AECOM

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US EPA RECORDS CENTER REGION 5
465711

Second Quarter 2013 GMZ Monitoring and System Performance Report

UTC Aerospace Systems Plants 1/2 Facility
Area 9/10 Remedial Action
Southeast Rockford Groundwater Contamination
Superfund Site
2421 11th Street
Rockford, IL 61104
ILD 981000417

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September 10, 2013

Mr. Timothy Drexler
Remedial Project Manager
United States Environmental Protection Agency
Region 5
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Mr. Doyle W. Wilson
National Priorities List Unit
Federal Sites Remediation Section
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Illinois Environmental Protection Agency
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Subject: Second Quarter 2013 GMZ Monitoring and System Performance Report
UTC Aerospace Systems Plants 1/2 Facility
Area 9/10 Remedial Action
Southeast Rockford Groundwater Contamination Superfund Site
2421 11th Street
Rockford, Illinois 61104
ILD981000417
AECOM Project No. 60288803

Dear Messrs. Drexler and Wilson:

This Quarterly Groundwater Management Zone (GMZ) Monitoring and System Performance Report has been prepared by AECOM Technical Services Inc. (AECOM) on behalf of UTC Aerospace Systems (UTAS, fka Hamilton Sundstrand or HS). In accordance with the approved March 2007 Operation, Maintenance, and Monitoring Plan (OM&M Plan) and the Environmental Protection Agency (EPA) Letter dated April 15, 2011 providing approval for combining project reporting documents, this report contains a summary of the following: 1) GMZ groundwater monitoring data; 2) the Phase 1 and Phase 2 air sparge/soil vapor extraction (AS/SVE) system performance data; 3) the Phase 1 and Phase 2 AS/SVE system process air analytical data; 4) GMZ wells that contain contaminants of concern (COCs) above Preliminary Remediation Goals (PRGs); and 5) Quarterly Progress Report for Third Quarter 2013. This report also contains an evaluation of the pulse mode AS/SVE system performance after one year of operation.

This second quarter 2013 GMZ monitoring and AS/SVE system monitoring field activities were performed by AECOM.

As approved in the April 15, 2011 letter from Timothy Drexler, interpretation of all sampling and system performance data will be included in the Annual GMZ Monitoring and System Performance Report submitted in March of the subsequent year.

The following GMZ wells contained COCs at concentrations above PRGs:

GMZ Monitoring Well ID	COCs > PRG Increase or Decrease from Previous Quarter (+ or -)
GMZ01	PCE (+)
MW203	PCE (+)
SMW04	PCE (+); VC (no change)
SMW08	PCE (+)
SMW19	TCE (+)
PMW01	PCE (-)
PMW02	PCE (-); VC (-)

The above referenced COC decreases and/or increases represent only concentration changes from the previous quarters' sampling and should not be viewed as indication of a trend without the use of proper statistical methods.

Included in this report are data tables and figures summarizing the results of second quarter 2013 GMZ monitoring and AS/SVE system performance, laboratory analytical reports, supporting field documentation sheets and the Quarterly Progress Report covering the period from June 1, 2013 to August 31, 2013.

Please contact either of the undersigned with any questions you may have on the information provided.

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Ms. Victoria M. Haines – UTAS
Mr. William Elwell – AECOM
Project File

Attachments:

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Table 1
Third Quarter 2012 to Second Quarter 2013 Cumulative Groundwater Elevations
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

Well ID	Top of Casing Elevation (ft)	Depth to Groundwater (ft BTOC)	Groundwater Elevation (ft AMSL)	Depth to Groundwater (ft BTOC)	Groundwater Elevation (ft AMSL)	Depth to Groundwater (ft BTOC)	Groundwater Elevation (ft AMSL)	Depth to Groundwater (ft BTOC)	Groundwater Elevation (ft AMSL)
		8/6/2012		11/12/2012		2/11/2013		5/6/2013	
MW07FGA	727.49	29.36	698.13	30.08	697.41	30.13	697.36	29.87	697.62
MW203	728.58	30.05	698.53	30.84	697.74	30.03	698.55	29.65	698.93
SMW01	729.71	32.15	697.56	32.90	696.81	32.91	696.80	31.42	698.29
SMW02	726.77	28.86	697.91	29.36	697.41	29.46	697.31	28.11	698.66
SMW04	728.51	31.39	697.12	32.09	696.42	32.09	696.42	30.49	698.02
SMW08	728.81	31.59	697.22	32.26	696.55	32.24	696.57	30.71	698.10
SMW19	728.49	30.33	698.16	31.03	697.46	31.08 *	697.41	29.77	698.72
SMW20	727.69	30.52	697.17	31.26	696.43	31.21	696.48	29.65	698.04
SMW21	727.25	29.95	697.30	30.66	696.59	30.67	696.58	29.08	698.17
GMZ01	731.41	34.14	697.27	34.88	696.53	34.85	696.56	33.28	698.13
GMZ02	728.76	31.74	697.02	32.45	696.31	32.42	696.34	30.75	698.01
GMZ03	728.22	31.12	697.10	31.86	696.36	31.80	696.42	30.21	698.01
GMZ04	726.84	29.35	697.49	30.08	696.76	30.09	696.75	28.61	698.23
BGW01	728.19	30.15	698.04	30.91	697.28	30.96	697.23	29.59	698.60
BGW02	728.81	30.58	698.23	31.29	697.52	31.42	697.39	30.09	698.72
BGW03	728.96	30.66	698.30	31.36	697.60	31.51	697.45	30.12	698.84
RAMW01	728.91	31.73	697.18	32.46	696.45	32.36 *	696.55	30.85	698.06
RAMW02	728.90	31.58	697.32	32.32	696.58	32.31	696.59	30.75	698.15
RAMW03	728.71	31.40	697.31	32.14	696.57	32.08 *	696.63	30.58	698.13
RAMW04	732.23	34.68	697.55	35.41	696.82	35.41	696.82	33.93	698.30
RAMW05	727.65	30.13	697.52	30.87	696.78	30.76 *	696.89	29.37	698.28
RAMW06	727.64	30.14	697.50	30.89	696.75	30.88	696.76	29.40	698.24
RAMW07	732.20	34.59	697.61	35.32	696.88	35.34	696.86	33.90	698.30
RAMW08	728.45	30.74	697.71	31.47	696.98	31.50	696.95	30.07	698.38
PMW01	728.88	31.85	697.03	32.58	696.30	32.55 *	696.33	30.90	697.98
PMW02	728.88	31.81	697.07	32.55	696.33	32.49	696.39	30.89	697.99

Notes:

NM = Not monitored

* - Well riser was encased in ice; depth to groundwater was measured on February 13, 2013.

ft = feet

ft BTOC = feet below top of casing

ft AMSL = feet above mean sea level

All site well top of casing elevations re-surveyed on May 24, 2011.

Table 2
Third Quarter 2012 to Second Quarter 2013 VOC Analytical Results - GMZ Wells
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

