N/A - Explain below.

Fe+2 0.41 mg/l

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
	glass	3		VOCs (8260)	
	glass	3		1,4-Dioxane	
				MNA	

Comments Well- goes dry will not stabalize on low Flow

Signature _____ Date ___/ /

Well/Piezo ID:	RW-108

Ground Water Sample Collection Record

Client: Celanese
Project No: 60280417
Site Location: Spartanburg, SC
Weather Conds: P. Cloudy Collector(s) ~~Hartford~~ M. Law

Date: 12/03/13
Time: Start 1415 am/pm
Finish 1435 am/pm

WATER LEVEL DATA: (measured from Top of Casing)

Well ☒ Piezometer ☐

a. Total Well Length 124.56
b. Water Table Depth 46.17
c. Casing Material SS
d. Casing Diameter 2-in
e. Length of Water Column 78.39 (a-b)
f. Calculated Well Volume (see back) 12.77

WELL PURGING DATA

a. Purge Method Submersible pump (Grundfos)

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ _____ well volumes) _____
- Maximum Allowable Turbidity _____ NTUs
- Stabilization of parameters _____

c. Field Testing Equipment Used: Make YSI Model 556 Serial Number _____

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	TURBIDITY NTUs	D.O. mg/l	ORP MV	Odor	DTW
1415	Initial	17.28	7.48	0.241	—	1.69	73.7	NA	47.75
1420	~ 2500	17.29	7.86	0.267	6.68	1.85	78.1	NA	48.35
1425	~ 5000	17.32	7.81	0.269	6.39	1.65	75.8	NA	48.75
1430	~ 7500	17.40	7.82	0.270	6.58	1.63	78.6	NA	49.90

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☐	☐	☒
Has required turbidity been reached	☒	☐	☐
Have parameters stabilized	☒	☐	☐

If no or N/A - Explain below.

Fe^{+2} 0.05 mg/L

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
	glass	3		VOCs (8260)	
	glass	3		1,4-Dioxane	
				~~DowTherm A~~	
				MNA	

Comments 500 ml per minute

Signature _____ Date 12/03/13

Well/Piezo ID:	MW-109

Ground Water Sample Collection Record

Client: Celanese
Project No: 60280417
Site Location: Spartanburg, SC
Weather Conds: P. Cloudy Collector(s) ~~Hartford~~ McLaw
Date: 12/03/13
Time: Start 1330 am/pm
Finish 1400 am/pm

WATER LEVEL DATA: (measured from Top of Casing) Well ☑ Piezometer ☐

a. Total Well Length 89.85 c. Casing Material SS e. Length of Water Column 44.65 (a-b)

b. Water Table Depth 45.20 d. Casing Diameter 2-in f. Calculated Well Volume (see back) 7.28 Ga.

WELL PURGING DATA

a. Purge Method submersible pump (~~SS Geosub pump~~ Grundfos)

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ _______ well volumes) _______
- Maximum Allowable Turbidity _______ NTUs
- Stabilization of parameters _______

c. Field Testing Equipment Used: Make: YSI Model: 556 Serial Number:

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _______ Page # _______

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	TURBIDITY NTUs	D.O. mg/l	ORP MV	Odor	DTW
1335	Initial	17.65	5.93	0.049	6.47	6.71	174.4	NA	48.00
1340	~1.0	18.31	5.57	0.049	6.11	6.52	177.8	NA	48.30
1345	~2.0	19.06	5.57	0.049	5.85	6.47	178.1	NA	48.00
1350	~3.0	19.09	5.57	0.049	5.75	6.41	177.3	NA	48.10

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☐	☐	☒
Has required turbidity been reached	☒	☐	☐
Have parameters stabilized	☒	☐	☐

If no or N/A - Explain below.

Fe+2 0.02 MG/l

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
MW-109	glass	3	HCL	VOCs (8260)	1400
MW-109	glass	3	None	1,4-Dioxane	1400
—	—	—		~~Dowtherm A~~	~~1400~~
MW-109	Plastic/Amber	3		MNA	1400

Comments _______

Signature _______ Date ___/___/___

Fe+2

Well/Piezo ID: SW-12

Surface
~~Ground~~ **Water Sample Collection Record**

Client: Celanese Corporation
Project No:
Site Location: Spartanburg, SC
Weather Conds: Collector(s) M. Law

Date: 12/03/13
Time: Start 1150 (am)/pm
Finish 1150 (am)/pm

WATER LEVEL DATA: (measured from Top of Casing) Well ☒ Piezometer ☐

a. Total Well Length _____ c. Casing Material _____ e. Length of Water Column _____ (a-b)

b. Water Table Depth _____ d. Casing Diameter _____ f. Calculated Well Volume (see back) _____

WELL PURGING DATA

a. Purge Method NA ~~Low Flow~~

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) N/A PURGE RATE ml/min
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

	Make	Model	Serial Number
	YSI	556	
	~~HACH~~		

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page #_____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	ORP MV	D.O. mg/l	TURB ntu	Color/ Odor	DTW
1150	~~Initial~~ NA	12.83	5.66	0.086	181.9	10.00	2.05	Clear	—

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☐	☐	☐
Has required turbidity been reached	☐	☐	☐
Have parameters stabilized	☐	☐	☐

If no or N/A - Explain below.

Fe+2 mg/l

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
SW-12	VOA	3	NONE	8260	1150
SW-12	VOA	3	HCL	1,4-Dioxane	~~N/A~~ 1150
	~~2.2L~~	1	~~NONE~~	~~Dow Therm~~ A	~~N/A~~
	VARIOUS		VARIOUS	Natural Attenuation	

Comments Fe+2 = mg/l

Signature _____ Date 12/02/13

Well/Piezo ID: SW - 13

Surface
~~Ground~~ Water Sample Collection Record

Client: Celanese Corporation
Project No:
Site Location: Spartanburg, SC
Weather Conds: P. Cloudy Collector(s) M. Law

Date: 12/ /13
Time: Start 1135 am/pm
Finish 1135 am/pm

WATER LEVEL DATA: (measured from Top of Casing) Well ☑ Piezometer ☐

a. Total Well Length _____ c. Casing Material _____ e. Length of Water Column _____ (a-b)

b. Water Table Depth _____ d. Casing Diameter _____ f. Calculated Well Volume (see back) _____

WELL PURGING DATA

a. Purge Method NA ~~Low-Flow~~

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) N/A PURGE RATE ml/min
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556	
HACH		

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	ORP MV	D.O. mg/l	TURB ntu	Color/ Odor	DTW
1135	~~Initial~~ NA	12.43	5.54	0.084	197.0	9.24	1.82	Clear	—

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☐	☐	☐
Has required turbidity been reached	☐	☐	☐
Have parameters stabilized	☐	☐	☐

If no or N/A - Explain below.

Fe+2 mg/l

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
SW-13	VOA	3	NONE	8260	1135
SW-13	VOA	3	HCL	1,4-Dioxane	~~N/A~~ 1135
	2.2L	1	~~NONE~~	~~Dow-Therm~~ A	~~N/A~~
	VARIOUS		~~VARIOUS~~	~~Natural Attenuation~~	

Comments Fe+2 = NA mg/l Creek is 1' Deep.

Signature _____ Date 12/ 05 /13

Well/Piezo ID: SW-14

Surface
~~Ground~~ Water Sample Collection Record

Client: Celanese Corporation
Project No:
Site Location: Spartanburg, SC
Weather Conds: P. Cloudy Collector(s) M. Law

Date: 12/03/13
Time: Start 1115 am/pm
Finish 1115 am/pm

WATER LEVEL DATA: (measured from Top of Casing) Well ☒ Piezometer ☐

a. Total Well Length _____ c. Casing Material _____ e. Length of Water Column _____ (a-b)

b. Water Table Depth _____ d. Casing Diameter _____ f. Calculated Well Volume (see back) _____

WELL PURGING DATA

a. Purge Method NA ~~Low Flow~~

b. Acceptance Criteria defined (from workplan)
- Minimum Required Purge Volume (@ N/A well volumes) N/A PURGE RATE ml/min
- Maximum Allowable Turbidity N/A NTUs
- Stabilization of parameters 10 %

c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	556	
~~HACH~~		

d. Field Testing Equipment Calibration Documentation Found in Field Notebook # _____ Page #_____

Time	Volume Removed (ml)	TEMP C	pH S.U.	Spec. Cond (umhos)	ORP MV	D.O. mg/l	TURB ntu	Color/ Odor	DTW
1115	~~Initial~~	11.98	7.30	0.084	179.2	10.20	1.88	clear	NA

e. Acceptance criteria pass/fail

	Yes	No	N/A
Has required volume been removed	☐	☐	☑
Has required turbidity been reached	☐	☐	☑
Have parameters stabilized	☐	☐	☑

If no or N/A - Explain below.

Fe+2 mg/l

SAMPLE COLLECTION: Method: PUMP TUBING

Sample ID	Container Type	No. of Containers	Preservation	Analysis	Time
SW-14	VOA	3	NONE	8260	1115
SW-14	VOA	3	HCL	1,4-Dioxane	~~N/A~~ 1115
	~~2.2L~~	1	NONE	~~Dow Therm~~ A	~~N/A~~
	VARIOUS		~~VARIOUS~~	~~Natural Attenuation~~	

Comments Fe+2 = NA mg/l Creek is 1' deep.

Signature _____ Date 12/03/13

Sample Collection Supplies

T034758

Order #: 44863
Date Required: 11/22/13
Project Chemist: Michael Perry
Phone Number: 585-288-5380 x7469

Client: AECOM, Inc.
Project: Auriga Spartanburg
SDG Name: Auriga Spartanburg

P.O. Number: 44071ACM

Ship To: AECOM, Atten: Mark Hartford
10 Patewood Drive
Building VI, Suite 500
Greenville, SC 29615

E-mail: mark.kromis@aecom.com

Phone: 864-234-3586

Shipped On: _____
Shipped By: _____
Tracking #: _____
Shipping Cost: _____

Comments: **Bag containers by sample template.**

Grouped by Container Type

Quantity	Container
1	500mL-Glass Bottle NM AMBER Teflon Liner(~~Na2SO3~~ NaHSO4)
	1 per sample 522/1,4-Dioxane FP

Grouped by Sample Template

Sample Template Number / Name	Expected Number of Samples	Containers	Number of Containers per Sample	Comments
001 / 1,4-Dioxane	1			
		500mL-Glass Bottle NM AMBER Teflon Liner(Na2SO3) - 522	1	

Precautions: Preserved sample containers should not be overflowed while filling. Under no circumstances should the inside of the containers or lids be handled.

Please return this form with your coolers when delivering your samples to ALS Environmental.

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

January 07, 2014

BRYON DAHLGREN
AECOM
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076

Report ID : AM31
Page 1 of 100

Login Number	:L13120401
Project Number	:61576.07
Description	:FORMER CELANESE - SPARTANBURG, SC

Dear Bryon Dahlgren:

We are pleased to provide the enclosed analytical results for the samples received by Davis & Floyd, Inc. on December 03, 2013.

A formal Quality Assurance/Quality Control program is maintained by Davis & Floyd, which is designed to meet or exceed the ISO/IEC 17025, EPA, NELAP or other appropriate regulatory requirements. All analytical analyses for this project met QA/QC criteria and the results are within the 99% confidence interval for each method unless otherwise stated in the footnotes. This report is to be reproduced only in full.

Feel free to contact our Client Services Representative at (864) 229-4413 if further explanation of the analysis is required. Unless other arrangements have been made, samples will be disposed of or returned 14 days from the date of the report. We appreciate the opportunity to provide services to your firm.

Sincerely,
DAVIS & FLOYD, INC.

John H. McCord, Jr.
Laboratory Manager

This report conatins a TOTAL of 103 pages, including attachments.

Initials:

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
Page 2 of 100 Report ID: AM31

Certificate of Analysis Report

Sample ID	Client ID	Date Collected	Date Received
L13120401-01	MW-202	12/03/2013 1000	12/03/2013
L13120401-02	MW-99	12/03/2013 1044	12/03/2013
L13120401-03	RW-29	12/03/2013 1210	12/03/2013
L13120401-04	EW-49	12/03/2013 0945	12/03/2013
L13120401-05	EW-52	12/03/2013 1045	12/03/2013
L13120401-06	DW-12	12/03/2013 1200	12/03/2013
L13120401-07	MW-105	12/03/2013 1405	12/03/2013
L13120401-08	MW-201	12/03/2013 1400	12/03/2013
L13120401-09	RW-110	12/02/2013 1430	12/03/2013
L13120401-10	RW-111	12/02/2013 1540	12/03/2013
L13120401-11	SW-14	12/03/2013 1115	12/03/2013
L13120401-12	SW-13	12/03/2013 1135	12/03/2013
L13120401-13	SW-12	12/03/2013 1150	12/03/2013
L13120401-14	MW-109	12/03/2013 1400	12/03/2013
L13120401-15	RW-108	12/03/2013 1435	12/03/2013

This data report has been prepared and reviewed in accordance with standard operating procedures. Test results relate only to the sample tested. Please direct any questions to your Project Manager.

Reviewed by John H. McCord, Jr.
Laboratory Manager

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
Page 3 of 100 Report ID: AM31

Certificate of Analysis

Client ID: **MW-202**
Sample ID: L13120401-01

Date Collected: 12/03/2013 1000
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1538 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED	<	0.0100	U	0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/04/2013 1251 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM	<	5.00	U	5.00	ug/l
CHLOROMETHANE	<	10.0	U	10.0	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
Page 4 of 100 Report ID: AM31

Certificate of Analysis

Client ID: **MW-202**
Sample ID: L13120401-01

Date Collected: 12/03/2013 1000
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL ACETATE	<	10.0	U	10.0	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*100*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*97*	%	*(78-138)*	
Surr: TOLUENE-D8		*97*	%	*(77-135)*	
Wet Chemistry					
SM 2320B					
Date/Time: 12/09/2013 1010 Analyst: LSV			***Dilution: 1***		
ALKALINITY, TOTAL		**1.09**		1.00	mg/l
ENDPOINT PH		**4.20**			su
SW846 9056A					
Date/Time: 12/05/2013 1354 Analyst: EIC			***Dilution: 1***		
CHLORIDE, TOTAL	<	1.00	U	1.00	mg/l
SW846 9060A					
Date/Time: 12/09/2013 1700 Analyst: CDC			***Dilution: 1***		
ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
Page 5 of 100 Report ID: AM31

Certificate of Analysis

Client ID: **MW-202**
Sample ID: L13120401-01

Date Collected: 12/03/2013 1000
Date Received : 12/03/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
Page 6 of 100 Report ID: AM31

Certificate of Analysis

Client ID: **MW-99**
Sample ID: L13120401-02

Date Collected: 12/03/2013 1044
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1542 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED		**0.0330**		0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/04/2013 1320 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM		**8.87**		5.00	ug/l
CHLOROMETHANE	<	10.0	U	10.0	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
Page 7 of 100 Report ID: AM31

Certificate of Analysis

Client ID: **MW-99**
Sample ID: L13120401-02

Date Collected: 12/03/2013 1044
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
CIS-1,2-DICHLOROETHENE		**136**		5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE		**187**		5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE		**30.0**		5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL ACETATE	<	10.0	U	10.0	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*102*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*95*	%	*(78-138)*	
Surr: TOLUENE-D8		*96*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1017 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL		**3.27**		1.00	mg/l
ENDPOINT PH		**4.20**			su

SW846 9056A

Date/Time: 12/05/2013 1526 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL		**1.84**		1.00	mg/l

SW846 9060A

Date/Time: 12/09/2013 1724 ***Analyst: CDC*** ***Dilution: 1***

ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
Page 8 of 100 Report ID: AM31

Certificate of Analysis

Client ID: **MW-99**
Sample ID: L13120401-02

Date Collected: 12/03/2013 1044
Date Received : 12/03/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
Page 9 of 100 Report ID: AM31

Certificate of Analysis

Client ID: **RW-29**
Sample ID: L13120401-03

Date Collected: 12/03/2013 1210
Date Received : 12/03/2013

Parameter	Result	Qual	RDL	Units
Matrix : GW/ChemW				
Trace Metals				
SW846 6010C				
Date/Time: 12/11/2013 1546 Analyst: BDL		***Dilution: 1***		
MANGANESE, DISSOLVED	**0.0100**		0.0100	mg/l
Volatile Organics				
SW846 8260B				
Date/Time: 12/05/2013 1651 Analyst: PAP		***Dilution: 1***		
1,1,1-TRICHLOROETHANE	< 5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	< 5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	< 10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	< 5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	< 5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	< 5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	< 5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	< 5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	< 5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	< 5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	< 5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	< 5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	< 5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	< 5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	< 5.00	U	5.00	ug/l
2-BUTANONE	< 10.0	U	10.0	ug/l
2-HEXANONE	< 10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	< 5.00	U	5.00	ug/l
ACETONE	< 10.0	U	10.0	ug/l
BENZENE	< 5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	< 5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	< 5.00	U	5.00	ug/l
BROMOFORM	< 5.00	U	5.00	ug/l
BROMOMETHANE	< 10.0	U	10.0	ug/l
CARBON DISULFIDE	< 5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	< 5.00	U	5.00	ug/l
CHLOROBENZENE	< 5.00	U	5.00	ug/l
CHLOROETHANE	< 10.0	U	10.0	ug/l
CHLOROFORM	< 5.00	U	5.00	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
Page 10 of 100 Report ID: AM31

Certificate of Analysis

Client ID: **RW-29**
Sample ID: L13120401-03

Date Collected: 12/03/2013 1210
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*103*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*96*	%	*(78-138)*	
Surr: TOLUENE-D8		*96*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1024 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL		**64.3**		2.00	mg/l
ENDPOINT PH		**4.50**			su

SW846 9056A

Date/Time: 12/05/2013 1556 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL		**1.53**		1.00	mg/l

SW846 9060A

Date/Time: 12/09/2013 1747 ***Analyst: CDC*** ***Dilution: 1***

ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **RW-29**
Sample ID: L13120401-03

Date Collected: 12/03/2013 1210
Date Received : 12/03/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **EW-49**
Sample ID: L13120401-04

Date Collected: 12/03/2013 0945
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1550 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED		0.0570		0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/04/2013 1348 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM	<	5.00	U	5.00	ug/l
CHLOROMETHANE	<	10.0	U	10.0	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **EW-49**
Sample ID: L13120401-04

Date Collected: 12/03/2013 0945
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
CIS-1,2-DICHLOROETHENE		**8.71**		5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL ACETATE	<	10.0	U	10.0	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*107*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*101*	%	*(78-138)*	
Surr: TOLUENE-D8		*101*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1035 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL		**100**		2.00	mg/l
ENDPOINT PH		**4.50**			su

SW846 9056A

Date/Time: 12/05/2013 1627 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL		**2.22**		1.00	mg/l

SW846 9060A

Date/Time: 12/09/2013 1812 ***Analyst: CDC*** ***Dilution: 1***

ORGANIC CARBON, TOTAL - AVG		**1.05**		1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH		**1.07**		1.00	mg/l
ORGANIC CARBON, TOTAL - LOW		**1.03**		1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **EW-49**
Sample ID: L13120401-04

Date Collected: 12/03/2013 0945
Date Received : 12/03/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **EW-52**
Sample ID: L13120401-05

Date Collected: 12/03/2013 1045
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1602 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED		**0.209**		0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/04/2013 1417 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM	<	5.00	U	5.00	ug/l
CHLOROMETHANE	<	10.0	U	10.0	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **EW-52**
Sample ID: L13120401-05

Date Collected: 12/03/2013 1045
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
CIS-1,2-DICHLOROETHENE		**64.3**		5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL ACETATE	<	10.0	U	10.0	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*100*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*91*	%	*(78-138)*	
Surr: TOLUENE-D8		*92*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1044 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL		**58.9**		1.00	mg/l
ENDPOINT PH		**4.50**			su

SW846 9056A

Date/Time: 12/05/2013 1657 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL		**3.14**		1.00	mg/l