Well	Sample ID	Sample Date	Sample Type	Trichloroethene (TCE)	Methylene Chloride (Dichloromethane)	1,1-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Tetrachloroethene (PCE)	Toluene	Vinyl chloride
		Preliminary Remediation Goals (PRG)[A]		0.005[c][A]	0.005[c][A]	0.007[b,c][A]	0.7[A]	0.005[c][A]	0.07[c][A]	0.1[c][A]	0.2[b,c][A]	0.005[c][A]	0.7[c][A]	0.005[c][A]	1.0[c][A]	0.002[c][A]
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
GMZ01	HS SER-GMZ01-0808212	8-Aug-12		**0.0079**[A]	0.0017 U	0.00098 NJ	0.022 JB	0.0017 U	**0.0086**	0.00035 NJ	**0.032**	0.0017 U	0.0017 U	**0.057 JB**[A]	0.0017 U	0.0017 U
	HS SER-GMZ01-111512	15-Nov-12		**0.0019**	0.0010 U	0.00047 NJ	**0.0046**	0.0010 U	**0.0018**	0.0010 U	**0.0075**	0.0010 U	0.0010 U	**0.028**[A]	0.0010 U	0.0010 U
	HS SER-DUP07-111512	15-Nov-12	Field Duplicate	**0.0017**	0.0010 U	0.00063 NJ	**0.0043**	0.0010 U	**0.0019**	0.0010 U	**0.0071**	0.0010 U	0.0010 U	**0.024**[A]	0.0010 U	0.0010 U
	HS SER-GMZ01-021413	14-Feb-13		**0.0025**	0.0010 U	0.00052 NJ	**0.0088**	0.0010 U	**0.0035**	0.0010 U	**0.015**	0.0010 U	0.0010 U	**0.013**[A]	0.0010 U	0.0010 U
	HS SER-GMZ01-050713	7-May-13		**0.002**	0.0010 U	0.00026 J	**0.0066**	0.0010 U	**0.0023**	0.0010 U	**0.01**	0.0010 U	0.0010 U	**0.021**[A]	0.0010 U	0.0010 U
GMZ02	HS SER-GMZ02-080612	6-Aug-12		0.0010 UJ	0.0010 UJ	0.0010 UJ	0.0016 J	0.0010 UJ	0.0010 UJ	0.0010 UJ	0.00070 NJ	0.0010 UJ	0.0010 UJ	0.00053 NJ	0.0010 UJ	0.0010 UJ
	HS SER-GMZ02-111312	13-Nov-12		0.0010 U	0.0010 U	0.00027 NJ	**0.0048**	0.0010 U	0.00065 NJ	0.0010 U	**0.0037**	0.0010 U	0.0010 U	0.00033 NJ	0.0010 U	0.0010 U
	HS SER-GMZ02-021213	12-Feb-13		0.0010 U	0.0010 U	0.00025 J	**0.030**	0.0010 U	0.00076 J	0.0010 U	**0.0067**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ02-050813	8-May-13		0.00039 J	0.0010 U	0.0010 U	**0.0021**	0.0010 U	0.00039 J	0.0010 U	**0.0067**	0.0010 U	0.0010 U	0.00035 J	0.0010 U	0.0010 U
GMZ03	HS SER-GMZ03-080612	6-Aug-12		0.0010 U *	0.0010 U	0.0010 U	0.00095 NJ	0.0010 U	0.00067 NJ	0.0010 U	0.00054 NJ	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-111212	12-Nov-12		0.0010 U	0.0010 U	0.0010 U	**0.015**	0.0010 U	0.00084 NJ	0.0010 U	**0.0018**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-021213	12-Feb-13		0.0010 U	0.0010 U	0.0010 U	**0.0035**	0.0010 U	0.00064 J	0.0010 U	**0.0010**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-050813	8-May-13		0.0010 U	0.0010 U	0.0010 U	0.00072 J	0.0010 U	0.00042 J	0.0010 U	**0.001**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-DUP01-050813	8-May-13	Field Duplicate	0.0010 U	0.0010 U	0.0010 U	0.00071 J	0.0010 U	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
GMZ04	HS SER-GMZ04-080612	6-Aug-12		**0.0097 NJ**[A]	***0.010 U***	**0.011**[A]	**0.019**	***0.010 U***	**0.078**[A]	0.010 U	**0.34 J**[A]	***0.010 U***	0.010 U	***0.010 U***	0.010 U	***0.010 U***
	HS SER-GMZ04-111212	12-Nov-12		**0.0044**	***2.0 U JB***	**0.0024**	**0.0017**	0.0014 U	**0.017**	0.0014 U	**0.053**	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U
	HS SER-GMZ04-021313	13-Feb-13		**0.0016**	0.0010 U	0.00076 J	**0.0015**	0.0010 U	**0.0037**	0.0010 U	**0.034**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ04-050813	8-May-13		0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00073 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
MW07FGA	HS SER-MW07FGA-080712	7-Aug-12		0.00031 NJ	0.0010 U	0.0010 U	0.00021 NJ	0.0010 U	0.0010 U	0.0010 U	**0.0029**	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U
	HS SER-MW07FGA-111312	13-Nov-12		0.0010 U	0.0010 U	0.0010 U	0.00025 NJ	0.0010 U	0.0010 U	0.0010 U	**0.0030**	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U
	HS SER-MW07FGA-021213	12-Feb-13		0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0018**	0.0010 U	0.0010 U	0.00087 J	0.0010 U	0.0010 U
	HS SER-MW07FGA-050713	7-May-13		0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0007 J	0.0010 U	0.0010 U	0.00092 J	0.0010 U	0.0010 U
MW203	HS SER-MW203-080812	8-Aug-12		0.00056 NJ	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.015**[A]	0.0010 U	0.0010 U
	HS SER-MW203-111312	13-Nov-12		0.00041 NJ	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.018**[A]	0.0010 U	0.0010 U
	HS SER-MW203-021313	13-Feb-13		0.00027 NJ	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0099**[A]	0.0010 U	0.0010 U
	HS SER-MW203-050713	7-May-13		0.00043 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.016**[A]	0.0010 U	0.0010 U
SMW01	HS SER-SMW01-080712	7-Aug-12		0.0010 U *	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0013**	0.0010 U	0.0010 U	0.00085 NJ	0.0010 U	0.0010 U
	HS SER-SMW01-111312	13-Nov-12		0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00043 NJ	0.0010 U	0.0010 U	0.00050 NJ	0.0010 U	0.0010 U
	HS SER-SMW01-021213	12-Feb-13		0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00081 J	0.0010 U	0.0010 U	0.00063 J	0.0010 U	0.0010 U
	HS SER-SMW01-050713	7-May-13		0.00019 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.002**	0.0010 U	0.0010 U	**0.0022**	0.0010 U	0.0010 U
SMW02	HS SER-SMW02-080712	7-Aug-12		0.0010 U	0.0010 U	0.0010 U	0.00054 NJ	0.0010 U	0.00099 NJ	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00029 NJ	0.0010 U	0.0010 U
	HS SER-SMW02-111312	13-Nov-12		0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00048 NJ	0.0010 U	0.0010 U
	HS SER-SMW02-021213	12-Feb-13		0.0010 U	0.0010 U	0.0010 U	0.00023 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00036 J	0.0010 U	0.0010 U
	HS SER-SMW02-050713	7-May-13		0.0010 U	0.0010 U	0.0010 U	**0.001**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00047 J	0.0010 U	0.0010 U
SMW04	HS SER-SMW04-0809212	9-Aug-12		**0.0075**[A]	0.0010 U	0.00067 NJ	**0.0074**	0.0010 U	**0.017**	0.0010 U	**0.0037**	0.0010 U	0.0010 U	**0.020**[A]	0.0010 U	**0.0062**[A]
	HS SER-SMW04-111512	15-Nov-12		**0.0041**	0.0010 U	0.00069 NJ	**0.0076**	0.0010 U	**0.011**	0.0010 U	**0.0015**	0.0010 U	0.0010 U	**0.015**[A]	0.0010 U	**0.0087**[A]
	HS SER-SMW04-021313	13-Feb-13		**0.0050**	0.0010 U	0.00048 NJ	**0.0047**	0.0010 U	**0.0085**	0.00019 J	0.0010 U	0.0010 U	0.0010 U	**0.0060**[A]	0.0010 U	**0.021**[A]
	HS SER-SMW04-050813	8-May-13		**0.0039**	0.0010 U	0.00075 J	**0.0050**	0.0010 U	**0.013**	0.0010 U	**0.0035**	0.0010 U	0.0010 U	**0.0084**[A]	0.0010 U	**0.021**[A]

See next page for notes.

Table 2
Third Quarter 2012 to Second Quarter 2013 VOC Analytical Results - GMZ Wells
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

Well	Sample ID	Sample Date	Sample Type	Trichloroethene (TCE)	Methylene Chloride (Dichloromethane)	1,1-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Tetrachloroethene (PCE)	Toluene	Vinyl chloride
		Preliminary Remediation Goals (PRG)[A]		0.005[c,A]	0.005[c,A]	0.007[b,c,A]	0.7[A]	0.005[c,A]	0.07[c,A]	0.1[c,A]	0.2[b,c,A]	0.005[c,A]	0.7[c,A]	0.005[c,A]	1.0[c,A]	0.002[c,A]
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
SMW08	HS SER-SMW08-0808212	8-Aug-12		**0.0040**	0.0014 U	0.00048 NJ	0.0072 JB	0.0014 U	**0.0036**	0.0014 U	0.018 JB	0.0014 U	0.0014 U	**0.028 JB[A]**	0.0014 U	0.0014 U
	HS SER-SMW08-111412	14-Nov-12		**0.0027**	0.0010 U	0.00098 NJ	**0.0066**	0.0010 U	**0.027**	0.00028 NJ	**0.016**	0.0010 U	0.0010 U	**0.025[A]**	0.0010 U	0.0010 U
	HS SER-SMW08-021413	14-Feb-13		**0.0026**	0.0010 U	0.00041 J	**0.0039**	0.0010 U	**0.0018**	0.0010 U	**0.015**	0.0010 U	0.0010 U	**0.025[A]**	0.0010 U	0.0010 U
	HS SER-DUP01-021413	14-Feb-13	Field Duplicate	**0.0026**	0.0010 U	0.00038 J	**0.0041**	0.0010 U	**0.0018**	0.0010 U	**0.016**	0.0010 U	0.0010 U	**0.025[A]**	0.0010 U	0.0010 U
	HS SER-SMW08-050813	8-May-13		**0.0033**	0.0010 U	0.0010 U	**0.0035**	0.0010 U	**0.0017**	0.0010 U	**0.015**	0.0010 U	0.0010 U	**0.038[A]**	0.0010 U	0.0010 U
SMW19	HS SER-SMW19-080712	7-Aug-12		**0.016[A]**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00068 NJ	0.0010 U	0.00058 NJ	0.0010 U	0.0010 U	0.00082 NJ	0.0010 U	0.0010 U
	HS SER-SMW19-111412	14-Nov-12		**0.0084[A]**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00040 NJ	0.0010 U	0.00028 NJ	0.0010 U	0.0010 U	0.00077 NJ	0.0010 U	0.0010 U
	HS SER-SMW19-021313	13-Feb-13		**0.0053[A]**	0.0010 U	0.00021 J	0.00058 J	0.0010 U	0.00043 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00062 J	0.0010 U	0.0010 U
	HS SER-SMW19-050813	8-May-13		**0.0089[A]**	0.0010 U	0.00029 J	0.00075 J	0.0010 U	0.00049 J	0.0010 U	0.00046 J	0.0010 U	0.0010 U	0.00064 J	0.0010 U	0.0010 U
SMW20	HS SER-SMW20-080612	6-Aug-12		0.0010 U *	0.0010 U	0.0010 U	0.00059 NJ	0.0010 U	0.00099 NJ	0.0010 U	0.00049 NJ	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW20-111212	12-Nov-12		0.0010 U	0.0010 U	0.0010 U	0.00056 NJ	0.0010 U	**0.0012**	0.0010 U	0.00060 NJ	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW20-021213	12-Feb-13		0.0010 U	0.0010 U	0.0010 U	0.00062 J	0.0010 U	**0.0011**	0.0010 U	**0.0012**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW20-050813	8-May-13		0.0010 U	0.0010 U	0.0010 U	0.00032 J	0.0010 U	0.0010 U	0.0010 U	0.00084 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
SMW21	HS SER-SMW21-080712	7-Aug-12		0.00059 NJ	0.0010 U	0.00057 NJ	0.00050 NJ	0.0010 U	**0.0024**	0.0010 U	**0.018**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW21-111212	12-Nov-12		0.00074 NJ	0.0010 U	**0.0012**	0.00032 NJ	0.0010 U	0.00055 NJ	0.0010 U	**0.020**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW21-021213	12-Feb-13		**0.0019**	0.0010 U	0.00057 J	0.0010 U	0.0010 U	0.00035 J	0.0010 U	**0.020**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW21-050813	8-May-13		**0.0024**	0.0010 U	0.0010 U	0.00043 J	0.0010 U	0.0010 U	0.0010 U	**0.020**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
PMW01	HS SER-PMW01-0808212	8-Aug-12		**0.0035**	0.0025 U	0.0015 NJ	**0.072**	0.0025 U	**0.0068**	0.0025 U	**0.033**	0.0025 U	0.0025 U	**0.035 JB[A]**	0.0025 U	***0.0025 U***
	HS SER-PMW01-111512	15-Nov-12		**0.0018**	***2.0 U JB***	0.0016 NJ	**0.055**	0.0017 U	**0.0037**	0.0017 U	**0.026**	0.0017 U	0.0017 U	**0.031[A]**	0.0017 U	0.0017 U
	HS SER-PMW01-021413	14-Feb-13		**0.0015**	0.0010 U	0.00054 J	**0.031**	0.0010 U	**0.0026**	0.0010 U	**0.015**	0.0010 U	0.0010 U	**0.037[A]**	0.0010 U	0.0010 U
	HS SER-PMW01-050813	8-May-13		**0.0012**	0.0010 U	0.0010 U	**0.025**	0.0010 U	**0.002**	0.0010 U	**0.0097**	0.0010 U	0.0010 U	**0.022[A]**	0.0010 U	0.0010 U
PMW02	HS SER-PMW02-0809212	9-Aug-12		**0.0014**	0.0010 U	0.0010 U	0.0060 JB	0.0010 U	**0.0016**	0.0010 U	0.0052 JB	0.0010 U	0.0010 U	**0.018 JB[A]**	0.0010 U	0.0010 U
	HS SER-DUP05-0809212	9-Aug-12	Field Duplicate	**0.0016**	0.0010 U	0.00056 NJ	0.0061 JB	0.0010 U	**0.0015**	0.0010 U	0.0067 JB	0.0010 U	0.0010 U	**0.017 JB[A]**	0.0010 U	0.0010 U
	HS SER-PMW02-111412	14-Nov-12		**0.0026**	0.0010 U	**0.0016**	**0.017**	0.0010 U	**0.0020**	0.0010 U	**0.015**	0.0010 U	0.0010 U	**0.018[A]**	0.0010 U	0.0010 U
	HS SER-PMW02-021413	14-Feb-13		**0.0043**	0.0010 U	0.00066 J	**0.0087**	0.0010 U	**0.011**	0.0010 U	**0.0061**	0.0010 U	0.0010 U	**0.023[A]**	0.0010 U	**0.0034[A]**
	HS SER-PMW02-050813	8-May-13		**0.0027**	0.0010 U	0.0010 U	**0.013**	0.0010 U	**0.0016**	0.0010 U	**0.012**	0.0010 U	0.0010 U	**0.020[A]**	0.0010 U	**0.0024[A]**

Notes:

PRG	Preliminary Remediation Goals (PRGs) from ROD
A	Class 1 - Groundwater Remediation Objectives
6.5[A]	Concentration exceeds the indicated standard.
15.2	Concentration was detected but did not exceed applicable standards.
0.50 U	Laboratory estimated quantitation limit exceeded standard.
0.03 U	The analyte was not detected above the laboratory estimated quantitation limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
b,c	Oral Reference Dose and/or Reference Concentration under review by USEPA. Listed values subject to change. Value listed is also the Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.
c	Value listed is also the Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.
*	LCS or LCSD exceeds the control limits
B	The analyte was detected in the method, field and/or trip blank.
H	Sample was prepped or analyzed beyond the specified holding time
J	Indicates estimated value.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 3
Third Quarter 2012 to Second Quarter 2013 VOC Analytical Results - Performance Wells
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

Well	Sample ID	Sample Date	Sample Type	Trichloroethene (TCE)	Methylene Chloride (Dichloromethane)	1,1-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Tetrachloroethene (PCE)	Toluene	Vinyl chloride
			Preliminary Remediation Goals (PRG)[A]	0.005[c,A]	0.005[c,A]	0.007[b,c,A]	0.7[A]	0.005[c,A]	0.07[c,A]	0.1[c,A]	0.2[b,c,A]	0.005[c,A]	0.7[c,A]	0.005[c,A]	1.0[c,A]	0.002[c,A]
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RAMW01	HS SER-RAMW01-080812	8-Aug-12		**0.0013**	0.0010 U	0.0010 U	**0.032**	0.0010 U	**0.0032**	0.0010 U	**0.0051**	0.00064 NJ	0.0010 U	**0.019[A]**	0.0010 U	0.0010 U
	HS SER-RAMW01-111512	14-Nov-12		**0.0013**	0.0010 U	0.00055 NJ	**0.027**	0.0010 U	**0.003**	0.0010 U	**0.0097**	0.00070 NJ	0.0010 U	**0.012[A]**	0.0010 U	0.0010 U
	HS SER-RAMW01-021313	13-Feb-13		**0.0019**	0.0010 U	0.00042 J	**0.026**	0.0010 U	**0.0042**	0.0010 U	**0.01**	0.00080 J	0.0010 U	**0.015[A]**	0.0010 U	0.0010 U
	HS SER-RAMW01-050813	8-May-13		**0.0014**	0.0010 U	**0.0013**	**0.012**	0.0010 U	**0.003**	0.0010 U	**0.0073**	0.0010 U	0.0010 U	**0.012[A]**	0.0010 U	0.00029 J
RAMW02	HS SER-RAMW02-080812	8-Aug-12		0.00054 NJ	0.0010 U	0.00026 NJ	**0.015**	0.0010 U	0.00077 NJ	0.0010 U	**0.0058**	0.0010 U	0.0010 U	**0.0049**	0.0010 U	0.0010 U
	HS SER-RAMW02-111412	13-Nov-12		0.00035 NJ	0.0010 U	0.00050 NJ	**0.024**	0.0010 U	0.00056 NJ	0.0010 U	**0.0072**	0.0010 U	0.00042 NJ	**0.0018**	0.0010 U	0.0010 U
	HS SER-RAMW02-021213	12-Feb-13		0.00057 J	0.0010 U	0.00033 J	**0.02**	0.0010 U	**0.003**	0.0010 U	**0.0053**	0.0010 U	0.0010 U	**0.0022**	0.0010 U	0.00031 J
	HS SER-RAMW02-050713	7-May-13		0.00075 J	0.0010 U	0.00091 J	**0.015**	0.0010 U	**0.0023**	0.0010 U	**0.006**	0.0010 U	0.0010 U	**0.0042**	0.0010 U	0.00033 J
RAMW03	HS SER-RAMW03-080712	7-Aug-12		0.00077 NJ	0.0010 U	0.0010 U	**0.0013**	0.0010 U	**0.034**	0.0010 U	**0.0027**	0.0010 U	0.0010 U	**0.0022**	0.0010 U	0.0010 U
	HS SER-RAMW03-111312	13-Nov-12		***0.010 U***	0.0050 NJB	***0.010 U***	0.010 U	***0.010 U***	**0.33[A]**	0.010 U	0.0035 NJ	***0.010 U***	0.010 U	***0.010 U***	0.010 U	***0.010 U***
	HS SER-RAMW03-021313	13-Feb-13		0.00071 J	0.0010 U	0.0010 U	**0.0011**	0.0010 U	**0.0029**	0.0010 U	**0.0032**	0.0010 U	0.0010 U	0.00047 J	0.0010 U	0.0010 U
	HS SER-RAMW03-050713	7-May-13		0.00049 J	0.0010 U	0.0010 U	0.00084 J	0.0010 U	**0.0014**	0.0010 U	**0.0017**	0.0010 U	0.0010 U	**0.001**	0.0010 U	0.0010 U
	HS SER-DUP02-050713	7-May-13	Field Duplicate	0.00062 J	0.0010 U	0.0010 U	0.00078 J	0.0010 U	**0.0012**	0.0010 U	**0.0017**	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U
RAMW04	HS SER-RAMW04-080812	8-Aug-12		0.0010 U	0.0010 U	0.0010 U	0.00087 NJ	0.0010 U	0.0010 U	0.0010 U	**0.0015**	0.0010 U	0.0010 U	0.00052 NJ	0.0010 U	0.0010 U
	HS SER-RAMW04-111312	13-Nov-12		0.00017 NJ	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U	0.00053 NJ	0.0010 U	0.0010 U
	HS SER-RAMW04-050813	8-May-13		0.0010 U	0.0010 U	0.0010 U	0.00034 J	0.0010 U	0.0010 U	0.0010 U	0.00064 J	0.0010 U	0.0010 U	0.00055 J	0.0010 U	0.0010 U
RAMW05	HS SER-RAMW05-080912	9-Aug-12		**0.0066 NJ[A]**	***0.010 U***	0.0062 NJ	0.010 U	***0.010 U***	0.010 U	0.010 U	**0.17**	***0.010 U***	0.010 U	***0.010 U***	0.010 U	***0.010 U***
	HS SER-DUP06-080912	9-Aug-12	Field Duplicate	**0.0067 NJ[A]**	***0.010 U***	0.0047 NJ	0.010 U	***0.010 U***	0.010 U	0.010 U	**0.17**	***0.010 U***	0.010 U	***0.010 U***	0.010 U	***0.010 U***
	HS SER-RAMW05-111412	14-Nov-12		**0.015[A]**	**0.0051 NJB[A]**	**0.016[A]**	0.0091 U	***0.0091 U***	0.0091 U	0.0091 U	**0.23[A]**	***0.0091 U***	0.0091 U	***0.0091 U***	0.0091 U	***0.0091 U***
	HS SER-RAMW05-021313	13-Feb-13		**0.0077[A]**	0.0033 U	0.0030 J	0.0012 J	0.0033 U	0.00081 J	0.0033 U	**0.079**	0.0033 U	0.0033 U	0.0033 U	0.0033 U	***0.0033 U***
	HS SER-RAMW05-050713	7-May-13		**0.008[A]**	0.0029 U	**0.023[A]**	0.0026 J	0.0029 U	0.0028 J	0.0029 U	**0.17**	0.0029 U	0.0029 U	0.0029 U	0.0029 U	***0.0029 U***
RAMW06	HS SER-RAMW06-080912	9-Aug-12		**0.0062 NJ[A]**	***0.0067 U***	0.0035 NJ	0.0032 NJ	***0.0067 U***	0.0022 NJ	0.0067 U	**0.12**	***0.0067 U***	0.0067 U	0.0024 NJ	0.0067 U	***0.0067 U***
	HS SER-RAMW06-111412	13-Nov-12		**0.036[A]**	**0.0097 NJB[A]**	**0.028[A]**	0.0063 NJ	***0.018 U***	0.013 NJ	0.018 U	**0.54[A]**	***0.018 U***	0.018 U	***0.018 U***	0.018 U	***0.018 U***
	HS SER-RAMW06-021413	14-Feb-13		**0.015[A]**	***0.0080 U***	**0.0090[A]**	0.0026 J	***0.0080 U***	**0.0097**	0.008	**0.22[A]**	***0.0080 U***	0.0080 U	***0.0080 U***	0.0080 U	***0.0080 U***
	HS SER-RAMW06-050713	7-May-13		**0.010[A]**	0.00096 JB	**0.021[A]**	**0.0031**	0.0025 U	**0.02**	0.0025 U	**0.15**	0.0025 U	0.0025 U	0.0025 U	0.0025 U	***0.0025 U***
RAMW07	HS SER-RAMW07-080712	7-Aug-12		**0.16[A]**	***0.10 U***	**0.076 NJ[A]**	0.10 U	***0.10 U***	0.037 NJ	0.10 U	**2.0[A]**	***0.10 U***	0.10 U	***0.10 U***	0.10 U	***0.10 U***
	HS SER-RAMW07-111412	14-Nov-12		**0.32[A]**	**0.18 NJB[A]**	**0.40 J[A]**	0.25 U	***0.25 U***	**0.36[A]**	***0.25 U***	**6.3[A]**	***0.25 U***	0.25 U	***0.25 U***	0.25 U	***0.25 U***
	HS SER-DUP08-111412	15-Nov-12	Field Duplicate	**0.31[A]**	**0.16 JB[A]**	**0.59 J[A]**	0.25 U	***0.25 U***	**0.34[A]**	***0.25 U***	**5.9 J[A]**	***0.25 U***	0.25 U	***0.25 U J***	0.25 U	***0.25 U***
	HS SER-RAMW07-021413	14-Feb-13		**0.11[A]**	***0.033 U***	**0.040[A]**	0.033 U	***0.033 U***	**0.036**	0.033 U	**0.79[A]**	***0.033 U***	0.033 U	***0.033 U***	0.033 U	***0.033 U***
	HS SER-RAMW07-050713	7-May-13		**0.082[A]**	**0.0083 JB[A]**	**0.16[A]**	**0.022**	***0.020 U***	**0.041**	0.020 U	**1.0[A]**	***0.020 U***	0.020 U	**0.0082 J[A]**	0.020 U	***0.020 U***

See next page for notes.