SW846 9060A

Date/Time: 12/09/2013 1835 ***Analyst: CDC*** ***Dilution: 1***

ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **EW-52**
Sample ID: L13120401-05

Date Collected: 12/03/2013 1045
Date Received : 12/03/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **DW-12**
Sample ID: L13120401-06

Date Collected: 12/03/2013 1200
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1606 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED	<	0.0100	U	0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/04/2013 1445 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM		**193**		5.00	ug/l
CHLOROMETHANE	<	10.0	U	10.0	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **DW-12**
Sample ID: L13120401-06

Date Collected: 12/03/2013 1200
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
CIS-1,2-DICHLOROETHENE		**15.9**		5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL ACETATE	<	10.0	U	10.0	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*106*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*97*	%	*(78-138)*	
Surr: TOLUENE-D8		*97*	%	*(77-135)*	
Wet Chemistry					
SM 2320B					
Date/Time: 12/09/2013 1054 Analyst: LSV			***Dilution: 1***		
ALKALINITY, TOTAL		**9.81**		1.00	mg/l
ENDPOINT PH		**4.20**			su
SW846 9056A					
Date/Time: 12/05/2013 1728 Analyst: EIC			***Dilution: 1***		
CHLORIDE, TOTAL		**7.14**		1.00	mg/l
SW846 9060A					
Date/Time: 12/09/2013 1859 Analyst: CDC			***Dilution: 1***		
ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **DW-12**
Sample ID: L13120401-06

Date Collected: 12/03/2013 1200
Date Received : 12/03/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **MW-105**
Sample ID: L13120401-07

Date Collected: 12/03/2013 1405
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1610 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED	<	0.0100	U	0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/04/2013 1514 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM		**197**		5.00	ug/l
CHLOROMETHANE	<	10.0	U	10.0	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **MW-105**
Sample ID: L13120401-07

Date Collected: 12/03/2013 1405
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
CIS-1,2-DICHLOROETHENE		**15.8**		5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL ACETATE	<	10.0	U	10.0	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*103*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*96*	%	*(78-138)*	
Surr: TOLUENE-D8		*92*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1059 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL		**9.27**		1.00	mg/l
ENDPOINT PH		**4.20**			su

SW846 9056A

Date/Time: 12/05/2013 1859 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL		**7.05**		1.00	mg/l

SW846 9060A

Date/Time: 12/09/2013 1922 ***Analyst: CDC*** ***Dilution: 1***

ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **MW-105**
Sample ID: L13120401-07

Date Collected: 12/03/2013 1405
Date Received : 12/03/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **MW-201**
Sample ID: L13120401-08

Date Collected: 12/03/2013 1400
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Volatile Organics					
SW846 8260B					
Date/Time: 12/04/2013 1543 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM	<	5.00	U	5.00	ug/l
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **MW-201**
Sample ID: L13120401-08

Date Collected: 12/03/2013 1400
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL ACETATE	<	10.0	U	10.0	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*104*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*94*	%	*(78-138)*	
Surr: TOLUENE-D8		*96*	%	*(77-135)*	

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **RW-110**
Sample ID: L13120401-09

Date Collected: 12/02/2013 1430
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1614 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED		**0.0190**		0.0100	mg/l
Volatile Organics					
EPA 8260B SIM					
Date/Time: 12/04/2013 1656 Analyst: PAP			***Dilution: 1***		
1,4-DIOXANE	<	2.00	U	2.00	ug/l
Surr: 1,4-DIOXANE-D8		*112 %*		*(61-138)*	
SW846 8260B					
Date/Time: 12/04/2013 1611 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **RW-110**
Sample ID: L13120401-09

Date Collected: 12/02/2013 1430
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM	<	5.00	U	5.00	ug/l
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL ACETATE	<	10.0	U	10.0	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*107*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*99*	%	*(78-138)*	
Surr: TOLUENE-D8		*99*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1115 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL	**76.3**		2.00	mg/l
ENDPOINT PH	**4.50**			su

SW846 9056A

Date/Time: 12/05/2013 1930 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL	**3.44**		1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **RW-110**
Sample ID: L13120401-09

Date Collected: 12/02/2013 1430
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
SW846 9060A					
Date/Time: 12/09/2013 1946 Analyst: CDC			***Dilution: 1***		
ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **RW-111**
Sample ID: L13120401-10

Date Collected: 12/02/2013 1540
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1618 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED		**0.0450**		0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/04/2013 1426 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM	<	5.00	U	5.00	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **RW-111**
Sample ID: L13120401-10

Date Collected: 12/02/2013 1540
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*103*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*90*	%	*(78-138)*	
Surr: TOLUENE-D8		*97*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1122 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL		**65.4**		2.00	mg/l
ENDPOINT PH		**4.50**			su

SW846 9056A

Date/Time: 12/05/2013 2001 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL		**1.53**		1.00	mg/l

SW846 9060A

Date/Time: 12/09/2013 2010 ***Analyst: CDC*** ***Dilution: 1***

ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **RW-111**
Sample ID: L13120401-10

Date Collected: 12/02/2013 1540
Date Received : 12/03/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **SW-14**
Sample ID: L13120401-11

Date Collected: 12/03/2013 1115
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Volatile Organics					
EPA 8260B SIM					
Date/Time: 12/04/2013 1724 Analyst: PAP			***Dilution: 1***		
1,4-DIOXANE		**2.37**		2.00	ug/l
Surr: 1,4-DIOXANE-D8		*103 %*		*(61-138)*	
SW846 8260B					
Date/Time: 12/04/2013 1453 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM		**8.60**		5.00	ug/l
CHLOROMETHANE	<	10.0	U	10.0	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **SW-14**
Sample ID: L13120401-11

Date Collected: 12/03/2013 1115
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*110*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*95*	%	*(78-138)*	
Surr: TOLUENE-D8		*99*	%	*(77-135)*	

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **SW-13**
Sample ID: L13120401-12

Date Collected: 12/03/2013 1135
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Volatile Organics					
EPA 8260B SIM					
Date/Time: 12/04/2013 1752 Analyst: PAP			***Dilution: 1***		
1,4-DIOXANE		**2.53**		2.00	ug/l
Surr: 1,4-DIOXANE-D8		*104 %*		*(61-138)*	
SW846 8260B					
Date/Time: 12/04/2013 1520 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM		**13.1**		5.00	ug/l
CHLOROMETHANE	<	10.0	U	10.0	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Client ID: **SW-13**
Sample ID: L13120401-12

Date Collected: 12/03/2013 1135
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*118*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*103*	%	*(78-138)*	
Surr: TOLUENE-D8		*106*	%	*(77-135)*	

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **SW-12**
Sample ID: L13120401-13

Date Collected: 12/03/2013 1150
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Volatile Organics					
EPA 8260B SIM					
Date/Time: 12/04/2013 1820 Analyst: PAP			***Dilution: 1***		
1,4-DIOXANE		**3.08**		2.00	ug/l
Surr: 1,4-DIOXANE-D8		*122 %*		*(61-138)*	
SW846 8260B					
Date/Time: 12/04/2013 1547 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM		**20.3**		5.00	ug/l
CHLOROMETHANE	<	10.0	U	10.0	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **SW-12**
Sample ID: L13120401-13

Date Collected: 12/03/2013 1150
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*117*	*%*	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*102*	*%*	*(78-138)*	
Surr: TOLUENE-D8		*108*	*%*	*(77-135)*	

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **MW-109**
Sample ID: L13120401-14

Date Collected: 12/03/2013 1400
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1622 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED	<	0.0100	U	0.0100	mg/l
Volatile Organics					
EPA 8260B SIM					
Date/Time: 12/04/2013 1849 Analyst: PAP			***Dilution: 1***		
1,4-DIOXANE	<	2.00	U	2.00	ug/l
Surr: 1,4-DIOXANE-D8		*101 %*		*(61-138)*	
SW846 8260B					
Date/Time: 12/04/2013 1613 Analyst: PAP			***Dilution: 5***		
1,1,1-TRICHLOROETHANE	<	25.0	U	25.0	ug/l
1,1,2,2-TETRACHLOROETHANE	<	25.0	U	25.0	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	50.0	U	50.0	ug/l
1,1,2-TRICHLOROETHANE	<	25.0	U	25.0	ug/l
1,1-DICHLOROETHANE	<	25.0	U	25.0	ug/l
1,1-DICHLOROETHENE	<	25.0	U	25.0	ug/l
1,2,3-TRICHLOROBENZENE	<	25.0	U	25.0	ug/l
1,2,4-TRICHLOROBENZENE	<	25.0	U	25.0	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	25.0	U	25.0	ug/l
1,2-DIBROMOETHANE	<	25.0	U	25.0	ug/l
1,2-DICHLOROBENZENE	<	25.0	U	25.0	ug/l
1,2-DICHLOROETHANE	<	25.0	U	25.0	ug/l
1,2-DICHLOROPROPANE	<	25.0	U	25.0	ug/l
1,3-DICHLOROBENZENE	<	25.0	U	25.0	ug/l
1,4-DICHLOROBENZENE	<	25.0	U	25.0	ug/l
2-BUTANONE	<	50.0	U	50.0	ug/l
2-HEXANONE	<	50.0	U	50.0	ug/l
4-METHYL-2-PENTANONE	<	25.0	U	25.0	ug/l
ACETONE	<	50.0	U	50.0	ug/l
BENZENE	<	25.0	U	25.0	ug/l
BROMOCHLOROMETHANE	<	25.0	U	25.0	ug/l
BROMODICHLOROMETHANE	<	25.0	U	25.0	ug/l
BROMOFORM	<	25.0	U	25.0	ug/l
BROMOMETHANE	<	50.0	U	50.0	ug/l
CARBON DISULFIDE	<	25.0	U	25.0	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **MW-109**
Sample ID: L13120401-14

Date Collected: 12/03/2013 1400
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
CARBON TETRACHLORIDE	<	25.0	U	25.0	ug/l
CHLOROBENZENE	<	25.0	U	25.0	ug/l
CHLOROETHANE	<	50.0	U	50.0	ug/l
CHLOROFORM		**813**		25.0	ug/l
CHLOROMETHANE	<	50.0	U	50.0	ug/l
CIS-1,2-DICHLOROETHENE	<	25.0	U	25.0	ug/l
CIS-1,3-DICHLOROPROPENE	<	25.0	U	25.0	ug/l
CYCLOHEXANE	<	25.0	U	25.0	ug/l
DIBROMOCHLOROMETHANE	<	25.0	U	25.0	ug/l
DICHLORODIFLUOROMETHANE	<	25.0	U	25.0	ug/l
ETHYLBENZENE	<	25.0	U	25.0	ug/l
ISOPROPYL BENZENE	<	25.0	U	25.0	ug/l
METHYL ACETATE	<	50.0	U	50.0	ug/l
METHYL-TERT-BUTYL ETHER	<	25.0	U	25.0	ug/l
METHYLCYCLOHEXANE	<	25.0	U	25.0	ug/l
METHYLENE CHLORIDE	<	25.0	U	25.0	ug/l
STYRENE	<	25.0	U	25.0	ug/l
TETRACHLOROETHENE	<	25.0	U	25.0	ug/l
TOLUENE	<	25.0	U	25.0	ug/l
TRANS-1,2-DICHLOROETHENE	<	25.0	U	25.0	ug/l
TRANS-1,3-DICHLOROPROPENE	<	25.0	U	25.0	ug/l
TRICHLOROETHENE	<	25.0	U	25.0	ug/l
TRICHLOROFLUOROMETHANE	<	25.0	U	25.0	ug/l
VINYL CHLORIDE	<	50.0	U	50.0	ug/l
XYLENE (TOTAL)	<	25.0	U	25.0	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*114*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*99*	%	*(78-138)*	
Surr: TOLUENE-D8		*106*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1127 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL	**20.2**		1.00	mg/l
ENDPOINT PH	**4.50**			su

SW846 9056A

Date/Time: 12/05/2013 2031 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL	**3.52**		1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **MW-109**
Sample ID: L13120401-14

Date Collected: 12/03/2013 1400
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
SW846 9060A					
Date/Time: 12/09/2013 2034 Analyst: CDC			***Dilution: 1***		
ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **RW-108**
Sample ID: L13120401-15

Date Collected: 12/03/2013 1435
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1626 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED		**0.155**		0.0100	mg/l
Volatile Organics					
EPA 8260B SIM					
Date/Time: 12/04/2013 1917 Analyst: PAP			***Dilution: 1***		
1,4-DIOXANE	<	2.00	U	2.00	ug/l
Surr: 1,4-DIOXANE-D8		*106 %*		*(61-138)*	
SW846 8260B					
Date/Time: 12/04/2013 1640 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **RW-108**
Sample ID: L13120401-15

Date Collected: 12/03/2013 1435
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM	<	5.00	U	5.00	ug/l
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*109*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*95*	%	*(78-138)*	
Surr: TOLUENE-D8		*100*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1157 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL	**194**		4.00	mg/l
ENDPOINT PH	**4.50**			su

SW846 9056A

Date/Time: 12/05/2013 2102 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL	**5.21**		1.00	mg/l

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

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Certificate of Analysis

Client ID: **RW-108**
Sample ID: L13120401-15

Date Collected: 12/03/2013 1435
Date Received : 12/03/2013

Parameter		Result	Qual	RDL	Units
SW846 9060A					
Date/Time: 12/09/2013 2254 ***Analyst: CDC*** ***Dilution: 1***					
ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

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QC Summary Data

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Batch Sample List

WorkGroup : **WG66321**
Description: **VO/DIOXANE/SIM**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: EPA 8260B SIM

Sample ID	Client ID	Run#	PREP Date Time	ANALYTICAL Date Time	Analyst	Dilution
L13120401-09	RW-110	1		12/04/2013 1656	PAP	1
L13120401-11	SW-14	1		12/04/2013 1724	PAP	1
L13120401-12	SW-13	1		12/04/2013 1752	PAP	1
L13120401-13	SW-12	1		12/04/2013 1820	PAP	1
L13120401-14	MW-109	1		12/04/2013 1849	PAP	1
L13120401-15	RW-108	1		12/04/2013 1917	PAP	1
MB66321:1	Method Blank	1		12/04/2013 1629	PAP	1
LCS66321:1	Laboratory Control Spike	1		12/04/2013 2109	PAP	1
MS13120401-09:66321	Matrix Spike	1		12/04/2013 2013	PAP	1
MSD13120401-09:66321	Matrix Spike Duplicate	1		12/04/2013 2041	PAP	1

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Surrogates % Recovery

WorkGroup: **WG66321**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: EPA 8260B SIM

SampleNumber	MeasureDate	DOXD8 61-138
L13120401-09	12/04/2013 1656	112
L13120401-11	12/04/2013 1724	103
L13120401-12	12/04/2013 1752	104
L13120401-13	12/04/2013 1820	122
L13120401-14	12/04/2013 1849	101
L13120401-15	12/04/2013 1917	106
MB66321:1	12/04/2013 1629	117
LCS66321:1	12/04/2013 2109	102
MS13120401-09:66321	12/04/2013 2013	93
MSD13120401-09:66321	12/04/2013 2041	99

DOXD8 - 1,4-DIOXANE-D8

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Method Blanks

WorkGroup: **WG66321**
Blank : **MB66321:1**

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Volatile Organics					
EPA 8260B SIM					
Date/Time: 12/04/2013 1629 Analyst: PAP			***Dilution: 1***		
1,4-DIOXANE	<	2.00	U	2.00	ug/l
Surr: 1,4-DIOXANE-D8		*117 %*		*(61-138)*	

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66321**
MS/MSD : **MS13120401-09:66321**
MSD13120401-09:66321

Matrix : GW/ChemW
Prep Method :
Analtyical Method: EPA 8260B SIM

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
1,4-DIOXANE	100.0	< 2.00	91.48	ug/l	91	62-138

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	%REC
1,4-DIOXANE	100.0	104.4	ug/l	104	13	16	62-138

NOTE: MS/MSD % recoveries are not evaluated if the sample concentration is greater than four times the spike added.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

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QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66321**
LCS : **LCS66321:1**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: EPA 8260B SIM

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
1,4-DIOXANE	100.0	101.7	ug/l	102	62-138

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Batch Sample List

WorkGroup : **WG66316**
Description: **VO/8260/TCL**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Sample ID	Client ID	Run#	PREP Date Time	ANALYTICAL Date Time	Analyst	Dilution
L13120401-01	MW-202	1		12/04/2013 1251	PAP	1
L13120401-02	MW-99	1		12/04/2013 1320	PAP	1
L13120401-04	EW-49	1		12/04/2013 1348	PAP	1
L13120401-05	EW-52	1		12/04/2013 1417	PAP	1
L13120401-06	DW-12	1		12/04/2013 1445	PAP	1
L13120401-07	MW-105	1		12/04/2013 1514	PAP	1
L13120401-08	MW-201	1		12/04/2013 1543	PAP	1
L13120401-09	RW-110	1		12/04/2013 1611	PAP	1
MB66316:1	Method Blank	1		12/04/2013 1149	PAP	1
LCS66316:1	Laboratory Control Spike	1		12/04/2013 1919	PAP	1
MS13120401-01:66316	Matrix Spike	1		12/04/2013 1822	PAP	1
MSD13120401-01:66316	Matrix Spike Duplicate	1		12/04/2013 1850	PAP	1

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

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QC Batch Report - Surrogates % Recovery

WorkGroup: **WG66316**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

SampleNumber	MeasureDate	DCA 80-139	BFB 78-138	TOL 77-135
L13120401-01	12/04/2013 1251	100	97	97
L13120401-02	12/04/2013 1320	102	95	96
L13120401-04	12/04/2013 1348	107	101	101
L13120401-05	12/04/2013 1417	100	91	92
L13120401-06	12/04/2013 1445	106	97	97
L13120401-07	12/04/2013 1514	103	96	92
L13120401-08	12/04/2013 1543	104	94	96
L13120401-09	12/04/2013 1611	107	99	99
MB66316:1	12/04/2013 1149	100	95	96
LCS66316:1	12/04/2013 1919	101	93	93
MS13120401-01:66316	12/04/2013 1822	103	93	93
MSD13120401-01:66316	12/04/2013 1850	103	92	92

DCA - 1,2-DICHLOROETHANE-D4
BFB - BROMOFLUOROBENZENE
TOL - TOLUENE-D8

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
 Report ID: AM31

QC Batch Report - Method Blanks

WorkGroup: **WG66316**
Blank : **MB66316:1**

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Volatile Organics					
SW846 8260B					
Date/Time: 12/04/2013 1149 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM	<	5.00	U	5.00	ug/l
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

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QC Batch Report - Method Blanks

WorkGroup: **WG66316**
Blank : **MB66316:1**

Parameter		Result	Qual	RDL	Units
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL ACETATE	<	10.0	U	10.0	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*100*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*95*	%	*(78-138)*	
Surr: TOLUENE-D8		*96*	%	*(77-135)*	

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
 Report ID: AM31

QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66316**
MS/MSD : **MS13120401-01:66316**
MSD13120401-01:66316

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
1,1,1-TRICHLOROETHANE	50.00	< 5.00	59.13	ug/l	118	84-121
1,1,2,2-TETRACHLOROETHANE	50.00	< 5.00	50.00	ug/l	100	80-120
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	50.00	< 10.00	53.99	ug/l	108	74-120
1,1,2-TRICHLOROETHANE	50.00	< 5.00	47.63	ug/l	95	85-115
1,1-DICHLOROETHANE	50.00	< 5.00	59.44	ug/l	**119**	85-115
1,1-DICHLOROETHENE	50.00	< 5.00	54.88	ug/l	110	77-123
1,2,3-TRICHLOROBENZENE	50.00	< 5.00	37.92	ug/l	76	76-124
1,2,4-TRICHLOROBENZENE	50.00	< 5.00	40.92	ug/l	82	77-116
1,2-DIBROMO-3-CHLOROPROPANE	50.00	< 5.00	43.21	ug/l	86	73-134
1,2-DIBROMOETHANE	50.00	< 5.00	46.99	ug/l	94	81-119
1,2-DICHLOROBENZENE	50.00	< 5.00	44.78	ug/l	90	74-122
1,2-DICHLOROETHANE	50.00	< 5.00	54.88	ug/l	110	81-122
1,2-DICHLOROPROPANE	50.00	< 5.00	48.98	ug/l	98	87-114
1,3-DICHLOROBENZENE	50.00	< 5.00	46.03	ug/l	92	75-122
1,4-DICHLOROBENZENE	50.00	< 5.00	48.67	ug/l	97	77-115
2-BUTANONE	50.00	< 10.00	50.16	ug/l	100	72-138
2-HEXANONE	50.00	< 10.00	51.53	ug/l	103	75-137
4-METHYL-2-PENTANONE	50.00	< 5.00	52.24	ug/l	104	79-133
ACETONE	50.00	< 10.00	52.70	ug/l	105	68-148
BENZENE	50.00	< 5.00	50.17	ug/l	100	84-114
BROMODICHLOROMETHANE	50.00	< 5.00	51.64	ug/l	103	84-120
BROMOFORM	50.00	< 5.00	48.70	ug/l	97	83-125
BROMOMETHANE	50.00	< 10.00	52.45	ug/l	105	56-128
CARBON DISULFIDE	50.00	< 5.00	55.09	ug/l	110	65-123
CARBON TETRACHLORIDE	50.00	< 5.00	58.60	ug/l	117	81-127
CHLOROBENZENE	50.00	< 5.00	45.95	ug/l	92	75-121
CHLOROETHANE	50.00	< 10.00	62.40	ug/l	**125**	74-121
CHLOROFORM	50.00	< 5.00	57.37	ug/l	115	81-119
CHLOROMETHANE	50.00	< 10.00	61.85	ug/l	**124**	68-123
CIS-1,2-DICHLOROETHENE	50.00	< 5.00	52.09	ug/l	104	82-116
CIS-1,3-DICHLOROPROPENE	50.00	< 5.00	49.11	ug/l	98	83-123
CYCLOHEXANE	50.00	< 5.00	55.17	ug/l	110	59-118
DIBROMOCHLOROMETHANE	50.00	< 5.00	48.62	ug/l	97	77-121
DICHLORODIFLUOROMETHANE	50.00	< 5.00	72.07	ug/l	**144**	52-136
ETHYLBENZENE	50.00	< 5.00	49.31	ug/l	99	81-117
ISOPROPYL BENZENE	50.00	< 5.00	49.85	ug/l	100	75-122
METHYL ACETATE	50.00	< 10.00	51.30	ug/l	103	70-123
METHYL-TERT-BUTYL ETHER	50.00	< 5.00	51.39	ug/l	103	83-115

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66316**
MS/MSD : **MS13120401-01:66316**
MSD13120401-01:66316

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
METHYLCYCLOHEXANE	50.00	< 5.00	53.18	ug/l	106	72-122
METHYLENE CHLORIDE	50.00	< 5.00	51.52	ug/l	103	74-119
STYRENE	50.00	< 5.00	48.46	ug/l	97	83-116
TETRACHLOROETHENE	50.00	< 5.00	52.13	ug/l	104	78-119
TOLUENE	50.00	< 5.00	50.62	ug/l	101	81-115
TRANS-1,2-DICHLOROETHENE	50.00	< 5.00	52.72	ug/l	105	78-116
TRANS-1,3-DICHLOROPROPENE	50.00	< 5.00	48.69	ug/l	97	78-116
TRICHLOROETHENE	50.00	< 5.00	46.95	ug/l	94	81-118
TRICHLOROFLUOROMETHANE	50.00	< 5.00	56.65	ug/l	113	76-129
VINYL ACETATE	50.00	< 10.00	54.54	ug/l	109	65-135
VINYL CHLORIDE	50.00	< 10.00	59.94	ug/l	120	73-123
XYLENE (TOTAL)	150.0	< 5.00	144.8	ug/l	97	77-121

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	%REC
1,1,1-TRICHLOROETHANE	50.00	57.20	ug/l	114	3	10	84-121
1,1,2,2-TETRACHLOROETHANE	50.00	49.04	ug/l	98	2	10	80-120
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	50.00	51.23	ug/l	102	5	10	74-120
1,1,2-TRICHLOROETHANE	50.00	46.93	ug/l	94	1	10	85-115
1,1-DICHLOROETHANE	50.00	56.51	ug/l	113	5	10	85-115
1,1-DICHLOROETHENE	50.00	53.35	ug/l	107	3	10	77-123
1,2,3-TRICHLOROBENZENE	50.00	36.93	ug/l	**74**	3	10	76-124
1,2,4-TRICHLOROBENZENE	50.00	41.20	ug/l	82	1	10	77-116
1,2-DIBROMO-3-CHLOROPROPANE	50.00	43.75	ug/l	88	1	16	73-134
1,2-DIBROMOETHANE	50.00	46.73	ug/l	93	1	10	81-119
1,2-DICHLOROBENZENE	50.00	44.48	ug/l	89	1	10	74-122
1,2-DICHLOROETHANE	50.00	52.66	ug/l	105	4	10	81-122
1,2-DICHLOROPROPANE	50.00	47.84	ug/l	96	2	10	87-114
1,3-DICHLOROBENZENE	50.00	45.69	ug/l	91	1	10	75-122
1,4-DICHLOROBENZENE	50.00	47.59	ug/l	95	2	10	77-115
2-BUTANONE	50.00	56.03	ug/l	112	11	17	72-138
2-HEXANONE	50.00	54.63	ug/l	109	6	14	75-137
4-METHYL-2-PENTANONE	50.00	54.32	ug/l	109	4	15	79-133
ACETONE	50.00	61.13	ug/l	122	15	23	68-148
BENZENE	50.00	48.36	ug/l	97	4	10	84-114
BROMODICHLOROMETHANE	50.00	49.68	ug/l	99	4	10	84-120
BROMOFORM	50.00	48.40	ug/l	97	1	10	83-125
BROMOMETHANE	50.00	49.64	ug/l	99	6	17	56-128

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66316**
MS/MSD : **MS13120401-01:66316**
MSD13120401-01:66316

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	Limits %REC
CARBON DISULFIDE	50.00	54.44	ug/l	109	1	10	65-123
CARBON TETRACHLORIDE	50.00	55.41	ug/l	111	6	10	81-127
CHLOROBENZENE	50.00	45.11	ug/l	90	2	10	75-121
CHLOROETHANE	50.00	59.69	ug/l	119	4	10	74-121
CHLOROFORM	50.00	54.53	ug/l	109	5	10	81-119
CHLOROMETHANE	50.00	58.46	ug/l	117	6	12	68-123
CIS-1,2-DICHLOROETHENE	50.00	49.50	ug/l	99	5	10	82-116
CIS-1,3-DICHLOROPROPENE	50.00	49.37	ug/l	99	1	10	83-123
CYCLOHEXANE	50.00	54.02	ug/l	108	2	10	59-118
DIBROMOCHLOROMETHANE	50.00	47.61	ug/l	95	2	10	77-121
DICHLORODIFLUOROMETHANE	50.00	66.81	ug/l	134	8	17	52-136
ETHYLBENZENE	50.00	47.87	ug/l	96	3	10	81-117
ISOPROPYL BENZENE	50.00	48.21	ug/l	96	3	10	75-122
METHYL ACETATE	50.00	52.08	ug/l	104	2	14	70-123
METHYL-TERT-BUTYL ETHER	50.00	48.80	ug/l	98	5	10	83-115
METHYLCYCLOHEXANE	50.00	51.27	ug/l	103	4	10	72-122
METHYLENE CHLORIDE	50.00	49.56	ug/l	99	4	10	74-119
STYRENE	50.00	47.48	ug/l	95	2	10	83-116
TETRACHLOROETHENE	50.00	50.65	ug/l	101	3	10	78-119
TOLUENE	50.00	48.22	ug/l	96	5	10	81-115
TRANS-1,2-DICHLOROETHENE	50.00	51.46	ug/l	103	2	10	78-116
TRANS-1,3-DICHLOROPROPENE	50.00	48.56	ug/l	97	0	10	78-116
TRICHLOROETHENE	50.00	45.82	ug/l	92	2	10	81-118
TRICHLOROFLUOROMETHANE	50.00	51.94	ug/l	104	9	10	76-129
VINYL ACETATE	50.00	55.72	ug/l	111	2	12	65-135
VINYL CHLORIDE	50.00	56.86	ug/l	114	5	10	73-123
XYLENE (TOTAL)	150.0	138.8	ug/l	93	4	10	77-121

NOTE: MS/MSD % recoveries are not evaluated if the sample concentration is greater than four times the spike added.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66316**
LCS : **LCS66316:1**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
1,1,1-TRICHLOROETHANE	50.00	58.42	ug/l	117	82-121
1,1,2,2-TETRACHLOROETHANE	50.00	50.80	ug/l	102	80-120
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	50.00	48.00	ug/l	96	71-118
1,1,2-TRICHLOROETHANE	50.00	49.02	ug/l	98	86-115
1,1-DICHLOROETHANE	50.00	59.61	ug/l	**119**	84-115
1,1-DICHLOROETHENE	50.00	54.50	ug/l	109	76-122
1,2,3-TRICHLOROBENZENE	50.00	43.68	ug/l	87	76-124
1,2,4-TRICHLOROBENZENE	50.00	47.57	ug/l	95	77-116
1,2-DIBROMO-3-CHLOROPROPANE	50.00	48.41	ug/l	97	73-134
1,2-DIBROMOETHANE	50.00	49.21	ug/l	98	81-119
1,2-DICHLOROBENZENE	50.00	46.87	ug/l	94	74-120
1,2-DICHLOROETHANE	50.00	54.79	ug/l	110	81-122
1,2-DICHLOROPROPANE	50.00	50.73	ug/l	101	87-114
1,3-DICHLOROBENZENE	50.00	47.99	ug/l	96	75-122
1,4-DICHLOROBENZENE	50.00	50.81	ug/l	102	77-113
2-BUTANONE	50.00	55.61	ug/l	111	72-135
2-HEXANONE	50.00	53.02	ug/l	106	75-137
4-METHYL-2-PENTANONE	50.00	53.39	ug/l	107	78-132
ACETONE	50.00	58.13	ug/l	116	70-140
BENZENE	50.00	50.88	ug/l	102	84-113
BROMODICHLOROMETHANE	50.00	53.18	ug/l	106	84-120
BROMOFORM	50.00	51.21	ug/l	102	83-125
BROMOMETHANE	50.00	52.10	ug/l	104	58-128
CARBON DISULFIDE	50.00	52.79	ug/l	106	66-120
CARBON TETRACHLORIDE	50.00	55.41	ug/l	111	81-122
CHLOROBENZENE	50.00	47.34	ug/l	95	74-120
CHLOROETHANE	50.00	63.50	ug/l	**127**	74-118
CHLOROFORM	50.00	58.08	ug/l	116	83-117
CHLOROMETHANE	50.00	59.66	ug/l	119	68-123
CIS-1,2-DICHLOROETHENE	50.00	52.92	ug/l	106	81-115
CIS-1,3-DICHLOROPROPENE	50.00	52.07	ug/l	104	83-123
CYCLOHEXANE	50.00	50.29	ug/l	101	72-114
DIBROMOCHLOROMETHANE	50.00	50.07	ug/l	100	85-121
DICHLORODIFLUOROMETHANE	50.00	59.33	ug/l	119	52-136
ETHYLBENZENE	50.00	49.24	ug/l	98	81-116
ISOPROPYL BENZENE	50.00	49.42	ug/l	99	77-120
METHYL ACETATE	50.00	54.59	ug/l	109	75-123
METHYL-TERT-BUTYL ETHER	50.00	51.71	ug/l	103	83-115

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
 Report ID: AM31

QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66316**
LCS : **LCS66316:1**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
METHYLCYCLOHEXANE	50.00	48.03	ug/l	96	71-120
METHYLENE CHLORIDE	50.00	52.35	ug/l	105	74-119
STYRENE	50.00	50.52	ug/l	101	83-116
TETRACHLOROETHENE	50.00	52.08	ug/l	104	77-117
TOLUENE	50.00	51.01	ug/l	102	83-114
TRANS-1,2-DICHLOROETHENE	50.00	53.23	ug/l	106	77-116
TRANS-1,3-DICHLOROPROPENE	50.00	49.66	ug/l	99	78-116
TRICHLOROETHENE	50.00	46.89	ug/l	94	82-115
TRICHLOROFLUOROMETHANE	50.00	48.76	ug/l	98	75-126
VINYL ACETATE	50.00	55.14	ug/l	110	71-128
VINYL CHLORIDE	50.00	57.39	ug/l	115	72-121
XYLENE (TOTAL)	150.0	146.5	ug/l	98	77-121

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
 Report ID: AM31

QC Batch Report - Batch Sample List

WorkGroup : **WG66319**
Description: **VO/8260/TCL**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Sample ID	Client ID	Run#	PREP Date Time	ANALYTICAL Date Time	Analyst	Dilution
L13120401-10	RW-111	1		12/04/2013 1426	PAP	1
L13120401-11	SW-14	1		12/04/2013 1453	PAP	1
L13120401-12	SW-13	1		12/04/2013 1520	PAP	1
L13120401-13	SW-12	1		12/04/2013 1547	PAP	1
L13120401-14	MW-109	1		12/04/2013 1613	PAP	5
L13120401-15	RW-108	1		12/04/2013 1640	PAP	1
MB66319:1	Method Blank	1		12/04/2013 1400	PAP	1
MS13120401-10:66319	Matrix Spike	1		12/04/2013 1828	PAP	1
MSD13120401-10:66319	Matrix Spike Duplicate	1		12/04/2013 1854	PAP	1

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1455 OLD ALABAMA RD.
SUITE 170
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Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Surrogates % Recovery

WorkGroup: **WG66319**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

SampleNumber	MeasureDate	DCA 80-139	BFB 78-138	TOL 77-135
L13120401-10	12/04/2013 1426	103	90	97
L13120401-11	12/04/2013 1453	110	95	99
L13120401-12	12/04/2013 1520	118	103	106
L13120401-13	12/04/2013 1547	117	102	108
L13120401-14	12/04/2013 1613	114	99	106
L13120401-15	12/04/2013 1640	109	95	100
MB66319:1	12/04/2013 1400	99	92	96
MS13120401-10:66319	12/04/2013 1828	104	95	95
MSD13120401-10:66319	12/04/2013 1854	102	94	96

DCA - 1,2-DICHLOROETHANE-D4
BFB - BROMOFLUOROBENZENE
TOL - TOLUENE-D8

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LABORATORY ANALYSIS REPORT

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Client : **AECOM**
1455 OLD ALABAMA RD.
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Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
 Report ID: AM31

QC Batch Report - Method Blanks

WorkGroup: **WG66319**
Blank : **MB66319:1**

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Volatile Organics					
SW846 8260B					
Date/Time: 12/04/2013 1400 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM	<	5.00	U	5.00	ug/l
CHLOROMETHANE	<	10.0	U	10.0	ug/l

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

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1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Method Blanks

WorkGroup: **WG66319**
Blank : **MB66319:1**

Parameter		Result	Qual	RDL	Units
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*99*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*92*	%	*(78-138)*	
Surr: TOLUENE-D8		*96*	%	*(77-135)*	

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66319**
MS/MSD : **MS13120401-10:66319**
MSD13120401-10:66319

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
1,1,1-TRICHLOROETHANE	50.00	< 5.00	55.88	ug/l	112	84-121
1,1,2,2-TETRACHLOROETHANE	50.00	< 5.00	50.78	ug/l	102	80-120
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	50.00	< 10.00	47.69	ug/l	95	74-120
1,1,2-TRICHLOROETHANE	50.00	< 5.00	46.25	ug/l	93	85-115
1,1-DICHLOROETHANE	50.00	< 5.00	56.33	ug/l	113	85-115
1,1-DICHLOROETHENE	50.00	< 5.00	52.45	ug/l	105	77-123
1,2,3-TRICHLOROBENZENE	50.00	< 5.00	45.02	ug/l	90	76-124
1,2,4-TRICHLOROBENZENE	50.00	< 5.00	44.81	ug/l	90	77-116
1,2-DIBROMO-3-CHLOROPROPANE	50.00	< 5.00	46.63	ug/l	93	73-134
1,2-DIBROMOETHANE	50.00	< 5.00	46.49	ug/l	93	81-119
1,2-DICHLOROBENZENE	50.00	< 5.00	43.77	ug/l	88	74-122
1,2-DICHLOROETHANE	50.00	< 5.00	50.62	ug/l	101	81-122
1,2-DICHLOROPROPANE	50.00	< 5.00	48.04	ug/l	96	87-114
1,3-DICHLOROBENZENE	50.00	< 5.00	44.85	ug/l	90	75-122
1,4-DICHLOROBENZENE	50.00	< 5.00	45.89	ug/l	92	77-115
2-BUTANONE	50.00	< 10.00	53.00	ug/l	106	72-138
2-HEXANONE	50.00	< 10.00	55.44	ug/l	111	75-137
4-METHYL-2-PENTANONE	50.00	< 5.00	52.56	ug/l	105	79-133
ACETONE	50.00	< 10.00	55.26	ug/l	111	68-148
BENZENE	50.00	< 5.00	48.79	ug/l	98	84-114
BROMOCHLOROMETHANE	50.00	< 5.00	58.71	ug/l	117	79-118
BROMODICHLOROMETHANE	50.00	< 5.00	52.03	ug/l	104	84-120
BROMOFORM	50.00	< 5.00	44.86	ug/l	90	83-125
BROMOMETHANE	50.00	< 10.00	48.53	ug/l	97	56-128
CARBON DISULFIDE	50.00	< 5.00	51.32	ug/l	103	65-123
CARBON TETRACHLORIDE	50.00	< 5.00	54.58	ug/l	109	81-127
CHLOROBENZENE	50.00	< 5.00	43.95	ug/l	88	75-121
CHLOROETHANE	50.00	< 10.00	63.35	ug/l	**127**	74-121
CHLOROFORM	50.00	< 5.00	55.36	ug/l	111	81-119
CHLOROMETHANE	50.00	< 10.00	60.73	ug/l	121	68-123
CIS-1,2-DICHLOROETHENE	50.00	< 5.00	50.33	ug/l	101	82-116
CIS-1,3-DICHLOROPROPENE	50.00	< 5.00	51.75	ug/l	104	83-123
CYCLOHEXANE	50.00	< 5.00	54.74	ug/l	109	59-118
DIBROMOCHLOROMETHANE	50.00	< 5.00	48.55	ug/l	97	77-121
DICHLORODIFLUOROMETHANE	50.00	< 5.00	68.21	ug/l	136	52-136
ETHYLBENZENE	50.00	< 5.00	47.96	ug/l	96	81-117
ISOPROPYL BENZENE	50.00	< 5.00	46.83	ug/l	94	75-122
METHYL ACETATE	50.00	< 10.00	52.09	ug/l	104	70-123

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66319**
MS/MSD : **MS13120401-10:66319**
MSD13120401-10:66319

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
METHYL-TERT-BUTYL ETHER	50.00	< 5.00	49.13	ug/l	98	83-115
METHYLCYCLOHEXANE	50.00	< 5.00	53.89	ug/l	108	72-122
METHYLENE CHLORIDE	50.00	< 5.00	48.44	ug/l	97	74-119
STYRENE	50.00	< 5.00	47.15	ug/l	94	83-116
TETRACHLOROETHENE	50.00	< 5.00	48.14	ug/l	96	78-119
TOLUENE	50.00	< 5.00	49.28	ug/l	99	81-115
TRANS-1,2-DICHLOROETHENE	50.00	< 5.00	50.42	ug/l	101	78-116
TRANS-1,3-DICHLOROPROPENE	50.00	< 5.00	44.96	ug/l	90	78-116
TRICHLOROETHENE	50.00	< 5.00	44.80	ug/l	90	81-118
TRICHLOROFLUOROMETHANE	50.00	< 5.00	54.41	ug/l	109	76-129
VINYL CHLORIDE	50.00	< 10.00	59.31	ug/l	119	73-123
XYLENE (TOTAL)	150.0	< 5.00	135.0	ug/l	90	77-121