Table 3
Third Quarter 2012 to Second Quarter 2013 VOC Analytical Results - Performance Wells
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

Well	Sample ID	Sample Date	Sample Type	Trichloroethene (TCE)	Methylene Chloride (Dichloromethane)	1,1-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Tetrachloroethene (PCE)	Toluene	Vinyl chloride
			Preliminary Remediation Goals (PRG)[A]	0.005_{c}^{A}	0.005_{c}^{A}	$0.007_{b,c}^{A}$	0.7^{A}	0.005_{c}^{A}	0.07_{c}^{A}	0.1_{c}^{A}	$0.2_{b,c}^{A}$	0.005_{c}^{A}	0.7_{c}^{A}	0.005_{c}^{A}	1.0_{c}^{A}	0.002_{c}^{A}
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RAMW08	HS SER-RAMW08-080912	9-Aug-12		**0.0026**	0.0020 U	0.0020 U	**0.0046**	0.0020 U	0.0020 U	0.0020 U	**0.042**	0.0020 U	**0.0082**	**0.0091[A]**	0.00027 NJ	0.0020 U
	HS SER-RAMW08-111412	14-Nov-12		0.0025 NJ	**0.0066 NJB[A]**	***0.0083 U***	0.0070 NJ	**0.0083 U**	0.0083 U	0.0083 U	**0.044**	***0.0083 U***	0.0034 NJ	**0.011[A]**	0.0083 U	***0.0083 U***
	HS SER-RAMW08-021313	13-Feb-13		0.0017 J	0.0050 U	0.0015 J	**0.0088**	0.0050 U	**0.0078**	0.0050 U	**0.03**	0.0050 U	0.0019 J	0.0020 J	0.0050 U	***0.0050 U***
	HS SER-DUP02-021413	14-Feb-13	Field Duplicate	0.0018 J	0.0050 U	0.0014 J	**0.0085**	0.0050 U	**0.0081**	0.0050 U	**0.03**	0.0050 U	0.0018 J	0.0024 J	0.0050 U	***0.0050 U***
	HS SER-RAMW08-050713	7-May-13		**0.0012**	0.0010 U	**0.0090[A]**	**0.0048**	0.0010 U	**0.0065**	0.0010 U	**0.03**	0.0010 U	**0.001**	**0.0051[A]**	0.0010 U	0.0010 U

Notes:

PRG	Preliminary Remediation Goals (PRGs) from ROD
A	Class 1 - Groundwater Remediation Objectives
6.5[A]	Concentration exceeds the indicated standard at specified well; however, compliance with the standard is only applicable to GMZ wells.
15.2	Concentration was detected but did not exceed applicable standards.
0.50 U	Laboratory estimated quantitation limit exceeded standard.
0.03 U	The analyte was not detected above the laboratory estimated quantitation limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
b,c	Oral Reference Dose and/or Reference Concentration under review by USEPA. Listed values subject to change. Value listed is also the Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.
c	Value listed is also the Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.
B	The analyte was detected in the method, field and/or trip blank.
J	Indicates estimated value.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 4.1
Cell 1 - Phase 1 SVE System Data
December 2009 - May 2013
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 1 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 1 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
12/10/2009		159	53	140	13000	3.76E-02	140 U	0.00E+00	45000	9.67E-02	140 U	0.00E+00	910	1.91E-03	18000	3.79E-02	140 U	0.00E+00	940	3.38E-03
12/22/2009		372	124	140	980	2.84E-03	26 U	0.00E+00	11000	2.36E-02	26 U	0.00E+00	130	2.74E-04	7300	1.54E-02	26 U	0.00E+00	390	1.40E-03
2/24/2010		1893	631	150	640	1.99E-03	6.0 U	0.00E+00	1900	4.37E-03	6.0 U	0.00E+00	28	6.31E-05	630	1.42E-03	6.0 U	0.00E+00	150	5.78E-04
3/15/2010		2345	782	140	1100	3.19E-03	8.4 U	0.00E+00	2800	6.01E-03	8.4 U	0.00E+00	37	7.79E-05	1300	2.74E-03	8.4 U	0.00E+00	180	6.48E-04
4/14/2010		2804	935	150	1400	4.34E-03	12 U	0.00E+00	4100	9.44E-03	12 U	0.00E+00	31	6.99E-05	1400	3.16E-03	12 U	0.00E+00	790	3.05E-03
5/13/2010		3495	1165	140	590	1.71E-03	7.0 U	0.00E+00	2600	5.58E-03	7.0 U	0.00E+00	13	2.74E-05	1100	2.31E-03	7.0 U	0.00E+00	300	1.08E-03
6/21/2010		4430	1477	108	710	1.59E-03	8.6 U	0.00E+00	2600	4.31E-03	8.6 U	0.00E+00	16 J	2.60E-05	570	9.25E-04	8.6 U	0.00E+00	290	8.05E-04
7/21/2010		5058	1686	140	480	1.39E-03	7.0 U	0.00E+00	2600	5.58E-03	7.0 U	0.00E+00	10	2.10E-05	630	1.33E-03	7.0 U	0.00E+00	710	2.56E-03
8/23/2010		5784	1928	0	370	0.00E+00	8.2 U	0.00E+00	2400	0.00E+00	8.2 U	0.00E+00	8.2 U	0.00E+00	540	0.00E+00	8.2 U	0.00E+00	500	0.00E+00
9/23/2010		6523	2174	145	480	1.44E-03	7.2 U	0.00E+00	2000	4.45E-03	7.2 U	0.00E+00	7.2 U	0.00E+00	250	5.45E-04	7.2 U	0.00E+00	380	1.42E-03
10/22/2010		7219	2406	140	390	1.13E-03	5.0 U	0.00E+00	1600	3.44E-03	5.0 U	0.00E+00	5.0 U	0.00E+00	160	3.37E-04	5.0 U	0.00E+00	240	8.64E-04
10/22/2010	Dup	7219	2406	140	2600	7.53E-03	10 U	0.00E+00	960	2.06E-03	10 U	0.00E+00	120	2.53E-04	490	1.03E-03	10 U	0.00E+00	140	5.04E-04
11/15/2010		7794	2598	140	420	1.22E-03	4.3 U	0.00E+00	1700	3.65E-03	4.3 U	0.00E+00	4.3 U	0.00E+00	140	2.95E-04	4.3 U	0.00E+00	140	5.04E-04
12/22/2010		8508	2777	150	600	1.86E-03	4.2 U	0.00E+00	1600	3.68E-03	4.2 U	0.00E+00	8.5	1.92E-05	510	1.15E-03	4.2 U	0.00E+00	75	2.89E-04
1/24/2011		9302	2975	170	360	1.27E-03	5.2 U	0.00E+00	1700	4.43E-03	5.2 U	0.00E+00	5.2 U	0.00E+00	140	3.58E-04	5.2 U	0.00E+00	45	1.97E-04
2/25/2011		10071	3167	165	280	9.56E-04	4.0 U	0.00E+00	1600	4.05E-03	4.0 U	0.00E+00	4.5	1.12E-05	120	2.98E-04	4.0 U	0.00E+00	34	1.44E-04
3/18/2011		10573	3293	165	200	6.83E-04	6.3 U	0.00E+00	1900	4.81E-03	6.3 U	0.00E+00	6.3 U	0.00E+00	130	3.22E-04	6.3 U	0.00E+00	32	1.36E-04
4/15/2011		11241	3460	160	180 J,B	5.96E-04	4.5 U	0.00E+00	1700	4.17E-03	4.5 U	0.00E+00	4.5 U	0.00E+00	110	2.65E-04	4.5 U	0.00E+00	43	1.77E-04
5/19/2011		12061	3665	160	110	3.64E-04	4.3 U	0.00E+00	1100	2.70E-03	4.3 U	0.00E+00	4.3 U	0.00E+00	85	2.04E-04	4.3 U	0.00E+00	55	2.26E-04
6/16/2011		12722	3830	170	150	5.27E-04	2.3 U	0.00E+00	730	1.90E-03	2.3 U	0.00E+00	2.8	7.15E-06	63	1.61E-04	2.3 U	0.00E+00	110	4.81E-04
7/15/2011		13417	4472	170	140	4.92E-04	1.2 U	0.00E+00	390	1.02E-03	1.2 U	0.00E+00	2.2	5.62E-06	47	1.20E-04	1.2	3.07E-06	170	7.43E-04
8/22/2011		14324	4775	170	150	5.27E-04	1.1 U	0.00E+00	210	5.48E-04	1.1 U	0.00E+00	2.1	5.37E-06	36	9.20E-05	1.1 U	0.00E+00	180	7.87E-04
9/15/2011		14905	4968	170	130	4.57E-04	1.1 U	0.00E+00	130	3.39E-04	1.1 U	0.00E+00	1.5	3.83E-06	40	1.02E-04	1.1 U	0.00E+00	180	7.87E-04
10/14/2011		15598	5199	160	65	2.15E-04	0.74 U	0.00E+00	100	2.45E-04	0.74 U	0.00E+00	1.4	3.37E-06	43	1.03E-04	0.86	2.07E-06	130	5.35E-04
11/21/2011		16510	5503	170	49 J,B	1.72E-04	0.74 U	0.00E+00	68		0.74 U	0.00E+00	2.9	7.41E-06	28	7.15E-05	1.1	2.81E-06	61	2.67E-04
12/14/2011		17010	5670	170	53	1.86E-04	0.78 U	0.00E+00	45	1.17E-04	0.78 U	0.00E+00	2.7	6.90E-06	18	4.60E-05	0.78 U	0.00E+00	57	2.49E-04
1/19/2012		17923	5974	170	51	1.79E-04	0.79 U	0.00E+00	41	1.07E-04	0.79 U	0.00E+00	1.0	2.56E-06	12	3.07E-05	0.79 U	0.00E+00	39	1.70E-04
2/15/2012		18566	6189	170	46	1.62E-04	0.78 U	0.00E+00	30	7.82E-05	0.78 U	0.00E+00	9.4	2.40E-05	10	2.56E-05	0.78 U	0.00E+00	37	1.62E-04
3/15/2012		19262	6421	170	38 J,B	1.34E-04	0.71 U	0.00E+00	34	8.87E-05	0.71 U	0.00E+00	0.80	2.04E-06	7.8	1.99E-05	0.71 U	0.00E+00	32	1.40E-04
4/19/2012		20102	6701	160	55	1.82E-04	0.76 U	0.00E+00	38	9.33E-05	0.76 U	0.00E+00	0.76 U	0.00E+00	7.4	1.78E-05	0.76 U	0.00E+00	58	2.39E-04
5/16/2012		20748	6916	160	51	1.69E-04	0.76 U	0.00E+00	36	8.84E-05	0.76 U	0.00E+00	0.76 U	0.00E+00	7.1	1.71E-05	0.76 U	0.00E+00	77	3.17E-04
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		21282	7094	160	120	3.97E-04	1.3 U	0.00E+00	51	1.25E-04	1.3 U	0.00E+00	1.3 U	0.00E+00	8.3	2.00E-05	1.3 U	0.00E+00	350	1.44E-03
9/17/2012		21952	7317	160	190	6.29E-04	1.1 U	0.00E+00	77	1.89E-04	1.1 U	0.00E+00	2.0	4.81E-06	9.8	2.36E-05	1.1 U	0.00E+00	270	1.11E-03
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		21959	7320	160	160	5.29E-04	1.0 U	0.00E+00	56	1.37E-04	1.0 U	0.00E+00	7.2	1.73E-05	9.1	2.19E-05	1.0 U	0.00E+00	220	9.05E-04
12/14/2012		22554	7518	170	140	4.92E-04	1.2 U	0.00E+00	99	2.58E-04	1.2 U	0.00E+00	3.5	8.94E-06	7.4	1.89E-05	1.2 U	0.00E+00	87	3.80E-04
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/13		22556	7518	160	110	3.64E-04	0.99 U	0.00E+00	83	2.04E-04	0.99 U	0.00E+00	0.99 U	1.73E-05	5.6	1.35E-05	0.99 U	0.00E+00	62	2.55E-04
4/11/13		23581	7723	160	85	2.81E-04	1.2 U	0.00E+00	54	1.33E-04	1.2 U	0.00E+00	3.8	1.26E-05	7.4	1.78E-05	1.2 U	0.00E+00	38	1.56E-04
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/13		23583	7724	160	71	2.35E-04	1.1 U	0.00E+00	55	1.35E-04	1.1 U	0.00E+00	1.7	5.63E-06	6	1.44E-05	1.1 U	0.00E+00	37	1.52E-04

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National Library of Medicine)

SCFM standard cubic feet per minute

J Indicates estimated value.