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	%REC
1,1,1-TRICHLOROETHANE	50.00	58.86	ug/l	118	5	10	84-121
1,1,2,2-TETRACHLOROETHANE	50.00	52.24	ug/l	104	3	10	80-120
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	50.00	52.98	ug/l	106	**11**	10	74-120
1,1,2-TRICHLOROETHANE	50.00	48.98	ug/l	98	6	10	85-115
1,1-DICHLOROETHANE	50.00	60.60	ug/l	**121**	7	10	85-115
1,1-DICHLOROETHENE	50.00	56.04	ug/l	112	7	10	77-123
1,2,3-TRICHLOROBENZENE	50.00	46.77	ug/l	94	4	10	76-124
1,2,4-TRICHLOROBENZENE	50.00	47.68	ug/l	95	6	10	77-116
1,2-DIBROMO-3-CHLOROPROPANE	50.00	47.22	ug/l	94	1	16	73-134
1,2-DIBROMOETHANE	50.00	47.79	ug/l	96	3	10	81-119
1,2-DICHLOROBENZENE	50.00	45.73	ug/l	91	4	10	74-122
1,2-DICHLOROETHANE	50.00	52.12	ug/l	104	3	10	81-122
1,2-DICHLOROPROPANE	50.00	50.01	ug/l	100	4	10	87-114
1,3-DICHLOROBENZENE	50.00	47.30	ug/l	95	5	10	75-122
1,4-DICHLOROBENZENE	50.00	48.75	ug/l	98	6	10	77-115
2-BUTANONE	50.00	48.44	ug/l	97	9	17	72-138
2-HEXANONE	50.00	51.71	ug/l	103	7	14	75-137
4-METHYL-2-PENTANONE	50.00	48.29	ug/l	97	8	15	79-133
ACETONE	50.00	52.14	ug/l	104	6	23	68-148
BENZENE	50.00	51.85	ug/l	104	6	10	84-114
BROMOCHLOROMETHANE	50.00	61.12	ug/l	**122**	4	10	79-118
BROMODICHLOROMETHANE	50.00	53.44	ug/l	107	3	10	84-120
BROMOFORM	50.00	46.83	ug/l	94	4	10	83-125

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66319**
MS/MSD : **MS13120401-10:66319**
MSD13120401-10:66319

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	Limits %REC
BROMOMETHANE	50.00	53.50	ug/l	107	10	17	56-128
CARBON DISULFIDE	50.00	51.47	ug/l	103	0	10	65-123
CARBON TETRACHLORIDE	50.00	59.63	ug/l	119	9	10	81-127
CHLOROBENZENE	50.00	45.82	ug/l	92	4	10	75-121
CHLOROETHANE	50.00	66.18	ug/l	**132**	4	10	74-121
CHLOROFORM	50.00	57.70	ug/l	115	4	10	81-119
CHLOROMETHANE	50.00	61.11	ug/l	122	1	12	68-123
CIS-1,2-DICHLOROETHENE	50.00	52.34	ug/l	105	4	10	82-116
CIS-1,3-DICHLOROPROPENE	50.00	53.64	ug/l	107	4	10	83-123
CYCLOHEXANE	50.00	55.69	ug/l	111	2	10	59-118
DIBROMOCHLOROMETHANE	50.00	50.55	ug/l	101	4	10	77-121
DICHLORODIFLUOROMETHANE	50.00	72.09	ug/l	**144**	6	17	52-136
ETHYLBENZENE	50.00	49.89	ug/l	100	4	10	81-117
ISOPROPYL BENZENE	50.00	50.58	ug/l	101	8	10	75-122
METHYL ACETATE	50.00	51.88	ug/l	104	0	14	70-123
METHYL-TERT-BUTYL ETHER	50.00	53.03	ug/l	106	8	10	83-115
METHYLCYCLOHEXANE	50.00	55.16	ug/l	110	2	10	72-122
METHYLENE CHLORIDE	50.00	51.32	ug/l	103	6	10	74-119
STYRENE	50.00	49.28	ug/l	99	4	10	83-116
TETRACHLOROETHENE	50.00	49.78	ug/l	100	3	10	78-119
TOLUENE	50.00	51.31	ug/l	103	4	10	81-115
TRANS-1,2-DICHLOROETHENE	50.00	53.22	ug/l	106	5	10	78-116
TRANS-1,3-DICHLOROPROPENE	50.00	47.83	ug/l	96	6	10	78-116
TRICHLOROETHENE	50.00	47.71	ug/l	95	6	10	81-118
TRICHLOROFLUOROMETHANE	50.00	57.57	ug/l	115	6	10	76-129
VINYL CHLORIDE	50.00	61.66	ug/l	123	4	10	73-123
XYLENE (TOTAL)	150.0	140.9	ug/l	94	4	10	77-121

NOTE: MS/MSD % recoveries are not evaluated if the sample concentration is greater than four times the spike added.

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
 Report ID: AM31

QC Batch Report - Batch Sample List

WorkGroup : **WG66331**
Description: **VO/8260/TCL**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Sample ID	Client ID	Run#	PREP Date Time	ANALYTICAL Date Time	Analyst	Dilution
L13120401-03	RW-29	1		12/05/2013 1651	PAP	1
MB66331:1	Method Blank	1		12/05/2013 1556	PAP	1
LCS66331:1	Laboratory Control Spike	1		12/05/2013 2335	PAP	1
MS13120414-02:66331	Matrix Spike	1		12/05/2013 2241	PAP	1
MSD13120414-02:66331	Matrix Spike Duplicate	1		12/05/2013 2308	PAP	1

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Surrogates % Recovery

WorkGroup: **WG66331**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

SampleNumber	MeasureDate	DCA 80-139	BFB 78-138	TOL 77-135
L13120401-03	12/05/2013 1651	103	96	96
MB66331:1	12/05/2013 1556	106	99	98
LCS66331:1	12/05/2013 2335	97	93	94
MS13120414-02:66331	12/05/2013 2241	106	101	98
MSD13120414-02:66331	12/05/2013 2308	100	99	97

DCA - 1,2-DICHLOROETHANE-D4
BFB - BROMOFLUOROBENZENE
TOL - TOLUENE-D8

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Method Blanks

WorkGroup: **WG66331**
Blank : **MB66331:1**

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Volatile Organics					
SW846 8260B					
Date/Time: 12/05/2013 1556 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM	<	5.00	U	5.00	ug/l
CHLOROMETHANE	<	10.0	U	10.0	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
Page 69 of 100 Report ID: AM31

QC Batch Report - Method Blanks

WorkGroup: **WG66331**
Blank : **MB66331:1**

Parameter		Result	Qual	RDL	Units
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*106*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*99*	%	*(78-138)*	
Surr: TOLUENE-D8		*98*	%	*(77-135)*	

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

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Client : **AECOM**
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Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66331**
MS/MSD : **MS13120414-02:66331**
MSD13120414-02:66331

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
1,1,1-TRICHLOROETHANE	50.00	< 5.00	46.46	ug/l	93	84-121
1,1,2,2-TETRACHLOROETHANE	50.00	< 5.00	43.45	ug/l	87	80-120
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	50.00	< 10.00	43.75	ug/l	88	74-120
1,1,2-TRICHLOROETHANE	50.00	< 5.00	43.91	ug/l	88	85-115
1,1-DICHLOROETHANE	50.00	< 5.00	48.49	ug/l	97	85-115
1,1-DICHLOROETHENE	50.00	< 5.00	43.83	ug/l	88	77-123
1,2,3-TRICHLOROBENZENE	50.00	< 5.00	42.74	ug/l	85	76-124
1,2,4-TRICHLOROBENZENE	50.00	< 5.00	42.86	ug/l	86	77-116
1,2-DIBROMO-3-CHLOROPROPANE	50.00	< 5.00	40.65	ug/l	81	73-134
1,2-DIBROMOETHANE	50.00	< 5.00	44.00	ug/l	88	81-119
1,2-DICHLOROBENZENE	50.00	< 5.00	43.39	ug/l	87	74-122
1,2-DICHLOROETHANE	50.00	< 5.00	48.22	ug/l	96	81-122
1,2-DICHLOROPROPANE	50.00	< 5.00	46.59	ug/l	93	87-114
1,3-DICHLOROBENZENE	50.00	< 5.00	42.73	ug/l	85	75-122
1,4-DICHLOROBENZENE	50.00	< 5.00	43.33	ug/l	87	77-115
2-BUTANONE	50.00	< 10.00	50.84	ug/l	102	72-138
2-HEXANONE	50.00	< 10.00	49.70	ug/l	99	75-137
4-METHYL-2-PENTANONE	50.00	< 5.00	50.44	ug/l	101	79-133
ACETONE	50.00	< 10.00	50.25	ug/l	101	68-148
BENZENE	50.00	< 5.00	46.11	ug/l	92	84-114
BROMOCHLOROMETHANE	50.00	< 5.00	49.50	ug/l	99	79-118
BROMODICHLOROMETHANE	50.00	< 5.00	46.09	ug/l	92	84-120
BROMOFORM	50.00	< 5.00	40.49	ug/l	**81**	83-125
BROMOMETHANE	50.00	< 10.00	42.37	ug/l	85	56-128
CARBON DISULFIDE	50.00	< 5.00	48.78	ug/l	98	65-123
CARBON TETRACHLORIDE	50.00	< 5.00	47.15	ug/l	94	81-127
CHLOROBENZENE	50.00	< 5.00	44.19	ug/l	88	75-121
CHLOROETHANE	50.00	< 10.00	48.10	ug/l	96	74-121
CHLOROFORM	50.00	< 5.00	47.62	ug/l	95	81-119
CHLOROMETHANE	50.00	< 10.00	48.33	ug/l	97	68-123
CIS-1,2-DICHLOROETHENE	50.00	5.33	51.35	ug/l	92	82-116
CIS-1,3-DICHLOROPROPENE	50.00	< 5.00	48.58	ug/l	97	83-123
CYCLOHEXANE	50.00	< 5.00	48.31	ug/l	97	59-118
DIBROMOCHLOROMETHANE	50.00	< 5.00	45.48	ug/l	91	77-121
DICHLORODIFLUOROMETHANE	50.00	< 5.00	48.50	ug/l	97	52-136
ETHYLBENZENE	50.00	< 5.00	44.68	ug/l	89	81-117
ISOPROPYL BENZENE	50.00	< 5.00	43.92	ug/l	88	75-122
METHYL ACETATE	50.00	< 10.00	47.25	ug/l	95	70-123

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66331**
MS/MSD : **MS13120414-02:66331**
MSD13120414-02:66331

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
METHYL-TERT-BUTYL ETHER	50.00	< 5.00	43.97	ug/l	88	83-115
METHYLCYCLOHEXANE	50.00	< 5.00	47.72	ug/l	95	72-122
METHYLENE CHLORIDE	50.00	< 5.00	44.48	ug/l	89	74-119
STYRENE	50.00	< 5.00	47.33	ug/l	95	83-116
TETRACHLOROETHENE	50.00	< 5.00	44.99	ug/l	90	78-119
TOLUENE	50.00	< 5.00	44.86	ug/l	90	81-115
TRANS-1,2-DICHLOROETHENE	50.00	< 5.00	46.11	ug/l	92	78-116
TRANS-1,3-DICHLOROPROPENE	50.00	< 5.00	39.23	ug/l	78	78-116
TRICHLOROETHENE	50.00	< 5.00	45.98	ug/l	92	81-118
TRICHLOROFLUOROMETHANE	50.00	< 5.00	49.88	ug/l	100	76-129
VINYL CHLORIDE	50.00	< 10.00	48.21	ug/l	96	73-123
XYLENE (TOTAL)	150.0	< 5.00	137.0	ug/l	91	77-121

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	%REC
1,1,1-TRICHLOROETHANE	50.00	51.57	ug/l	103	10	10	84-121
1,1,2,2-TETRACHLOROETHANE	50.00	48.59	ug/l	97	**11**	10	80-120
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	50.00	48.38	ug/l	97	10	10	74-120
1,1,2-TRICHLOROETHANE	50.00	48.31	ug/l	97	10	10	85-115
1,1-DICHLOROETHANE	50.00	51.23	ug/l	102	5	10	85-115
1,1-DICHLOROETHENE	50.00	50.00	ug/l	100	**13**	10	77-123
1,2,3-TRICHLOROBENZENE	50.00	48.63	ug/l	97	**13**	10	76-124
1,2,4-TRICHLOROBENZENE	50.00	46.76	ug/l	94	9	10	77-116
1,2-DIBROMO-3-CHLOROPROPANE	50.00	45.57	ug/l	91	11	16	73-134
1,2-DIBROMOETHANE	50.00	48.37	ug/l	97	9	10	81-119
1,2-DICHLOROBENZENE	50.00	48.33	ug/l	97	**11**	10	74-122
1,2-DICHLOROETHANE	50.00	50.72	ug/l	101	5	10	81-122
1,2-DICHLOROPROPANE	50.00	49.25	ug/l	99	6	10	87-114
1,3-DICHLOROBENZENE	50.00	47.61	ug/l	95	**11**	10	75-122
1,4-DICHLOROBENZENE	50.00	47.30	ug/l	95	9	10	77-115
2-BUTANONE	50.00	53.38	ug/l	107	5	17	72-138
2-HEXANONE	50.00	53.81	ug/l	108	8	14	75-137
4-METHYL-2-PENTANONE	50.00	53.72	ug/l	107	6	15	79-133
ACETONE	50.00	54.43	ug/l	109	8	23	68-148
BENZENE	50.00	49.25	ug/l	99	7	10	84-114
BROMOCHLOROMETHANE	50.00	52.13	ug/l	104	5	10	79-118
BROMODICHLOROMETHANE	50.00	50.39	ug/l	101	9	10	84-120
BROMOFORM	50.00	45.97	ug/l	92	**13**	10	83-125

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66331**
MS/MSD : **MS13120414-02:66331**
MSD13120414-02:66331

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	%REC
BROMOMETHANE	50.00	46.25	ug/l	93	9	17	56-128
CARBON DISULFIDE	50.00	50.22	ug/l	100	3	10	65-123
CARBON TETRACHLORIDE	50.00	51.32	ug/l	103	8	10	81-127
CHLOROBENZENE	50.00	48.20	ug/l	96	9	10	75-121
CHLOROETHANE	50.00	49.81	ug/l	100	3	10	74-121
CHLOROFORM	50.00	49.95	ug/l	100	5	10	81-119
CHLOROMETHANE	50.00	52.18	ug/l	104	8	12	68-123
CIS-1,2-DICHLOROETHENE	50.00	55.07	ug/l	99	7	10	82-116
CIS-1,3-DICHLOROPROPENE	50.00	52.71	ug/l	105	8	10	83-123
CYCLOHEXANE	50.00	51.22	ug/l	102	6	10	59-118
DIBROMOCHLOROMETHANE	50.00	50.46	ug/l	101	10	10	77-121
DICHLORODIFLUOROMETHANE	50.00	51.86	ug/l	104	7	17	52-136
ETHYLBENZENE	50.00	48.27	ug/l	97	8	10	81-117
ISOPROPYL BENZENE	50.00	48.06	ug/l	96	9	10	75-122
METHYL ACETATE	50.00	52.64	ug/l	105	11	14	70-123
METHYL-TERT-BUTYL ETHER	50.00	49.53	ug/l	99	**12**	10	83-115
METHYLCYCLOHEXANE	50.00	50.53	ug/l	101	6	10	72-122
METHYLENE CHLORIDE	50.00	48.80	ug/l	98	9	10	74-119
STYRENE	50.00	51.31	ug/l	103	8	10	83-116
TETRACHLOROETHENE	50.00	49.75	ug/l	100	10	10	78-119
TOLUENE	50.00	48.34	ug/l	97	7	10	81-115
TRANS-1,2-DICHLOROETHENE	50.00	49.91	ug/l	100	8	10	78-116
TRANS-1,3-DICHLOROPROPENE	50.00	43.64	ug/l	87	**11**	10	78-116
TRICHLOROETHENE	50.00	49.47	ug/l	99	7	10	81-118
TRICHLOROFLUOROMETHANE	50.00	53.02	ug/l	106	6	10	76-129
VINYL CHLORIDE	50.00	51.28	ug/l	103	6	10	73-123
XYLENE (TOTAL)	150.0	150.2	ug/l	100	9	10	77-121

NOTE: MS/MSD % recoveries are not evaluated if the sample concentration is greater than four times the spike added.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
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QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66331**
LCS : **LCS66331:1**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
1,1,1-TRICHLOROETHANE	50.00	49.09	ug/l	98	82-121
1,1,2,2-TETRACHLOROETHANE	50.00	47.98	ug/l	96	80-120
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	50.00	44.03	ug/l	88	71-118
1,1,2-TRICHLOROETHANE	50.00	48.73	ug/l	97	86-115
1,1-DICHLOROETHANE	50.00	50.19	ug/l	100	84-115
1,1-DICHLOROETHENE	50.00	46.29	ug/l	93	76-122
1,2,3-TRICHLOROBENZENE	50.00	47.60	ug/l	95	76-124
1,2,4-TRICHLOROBENZENE	50.00	47.91	ug/l	96	77-116
1,2-DIBROMO-3-CHLOROPROPANE	50.00	48.74	ug/l	97	73-134
1,2-DIBROMOETHANE	50.00	49.57	ug/l	99	81-119
1,2-DICHLOROBENZENE	50.00	47.95	ug/l	96	74-120
1,2-DICHLOROETHANE	50.00	50.52	ug/l	101	81-122
1,2-DICHLOROPROPANE	50.00	50.38	ug/l	101	87-114
1,3-DICHLOROBENZENE	50.00	46.85	ug/l	94	75-122
1,4-DICHLOROBENZENE	50.00	47.89	ug/l	96	77-113
2-BUTANONE	50.00	55.48	ug/l	111	72-135
2-HEXANONE	50.00	56.11	ug/l	112	75-137
4-METHYL-2-PENTANONE	50.00	55.55	ug/l	111	78-132
ACETONE	50.00	56.76	ug/l	114	70-140
BENZENE	50.00	49.78	ug/l	100	84-113
BROMOCHLOROMETHANE	50.00	52.22	ug/l	104	79-118
BROMODICHLOROMETHANE	50.00	51.96	ug/l	104	84-120
BROMOFORM	50.00	46.07	ug/l	92	83-125
BROMOMETHANE	50.00	45.21	ug/l	90	58-128
CARBON DISULFIDE	50.00	49.50	ug/l	99	66-120
CARBON TETRACHLORIDE	50.00	48.64	ug/l	97	81-122
CHLOROBENZENE	50.00	48.19	ug/l	96	74-120
CHLOROETHANE	50.00	48.43	ug/l	97	74-118
CHLOROFORM	50.00	50.34	ug/l	101	83-117
CHLOROMETHANE	50.00	49.33	ug/l	99	68-123
CIS-1,2-DICHLOROETHENE	50.00	49.32	ug/l	99	81-115
CIS-1,3-DICHLOROPROPENE	50.00	53.41	ug/l	107	83-123
CYCLOHEXANE	50.00	45.86	ug/l	92	72-114
DIBROMOCHLOROMETHANE	50.00	51.08	ug/l	102	85-121
DICHLORODIFLUOROMETHANE	50.00	44.08	ug/l	88	52-136
ETHYLBENZENE	50.00	47.85	ug/l	96	81-116
ISOPROPYL BENZENE	50.00	46.35	ug/l	93	77-120
METHYL ACETATE	50.00	52.71	ug/l	105	75-123

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66331**
LCS : **LCS66331:1**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
METHYL-TERT-BUTYL ETHER	50.00	49.82	ug/l	100	83-115
METHYLCYCLOHEXANE	50.00	45.20	ug/l	90	71-120
METHYLENE CHLORIDE	50.00	49.13	ug/l	98	74-119
STYRENE	50.00	51.38	ug/l	103	83-116
TETRACHLOROETHENE	50.00	47.82	ug/l	96	77-117
TOLUENE	50.00	48.90	ug/l	98	83-114
TRANS-1,2-DICHLOROETHENE	50.00	49.40	ug/l	99	77-116
TRANS-1,3-DICHLOROPROPENE	50.00	45.08	ug/l	90	78-116
TRICHLOROETHENE	50.00	48.42	ug/l	97	82-115
TRICHLOROFLUOROMETHANE	50.00	46.86	ug/l	94	75-126
VINYL CHLORIDE	50.00	47.79	ug/l	96	72-121
XYLENE (TOTAL)	150.0	148.9	ug/l	99	77-121

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

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QC Batch Report - Batch Sample List

WorkGroup : **WG66373**
Description: **3010A (5)**

Matrix : GW/ChemW
Prep Method : SW846 3010A
Analtyical Method: SW846 6010C

Sample ID	Client ID	Run#	PREP Date Time	ANALYTICAL Date Time	Analyst	Dilution
L13120401-01	MW-202	1	12/10/2013 1400	12/11/2013 1538	BDL	1
L13120401-02	MW-99	1	12/10/2013 1400	12/11/2013 1542	BDL	1
L13120401-03	RW-29	1	12/10/2013 1400	12/11/2013 1546	BDL	1
L13120401-04	EW-49	1	12/10/2013 1400	12/11/2013 1550	BDL	1
L13120401-05	EW-52	1	12/10/2013 1400	12/11/2013 1602	BDL	1
L13120401-06	DW-12	1	12/10/2013 1400	12/11/2013 1606	BDL	1
L13120401-07	MW-105	1	12/10/2013 1400	12/11/2013 1610	BDL	1
L13120401-09	RW-110	1	12/10/2013 1400	12/11/2013 1614	BDL	1
L13120401-10	RW-111	1	12/10/2013 1400	12/11/2013 1618	BDL	1
L13120401-14	MW-109	1	12/10/2013 1400	12/11/2013 1622	BDL	1
L13120401-15	RW-108	1	12/10/2013 1400	12/11/2013 1626	BDL	1
D13120401-15:66373	Duplicate	1	12/10/2013 1400	12/11/2013 1630	BDL	1
MB66373:1	Method Blank	1	12/10/2013 1400	12/11/2013 1530	BDL	1
LCS66373:1	Laboratory Control Spike	1	12/10/2013 1400	12/11/2013 1534	BDL	1
MS13120414-09:66373	Matrix Spike	1	12/10/2013 1400	12/11/2013 1718	BDL	1
MSD13120414-09:66373	Matrix Spike Duplicate	1	12/10/2013 1400	12/11/2013 1722	BDL	1

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LABORATORY ANALYSIS REPORT

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QC Batch Report - Method Blanks

WorkGroup: **WG66373**
Blank : **MB66373:1**

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1530 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED	<	0.0100	U	0.0100	mg/l

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

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LABORATORY ANALYSIS REPORT

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1455 OLD ALABAMA RD.
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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66373**
MS/MSD : **MS13120414-09:66373**
MSD13120414-09:66373

Matrix : GW/ChemW
Prep Method : SW846 3010A
Analtyical Method: SW846 6010C

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
MANGANESE, DISSOLVED	0.100	< 0.0100	0.0950	mg/l	95	86-113

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	%REC
MANGANESE, DISSOLVED	0.100	0.0950	mg/l	95	0	10	86-113

NOTE: MS/MSD % recoveries are not evaluated if the sample concentration is greater than four times the spike added.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
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QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66373**
LCS : **LCS66373:1**

Matrix : GW/ChemW
Prep Method : SW846 3010A
Analtyical Method: SW846 6010C

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
MANGANESE, DISSOLVED	0.200	0.190	mg/l	95	90-110

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LABORATORY ANALYSIS REPORT

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Client : **AECOM**
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QC Batch Report - Sample Duplicates

WorkGroup: **WG66373**
Duplicate: **D13120401-15:66373**

Matrix : GW/ChemW
Prep Method : SW846 3010A
Analtyical Method: SW846 6010C

Parameter	Sample Conc	DUP Conc	RDL	Units	%RPD	RPD
MANGANESE, DISSOLVED	0.155	0.154	0.0100	mg/l	1	10

NOTE: Calculation of %RPD is not required for concentrations less than 10X the RDL.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
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QC Batch Report - Batch Sample List

WorkGroup : **WG66353**
Description: **WC/ALK/TOT**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SM 2320B

Sample ID	Client ID	Run#	PREP Date Time	ANALYTICAL Date Time	Analyst	Dilution
L13120401-01	MW-202	1		12/09/2013 1010	LSV	1
L13120401-02	MW-99	1		12/09/2013 1017	LSV	1
L13120401-03	RW-29	1		12/09/2013 1024	LSV	1
L13120401-04	EW-49	1		12/09/2013 1035	LSV	1
L13120401-05	EW-52	1		12/09/2013 1044	LSV	1
L13120401-06	DW-12	1		12/09/2013 1054	LSV	1
L13120401-07	MW-105	1		12/09/2013 1059	LSV	1
L13120401-09	RW-110	1		12/09/2013 1115	LSV	1
L13120401-10	RW-111	1		12/09/2013 1122	LSV	1
L13120401-14	MW-109	1		12/09/2013 1127	LSV	1
D13120401-14:66353	Duplicate	1		12/09/2013 1132	LSV	1
MB66353:1	Method Blank	1		12/09/2013 0955	LSV	1
LCS66353:1	Laboratory Control Spike	1		12/09/2013 1002	LSV	1

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LABORATORY ANALYSIS REPORT

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Client : **AECOM**
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QC Batch Report - Method Blanks

WorkGroup: **WG66353**
Blank : **MB66353:1**

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Wet Chemistry					
SM 2320B					
Date/Time: 12/09/2013 0955 Analyst: LSV			***Dilution: 1***		
ALKALINITY, TOTAL	<	1.00	U	1.00	mg/l
ENDPOINT PH		**4.20**			su

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LABORATORY ANALYSIS REPORT

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QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66353**
LCS : **LCS66353:1**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SM 2320B

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
ALKALINITY, TOTAL	1031	991.9	mg/l	96	90-110

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LABORATORY ANALYSIS REPORT

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QC Batch Report - Sample Duplicates

WorkGroup: **WG66353**
Duplicate: **D13120401-14:66353**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SM 2320B

Parameter	Sample Conc	DUP Conc	RDL	Units	%RPD	RPD
ALKALINITY, TOTAL	20.17	20.17	1.00	mg/l	0	10

NOTE: Calculation of %RPD is not required for concentrations less than 10X the RDL.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
Page 84 of 100 Report ID: AM31

QC Batch Report - Batch Sample List

WorkGroup : **WG66354**
Description: **WC/ALK/TOT**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SM 2320B

Sample ID	Client ID	Run#	PREP Date Time	ANALYTICAL Date Time	Analyst	Dilution
L13120401-15	RW-108	1		12/09/2013 1157	LSV	1
D13120414-09:66354	Duplicate	1		12/09/2013 1254	LSV	1
D13120414-11:66354	Duplicate	1		12/09/2013 1317	LSV	1
MB66354:1	Method Blank	1		12/09/2013 1147	LSV	1
LCS66354:1	Laboratory Control Spike	1		12/09/2013 1149	LSV	1

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Method Blanks

WorkGroup: **WG66354**
Blank : **MB66354:1**

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Wet Chemistry					
SM 2320B					
Date/Time: 12/09/2013 1147 Analyst: LSV			***Dilution: 1***		
ALKALINITY, TOTAL	<	1.00	U	1.00	mg/l
ENDPOINT PH		**4.20**			su

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
 Report ID: AM31

QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66354**
LCS : **LCS66354:1**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SM 2320B

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
ALKALINITY, TOTAL	1031	970.1	mg/l	94	90-110

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Sample Duplicates

WorkGroup: **WG66354**
Duplicate: **D13120414-09:66354**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SM 2320B

Parameter	Sample Conc	DUP Conc	RDL	Units	%RPD	RPD
ALKALINITY, TOTAL	0.545	0.545	1.00	mg/l		10

NOTE: Calculation of %RPD is not required for concentrations less than 10X the RDL.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Sample Duplicates

WorkGroup: **WG66354**
Duplicate: **D13120414-11:66354**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SM 2320B

Parameter	Sample Conc	DUP Conc	RDL	Units	%RPD	RPD
ALKALINITY, TOTAL	20.71	20.71	1.00	mg/l	0	10

NOTE: Calculation of %RPD is not required for concentrations less than 10X the RDL.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Batch Sample List

WorkGroup : **WG66327**
Description: **IC GW**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9056A

Sample ID	Client ID	Run#	PREP Date Time	ANALYTICAL Date Time	Analyst	Dilution
L13120401-01	MW-202	1		12/05/2013 1354	EIC	1
L13120401-02	MW-99	1		12/05/2013 1526	EIC	1
L13120401-03	RW-29	1		12/05/2013 1556	EIC	1
L13120401-04	EW-49	1		12/05/2013 1627	EIC	1
L13120401-05	EW-52	1		12/05/2013 1657	EIC	1
L13120401-06	DW-12	1		12/05/2013 1728	EIC	1
L13120401-07	MW-105	1		12/05/2013 1859	EIC	1
L13120401-09	RW-110	1		12/05/2013 1930	EIC	1
L13120401-10	RW-111	1		12/05/2013 2001	EIC	1
L13120401-14	MW-109	1		12/05/2013 2031	EIC	1
L13120401-15	RW-108	1		12/05/2013 2102	EIC	1
MB66327:1	Method Blank	1		12/05/2013 1253	EIC	1
LCS66327:1	Laboratory Control Spike	1		12/05/2013 1323	EIC	1
MS13120401-01:66327	Matrix Spike	1		12/05/2013 1424	EIC	1
MSD13120401-01:66327	Matrix Spike Duplicate	1		12/05/2013 1455	EIC	1

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Method Blanks

WorkGroup: **WG66327**
Blank : **MB66327:1**

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Wet Chemistry					
SW846 9056A					
Date/Time: 12/05/2013 1253 Analyst: EIC			***Dilution: 1***		
CHLORIDE, TOTAL	<	1.00	U	1.00	mg/l

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66327**
MS/MSD : **MS13120401-01:66327**
MSD13120401-01:66327

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9056A

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
CHLORIDE, TOTAL	10.00	< 1.00	10.37	mg/l	104	88-112

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	Limits %REC
CHLORIDE, TOTAL	10.00	10.30	mg/l	103	1	10	88-112

NOTE: MS/MSD % recoveries are not evaluated if the sample concentration is greater than four times the spike added.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66327**
LCS : **LCS66327:1**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9056A

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
CHLORIDE, TOTAL	10.00	10.15	mg/l	101	90-110

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Batch Sample List

WorkGroup : **WG66343**
Description: **TOC-GW**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9060A

Sample ID	Client ID	Run#	PREP Date Time	ANALYTICAL Date Time	Analyst	Dilution
L13120401-01	MW-202	1		12/09/2013 1700	CDC	1
L13120401-02	MW-99	1		12/09/2013 1724	CDC	1
L13120401-03	RW-29	1		12/09/2013 1747	CDC	1
L13120401-04	EW-49	1		12/09/2013 1812	CDC	1
L13120401-05	EW-52	1		12/09/2013 1835	CDC	1
L13120401-06	DW-12	1		12/09/2013 1859	CDC	1
L13120401-07	MW-105	1		12/09/2013 1922	CDC	1
L13120401-09	RW-110	1		12/09/2013 1946	CDC	1
L13120401-10	RW-111	1		12/09/2013 2010	CDC	1
L13120401-14	MW-109	1		12/09/2013 2034	CDC	1
MB66343:1	Method Blank	1		12/09/2013 1637	CDC	1
LCS66343:1	Laboratory Control Spike	1		12/09/2013 2151	CDC	1
MS13120401-14:66343	Matrix Spike	1		12/09/2013 2059	CDC	1
MSD13120401-14:66343	Matrix Spike Duplicate	1		12/09/2013 2124	CDC	1

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LABORATORY ANALYSIS REPORT

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SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Method Blanks

WorkGroup: **WG66343**
Blank : **MB66343:1**

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Wet Chemistry					
SW846 9060A					
Date/Time: 12/09/2013 1637 Analyst: CDC Dilution: 1					
ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66343**
MS/MSD : **MS13120401-14:66343**
MSD13120401-14:66343

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9060A

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
ORGANIC CARBON, TOTAL - AVG	10.00	< 1.00	9.95	mg/l	100	82-114

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	Limits %REC
ORGANIC CARBON, TOTAL - AVG	10.00	10.13	mg/l	101	2	10	82-114

NOTE: MS/MSD % recoveries are not evaluated if the sample concentration is greater than four times the spike added.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
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Contact : BRYON DAHLGREN

Project Number: 61576.07

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QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66343**
LCS : **LCS66343:1**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9060A

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
ORGANIC CARBON, TOTAL - AVG	10.00	9.30	mg/l	93	90-110

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LABORATORY ANALYSIS REPORT

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Contact : BRYON DAHLGREN

Project Number: 61576.07

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QC Batch Report - Batch Sample List

WorkGroup : **WG66344**
Description: **TOC-GW**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9060A

Sample ID	Client ID	Run#	PREP Date Time	ANALYTICAL Date Time	Analyst	Dilution
L13120401-15	RW-108	1		12/09/2013 2254	CDC	1
MB66344:1	Method Blank	1		12/09/2013 2230	CDC	1
LCS66344:1	Laboratory Control Spike	1		12/10/2013 0342	CDC	1
MS13120414-09:66344	Matrix Spike	1		12/10/2013 0251	CDC	1
MSD13120414-09:66344	Matrix Spike Duplicate	1		12/10/2013 0316	CDC	1

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LABORATORY ANALYSIS REPORT

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SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

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QC Batch Report - Method Blanks

WorkGroup: **WG66344**
Blank : **MB66344:1**

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Wet Chemistry					
SW846 9060A					
Date/Time: 12/09/2013 2230 Analyst: CDC			***Dilution: 1***		
ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l

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LABORATORY ANALYSIS REPORT

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Client : **AECOM**
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SUITE 170
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Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66344**
MS/MSD : **MS13120414-09:66344**
MSD13120414-09:66344

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9060A

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
ORGANIC CARBON, TOTAL - AVG	10.00	< 1.00	9.82	mg/l	98	82-114

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	%REC
ORGANIC CARBON, TOTAL - AVG	10.00	9.91	mg/l	99	1	10	82-114

NOTE: MS/MSD % recoveries are not evaluated if the sample concentration is greater than four times the spike added.

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LABORATORY ANALYSIS REPORT

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ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66344**
LCS : **LCS66344:1**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9060A

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
ORGANIC CARBON, TOTAL - AVG	10.00	9.25	mg/l	92	90-110

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LABORATORY ANALYSIS REPORT

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RDL	Report Detection Limit	**MDL**	Method Detection Limit
PQL	Practical Quantitation Limit	**DL**	Detection Limit
LOQ	Limit of Quantitation	**LOD**	Limit of Detection
SQL	Sample Quantitation Limit	**TIC**	Tentatively Identified Compound
C	Degrees Centigrade	**F**	Degrees Fahrenheit
umhos/cm	micromhos/cm	**meq**	milliequivalents
su	Standard Units		

mg/l, mg/kg Units of concentration in milligrams per liter for liquids and milligrams per kilogram for solids. Also referred to as Parts Per Million or "ppm".

ug/l, ug/kg Units of concentration in micrograms per liter for liquids and micrograms per kilograms for solids. Also referred to as Parts Per Billion or "ppb".

< Less Than

> Greater Than

Solid samples (i.e. soil, sludge, and solid waste) are reported on an as received basis unless otherwise noted.

Data Qualifiers:

- **B** Analyte also detected in the method blank.
- **C** Amendable Cyanide is a negative value due to an unknown interference.
- **F** Surrogate Standard Recovery exceeds the laboratory established acceptance limits. On QC Summary reports, QC samples with any recovery that exceeds the laboratory established acceptance limits is **bolded**.
- **J** The reported result is an estimated value (eg matrix interference observed or concentration outside the quantitation range.
- **N** Non-target analyte. The analyte is TIC (using mass spectrometry).
- **P** Concentration difference between primary and confirmation columns >40%.
- **Q** One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV
- **U** Final concentration is below the detection limit.
- ***** Defined in report comments.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or biological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of the material involved, the test results will be meaningless. If you have any questions regarding the proper techniques of collecting samples, please contact us. However, we cannot be held responsible for sample integrity unless sampling has been performed by a member of our staff.

REPRESENTATION AND LIMITATION OF LIABILITY – The accuracy of all analytical results for samples begins as it is received by the laboratory. Integrity of the sample begins at the time it is placed in the possession of authorized Davis & Floyd, Inc. Laboratories personnel. All other warranties, expressed or implied, are disclaimed. Liability is limited to the cost of the analysis.

Davis & Floyd, Inc. | PO Drawer 428 | Greenwood, SC 29648 | 816 E. Durst Avenue | Greenwood, SC 29649 | (864) 229-4413 | Fax (864) 229-7119

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Chain of Custody Record

Page 1 of 1

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Client	Project / Site Location	Lab Certification ID: SC - 24110, NC - 25, NELAP - E87633, NY - 11996, TN - 2923, VA - 934	Office Use Only
Celanese Americas	061576.07	816 E. Durst Avenue, Greenwood, SC 29649 (864) 229-4413 Fax: (864) 229-7119	Laboratory Work Request
,	Fmr Celanese - Spartanburg, SC	Email: Laboratory@davisfloyd.com Internet : www.davisfloyd.com	

Contact	Report To	Copy To	Reporting Requirements: [ ] Standard [ ] Data Package (Specify Level: 1 2 3 4)	PO / Quote Number	TC
Bryon Dahlgren	Bryon Dahlgren		Turnaround Requirements: [ ] Standard [ ] Rush (Specify: _____)		0

Collected By: EFM / AECOM

Atmospheric Conditions (Optional)

Special Instructions

State: SC

LOGIN: 1312040

NOTICE:

Composite Sampling Only

Date Initiated: _____

Indicate any known or expected hazards with a "X".