B The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.1
Cell 1 - Phase 1 SVE System Data
December 2009 - May 2013
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 1 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 1 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
12/10/2009		159	53	140	260	7.41E-04	8100	1.10E-02	140 U	0.00E+00	140 U	0.00E+00	140 U	0.00E+00	17000	2.38E-02	140 U	0.00E+00	560	1.12E-03
12/22/2009		372	124	140	41	1.17E-04	470	6.38E-04	26 U	0.00E+00	26 U	0.00E+00	26 U	0.00E+00	1700	2.38E-03	26 U	0.00E+00	32	6.40E-05
2/24/2010		1893	631	150	24	7.33E-05	33	4.80E-05	6.0 U	0.00E+00	6.0 U	0.00E+00	6.0 U	0.00E+00	130	1.95E-04	19	3.45E-05	6.0 U	0.00E+00
3/15/2010		2345	782	140	30	8.56E-05	32	4.34E-05	8.4 U	0.00E+00	8.4 U	0.00E+00	8.4 U	0.00E+00	170	2.38E-04	8.4 U	0.00E+00	8.4 U	0.00E+00
4/14/2010		2804	935	150	86	2.63E-04	91	1.32E-04	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	320	4.80E-04	14	2.54E-05	12 U	0.00E+00
5/13/2010		3495	1165	140	32	9.13E-05	10	1.36E-05	7.0 U	0.00E+00	7.0 U	0.00E+00	7.0 U	0.00E+00	100	1.40E-04	12	2.03E-05	7.0 U	0.00E+00
6/21/2010		4430	1477	108	30	6.60E-05	8.6 U	0.00E+00	8.6 UJ	0.00E+00	8.6 U	0.00E+00	8.6 U	0.00E+00	87 J	9.40E-05	10	1.31E-05	8.6 U	0.00E+00
7/21/2010		5058	1686	140	42	1.20E-04	7.0 U	0.00E+00	7.0 U	0.00E+00	7.0 U	0.00E+00	7.0 U	0.00E+00	60	8.40E-05	7.0 U	0.00E+00	7.0 U	0.00E+00
8/23/2010		5784	1928	0	48	0.00E+00	8.2 U	0.00E+00	8.2 U	0.00E+00	8.2 U	0.00E+00	8.2 U	0.00E+00	38	0.00E+00	24	0.00E+00	8.2 U	0.00E+00
9/23/2010		6523	2174	145	31	9.16E-05	7.2 U	0.00E+00	7.2 U	0.00E+00	7.2 U	0.00E+00	7.2 U	0.00E+00	15	2.18E-05	17	2.99E-05	7.2 U	0.00E+00
10/22/2010		7219	2406	140	21	5.99E-05	5.0 U	0.00E+00	5.0 U	0.00E+00	5.0 U	0.00E+00	5.0 U	0.00E+00	11	1.54E-05	7.1	1.20E-05	5.0 U	0.00E+00
10/22/2010	Dup	7219	2406	140	49	1.40E-04	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00
11/15/2010		7794	2598	140	16	4.56E-05	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	12	1.68E-05	4.3 U	0.00E+00	4.3 U	0.00E+00
12/22/2010		8508	2777	150	11	3.36E-05	4.2 U	0.00E+00	4.2 U	0.00E+00	4.2 U	0.00E+00	4.2 U	0.00E+00	10	1.50E-05	5.3	9.63E-06	4.2 U	0.00E+00
1/24/2011		9302	2975	170	8.6	2.98E-05	5.2 U	0.00E+00	5.2 U	0.00E+00	5.2 U	0.00E+00	5.2 U	0.00E+00	5.2 U	0.00E+00	5.2 U	0.00E+00	5.2 U	0.00E+00
2/25/2011		10071	3167	165	7.4	2.49E-05	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00
3/18/2011		10573	3293	165	6.4	2.15E-05	6.3 U	0.00E+00	6.3 U	0.00E+00	6.3 U	0.00E+00	6.3 U	0.00E+00	25 U	0.00E+00	6.3 U	0.00E+00	6.3 U	0.00E+00
4/15/2011		11241	3460	160	8.6	2.80E-05	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	18 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00
5/19/2011		12061	3665	160	8.0	2.61E-05	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	17 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00
6/16/2011		12722	3830	170	12	4.16E-05	2.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	9.2 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00
7/15/2011		13417	4472	170	14	4.85E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.5	3.09E-06	1.2 U	0.00E+00
8/22/2011		14324	4775	170	16	5.54E-05	1.1 U	0.00E+00	2.3 UJ,B	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	6.7	1.38E-05	1.1 U	0.00E+00
9/15/2011		14905	4968	170	14	4.85E-05	1.5	2.47E-06	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
10/14/2011		15598	5199	160	9.8	3.19E-05	3.5	5.43E-06	1.3	2.74E-06	0.74 U	0.00E+00	0.74 U	0.00E+00	3.0 U	0.00E+00	0.74 U	0.00E+00	1.8	4.11E-06
11/21/2011		16510	5503	170	7.3	2.53E-05	1.0	1.65E-06	7.4 U	0.00E+00	0.74 U	0.00E+00	0.74 U	0.00E+00	3.0 U	0.00E+00	0.74 U	0.00E+00	0.74 U	0.00E+00
12/14/2011		17010	5670	170	5.8	2.01E-05	0.78 U	0.00E+00	7.8 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00	3.1 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00
1/19/2012		17923	5974	170	5.0	1.73E-05	0.79 U	0.00E+00	1.9	4.25E-06	0.79 U	0.00E+00	0.79 U	0.00E+00	3.2 U	0.00E+00	0.79 U	0.00E+00	0.79 U	0.00E+00
2/15/2012		18566	6189	170	4.3	1.49E-05	0.89	1.47E-06	0.78 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00	3.1 U	0.00E+00	1.2	2.47E-06	0.78 U	0.00E+00
3/15/2012		19262	6421	170	3.9	1.35E-05	0.71 U	0.00E+00	0.71 U	0.00E+00	0.71 U	0.00E+00	0.71 U	0.00E+00	2.8 U	0.00E+00	0.71 U	0.00E+00	1.8	4.37E-06
4/19/2012		20102	6701	160	5.7	1.86E-05	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	3.0 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00
5/16/2012		20748	6916	160	6.1	1.99E-05	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	3.0 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		21282	7094	160	15	4.89E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.2 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
9/17/2012		21952	7317	160	25	8.15E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		21959	7320	160	18	5.87E-05	1.0 U	0.00E+00	10 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	4.1 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00
12/14/2012		22554	7518	170	13	4.50E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	2.1	4.32E-06	7.0	1.70E-05
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/13		22556	7518	160	6.7	2.18E-05	0.99 U	0.00E+00	9.9 U	0.00E+00	0.99 U	0.00E+00	0.99 U	0.00E+00	4.0 U	0.00E+00	0.99 U	0.00E+00	0.99 U	0.00E+00
4/11/13		23581	7723	160	8.2	2.67E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.2 U	0.00E+00	1.4	3.20E-06
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/13		23583	7724	160	6.1	1.99E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.7	3.89E-06

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National Library of Medicine)

SCFM standard cubic feet per minute

J Indicates estimated value.