Sample Description	Sample Collection Time	Sample Collection Date	Composite	Grab	Matrix Type	Number of Containers	CONTAINERS: 3x40 G TFE	3x40 G TFE	250 P	1 L P	125ml AG									Comments	Fraction
			Type			Total	P* PARAMETERS: VOC's Method 8260	1,4-Dioxane by 8260 SIM	Mn	Alkalinity, Chloride	TOC								HOT		
							A	C	D	A	C										
MW-202		12/3/13 1000		X	GW	6	3		1	1	1										01
MW-99		1044		X																	02
RW-29		1210		X																	03
EW-49		0945		X																	04
EW-52		1045		X																	05
DW-12		1200		X																	06
MW-105		1405		X																	07
MW-201		1400		X		2	2														08

ENTER NUMBER OF SAMPLE CONTAINERS

Relinquished By	Date	Time	Relinquished By	Date	Time	Relinquished By	Date	Time	Shipped Via
Jeff Leaver	12/3/13	1500		03 DEC 13	1650				D & F UPS FEDEX CLIENT COURIER OTHER
Received By	**Date**	**Time**	**Received By**	**Date**	**Time**	**Received in Laboratory By**	**Date**	**Time**	**Tracking Number**
	03 DEC 13	1500				TJG S. McCall	12-3-13	1650	

Comments	Sample Chamber Temp. at Harvest	Flow Measurement (Note 1)	Time	Note: Indicate immediate delivery for those shipments in whch the temperature does not have adequate time to reach 4°C.	Receipt Information
	Circle: C or F	Beginning _____	_____		Cooler ID (if available): —
		Ending _____	_____		On Ice: (Yes) / No Temp(C) 4
		Start Date:	_____		Immediate Delivery: Yes / (No)
		Multiplier			Custody Seal: Intact / Broken / None

Matrix Type Definitions 1 -Drinking Water 2 - Clean Water 5 - Groundwater 7 - Soil/Sediment 8 - Liquid Sludge 9 - Oil 12 - Air

(P) Preservative Definitions A -None B - H2SO4 C - HCl D - HNO3 E - NaOH F - Filtered G - Zn Acetate

(Note 1) For Discharge Measurements

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Chain of Custody Record

Client	Project / Site Location	Lab Certification	Office Use Only
Celanese Americas	061576.07 Fmr Celanese - Spartanburg, SC	Lab Certification ID: SC - 24110, NC - 25, NELAP - E87633, NY - 11996, TN - 2923, VA - 934 816 E. Durst Avenue, Greenwood, SC 29649 (864) 229-4413 Fax: (864) 229-7119 Email: Laboratory@davisfloyd.com Internet : www.davisfloyd.com	Laboratory Work Request

Contact	Report To	Copy To	Requirements	PO / Quote Number	TC
Bryon Dahlgren	Bryon Dahlgren		Reporting Requirements: [ ] Standard [ ] Data Package (Specify Level: 1 2 3 4) Turnaround Requirements: [ ] Standard [ ] Rush (Specify:)		0

Collected By: EFM

Atmospheric Conditions (Optional)

Special Instructions

State: SC

LOGIN: L13120401

NOTICE:

Composite Sampling Only — Date Initiated

Required Parameters, Containers and Preservatives (P*)

ENTER NUMBER OF SAMPLE CONTAINERS

Sample Description	Date Initiated Time	Sample Collection Date	Sample Collection Time	Type: Composite	Type: Grab	Matrix Type	Total: Number of Containers	VOC's Method 8260 (3x40 G TFE) A	1,4-Dioxane by 8260 SIM (3x40 G TFE) C	Mn (250 P) D	Alkalinity, Chloride (1 L P) A	TOC (125ml AG) C								HOT	Comments	Fraction
RW-110		12-2-13	1430		X	5	9	3	3	1	1	1										09
RW-111		12-2-13	1540		X	5	6	3		1	1	1										10
SW-14		12/3/13	1115		X	5	6	3	3													11
SW-13		12/3/13	1135		X	5	6	3	3													12
SW-12		12/3/13	1150		X	5	6	3	3													13
MW-109		12/3/13	1400		X	5	9	3	3	1	1	1										14
RW-108		12/3/13	1435		X	5	9	3	3	1	1	1										15

Indicate any known or expected hazards with a "X".

Relinquished By	Date	Time	Relinquished By	Date	Time	Relinquished By	Date	Time	Shipped Via
[signature]	12/3/13	1506	[signature]	03DEC13	1650				UPS FEDEX CLIENT COURIER OTHER (D&F circled)
Received By	**Date**	**Time**	**Received By**	**Date**	**Time**	**Received in Laboratory By**	**Date**	**Time**	**Tracking Number**
[signature]	03DEC13	1506				Tisa S McCall	12.3.13	1650	

Comments

Sample Chamber Temp. at Harvest
Circle: C or F

Flow Measurement (Note 1) — Time
Beginning
Ending
Start Date:
Multiplier

Note: Indicate immediate delivery for those shipments in which the temperature does not have adequate time to reach 4°C.

Receipt Information
Cooler ID (if available): —
On Ice: Yes / No (Yes circled) Temp(C) 4
Immediate Delivery: Yes / No (No circled)
Custody Seal: Intact / Broken / None

Matrix Type Definitions 1 - Drinking Water 2 - Clean Water 5 - Groundwater 7 - Soil/Sediment 8 - Liquid Sludge 9 - Oil 12 - Air

(P) Preservative Definitions A - None B - H2SO4 C - HCl D - HNO3 E - NaOH F - Filtered G - Zn Acetate

(Note 1) For Discharge Measurements

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LABORATORY ANALYSIS REPORT

January 07, 2014

BRYON DAHLGREN
AECOM
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076

Report ID : AM30
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Login Number	:L13120414
Project Number	:61576.07
Description	:FORMER CELANESE - SPARTANBURG, SC

Dear Bryon Dahlgren:

We are pleased to provide the enclosed analytical results for the samples received by Davis & Floyd, Inc. on December 04, 2013.

A formal Quality Assurance/Quality Control program is maintained by Davis & Floyd, which is designed to meet or exceed the ISO/IEC 17025, EPA, NELAP or other appropriate regulatory requirements. All analytical analyses for this project met QA/QC criteria and the results are within the 99% confidence interval for each method unless otherwise stated in the footnotes. This report is to be reproduced only in full.

Feel free to contact our Client Services Representative at (864) 229-4413 if further explanation of the analysis is required. Unless other arrangements have been made, samples will be disposed of or returned 14 days from the date of the report. We appreciate the opportunity to provide services to your firm.

Sincerely,
DAVIS & FLOYD, INC.

John H. McCord, Jr.
Laboratory Manager

This report conatins a TOTAL of 75 pages, including attachments.

Initials:

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
Page 2 of 73 Report ID: AM30

Certificate of Analysis Report

Sample ID	Client ID	Date Collected	Date Received
L13120414-01	MW-106	12/03/2013 1520	12/04/2013
L13120414-02	RW-65	12/03/2013 1530	12/04/2013
L13120414-03	RW-48	12/03/2013 1724	12/04/2013
L13120414-04	EW-41	12/03/2013 1610	12/04/2013
L13120414-05	DW-11	12/03/2013 1700	12/04/2013
L13120414-06	EW-31	12/03/2013 1715	12/04/2013
L13120414-07	EW-37	12/04/2013 0850	12/04/2013
L13120414-08	EW-53	12/04/2013 1005	12/04/2013
L13120414-09	MW-203	12/04/2013 0800	12/04/2013
L13120414-10	MW-103	12/04/2013 1010	12/04/2013
L13120414-11	MW-107	12/04/2013 0900	12/04/2013
L13120414-12	MW-204	12/04/2013 1200	12/04/2013

This data report has been prepared and reviewed in accordance with standard operating procedures. Test results relate only to the sample tested.
Please direct any questions to your Project Manager.

Reviewed by John H. McCord, Jr.
Laboratory Manager

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **MW-106**
Sample ID: L13120414-01

Date Collected: 12/03/2013 1520
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1634 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED		**0.0150**		0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/05/2013 1718 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM		**6.10**		5.00	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

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1455 OLD ALABAMA RD.
SUITE 170
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Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **MW-106**
Sample ID: L13120414-01

Date Collected: 12/03/2013 1520
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*107*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*98*	%	*(78-138)*	
Surr: TOLUENE-D8		*99*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1204 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL	<	1.00	U	1.00	mg/l
ENDPOINT PH		**4.20**			su

SW846 9056A

Date/Time: 12/05/2013 2233 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL		**4.09**		1.00	mg/l

SW846 9060A

Date/Time: 12/09/2013 2317 ***Analyst: CDC*** ***Dilution: 1***

ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **MW-106**
Sample ID: L13120414-01

Date Collected: 12/03/2013 1520
Date Received : 12/04/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **RW-65**
Sample ID: L13120414-02

Date Collected: 12/03/2013 1530
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1638 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED		**1.57**		0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/05/2013 1624 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM	<	5.00	U	5.00	ug/l

DAVIS & FLOYD

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Project Number: 61576.07

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Certificate of Analysis

Client ID: **RW-65**
Sample ID: L13120414-02

Date Collected: 12/03/2013 1530
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE		**5.33**		5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*108*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*101*	%	*(78-138)*	
Surr: TOLUENE-D8		*101*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1209 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL		**102**		2.00	mg/l
ENDPOINT PH		**4.50**			su

SW846 9056A

Date/Time: 12/06/2013 0106 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL		**12.5**		1.00	mg/l

SW846 9060A

Date/Time: 12/09/2013 2341 ***Analyst: CDC*** ***Dilution: 1***

ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **RW-65**
Sample ID: L13120414-02

Date Collected: 12/03/2013 1530
Date Received : 12/04/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **RW-48**
Sample ID: L13120414-03

Date Collected: 12/03/2013 1724
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1650 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED		**1.29**		0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/05/2013 1744 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM	<	5.00	U	5.00	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

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Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **RW-48**
Sample ID: L13120414-03

Date Collected: 12/03/2013 1724
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*106*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*94*	%	*(78-138)*	
Surr: TOLUENE-D8		*94*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1217 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL		**106**		2.00	mg/l
ENDPOINT PH		**4.50**			su

SW846 9056A

Date/Time: 12/06/2013 0137 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL		**2.53**		1.00	mg/l

SW846 9060A

Date/Time: 12/10/2013 0005 ***Analyst: CDC*** ***Dilution: 1***

ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
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Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **RW-48**
Sample ID: L13120414-03

Date Collected: 12/03/2013 1724
Date Received : 12/04/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
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Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **EW-41**
Sample ID: L13120414-04

Date Collected: 12/03/2013 1610
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1654 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED		**0.554**		0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/05/2013 1811 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM		**45.3**		5.00	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
Page 13 of 73 Report ID: AM30

Certificate of Analysis

Client ID: **EW-41**
Sample ID: L13120414-04

Date Collected: 12/03/2013 1610
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*112*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*100*	%	*(78-138)*	
Surr: TOLUENE-D8		*102*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1222 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL		**28.9**		1.00	mg/l
ENDPOINT PH		**4.50**			su

SW846 9056A

Date/Time: 12/06/2013 0207 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL		**3.57**		1.00	mg/l

SW846 9060A

Date/Time: 12/10/2013 0028 ***Analyst: CDC*** ***Dilution: 1***

ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **EW-41**
Sample ID: L13120414-04

Date Collected: 12/03/2013 1610
Date Received : 12/04/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **DW-11**
Sample ID: L13120414-05

Date Collected: 12/03/2013 1700
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1658 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED		**0.523**		0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/05/2013 1838 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM		**43.7**		5.00	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **DW-11**
Sample ID: L13120414-05

Date Collected: 12/03/2013 1700
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*108*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*97*	%	*(78-138)*	
Surr: TOLUENE-D8		*96*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1228 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL		**28.3**		1.00	mg/l
ENDPOINT PH		**4.50**			su

SW846 9056A

Date/Time: 12/06/2013 0238 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL		**3.56**		1.00	mg/l

SW846 9060A

Date/Time: 12/10/2013 0052 ***Analyst: CDC*** ***Dilution: 1***

ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **DW-11**
Sample ID: L13120414-05

Date Collected: 12/03/2013 1700
Date Received : 12/04/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **EW-31**
Sample ID: L13120414-06

Date Collected: 12/03/2013 1715
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1702 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED		**1.66**		0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/05/2013 1905 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM	<	5.00	U	5.00	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **EW-31**
Sample ID: L13120414-06

Date Collected: 12/03/2013 1715
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*104*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*94*	%	*(78-138)*	
Surr: TOLUENE-D8		*97*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1233 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL		**119**		1.60	mg/l
ENDPOINT PH		**4.50**			su

SW846 9056A

Date/Time: 12/06/2013 0308 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL		**8.12**		1.00	mg/l

SW846 9060A

Date/Time: 12/10/2013 0115 ***Analyst: CDC*** ***Dilution: 1***

ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
Page 20 of 73 Report ID: AM30

Certificate of Analysis

Client ID: **EW-31**
Sample ID: L13120414-06

Date Collected: 12/03/2013 1715
Date Received : 12/04/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **EW-37**
Sample ID: L13120414-07

Date Collected: 12/04/2013 0850
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1706 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED		**0.574**		0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/05/2013 1932 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM		**83.6**		5.00	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **EW-37**
Sample ID: L13120414-07

Date Collected: 12/04/2013 0850
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE		**5.65**		5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*120*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*105*	%	*(78-138)*	
Surr: TOLUENE-D8		*107*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1242 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL		**23.4**		1.00	mg/l
ENDPOINT PH		**4.50**			su

SW846 9056A

Date/Time: 12/06/2013 0339 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL		**10.8**		1.00	mg/l

SW846 9060A

Date/Time: 12/10/2013 0139 ***Analyst: CDC*** ***Dilution: 1***

ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **EW-37**
Sample ID: L13120414-07

Date Collected: 12/04/2013 0850
Date Received : 12/04/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
Page 24 of 73 Report ID: AM30

Certificate of Analysis

Client ID: **EW-53**
Sample ID: L13120414-08

Date Collected: 12/04/2013 1005
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1710 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED		**1.67**		0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/05/2013 1959 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM		**17.2**		5.00	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **EW-53**
Sample ID: L13120414-08

Date Collected: 12/04/2013 1005
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*110*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*96*	%	*(78-138)*	
Surr: TOLUENE-D8		*99*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1246 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL		**71.4**		1.00	mg/l
ENDPOINT PH		**4.50**			su

SW846 9056A

Date/Time: 12/06/2013 0409 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL		**10.5**		1.00	mg/l

SW846 9060A

Date/Time: 12/10/2013 0202 ***Analyst: CDC*** ***Dilution: 1***

ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **EW-53**
Sample ID: L13120414-08

Date Collected: 12/04/2013 1005
Date Received : 12/04/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **MW-203**
Sample ID: L13120414-09

Date Collected: 12/04/2013 0800
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1714 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED	<	0.0100	U	0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/05/2013 2026 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM	<	5.00	U	5.00	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **MW-203**
Sample ID: L13120414-09

Date Collected: 12/04/2013 0800
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*111*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*95*	%	*(78-138)*	
Surr: TOLUENE-D8		*97*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1251 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL	<	1.00	U	1.00	mg/l
ENDPOINT PH		**4.20**			su

SW846 9056A

Date/Time: 12/06/2013 0440 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL	<	1.00	U	1.00	mg/l

SW846 9060A

Date/Time: 12/10/2013 0225 ***Analyst: CDC*** ***Dilution: 1***

ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **MW-203**
Sample ID: L13120414-09

Date Collected: 12/04/2013 0800
Date Received : 12/04/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **MW-103**
Sample ID: L13120414-10

Date Collected: 12/04/2013 1010
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1742 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED		**0.0450**		0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/05/2013 2053 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM	<	5.00	U	5.00	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **MW-103**
Sample ID: L13120414-10

Date Collected: 12/04/2013 1010
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*115*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*99*	%	*(78-138)*	
Surr: TOLUENE-D8		*101*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1308 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL	<	1.00	U	1.00	mg/l
ENDPOINT PH		**4.20**			su

SW846 9056A

Date/Time: 12/06/2013 0510 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL		**2.94**		1.00	mg/l

SW846 9060A

Date/Time: 12/10/2013 0444 ***Analyst: CDC*** ***Dilution: 1***

ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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Certificate of Analysis

Client ID: **MW-103**
Sample ID: L13120414-10

Date Collected: 12/04/2013 1010
Date Received : 12/04/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

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1455 OLD ALABAMA RD.
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ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

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Certificate of Analysis

Client ID: **MW-107**
Sample ID: L13120414-11

Date Collected: 12/04/2013 0900
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1746 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED	<	0.0100	U	0.0100	mg/l
Volatile Organics					
SW846 8260B					
Date/Time: 12/05/2013 2120 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM		**87.3**		5.00	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

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1455 OLD ALABAMA RD.
SUITE 170
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Contact : BRYON DAHLGREN

Project Number: 61576.07

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Certificate of Analysis

Client ID: **MW-107**
Sample ID: L13120414-11

Date Collected: 12/04/2013 0900
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*110*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*97*	%	*(78-138)*	
Surr: TOLUENE-D8		*98*	%	*(77-135)*	

Wet Chemistry

SM 2320B

Date/Time: 12/09/2013 1314 ***Analyst: LSV*** ***Dilution: 1***

ALKALINITY, TOTAL		**20.7**		1.00	mg/l
ENDPOINT PH		**4.50**			su

SW846 9056A

Date/Time: 12/06/2013 0541 ***Analyst: EIC*** ***Dilution: 1***

CHLORIDE, TOTAL		**2.03**		1.00	mg/l

SW846 9060A

Date/Time: 12/10/2013 0508 ***Analyst: CDC*** ***Dilution: 1***

ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - HIGH	<	1.00	U	1.00	mg/l
ORGANIC CARBON, TOTAL - LOW	<	1.00	U	1.00	mg/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

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SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

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Certificate of Analysis

Client ID: **MW-107**
Sample ID: L13120414-11

Date Collected: 12/04/2013 0900
Date Received : 12/04/2013

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
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Contact : BRYON DAHLGREN

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Certificate of Analysis

Client ID: **MW-204**
Sample ID: L13120414-12

Date Collected: 12/04/2013 1200
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Volatile Organics					
SW846 8260B					
Date/Time: 12/05/2013 2147 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM	<	5.00	U	5.00	ug/l
CHLOROMETHANE	<	10.0	U	10.0	ug/l
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

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Contact : BRYON DAHLGREN

Project Number: 61576.07

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Certificate of Analysis

Client ID: **MW-204**
Sample ID: L13120414-12

Date Collected: 12/04/2013 1200
Date Received : 12/04/2013

Parameter		Result	Qual	RDL	Units
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*112*	*%*	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*97*	*%*	*(78-138)*	
Surr: TOLUENE-D8		*98*	*%*	*(77-135)*	

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

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1455 OLD ALABAMA RD.
SUITE 170
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QC Summary Data

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

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QC Batch Report - Batch Sample List

WorkGroup : **WG66331**
Description: **VO/8260/TCL**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Sample ID	Client ID	Run#	PREP Date Time	ANALYTICAL Date Time	Analyst	Dilution
L13120414-01	MW-106	1		12/05/2013 1718	PAP	1
L13120414-02	RW-65	1		12/05/2013 1624	PAP	1
L13120414-03	RW-48	1		12/05/2013 1744	PAP	1
L13120414-04	EW-41	1		12/05/2013 1811	PAP	1
L13120414-05	DW-11	1		12/05/2013 1838	PAP	1
L13120414-06	EW-31	1		12/05/2013 1905	PAP	1
L13120414-07	EW-37	1		12/05/2013 1932	PAP	1
L13120414-08	EW-53	1		12/05/2013 1959	PAP	1
L13120414-09	MW-203	1		12/05/2013 2026	PAP	1
L13120414-10	MW-103	1		12/05/2013 2053	PAP	1
L13120414-11	MW-107	1		12/05/2013 2120	PAP	1
L13120414-12	MW-204	1		12/05/2013 2147	PAP	1
MB66331:1	Method Blank	1		12/05/2013 1556	PAP	1
LCS66331:1	Laboratory Control Spike	1		12/05/2013 2335	PAP	1
MS13120414-02:66331	Matrix Spike	1		12/05/2013 2241	PAP	1
MSD13120414-02:66331	Matrix Spike Duplicate	1		12/05/2013 2308	PAP	1

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

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SUITE 170
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Contact : BRYON DAHLGREN

Project Number: 61576.07

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QC Batch Report - Surrogates % Recovery

WorkGroup: **WG66331**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

SampleNumber	MeasureDate	DCA 80-139	BFB 78-138	TOL 77-135
L13120414-01	12/05/2013 1718	107	98	99
L13120414-02	12/05/2013 1624	108	101	101
L13120414-03	12/05/2013 1744	106	94	94
L13120414-04	12/05/2013 1811	112	100	102
L13120414-05	12/05/2013 1838	108	97	96
L13120414-06	12/05/2013 1905	104	94	97
L13120414-07	12/05/2013 1932	120	105	107
L13120414-08	12/05/2013 1959	110	96	99
L13120414-09	12/05/2013 2026	111	95	97
L13120414-10	12/05/2013 2053	115	99	101
L13120414-11	12/05/2013 2120	110	97	98
L13120414-12	12/05/2013 2147	112	97	98
MB66331:1	12/05/2013 1556	106	99	98
LCS66331:1	12/05/2013 2335	97	93	94
MS13120414-02:66331	12/05/2013 2241	106	101	98
MSD13120414-02:66331	12/05/2013 2308	100	99	97

DCA - 1,2-DICHLOROETHANE-D4
BFB - BROMOFLUOROBENZENE
TOL - TOLUENE-D8

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QC Batch Report - Method Blanks

WorkGroup: **WG66331**
Blank : **MB66331:1**

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Volatile Organics					
SW846 8260B					
Date/Time: 12/05/2013 1556 Analyst: PAP			***Dilution: 1***		
1,1,1-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2,2-TETRACHLOROETHANE	<	5.00	U	5.00	ug/l
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<	10.0	U	10.0	ug/l
1,1,2-TRICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,1-DICHLOROETHENE	<	5.00	U	5.00	ug/l
1,2,3-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2,4-TRICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DIBROMO-3-CHLOROPROPANE	<	5.00	U	5.00	ug/l
1,2-DIBROMOETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,2-DICHLOROETHANE	<	5.00	U	5.00	ug/l
1,2-DICHLOROPROPANE	<	5.00	U	5.00	ug/l
1,3-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
1,4-DICHLOROBENZENE	<	5.00	U	5.00	ug/l
2-BUTANONE	<	10.0	U	10.0	ug/l
2-HEXANONE	<	10.0	U	10.0	ug/l
4-METHYL-2-PENTANONE	<	5.00	U	5.00	ug/l
ACETONE	<	10.0	U	10.0	ug/l
BENZENE	<	5.00	U	5.00	ug/l
BROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMODICHLOROMETHANE	<	5.00	U	5.00	ug/l
BROMOFORM	<	5.00	U	5.00	ug/l
BROMOMETHANE	<	10.0	U	10.0	ug/l
CARBON DISULFIDE	<	5.00	U	5.00	ug/l
CARBON TETRACHLORIDE	<	5.00	U	5.00	ug/l
CHLOROBENZENE	<	5.00	U	5.00	ug/l
CHLOROETHANE	<	10.0	U	10.0	ug/l
CHLOROFORM	<	5.00	U	5.00	ug/l
CHLOROMETHANE	<	10.0	U	10.0	ug/l

DAVIS & FLOYD

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Contact : BRYON DAHLGREN

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QC Batch Report - Method Blanks

WorkGroup: **WG66331**
Blank : **MB66331:1**

Parameter		Result	Qual	RDL	Units
CIS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
CIS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
CYCLOHEXANE	<	5.00	U	5.00	ug/l
DIBROMOCHLOROMETHANE	<	5.00	U	5.00	ug/l
DICHLORODIFLUOROMETHANE	<	5.00	U	5.00	ug/l
ETHYLBENZENE	<	5.00	U	5.00	ug/l
ISOPROPYL BENZENE	<	5.00	U	5.00	ug/l
METHYL ACETATE	<	10.0	U	10.0	ug/l
METHYL-TERT-BUTYL ETHER	<	5.00	U	5.00	ug/l
METHYLCYCLOHEXANE	<	5.00	U	5.00	ug/l
METHYLENE CHLORIDE	<	5.00	U	5.00	ug/l
STYRENE	<	5.00	U	5.00	ug/l
TETRACHLOROETHENE	<	5.00	U	5.00	ug/l
TOLUENE	<	5.00	U	5.00	ug/l
TRANS-1,2-DICHLOROETHENE	<	5.00	U	5.00	ug/l
TRANS-1,3-DICHLOROPROPENE	<	5.00	U	5.00	ug/l
TRICHLOROETHENE	<	5.00	U	5.00	ug/l
TRICHLOROFLUOROMETHANE	<	5.00	U	5.00	ug/l
VINYL CHLORIDE	<	10.0	U	10.0	ug/l
XYLENE (TOTAL)	<	5.00	U	5.00	ug/l
Surr: 1,2-DICHLOROETHANE-D4		*106*	%	*(80-139)*	
Surr: BROMOFLUOROBENZENE		*99*	%	*(78-138)*	
Surr: TOLUENE-D8		*98*	%	*(77-135)*	

DAVIS & FLOYD

LABORATORY ANALYSIS REPORT

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Contact : BRYON DAHLGREN

Project Number: 61576.07

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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66331**
MS/MSD : **MS13120414-02:66331**
MSD13120414-02:66331

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
1,1,1-TRICHLOROETHANE	50.00	< 5.00	46.46	ug/l	93	84-121
1,1,2,2-TETRACHLOROETHANE	50.00	< 5.00	43.45	ug/l	87	80-120
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	50.00	< 10.00	43.75	ug/l	88	74-120
1,1,2-TRICHLOROETHANE	50.00	< 5.00	43.91	ug/l	88	85-115
1,1-DICHLOROETHANE	50.00	< 5.00	48.49	ug/l	97	85-115
1,1-DICHLOROETHENE	50.00	< 5.00	43.83	ug/l	88	77-123
1,2,3-TRICHLOROBENZENE	50.00	< 5.00	42.74	ug/l	85	76-124
1,2,4-TRICHLOROBENZENE	50.00	< 5.00	42.86	ug/l	86	77-116
1,2-DIBROMO-3-CHLOROPROPANE	50.00	< 5.00	40.65	ug/l	81	73-134
1,2-DIBROMOETHANE	50.00	< 5.00	44.00	ug/l	88	81-119
1,2-DICHLOROBENZENE	50.00	< 5.00	43.39	ug/l	87	74-122
1,2-DICHLOROETHANE	50.00	< 5.00	48.22	ug/l	96	81-122
1,2-DICHLOROPROPANE	50.00	< 5.00	46.59	ug/l	93	87-114
1,3-DICHLOROBENZENE	50.00	< 5.00	42.73	ug/l	85	75-122
1,4-DICHLOROBENZENE	50.00	< 5.00	43.33	ug/l	87	77-115
2-BUTANONE	50.00	< 10.00	50.84	ug/l	102	72-138
2-HEXANONE	50.00	< 10.00	49.70	ug/l	99	75-137
4-METHYL-2-PENTANONE	50.00	< 5.00	50.44	ug/l	101	79-133
ACETONE	50.00	< 10.00	50.25	ug/l	101	68-148
BENZENE	50.00	< 5.00	46.11	ug/l	92	84-114
BROMOCHLOROMETHANE	50.00	< 5.00	49.50	ug/l	99	79-118
BROMODICHLOROMETHANE	50.00	< 5.00	46.09	ug/l	92	84-120
BROMOFORM	50.00	< 5.00	40.49	ug/l	**81**	83-125
BROMOMETHANE	50.00	< 10.00	42.37	ug/l	85	56-128
CARBON DISULFIDE	50.00	< 5.00	48.78	ug/l	98	65-123
CARBON TETRACHLORIDE	50.00	< 5.00	47.15	ug/l	94	81-127
CHLOROBENZENE	50.00	< 5.00	44.19	ug/l	88	75-121
CHLOROETHANE	50.00	< 10.00	48.10	ug/l	96	74-121
CHLOROFORM	50.00	< 5.00	47.62	ug/l	95	81-119
CHLOROMETHANE	50.00	< 10.00	48.33	ug/l	97	68-123
CIS-1,2-DICHLOROETHENE	50.00	5.33	51.35	ug/l	92	82-116
CIS-1,3-DICHLOROPROPENE	50.00	< 5.00	48.58	ug/l	97	83-123
CYCLOHEXANE	50.00	< 5.00	48.31	ug/l	97	59-118
DIBROMOCHLOROMETHANE	50.00	< 5.00	45.48	ug/l	91	77-121
DICHLORODIFLUOROMETHANE	50.00	< 5.00	48.50	ug/l	97	52-136
ETHYLBENZENE	50.00	< 5.00	44.68	ug/l	89	81-117
ISOPROPYL BENZENE	50.00	< 5.00	43.92	ug/l	88	75-122
METHYL ACETATE	50.00	< 10.00	47.25	ug/l	95	70-123

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66331**
MS/MSD : **MS13120414-02:66331**
MSD13120414-02:66331

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
METHYL-TERT-BUTYL ETHER	50.00	< 5.00	43.97	ug/l	88	83-115
METHYLCYCLOHEXANE	50.00	< 5.00	47.72	ug/l	95	72-122
METHYLENE CHLORIDE	50.00	< 5.00	44.48	ug/l	89	74-119
STYRENE	50.00	< 5.00	47.33	ug/l	95	83-116
TETRACHLOROETHENE	50.00	< 5.00	44.99	ug/l	90	78-119
TOLUENE	50.00	< 5.00	44.86	ug/l	90	81-115
TRANS-1,2-DICHLOROETHENE	50.00	< 5.00	46.11	ug/l	92	78-116
TRANS-1,3-DICHLOROPROPENE	50.00	< 5.00	39.23	ug/l	78	78-116
TRICHLOROETHENE	50.00	< 5.00	45.98	ug/l	92	81-118
TRICHLOROFLUOROMETHANE	50.00	< 5.00	49.88	ug/l	100	76-129
VINYL CHLORIDE	50.00	< 10.00	48.21	ug/l	96	73-123
XYLENE (TOTAL)	150.0	< 5.00	137.0	ug/l	91	77-121

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	%REC
1,1,1-TRICHLOROETHANE	50.00	51.57	ug/l	103	10	10	84-121
1,1,2,2-TETRACHLOROETHANE	50.00	48.59	ug/l	97	**11**	10	80-120
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	50.00	48.38	ug/l	97	10	10	74-120
1,1,2-TRICHLOROETHANE	50.00	48.31	ug/l	97	10	10	85-115
1,1-DICHLOROETHANE	50.00	51.23	ug/l	102	5	10	85-115
1,1-DICHLOROETHENE	50.00	50.00	ug/l	100	**13**	10	77-123
1,2,3-TRICHLOROBENZENE	50.00	48.63	ug/l	97	**13**	10	76-124
1,2,4-TRICHLOROBENZENE	50.00	46.76	ug/l	94	9	10	77-116
1,2-DIBROMO-3-CHLOROPROPANE	50.00	45.57	ug/l	91	11	16	73-134
1,2-DIBROMOETHANE	50.00	48.37	ug/l	97	9	10	81-119
1,2-DICHLOROBENZENE	50.00	48.33	ug/l	97	**11**	10	74-122
1,2-DICHLOROETHANE	50.00	50.72	ug/l	101	5	10	81-122
1,2-DICHLOROPROPANE	50.00	49.25	ug/l	99	6	10	87-114
1,3-DICHLOROBENZENE	50.00	47.61	ug/l	95	**11**	10	75-122
1,4-DICHLOROBENZENE	50.00	47.30	ug/l	95	9	10	77-115
2-BUTANONE	50.00	53.38	ug/l	107	5	17	72-138
2-HEXANONE	50.00	53.81	ug/l	108	8	14	75-137
4-METHYL-2-PENTANONE	50.00	53.72	ug/l	107	6	15	79-133
ACETONE	50.00	54.43	ug/l	109	8	23	68-148
BENZENE	50.00	49.25	ug/l	99	7	10	84-114
BROMOCHLOROMETHANE	50.00	52.13	ug/l	104	5	10	79-118
BROMODICHLOROMETHANE	50.00	50.39	ug/l	101	9	10	84-120
BROMOFORM	50.00	45.97	ug/l	92	**13**	10	83-125

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66331**
MS/MSD : **MS13120414-02:66331**
MSD13120414-02:66331

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	%REC
BROMOMETHANE	50.00	46.25	ug/l	93	9	17	56-128
CARBON DISULFIDE	50.00	50.22	ug/l	100	3	10	65-123
CARBON TETRACHLORIDE	50.00	51.32	ug/l	103	8	10	81-127
CHLOROBENZENE	50.00	48.20	ug/l	96	9	10	75-121
CHLOROETHANE	50.00	49.81	ug/l	100	3	10	74-121
CHLOROFORM	50.00	49.95	ug/l	100	5	10	81-119
CHLOROMETHANE	50.00	52.18	ug/l	104	8	12	68-123
CIS-1,2-DICHLOROETHENE	50.00	55.07	ug/l	99	7	10	82-116
CIS-1,3-DICHLOROPROPENE	50.00	52.71	ug/l	105	8	10	83-123
CYCLOHEXANE	50.00	51.22	ug/l	102	6	10	59-118
DIBROMOCHLOROMETHANE	50.00	50.46	ug/l	101	10	10	77-121
DICHLORODIFLUOROMETHANE	50.00	51.86	ug/l	104	7	17	52-136
ETHYLBENZENE	50.00	48.27	ug/l	97	8	10	81-117
ISOPROPYL BENZENE	50.00	48.06	ug/l	96	9	10	75-122
METHYL ACETATE	50.00	52.64	ug/l	105	11	14	70-123
METHYL-TERT-BUTYL ETHER	50.00	49.53	ug/l	99	**12**	10	83-115
METHYLCYCLOHEXANE	50.00	50.53	ug/l	101	6	10	72-122
METHYLENE CHLORIDE	50.00	48.80	ug/l	98	9	10	74-119
STYRENE	50.00	51.31	ug/l	103	8	10	83-116
TETRACHLOROETHENE	50.00	49.75	ug/l	100	10	10	78-119
TOLUENE	50.00	48.34	ug/l	97	7	10	81-115
TRANS-1,2-DICHLOROETHENE	50.00	49.91	ug/l	100	8	10	78-116
TRANS-1,3-DICHLOROPROPENE	50.00	43.64	ug/l	87	**11**	10	78-116
TRICHLOROETHENE	50.00	49.47	ug/l	99	7	10	81-118
TRICHLOROFLUOROMETHANE	50.00	53.02	ug/l	106	6	10	76-129
VINYL CHLORIDE	50.00	51.28	ug/l	103	6	10	73-123
XYLENE (TOTAL)	150.0	150.2	ug/l	100	9	10	77-121

NOTE: MS/MSD % recoveries are not evaluated if the sample concentration is greater than four times the spike added.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
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ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

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QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66331**
LCS : **LCS66331:1**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
1,1,1-TRICHLOROETHANE	50.00	49.09	ug/l	98	82-121
1,1,2,2-TETRACHLOROETHANE	50.00	47.98	ug/l	96	80-120
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	50.00	44.03	ug/l	88	71-118
1,1,2-TRICHLOROETHANE	50.00	48.73	ug/l	97	86-115
1,1-DICHLOROETHANE	50.00	50.19	ug/l	100	84-115
1,1-DICHLOROETHENE	50.00	46.29	ug/l	93	76-122
1,2,3-TRICHLOROBENZENE	50.00	47.60	ug/l	95	76-124
1,2,4-TRICHLOROBENZENE	50.00	47.91	ug/l	96	77-116
1,2-DIBROMO-3-CHLOROPROPANE	50.00	48.74	ug/l	97	73-134
1,2-DIBROMOETHANE	50.00	49.57	ug/l	99	81-119
1,2-DICHLOROBENZENE	50.00	47.95	ug/l	96	74-120
1,2-DICHLOROETHANE	50.00	50.52	ug/l	101	81-122
1,2-DICHLOROPROPANE	50.00	50.38	ug/l	101	87-114
1,3-DICHLOROBENZENE	50.00	46.85	ug/l	94	75-122
1,4-DICHLOROBENZENE	50.00	47.89	ug/l	96	77-113
2-BUTANONE	50.00	55.48	ug/l	111	72-135
2-HEXANONE	50.00	56.11	ug/l	112	75-137
4-METHYL-2-PENTANONE	50.00	55.55	ug/l	111	78-132
ACETONE	50.00	56.76	ug/l	114	70-140
BENZENE	50.00	49.78	ug/l	100	84-113
BROMOCHLOROMETHANE	50.00	52.22	ug/l	104	79-118
BROMODICHLOROMETHANE	50.00	51.96	ug/l	104	84-120
BROMOFORM	50.00	46.07	ug/l	92	83-125
BROMOMETHANE	50.00	45.21	ug/l	90	58-128
CARBON DISULFIDE	50.00	49.50	ug/l	99	66-120
CARBON TETRACHLORIDE	50.00	48.64	ug/l	97	81-122
CHLOROBENZENE	50.00	48.19	ug/l	96	74-120
CHLOROETHANE	50.00	48.43	ug/l	97	74-118
CHLOROFORM	50.00	50.34	ug/l	101	83-117
CHLOROMETHANE	50.00	49.33	ug/l	99	68-123
CIS-1,2-DICHLOROETHENE	50.00	49.32	ug/l	99	81-115
CIS-1,3-DICHLOROPROPENE	50.00	53.41	ug/l	107	83-123
CYCLOHEXANE	50.00	45.86	ug/l	92	72-114
DIBROMOCHLOROMETHANE	50.00	51.08	ug/l	102	85-121
DICHLORODIFLUOROMETHANE	50.00	44.08	ug/l	88	52-136
ETHYLBENZENE	50.00	47.85	ug/l	96	81-116
ISOPROPYL BENZENE	50.00	46.35	ug/l	93	77-120
METHYL ACETATE	50.00	52.71	ug/l	105	75-123

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66331**
LCS : **LCS66331:1**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 8260B

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
METHYL-TERT-BUTYL ETHER	50.00	49.82	ug/l	100	83-115
METHYLCYCLOHEXANE	50.00	45.20	ug/l	90	71-120
METHYLENE CHLORIDE	50.00	49.13	ug/l	98	74-119
STYRENE	50.00	51.38	ug/l	103	83-116
TETRACHLOROETHENE	50.00	47.82	ug/l	96	77-117
TOLUENE	50.00	48.90	ug/l	98	83-114
TRANS-1,2-DICHLOROETHENE	50.00	49.40	ug/l	99	77-116
TRANS-1,3-DICHLOROPROPENE	50.00	45.08	ug/l	90	78-116
TRICHLOROETHENE	50.00	48.42	ug/l	97	82-115
TRICHLOROFLUOROMETHANE	50.00	46.86	ug/l	94	75-126
VINYL CHLORIDE	50.00	47.79	ug/l	96	72-121
XYLENE (TOTAL)	150.0	148.9	ug/l	99	77-121

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

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QC Batch Report - Batch Sample List

WorkGroup : **WG66373**
Description: **3010A (5)**

Matrix : GW/ChemW
Prep Method : SW846 3010A
Analtyical Method: SW846 6010C

Sample ID	Client ID	Run#	PREP Date Time	ANALYTICAL Date Time	Analyst	Dilution
L13120414-01	MW-106	1	12/10/2013 1400	12/11/2013 1634	BDL	1
L13120414-02	RW-65	1	12/10/2013 1400	12/11/2013 1638	BDL	1
L13120414-03	RW-48	1	12/10/2013 1400	12/11/2013 1650	BDL	1
L13120414-04	EW-41	1	12/10/2013 1400	12/11/2013 1654	BDL	1
L13120414-05	DW-11	1	12/10/2013 1400	12/11/2013 1658	BDL	1
L13120414-06	EW-31	1	12/10/2013 1400	12/11/2013 1702	BDL	1
L13120414-07	EW-37	1	12/10/2013 1400	12/11/2013 1706	BDL	1
L13120414-08	EW-53	1	12/10/2013 1400	12/11/2013 1710	BDL	1
L13120414-09	MW-203	1	12/10/2013 1400	12/11/2013 1714	BDL	1
D13120401-15:66373	Duplicate	1	12/10/2013 1400	12/11/2013 1630	BDL	1
MB66373:1	Method Blank	1	12/10/2013 1400	12/11/2013 1530	BDL	1
LCS66373:1	Laboratory Control Spike	1	12/10/2013 1400	12/11/2013 1534	BDL	1
MS13120414-09:66373	Matrix Spike	1	12/10/2013 1400	12/11/2013 1718	BDL	1
MSD13120414-09:66373	Matrix Spike Duplicate	1	12/10/2013 1400	12/11/2013 1722	BDL	1

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LABORATORY ANALYSIS REPORT

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Client : **AECOM**
1455 OLD ALABAMA RD.
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QC Batch Report - Method Blanks

WorkGroup: **WG66373**
Blank : **MB66373:1**

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1530 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED	<	0.0100	U	0.0100	mg/l