B *The analyte was detected in the method, field and/or trip blank.*

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.1
Cell 1 - Phase 1 SVE System Data
December 2009 - May 2013
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 1 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 1 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
12/10/2009		159	53	140	250	5.76E-04	1800	4.15E-03	470	1.08E-03	3800	4.79E-03	140 U	0.00E+00	2.25E-01	11.91
12/22/2009		372	124	140	26 U	0.00E+00	26 U	0.00E+00	26 U	0.00E+00	100 U	0.00E+00	26 U	0.00E+00	4.67E-02	15.23
2/24/2010		1893	631	150	6.0 U	0.00E+00	6.0 U	0.00E+00	6.0 U	0.00E+00	98	1.32E-04	370	6.20E-04	9.52E-03	20.06
3/15/2010		2345	782	140	8.4 U	0.00E+00	8.4 U	0.00E+00	8.4 U	0.00E+00	34 U	0.00E+00	8.4 U	0.00E+00	1.30E-02	22.02
4/14/2010		2804	935	150	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	50 U	0.00E+00	12 U	0.00E+00	2.10E-02	25.22
5/13/2010		3495	1165	140	7.0 U	0.00E+00	7.0 U	0.00E+00	7.0 U	0.00E+00	28 U	0.00E+00	7.0 U	0.00E+00	1.10E-02	27.75
6/21/2010		4430	1477	108	8.6 U	0.00E+00	8.6 U	0.00E+00	8.6 U	0.00E+00	34 J	3.31E-05	8.6 U	0.00E+00	7.86E-03	30.20
7/21/2010		5058	1686	140	7.0 U	0.00E+00	7.0 U	0.00E+00	7.0 U	0.00E+00	28 U	0.00E+00	7.0 U	0.00E+00	1.11E-02	32.52
8/23/2010		5784	1928	0	8.2 U	0.00E+00	8.2 U	0.00E+00	8.2 U	0.00E+00	53	0.00E+00	8.2 U	0.00E+00	0.00E+00	32.52
9/23/2010		6523	2174	145	7.2 U	0.00E+00	7.2 U	0.00E+00	7.2 U	0.00E+00	29 U	0.00E+00	7.2 U	0.00E+00	7.99E-03	34.49
10/22/2010		7219	2406	140	5.0 U	0.00E+00	5.0 U	0.00E+00	5.0 U	0.00E+00	45	5.67E-05	5.0 U	0.00E+00	5.91E-03	35.86
10/22/2010	Dup	7219	2406	140	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	41 U	0.00E+00	10 U	0.00E+00	1.15E-02	37.16
11/15/2010		7794	2598	140	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	17 U	0.00E+00	4.3 U	0.00E+00	5.73E-03	36.96
12/22/2010		8508	2777	150	4.2 U	0.00E+00	4.2 U	0.00E+00	4.2 U	0.00E+00	16 NJ	2.16E-05	4.2 U	0.00E+00	7.08E-03	38.22
1/24/2011		9302	2975	170	5.2 U	0.00E+00	5.2 U	0.00E+00	5.2 U	0.00E+00	21 U	0.00E+00	5.2 U	0.00E+00	6.28E-03	39.47
2/25/2011		10071	3167	165	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	5.48E-03	40.53
3/18/2011		10573	3293	165	6.3 U	0.00E+00	6.3 U	0.00E+00	6.3 U	0.00E+00	25 U	0.00E+00	25 U	0.00E+00	5.97E-03	41.27
4/15/2011		11241	3460	160	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	18 U	0.00E+00	18 U	0.00E+00	5.24E-03	42.15
5/19/2011		12061	3665	160	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	17 U	0.00E+00	17 U	0.00E+00	3.52E-03	42.87
6/16/2011		12722	3830	170	2.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	9.2 U	0.00E+00	9.2 U	0.00E+00	3.12E-03	43.39
7/15/2011		13417	4472	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	7.4	1.13E-05	4.6 U	0.00E+00	2.44E-03	44.96
8/22/2011		14324	4775	170	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	44 J,B	6.74E-05	4.5 U	0.00E+00	2.10E-03	45.59
9/15/2011		14905	4968	170	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	5.6	8.57E-06	4.5 U	0.00E+00	1.75E-03	45.93
10/14/2011		15598	5199	160	0.74 U	0.00E+00	0.74 U	0.00E+00	0.74 U	0.00E+00	18	2.59E-05	3.0 U	0.00E+00	1.17E-03	46.20
11/21/2011		16510	5503	170	0.74 U	0.00E+00	0.74 U	0.00E+00	0.74 U	0.00E+00	14	2.14E-05	3.0 U	0.00E+00	5.69E-04	46.37
12/14/2011		17010	5670	170	0.78 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00	7.8 UJ	0.00E+00	3.1 U	0.00E+00	6.26E-04	46.48
1/19/2012		17923	5974	170	0.79 U	0.00E+00	0.79 U	0.00E+00	0.79 U	0.00E+00	3.2	4.90E-06	3.2 U	0.00E+00	5.16E-04	46.63
2/15/2012		18566	6189	170	0.78 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00	20	3.06E-05	3.1 U	0.00E+00	5.01E-04	46.74
3/15/2012		19262	6421	170	0.71 U	0.00E+00	0.71 U	0.00E+00	0.71 U	0.00E+00	2.8 U	0.00E+00	2.8 U	0.00E+00	4.02E-04	46.84
4/19/2012		20102	6701	160	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	5.50E-04	46.99
5/16/2012		20748	6916	160	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	6.11E-04	47.12
Pulse -off period June 1, 2012 to August 14, 2012																
8/14/2012		21282	7094	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.2 U	0.00E+00	2.03E-03	47.48
9/17/2012		21952	7317	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	2.04E-03	47.94
Pulse -off period September 17, 2012 to November 15, 2012																
11/15/2012		21959	7320	160	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	10 U	0.00E+00	4.1 U	0.00E+00	1.67E-03	47.94
12/14/2012		22554	7518	170	1.2 U	0.00E+00	1.5	4.20E-06	1.2 U	0.00E+00	12 U	0.00E+00	4.8 U	0.00E+00	1.23E-03	48.19
Pulse -off period December 14, 2012 to February 26, 2013																
2/26/13		22556	7518	160	0.99 U	0.00E+00	0.99 U	0.00E+00	0.99 U	0.00E+00	9.9 U	0.00E+00	4.0 U	0.00E+00	8.75E-04	48.19
4/11/13		23581	7723	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.6 U	0.00E+00	6.30E-04	48.32
Pulse -off period April 11, 2013 to May 10, 2013																
5/10/13		23583	7724	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	5.66E-04	48.32

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National Library of Medicine)

SCFM standard cubic feet per minute

J Indicates estimated value.

B The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.2
Cell 2 - Phase 1 SVE System Data
December 2009 - May 2013
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
12/11/2009		178	59	150	40000	1.24E-01	86 U	0.00E+00	21000	4.83E-02	86 U	0.00E+00	4500	1.01E-02	25000	5.64E-02	86 U	0.00E+00	1500	5.78E-03
12/15/2009		205	68	140	27000	7.82E-02	110 U	0.00E+00	14000	3.01E-02	110 U	0.00E+00	3100	6.52E-03	16000	3.37E-02	110 U	0.00E+00	950	3.42E-03
12/29/2009		539	180	140	24000	6.95E-02	100 U	0.00E+00	9100	1.95E-02	100 U	0.00E+00	2100	4.42E-03	9200	1.94E-02	100 U	0.00E+00	1000	3.60E-03
1/13/2010		903	301	150	9100	2.82E-02	35 U	0.00E+00	3700	8.52E-03	35 U	0.00E+00	880	1.98E-03	3200	7.21E-03	35 U	0.00E+00	610	2.35E-03
1/27/2010		1224	408	150	13000	4.03E-02	40 U	0.00E+00	4300	9.90E-03	40 U	0.00E+00	1100	2.48E-03	3900	8.79E-03	40 U	0.00E+00	600	2.31E-03
1/27/2010	Dup	1224	408	150	14000	4.34E-02	40 U	0.00E+00	4800	1.10E-02	40 U	0.00E+00	1200	2.71E-03	4400	9.92E-03	40 U	0.00E+00	630	2.43E-03
2/24/2010		1893	631	150	8000	2.48E-02	22 U	0.00E+00	3000	6.90E-03	22 U	0.00E+00	520	1.17E-03	2300	5.19E-03	22 U	0.00E+00	200	7.71E-04
3/15/2010		2345	782	140	17000	4.92E-02	48 U	0.00E+00	8000	1.72E-02	48 U	0.00E+00	1100	2.31E-03	6300	1.33E-02	48 U	0.00E+00	860	3.10E-03
4/14/2010		2804	935	150	8400	2.61E-02	23 U	0.00E+00	2200	5.06E-03	23 U	0.00E+00	480	1.08E-03	2000	4.51E-03	23 U	0.00E+00	1300	5.01E-03
5/13/2010		3495	1165	140	8000	2.32E-02	11 U	0.00E+00	3100	6.66E-03	11 U	0.00E+00	480	1.01E-03	2800	5.89E-03	11 U	0.00E+00	380	1.37E-03
6/21/2010		4430	1477	108	5800	1.30E-02	23 U	0.00E+00	3000 J	4.97E-03	23 U	0.00E+00	360 J	5.84E-04	2100	3.41E-03	23 U	0.00E+00	300	8.33E-04
7/21/2010		5058	1686	140	4500	1.30E-02	14 U	0.00E+00	1600	3.44E-03	14 U	0.00E+00	280	5.89E-04	1200	2.53E-03	14 U	0.00E+00	260	9.36E-04
8/23/2010		5784	1928	0	7100	0.00E+00	20 U	0.00E+00	2700	0.00E+00	20 U	0.00E+00	290	0.00E+00	1400	0.00E+00	20 U	0.00E+00	620	0.00E+00
9/23/2010		6523	2174	145	4300	1.29E-02	12 U	0.00E+00	1600	3.56E-03	12 U	0.00E+00	270	5.88E-04	940	2.05E-03	12 U	0.00E+00	290	1.08E-03
10/22/2010		7219	2406	140	2500	7.24E-03	10 U	0.00E+00	890	1.91E-03	10 U	0.00E+00	110	2.31E-04	470	9.89E-04	10 U	0.00E+00	180	6.48E-04
11/15/2010		7794	2598	140	3200	9.27E-03	11 U	0.00E+00	1100	2.36E-03	11 U	0.00E+00	130	2.74E-04	440	9.26E-04	11 U	0.00E+00	120	4.32E-04
12/22/2010		8508	2955	150	4000	1.24E-02	14 U	0.00E+00	1500	3.45E-03	14 U	0.00E+00	240	5.41E-04	730	1.65E-03	14 U	0.00E+00	72	2.78E-04
1/24/2011		9302	3352	170	780	2.74E-03	2.7 U	0.00E+00	800	2.09E-03	2.7 U	0.00E+00	22	5.62E-05	390	9.96E-04	2.7 U	0.00E+00	26	1.14E-04
2/25/2011		10071	3737	165	1500	5.12E-03	4.0 U	0.00E+00	1100	2.78E-03	4.0 U	0.00E+00	44	1.09E-04	560	1.39E-03	4.0 U	0.00E+00	32	1.36E-04
3/18/2011		10573	3988	165	370	1.26E-03	1.0 U	0.00E+00	160	4.05E-04	1.0 U	0.00E+00	11	2.73E-05	62	1.54E-04	1.0 U	0.00E+00	19	8.06E-05
4/15/2011		11241	4322	160	300 J,B	9.93E-04	1.0 U	0.00E+00	95	2.33E-04	1.0 U	0.00E+00	12	2.89E-05	41	9.86E-05	1.0 U	0.00E+00	20	8.23E-05
5/19/2011		12061	4732	160	93	3.08E-04	1.1 U	0.00E+00	39	9.57E-05	1.1 U	0.00E+00	3.5	8.42E-06	21	5.05E-05	1.1 U	0.00E+00	14	5.76E-05
6/16/2011		12722	5062	170	99	3.48E-04	1.2 U	0.00E+00	48	1.25E-04	1.2 U	0.00E+00	2.4	6.13E-06	21	5.37E-05	1.2 U	0.00E+00	30	1.31E-04
7/15/2011		13417	4472	170	77	2.71E-04	1.2 U	0.00E+00	25	6.52E-05	1.2 U	0.00E+00	1.7	4.34E-06	18	4.60E-05	1.2 U	0.00E+00	30	1.31E-04
8/22/2011		14324	4775	170	78	2.74E-04	1.2 U	0.00E+00	31	8.09E-05	1.2 U	0.00E+00	1.2	3.07E-06	17	4.34E-05	1.2 U	0.00E+00	54	2.36E-04
9/15/2011		14905	4968	170	69	2.43E-04	1.1 U	0.00E+00	20	5.22E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	12	3.07E-05	1.1 U	0.00E+00	32	1.40E-04
10/14/2011		15598	5199	160	43	1.42E-04	0.82 U	0.00E+00	12	2.95E-05	0.82 U	0.00E+00	0.82 U	0.00E+00	6.3	1.52E-05	0.82 U	0.00E+00	8.4	3.46E-05
11/21/2011		16510	5503	170	28 J,B	9.85E-05	1.6 U	0.00E+00	7.7	2.01E-05	1.6 U	0.00E+00	1.6 U	0.00E+00	4.1	1.05E-05	1.6 U	0.00E+00	7.0	3.06E-05
12/14/2011		17010	5670	170	26	9.14E-05	0.76 U	0.00E+00	5.2	1.36E-05	0.76 U	0.00E+00	2.4	6.13E-06	4.2	1.07E-05	0.76 U	0.00E+00	6.9	3.02E-05
1/19/2012		17923	5974	170	25	8.79E-05	0.74 U	0.00E+00	6.9	1.80E-05	0.74 U	0.00E+00	0.74 U	0.00E+00	3.0	7.67E-06	0.74 U	0.00E+00	4.4	1.92E-05
2/15/2012		18566	6189	170	31	1.09E-04	0.73 U	0.00E+00	7.6	1.98E-05	0.73 U	0.00E+00	1.9	4.85E-06	3.5	8.94E-06	0.73 U	0.00E+00	4.8	2.10E-05
3/15/2012		19262	6421	170	29 J,B	1.02E-04	0.71 U	0.00E+00	8.1	2.11E-05	0.71 U	0.00E+00	0.71 U	0.00E+00	3.7	9.45E-06	0.71 U	0.00E+00	3.9	1.70E-05
4/19/2012		20102	6701	160	31	1.03E-04	0.76 U	0.00E+00	11	2.70E-05	0.76 U	0.00E+00	0.76 U	0.00E+00	4.6	1.11E-05	0.76 U	0.00E+00	8.2	3.37E-05
5/16/2012		20748	6916	160	28	9.27E-05	0.78 U	0.00E+00	11	2.70E-05	0.78 U	0.00E+00	0.78 U	0.00E+00	5.0	1.20E-05	0.78 U	0.00E+00	11	4.53E-05
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		21282	7094	160	370	1.22E-03	1.3 U	0.00E+00	160	3.93E-04	1.3 U	0.00E+00	4.5	1.08E-05	11	2.65E-05	1.3 U	0.00E+00	16	6.58E-05
9/17/2012		21952	7317	160	180	5.96E-04	1.1 U	0.00E+00	36	8.84E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	10	2.40E-05	1.1 U	0.00E+00	20	8.23E-05
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		21959	7320	160	430	1.42E-03	1.1 U	0.00E+00	140	3.44E-04	1.1 U	0.00E+00	12	2.89E-05	13	3.13E-05	1.1 U	0.00E+00	41	1.69E-04
12/14/2012		22554	7518	170	610	2.14E-03	1.9 U	0.00E+00	11	2.87E-05	1.9 U	0.00E+00	12	3.07E-05	4.0	1.02E-05	1.9 U	0.00E+00	5.3	2.32E-05
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/13		22556	7518	160	1.9	6.29E-06	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
4/11/13		23581	7723	160	140	4.63E-04	1.2 U	0.00E+00	10	2.45E-05	1.2 U	0.00E+00	4	9.62E-06	3.3	7.94E-06	1.2 U	0.00E+00	5.4	2.22E-05
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/13		23583	7724	160	210	6.95E-04	1.1 U	0.00E+00	62	1.52E-04	1.2 U	0.00E+00	3.9	9.38E-06	5.4	1.30E-05	1.1 U	0.00E+00	6.4	2.63E-05