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66373**
MS/MSD : **MS13120414-09:66373**
MSD13120414-09:66373

Matrix : GW/ChemW
Prep Method : SW846 3010A
Analtyical Method: SW846 6010C

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
MANGANESE, DISSOLVED	0.100	< 0.0100	0.0950	mg/l	95	86-113

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	Limits %REC
MANGANESE, DISSOLVED	0.100	0.0950	mg/l	95	0	10	86-113

NOTE: MS/MSD % recoveries are not evaluated if the sample concentration is greater than four times the spike added.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
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QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66373**
LCS : **LCS66373:1**

Matrix : GW/ChemW
Prep Method : SW846 3010A
Analtyical Method: SW846 6010C

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
MANGANESE, DISSOLVED	0.200	0.190	mg/l	95	90-110

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
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Contact : BRYON DAHLGREN

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QC Batch Report - Sample Duplicates

WorkGroup: **WG66373**
Duplicate: **D13120401-15:66373**

Matrix : GW/ChemW
Prep Method : SW846 3010A
Analtyical Method: SW846 6010C

Parameter	Sample Conc	DUP Conc	RDL	Units	%RPD	RPD
MANGANESE, DISSOLVED	0.155	0.154	0.0100	mg/l	1	10

NOTE: Calculation of %RPD is not required for concentrations less than 10X the RDL.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
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Contact : BRYON DAHLGREN

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QC Batch Report - Batch Sample List

WorkGroup : **WG66374**
Description: **3010A (5)**

Matrix : GW/ChemW
Prep Method : SW846 3010A
Analtyical Method: SW846 6010C

Sample ID	Client ID	Run#	PREP Date Time	ANALYTICAL Date Time	Analyst	Dilution
L13120414-10	MW-103	1	12/10/2013 1400	12/11/2013 1742	BDL	1
L13120414-11	MW-107	1	12/10/2013 1400	12/11/2013 1746	BDL	1
MB66374:1	Method Blank	1	12/10/2013 1400	12/11/2013 1726	BDL	1
LCS66374:1	Laboratory Control Spike	1	12/10/2013 1400	12/11/2013 1738	BDL	1
MS13120414-11:66374	Matrix Spike	1	12/10/2013 1400	12/11/2013 1750	BDL	1
MSD13120414-11:66374	Matrix Spike Duplicate	1	12/10/2013 1400	12/11/2013 1754	BDL	1

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
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Contact : BRYON DAHLGREN

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QC Batch Report - Method Blanks

WorkGroup: **WG66374**
Blank : **MB66374:1**

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Trace Metals					
SW846 6010C					
Date/Time: 12/11/2013 1726 Analyst: BDL			***Dilution: 1***		
MANGANESE, DISSOLVED	<	0.0100	U	0.0100	mg/l

Prep Procedure	Method	Analyst	Prep Date
Analytical Prep Procedures:			
METALS PREP ICP	SW846 3010A	BDL	12/10/2013 1400

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66374**
MS/MSD : **MS13120414-11:66374**
MSD13120414-11:66374

Matrix : GW/ChemW
Prep Method : SW846 3010A
Analtyical Method: SW846 6010C

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
MANGANESE, DISSOLVED	0.100	< 0.0100	0.0990	mg/l	99	86-113

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	Limits %REC
MANGANESE, DISSOLVED	0.100	0.0990	mg/l	99	0	10	86-113

NOTE: MS/MSD % recoveries are not evaluated if the sample concentration is greater than four times the spike added.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66374**
LCS : **LCS66374:1**

Matrix : GW/ChemW
Prep Method : SW846 3010A
Analtyical Method: SW846 6010C

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
MANGANESE, DISSOLVED	0.200	0.190	mg/l	95	90-110

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Batch Sample List

WorkGroup : **WG66354**
Description: **WC/ALK/TOT**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SM 2320B

Sample ID	Client ID	Run#	PREP Date Time	ANALYTICAL Date Time	Analyst	Dilution
L13120414-01	MW-106	1		12/09/2013 1204	LSV	1
L13120414-02	RW-65	1		12/09/2013 1209	LSV	1
L13120414-03	RW-48	1		12/09/2013 1217	LSV	1
L13120414-04	EW-41	1		12/09/2013 1222	LSV	1
L13120414-05	DW-11	1		12/09/2013 1228	LSV	1
L13120414-06	EW-31	1		12/09/2013 1233	LSV	1
L13120414-07	EW-37	1		12/09/2013 1242	LSV	1
L13120414-08	EW-53	1		12/09/2013 1246	LSV	1
L13120414-09	MW-203	1		12/09/2013 1251	LSV	1
L13120414-10	MW-103	1		12/09/2013 1308	LSV	1
L13120414-11	MW-107	1		12/09/2013 1314	LSV	1
D13120414-09:66354	Duplicate	1		12/09/2013 1254	LSV	1
D13120414-11:66354	Duplicate	1		12/09/2013 1317	LSV	1
MB66354:1	Method Blank	1		12/09/2013 1147	LSV	1
LCS66354:1	Laboratory Control Spike	1		12/09/2013 1149	LSV	1

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Method Blanks

WorkGroup: **WG66354**
Blank : **MB66354:1**

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Wet Chemistry					
SM 2320B					
Date/Time: 12/09/2013 1147 Analyst: LSV			***Dilution: 1***		
ALKALINITY, TOTAL	<	1.00	U	1.00	mg/l
ENDPOINT PH		**4.20**			su

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
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Contact : BRYON DAHLGREN

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QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66354**
LCS : **LCS66354:1**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SM 2320B

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
ALKALINITY, TOTAL	1031	970.1	mg/l	94	90-110

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Sample Duplicates

WorkGroup: **WG66354**
Duplicate: **D13120414-09:66354**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SM 2320B

Parameter	Sample Conc	DUP Conc	RDL	Units	%RPD	RPD
ALKALINITY, TOTAL	0.545	0.545	1.00	mg/l		10

NOTE: Calculation of %RPD is not required for concentrations less than 10X the RDL.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Sample Duplicates

WorkGroup: **WG66354**
Duplicate: **D13120414-11:66354**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SM 2320B

Parameter	Sample Conc	DUP Conc	RDL	Units	%RPD	RPD
ALKALINITY, TOTAL	20.71	20.71	1.00	mg/l	0	10

NOTE: Calculation of %RPD is not required for concentrations less than 10X the RDL.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Batch Sample List

WorkGroup : **WG66328**
Description: **IC GW**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9056A

Sample ID	Client ID	Run#	PREP Date Time	ANALYTICAL Date Time	Analyst	Dilution
L13120414-01	MW-106	1		12/05/2013 2233	EIC	1
L13120414-02	RW-65	1		12/06/2013 0106	EIC	1
L13120414-03	RW-48	1		12/06/2013 0137	EIC	1
L13120414-04	EW-41	1		12/06/2013 0207	EIC	1
L13120414-05	DW-11	1		12/06/2013 0238	EIC	1
L13120414-06	EW-31	1		12/06/2013 0308	EIC	1
L13120414-07	EW-37	1		12/06/2013 0339	EIC	1
L13120414-08	EW-53	1		12/06/2013 0409	EIC	1
L13120414-09	MW-203	1		12/06/2013 0440	EIC	1
L13120414-10	MW-103	1		12/06/2013 0510	EIC	1
L13120414-11	MW-107	1		12/06/2013 0541	EIC	1
MB66328:1	Method Blank	1		12/05/2013 2132	EIC	1
LCS66328:1	Laboratory Control Spike	1		12/05/2013 2203	EIC	1
MS13120414-01:66328	Matrix Spike	1		12/05/2013 2304	EIC	1
MSD13120414-01:66328	Matrix Spike Duplicate	1		12/05/2013 2334	EIC	1

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Method Blanks

WorkGroup: **WG66328**
Blank : **MB66328:1**

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Wet Chemistry					
SW846 9056A					
Date/Time: 12/05/2013 2132 Analyst: EIC			***Dilution: 1***		
CHLORIDE, TOTAL	<	1.00	U	1.00	mg/l

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66328**
MS/MSD : **MS13120414-01:66328**
MSD13120414-01:66328

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9056A

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
CHLORIDE, TOTAL	10.00	4.09	14.48	mg/l	104	88-112

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	Limits %REC
CHLORIDE, TOTAL	10.00	14.40	mg/l	103	1	10	88-112

NOTE: MS/MSD % recoveries are not evaluated if the sample concentration is greater than four times the spike added.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66328**
LCS : **LCS66328:1**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9056A

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
CHLORIDE, TOTAL	10.00	10.12	mg/l	101	90-110

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
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Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Batch Sample List

WorkGroup : **WG66344**
Description: **TOC-GW**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9060A

Sample ID	Client ID	Run#	PREP Date Time	ANALYTICAL Date Time	Analyst	Dilution
L13120414-01	MW-106	1		12/09/2013 2317	CDC	1
L13120414-02	RW-65	1		12/09/2013 2341	CDC	1
L13120414-03	RW-48	1		12/10/2013 0005	CDC	1
L13120414-04	EW-41	1		12/10/2013 0028	CDC	1
L13120414-05	DW-11	1		12/10/2013 0052	CDC	1
L13120414-06	EW-31	1		12/10/2013 0115	CDC	1
L13120414-07	EW-37	1		12/10/2013 0139	CDC	1
L13120414-08	EW-53	1		12/10/2013 0202	CDC	1
L13120414-09	MW-203	1		12/10/2013 0225	CDC	1
MB66344:1	Method Blank	1		12/09/2013 2230	CDC	1
LCS66344:1	Laboratory Control Spike	1		12/10/2013 0342	CDC	1
MS13120414-09:66344	Matrix Spike	1		12/10/2013 0251	CDC	1
MSD13120414-09:66344	Matrix Spike Duplicate	1		12/10/2013 0316	CDC	1

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
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Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Method Blanks

WorkGroup: **WG66344**
Blank : **MB66344:1**

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Wet Chemistry					
SW846 9060A					
Date/Time: 12/09/2013 2230 Analyst: CDC			***Dilution: 1***		
ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
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Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66344**
MS/MSD : **MS13120414-09:66344**
MSD13120414-09:66344

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9060A

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
ORGANIC CARBON, TOTAL - AVG	10.00	< 1.00	9.82	mg/l	98	82-114

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	%REC
ORGANIC CARBON, TOTAL - AVG	10.00	9.91	mg/l	99	1	10	82-114

NOTE: MS/MSD % recoveries are not evaluated if the sample concentration is greater than four times the spike added.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
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SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
 Report ID: AM30

QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66344**
LCS : **LCS66344:1**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9060A

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
ORGANIC CARBON, TOTAL - AVG	10.00	9.25	mg/l	92	90-110

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
1455 OLD ALABAMA RD.
SUITE 170
ROSWELL, GA 30076
Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Batch Sample List

WorkGroup : **WG66345**
Description: **TOC-GW**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9060A

Sample ID	Client ID	Run#	PREP Date Time	ANALYTICAL Date Time	Analyst	Dilution
L13120414-10	MW-103	1		12/10/2013 0444	CDC	1
L13120414-11	MW-107	1		12/10/2013 0508	CDC	1
MB66345:1	Method Blank	1		12/10/2013 0421	CDC	1
LCS66345:1	Laboratory Control Spike	1		12/10/2013 0624	CDC	1
MS13120414-11:66345	Matrix Spike	1		12/10/2013 0533	CDC	1
MSD13120414-11:66345	Matrix Spike Duplicate	1		12/10/2013 0558	CDC	1

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
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SUITE 170
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Contact : BRYON DAHLGREN

Project Number: 61576.07

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QC Batch Report - Method Blanks

WorkGroup: **WG66345**
Blank : **MB66345:1**

Parameter		Result	Qual	RDL	Units
Matrix : GW/ChemW					
Wet Chemistry					
SW846 9060A					
Date/Time: 12/10/2013 0421 Analyst: CDC			***Dilution: 1***		
ORGANIC CARBON, TOTAL - AVG	<	1.00	U	1.00	mg/l

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

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SUITE 170
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Contact : BRYON DAHLGREN

Project Number: 61576.07

Report Date : January 07, 2014
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QC Batch Report - Matrix Spikes and Duplicates

WorkGroup: **WG66345**
MS/MSD : **MS13120414-11:66345**
MSD13120414-11:66345

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9060A

Parameter	Spike Added	Sample Conc	MS Conc	Units	MS %REC	Limits %REC
ORGANIC CARBON, TOTAL - AVG	10.00	< 1.00	10.05	mg/l	101	82-114

Parameter	Spike Added	MSD Conc	Units	MSD %REC	%RPD	Limits %RPD	Limits %REC
ORGANIC CARBON, TOTAL - AVG	10.00	10.00	mg/l	100	0	10	82-114

NOTE: MS/MSD % recoveries are not evaluated if the sample concentration is greater than four times the spike added.

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LABORATORY ANALYSIS REPORT

SC Certification Number: 24110001

Client : **AECOM**
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QC Batch Report - Laboratory Control Standards and Duplicates

WorkGroup: **WG66345**
LCS : **LCS66345:1**

Matrix : GW/ChemW
Prep Method :
Analtyical Method: SW846 9060A

Parameter	Spike Added	LCS Conc	Units	LCS %REC	Limits %REC
ORGANIC CARBON, TOTAL - AVG	10.00	9.27	mg/l	93	90-110

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LABORATORY ANALYSIS REPORT

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RDL	Report Detection Limit	**MDL**	Method Detection Limit
PQL	Practical Quantitation Limit	**DL**	Detection Limit
LOQ	Limit of Quantitation	**LOD**	Limit of Detection
SQL	Sample Quantitation Limit	**TIC**	Tentatively Identified Compound
C	Degrees Centigrade	**F**	Degrees Fahrenheit
umhos/cm	micromhos/cm	**meq**	milliequivalents
su	Standard Units		

mg/l, mg/kg Units of concentration in milligrams per liter for liquids and milligrams per kilogram for solids. Also referred to as Parts Per Million or "ppm".

ug/l, ug/kg Units of concentration in micrograms per liter for liquids and micrograms per kilograms for solids. Also referred to as Parts Per Billion or "ppb".

< Less Than

> Greater Than

Solid samples (i.e. soil, sludge, and solid waste) are reported on an as received basis unless otherwise noted.

Data Qualifiers:

- **B** Analyte also detected in the method blank.
- **C** Amendable Cyanide is a negative value due to an unknown interference.
- **F** Surrogate Standard Recovery exceeds the laboratory established acceptance limits. On QC Summary reports, QC samples with any recovery that exceeds the laboratory established acceptance limits is **bolded**.
- **J** The reported result is an estimated value (eg matrix interference observed or concentration outside the quantitation range.
- **N** Non-target analyte. The analyte is TIC (using mass spectrometry).
- **P** Concentration difference between primary and confirmation columns >40%.
- **Q** One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV
- **U** Final concentration is below the detection limit.
- ***** Defined in report comments.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or biological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of the material involved, the test results will be meaningless. If you have any questions regarding the proper techniques of collecting samples, please contact us. However, we cannot be held responsible for sample integrity unless sampling has been performed by a member of our staff.

REPRESENTATION AND LIMITATION OF LIABILITY – The accuracy of all analytical results for samples begins as it is received by the laboratory. Integrity of the sample begins at the time it is placed in the possession of authorized Davis & Floyd, Inc. Laboratories personnel. All other warranties, expressed or implied, are disclaimed. Liability is limited to the cost of the analysis.

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Chain of Custody Record

Page 1 of 1

Client	Project / Site Location	Lab Certification ID: SC - 24110, NC - 25, NELAP - E87633, NY - 11996, TN - 2923, VA - 934	Office Use Only
Celanese Americas	061576.07	816 E. Durst Avenue, Greenwood, SC 29649 (864) 229-4413 Fax: (864) 229-7119	Laboratory Work Request
,	Fmr Celanese - Spartanburg, SC	Email: Laboratory@davisfloyd.com Internet : www.davisfloyd.com	
Contact: Bryon Dahlgren	Report To: Bryon Dahlgren	Copy To	PO / Quote Number / TC: 0
Collected By: EFM	Atmospheric Conditions (Optional)	Reporting Requirements: [ ] Standard [ ] Data Package (Specify Level: 1 2 3 4) Turnaround Requirements: [ ] Standard [ ] Rush (Specify:)	Special Instructions / State: SC

NOTICE: Composite Sampling Only

Sample Description	Date Initiated / Sample Collection Time	Sample Collection Date	Sample Collection Time	Composite	Grab	Matrix Type	Number of Containers (Total)	CONTAINERS: 3x40 G TFE	3x40 G TFE	250 P	1 L P	125ml AG	Indicate any known or expected hazards with a "X".	Comments	LOGIN / Fraction
		PARAMETERS: Type					Total	P* A	VOC's Method 8260 C	1,4-Dioxane by 8260 SIM D	Mn A	Alkalinity, Chloride C	TOC HOT		
MW-106		12/3/13	1520		X	5	6	3		1	1	1			01
RW-65			1530												02
RW-48			1724												03
EW-41			1610												04
DW-11			1700												05
EW-31			1715												06
EW-37		12/4/13	0850												07
EW-53			1005												08
MW-203			0800												09
MW-103			1010												10
MW-107			0900												11
MW-204			1200				2	2							12

ENTER NUMBER OF SAMPLE CONTAINERS

Relinquished By	Date	Time	Relinquished By	Date	Time	Relinquished By	Date	Time	Shipped Via
[signature]	12/4/13	1200	[signature]	12/4/13	1641				D & F
Received By: [signature]	Date: 12/4/13	Time: 1500	Received By: [signature]	Date	Time	Received in Laboratory By: Tisa S. McCall	Date: 12.4.13	Time: 1641	Tracking Number

UPS FEDEX CLIENT COURIER OTHER

Comments:

Sample Chamber Temp. at Harvest — Circle: C or F

Flow Measurement (Note 1) / Time: Beginning; Ending; Start Date:; Multiplier

Note: Indicate immediate delivery for those shipments in whch the temperature does not have adequate time to reach 4°C.

Receipt Information: Cooler ID (if available): —; On Ice: (Yes) No; Temp(C) 4; Immediate Delivery: Yes (No); Custody Seal: Intact / Broken / None

Matrix Type Definitions: 1 -Drinking Water 2 - Clean Water 5 - Groundwater 7 - Soil/Sediment 8 - Liquid Sludge 9 - Oil 12 - Air

(P) Preservative Definitions: A -None B - H2SO4 C - HCl D - HNO3 E - NaOH F - Filtered G - Zn Acetate

(Note 1) For Discharge Measurements

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	AECOM, Inc.	**Service Request:**	R1309015
Project:	Auriga Spartanburg/60280417	**Date Collected:**	12/ 2/13 1540
Sample Matrix:	Water	**Date Received:**	12/ 3/13
		Date Extracted:	12/10/13
		Date Analyzed:	12/10/13 15:29
Sample Name:	RW-111	**Units:**	µg/L
Lab Code:	R1309015-001	**Basis:**	As Received

1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring

Analytical Method:	522	**Analysis Lot:**	372319
Prep Method:	Method	**Extraction Lot:**	198578
Data File Name:	I:\ACQUDATA\5975E\data\121013\AE810.D\	**Instrument Name:**	R-MS-56
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
123-91-1	1,4-Dioxane	**0.123**		0.0400	0.0200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	84	70-130	12/10/13 15:29	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	AECOM, Inc.	**Service Request:**	R1309015
Project:	Auriga Spartanburg/60280417	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	12/10/13
		Date Analyzed:	12/10/13 14:29
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1315579-01	**Basis:**	As Received

1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring

Analytical Method:	522	**Analysis Lot:**	372319
Prep Method:	Method	**Extraction Lot:**	198578
Data File Name:	I:\ACQUDATA\5975E\data\121013\AE807.D\	**Instrument Name:**	R-MS-56
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
123-91-1	1,4-Dioxane	0.0400	U	0.0400	0.0200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	90	70-130	12/10/13 14:29	