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.2
Cell 2 - Phase 1 SVE System Data
December 2009 - May 2013
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
12/11/2009		178	59	150	330	1.01E-03	4400	6.40E-03	86 U	0.00E+00	86 U	0.00E+00	86 U	0.00E+00	210	3.15E-04	86 U	0.00E+00	200	4.29E-04
12/15/2009		205	68	140	240	6.84E-04	3500	4.75E-03	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00	370	5.18E-04	110 U	0.00E+00	140	2.80E-04
12/29/2009		539	180	140	240	6.84E-04	1500	2.03E-03	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	120	1.68E-04	100 U	0.00E+00	100 U	0.00E+00
1/13/2010		903	301	150	130	3.97E-04	250	3.63E-04	35 U	0.00E+00	35 U	0.00E+00	35 U	0.00E+00	170	2.55E-04	35 U	0.00E+00	35 U	0.00E+00
1/27/2010		1224	408	150	150	4.58E-04	200	2.91E-04	40 U	0.00E+00	40 U	0.00E+00	40 U	0.00E+00	120	1.80E-04	40 U	0.00E+00	40 U	0.00E+00
1/27/2010	Dup	1224	408	150	180	5.50E-04	240	3.49E-04	40 U	0.00E+00	40 U	0.00E+00	40 U	0.00E+00	130	1.95E-04	40 U	0.00E+00	40 U	0.00E+00
2/24/2010		1893	631	150	98	2.99E-04	73	1.06E-04	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	38	5.70E-05	22 U	0.00E+00	22 U	0.00E+00
3/15/2010		2345	782	140	210	5.99E-04	62	8.41E-05	48 U	0.00E+00	48 U	0.00E+00	48 U	0.00E+00	180	2.52E-04	48 U	0.00E+00	48 U	0.00E+00
4/14/2010		2804	935	150	190	5.81E-04	69	1.00E-04	23 U	0.00E+00	23 U	0.00E+00	23 U	0.00E+00	23 U	0.00E+00	23 U	0.00E+00	23 U	0.00E+00
5/13/2010		3495	1165	140	78	2.22E-04	42	5.70E-05	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	20	2.80E-05	11 U	0.00E+00	11 U	0.00E+00
6/21/2010		4430	1477	108	88	1.94E-04	23 U	0.00E+00	23 UJ	0.00E+00	23 U	0.00E+00	23 U	0.00E+00	33 J	3.56E-05	23 U	0.00E+00	23 U	0.00E+00
7/21/2010		5058	1686	140	80	2.28E-04	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00
8/23/2010		5784	1928	0	150	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	21	0.00E+00	20 U	0.00E+00	20 U	0.00E+00
9/23/2010		6523	2174	145	74	2.19E-04	12	1.69E-05	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00
10/22/2010		7219	2406	140	42	1.20E-04	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00
11/15/2010		7794	2598	140	35	9.98E-05	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00
12/22/2010		8508	2955	150	27	8.25E-05	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00
1/24/2011		9302	3352	170	9.0	3.12E-05	2.7 U	0.00E+00	2.7 U	0.00E+00	2.7 U	0.00E+00	2.7 U	0.00E+00	2.7 U	0.00E+00	2.7 U	0.00E+00	3.1	7.53E-06
2/25/2011		10071	3737	165	15	5.04E-05	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00
3/18/2011		10573	3988	165	7.3	2.45E-05	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	4.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00
4/15/2011		11241	4322	160	8.5	2.77E-05	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	4.1 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00
5/19/2011		12061	4732	160	11	3.59E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	8.1	1.57E-05	1.1 U	0.00E+00
6/16/2011		12722	5062	170	15	5.19E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.9	3.91E-06	1.2 U	0.00E+00
7/15/2011		13417	4472	170	21	7.27E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	5.3	1.09E-05	1.2 U	0.00E+00
8/22/2011		14324	4775	170	22	7.62E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.6	3.29E-06	1.2 U	0.00E+00
9/15/2011		14905	4968	170	18	6.23E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	4.6	9.47E-06	1.1 U	0.00E+00
10/14/2011		15598	5199	160	9.1	2.97E-05	0.82 U	0.00E+00	0.82 U	0.00E+00	0.82 U	0.00E+00	0.82 U	0.00E+00	3.3 U	0.00E+00	0.82 U	0.00E+00	0.82 U	0.00E+00
11/21/2011		16510	5503	170	5.1	1.77E-05	1.6 U	0.00E+00	1.6 UJ	0.00E+00	1.6 U	0.00E+00	1.6 U	0.00E+00	6.4 U	0.00E+00	1.6 U	0.00E+00	1.6 U	0.00E+00
12/14/2011		17010	5670	170	3.4	1.18E-05	0.76 U	0.00E+00	7.6 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	3.0 U	0.00E+00	0.78	1.61E-06	0.76 U	0.00E+00
1/19/2012		17923	5974	170	2.9	1.00E-05	0.74 U	0.00E+00	1.9	4.25E-06	0.74 U	0.00E+00	0.74 U	0.00E+00	3.0 U	0.00E+00	0.74 U	0.00E+00	1.0	2.43E-06
2/15/2012		18566	6189	170	2.2	7.62E-06	0.73 U	0.00E+00	0.73 U	0.00E+00	0.73 U	0.00E+00	0.73 U	0.00E+00	2.9 U	0.00E+00	0.73 U	0.00E+00	0.73 U	0.00E+00
3/15/2012		19262	6421	170	2.4	8.31E-06	0.71 U	0.00E+00	0.71 U	0.00E+00	0.71 U	0.00E+00	0.71 U	0.00E+00	2.8 U	0.00E+00	0.71 U	0.00E+00	1.6	3.89E-06
4/19/2012		20102	6701	160	4.3	1.40E-05	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	3.0 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00
5/16/2012		20748	6916	160	5.3	1.73E-05	0.78 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00	3.1 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		21282	7094	160	12	3.91E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
9/17/2012		21952	7317	160	29	9.45E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		21959	7320	160	26	8.47E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
12/14/2012		22554	7518	170	17	5.89E-05	1.9 U	0.00E+00	19 U	0.00E+00	1.9 U	0.00E+00	1.9 U	0.00E+00	7.4 U	0.00E+00	1.9 U	0.00E+00	1.9 U	0.00E+00
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/13		22556	7518	160	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	5 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
4/11/13		23581	7723	160	8	2.61E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/13		23583	7724	160	9.5	3.10E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	18	2.88E-05	1.1 U	0.00E+00	1.1 U	0.00E+00

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.2
Cell 2 - Phase 1 SVE System Data
December 2009 - May 2013
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
12/11/2009		178	59	150	86 U	0.00E+00	240	5.93E-04	110	2.72E-04	340 U	0.00E+00	86 U	0.00E+00	2.54E-01	15.05
12/15/2009		205	68	140	110 U	0.00E+00	230	5.30E-04	110 U	0.00E+00	430 U	0.00E+00	110 U	0.00E+00	1.59E-01	16.48
12/29/2009		539	180	140	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	420 U	0.00E+00	100 U	0.00E+00	1.19E-01	29.76
1/13/2010		903	301	150	35 U	0.00E+00	35 U	0.00E+00	35 U	0.00E+00	140 U	0.00E+00	35 U	0.00E+00	4.93E-02	35.75
1/27/2010		1224	408	150	40 U	0.00E+00	40 U	0.00E+00	40 U	0.00E+00	160 U	0.00E+00	40 U	0.00E+00	6.47E-02	42.68
1/27/2010	Dup	1224	408	150	40 U	0.00E+00	40 U	0.00E+00	40 U	0.00E+00	160 U	0.00E+00	40 U	0.00E+00	7.06E-02	43.31
2/24/2010		1893	631	150	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	87 U	0.00E+00	22 U	0.00E+00	3.93E-02	51.44
3/15/2010		2345	782	140	48 U	0.00E+00	48 U	0.00E+00	48 U	0.00E+00	190 U	0.00E+00	48 U	0.00E+00	8.60E-02	64.40
4/14/2010		2804	935	150	23 U	0.00E+00	23 U	0.00E+00	23 U	0.00E+00	92 U	0.00E+00	23 U	0.00E+00	4.24E-02	70.89
5/13/2010		3495	1165	140	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	43 U	0.00E+00	11 U	0.00E+00	3.84E-02	79.74
6/21/2010		4430	1477	108	23 U	0.00E+00	23 U	0.00E+00	23 U	0.00E+00	92 U	0.00E+00	23 U	0.00E+00	2.30E-02	86.90
7/21/2010		5058	1686	140	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	58 U	0.00E+00	14 U	0.00E+00	2.07E-02	91.24
8/23/2010		5784	1928	0	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	81 U	0.00E+00	20 U	0.00E+00	0.00E+00	91.24
9/23/2010		6523	2174	145	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	47 U	0.00E+00	12 U	0.00E+00	2.04E-02	96.27
10/22/2010		7219	2406	140	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	42 U	0.00E+00	10 U	0.00E+00	1.11E-02	98.85
11/15/2010		7794	2598	140	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	44 U	0.00E+00	11 U	0.00E+00	1.34E-02	101.41
12/22/2010		8508	2955	150	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	56 U	0.00E+00	14 U	0.00E+00	1.84E-02	107.99
1/24/2011		9302	3352	170	2.7 U	0.00E+00	2.7 U	0.00E+00	2.7 U	0.00E+00	11 U	0.00E+00	11	2.09E-05	6.06E-03	110.39
2/25/2011		10071	3737	165	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	9.59E-03	114.08
3/18/2011		10573	3988	165	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	15	2.23E-05	4.0 U	0.00E+00	1.98E-03	114.57
4/15/2011		11241	4322	160	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	8.2 J,B	1.18E-05	4.1 U	0.00E+00	1.48E-03	115.07
5/19/2011		12061	4732	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11	1.58E-05	4.5 U	0.00E+00	5.87E-04	115.31
6/16/2011		12722	5062	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	19	2.91E-05	4.7 U	0.00E+00	7.49E-04	115.55
7/15/2011		13417	4472	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	19	2.91E-05	4.6 U	0.00E+00	6.30E-04	115.18
8/22/2011		14324	4775	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	6.8 J,B	1.04E-05	4.7 U	0.00E+00	7.28E-04	115.40
9/15/2011		14905	4968	170	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11	1.68E-05	4.5 U	0.00E+00	5.54E-04	115.51
10/14/2011		15598	5199	160	0.82 U	0.00E+00	0.82 U	0.00E+00	0.82 U	0.00E+00	5.0	7.20E-06	3.3 U	0.00E+00	2.58E-04	115.57
11/21/2011		16510	5503	170	1.6 U	0.00E+00	1.6 U	0.00E+00	1.6 U	0.00E+00	6.4 UJ	0.00E+00	6.4 U	0.00E+00	1.77E-04	115.62
12/14/2011		17010	5670	170	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	7.6 UJ	0.00E+00	3.0 U	0.00E+00	1.65E-04	115.65
1/19/2012		17923	5974	170	0.79	2.21E-06	1.5	4.20E-06	1.1	3.08E-06	14	2.14E-05	3.0 U	0.00E+00	1.80E-04	115.71
2/15/2012		18566	6189	170	0.73 U	0.00E+00	0.73 U	0.00E+00	0.73 U	0.00E+00	7.9	1.21E-05	2.9 U	0.00E+00	1.83E-04	115.74
3/15/2012		19262	6421	170	0.71 U	0.00E+00	0.71 U	0.00E+00	0.71 U	0.00E+00	8.9	1.36E-05	2.8 U	0.00E+00	1.75E-04	115.79
4/19/2012		20102	6701	160	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	1.88E-04	115.84
5/16/2012		20748	6916	160	0.78 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00	3.1 U	0.00E+00	3.1 U	0.00E+00	1.94E-04	115.88
Pulse -off period June 1, 2012 to August 14, 2012																
8/14/2012		21282	7094	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	21	3.03E-05	5.3 U	0.00E+00	1.79E-03	116.20
9/17/2012		21952	7317	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	8.85E-04	116.40
Pulse -off period September 17, 2012 to November 15, 2012																
11/15/2012		21959	7320	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	2.08E-03	116.40
12/14/2012		22554	7518	170	1.9 U	0.00E+00	1.9 U	0.00E+00	1.9 U	0.00E+00	19 U	0.00E+00	7.4 U	0.00E+00	2.30E-03	116.86
Pulse -off period December 14, 2012 to February 26, 2013																
2/26/13		22556	7518	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	5 U	0.00E+00	6.29E-06	116.86
4/11/13		23581	7723	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	5.54E-04	116.97
Pulse -off period April 11, 2013 to May 10, 2013																
5/10/13		23583	7724	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	9.56E-04	116.97

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.3
Cell 3 - Phase 1 SVE System Data
December 2009 - May 2013
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
12/14/2009		181	60	140	94000	2.72E-01	270 U	0.00E+00	1100	2.36E-03	270 U	0.00E+00	2300	4.84E-03	8100	1.70E-02	270 U	0.00E+00	750	2.70E-03
12/16/2009		229	76	150	46000	1.43E-01	110 U	0.00E+00	710	1.63E-03	110 U	0.00E+00	1100	2.48E-03	5500	1.24E-02	110 U	0.00E+00	400	1.54E-03
1/5/2010		707	236	140	42000	1.22E-01	150 U	0.00E+00	290	6.23E-04	150 U	0.00E+00	980	2.06E-03	1500	3.16E-03	150 U	0.00E+00	240	8.64E-04
1/21/2010		1084	361	150	15000	4.65E-02	42 U	0.00E+00	260	5.98E-04	42 U	0.00E+00	280	6.31E-04	1600	3.61E-03	42 U	0.00E+00	170	6.56E-04
1/21/2010	Dup	1084	361	150	16000	4.96E-02	43 U	0.00E+00	280	6.44E-04	43 U	0.00E+00	290	6.54E-04	1700	3.83E-03	43 U	0.00E+00	170	6.56E-04
2/24/2010		1893	631	150	11000	3.41E-02	28 U	0.00E+00	240	5.52E-04	28 U	0.00E+00	280	6.31E-04	1100	2.48E-03	28 U	0.00E+00	140	5.40E-04
3/15/2010		2345	782	140	20000	5.79E-02	21 U	0.00E+00	400	8.59E-04	21 U	0.00E+00	510	1.07E-03	1900	4.00E-03	21 U	0.00E+00	280	1.01E-03
4/14/2010		2804	935	150	31000	9.62E-02	100 U	0.00E+00	380	8.75E-04	100 U	0.00E+00	1100	2.48E-03	1200	2.71E-03	100 U	0.00E+00	820	3.16E-03
5/13/2010		3495	1165	140	8300	2.40E-02	12 U	0.00E+00	220	4.73E-04	12 U	0.00E+00	190	4.00E-04	960	2.02E-03	12 U	0.00E+00	200	7.20E-04
6/21/2010		4430	1477	108	7200	1.61E-02	21 U	0.00E+00	220	3.65E-04	21 U	0.00E+00	150	2.43E-04	660	1.07E-03	21 U	0.00E+00	160	4.44E-04
7/21/2010		5058	1686	140	6100	1.77E-02	20 U	0.00E+00	120	2.58E-04	20 U	0.00E+00	130	2.74E-04	460	9.68E-04	20 U	0.00E+00	120	4.32E-04
8/23/2010		*5784*	*1928*	*0*	*8000*	*0.00E+00*	*20 U*	*0.00E+00*	*200*	*0.00E+00*	*20 U*	*0.00E+00*	*120*	*0.00E+00*	*490*	*0.00E+00*	*20 U*	*0.00E+00*	*220*	*0.00E+00*
9/23/2010		6523	2174	145	6600	1.98E-02	11 U	0.00E+00	140	3.11E-04	11 U	0.00E+00	140	3.05E-04	440	9.59E-04	11 U	0.00E+00	160	5.96E-04
10/22/2010		7219	2406	140	3700	1.07E-02	14 U	0.00E+00	91	1.95E-04	14 U	0.00E+00	66	1.39E-04	210	4.42E-04	14 U	0.00E+00	110	3.96E-04
11/15/2010		7794	2598	140	4600	1.33E-02	15 U	0.00E+00	120	2.58E-04	15 U	0.00E+00	64	1.35E-04	170	3.58E-04	15 U	0.00E+00	88	3.17E-04
12/22/2010		8508	2777	150	5600	1.74E-02	20 U	0.00E+00	150	3.45E-04	20 U	0.00E+00	120	2.71E-04	330	7.44E-04	20 U	0.00E+00	56	2.16E-04
1/24/2011		9302	2975	170	2200	7.74E-03	8.3 U	0.00E+00	130	3.39E-04	8.3 U	0.00E+00	27	6.90E-05	200	5.11E-04	8.3 U	0.00E+00	35	1.53E-04
2/25/2011		10071	3167	165	1300	4.44E-03	4.0 U	0.00E+00	45	1.14E-04	4.0 U	0.00E+00	25	6.20E-05	72	1.79E-04	4.0 U	0.00E+00	28	1.19E-04
3/18/2011		10573	3293	165	360	1.23E-03	1.3 U	0.00E+00	24	6.08E-05	1.3 U	0.00E+00	5.4	1.34E-05	35	8.68E-05	1.3 U	0.00E+00	13	5.51E-05
4/15/2011		11241	3460	160	160 J,B	5.29E-04	1.0 U	0.00E+00	17	4.17E-05	1.0 U	0.00E+00	2.8	6.73E-06	28	6.73E-05	1.0 U	0.00E+00	15	6.17E-05
5/19/2011		12061	3665	160	64	2.12E-04	1.2 U	0.00E+00	10	2.45E-05	1.2 U	0.00E+00	1.4	3.37E-06	12	2.89E-05	1.2 U	0.00E+00	9.6	3.95E-05
6/16/2011		12722	3830	170	160	5.63E-04	1.2 U	0.00E+00	280	7.30E-04	1.2 U	0.00E+00	2.5	6.39E-06	34	8.69E-05	1.2 U	0.00E+00	61	2.67E-04
7/15/2011		13417	4472	170	190	6.68E-04	1.2 U	0.00E+00	8.3	2.16E-05	1.2 U	0.00E+00	2.8	7.15E-06	23	5.88E-05	1.2 U	0.00E+00	22	9.62E-05
8/22/2011		14324	4775	170	1600	5.63E-03	4.3 U	0.00E+00	19	4.96E-05	4.3 U	0.00E+00	21	5.37E-05	130	3.32E-04	4.3 U	0.00E+00	39	1.70E-04
9/15/2011		14905	4968	170	800	2.81E-03	3.7 U	0.00E+00	9.5	2.48E-05	3.7 U	0.00E+00	12	3.07E-05	62	1.58E-04	3.7 U	0.00E+00	24	1.05E-04
10/14/2011		15598	5199	160	750	2.48E-03	3.0 U	0.00E+00	10	2.45E-05	3.0 U	0.00E+00	13	3.13E-05	37	8.90E-05	3.0 U	0.00E+00	15	6.17E-05
11/21/2011		16510	5503	170	380	1.34E-03	1.4 U	0.00E+00	6.6	1.72E-05	1.4 U	0.00E+00	5.6	1.43E-05	24	6.13E-05	1.4 U	0.00E+00	7.9	3.45E-05
12/14/2011		17010	5670	170	830	2.92E-03	3.5 U	0.00E+00	8.7	2.27E-05	3.5 U	0.00E+00	70	1.79E-04	33	8.43E-05	3.5 U	0.00E+00	6.9	3.02E-05
1/19/2012		17923	5974	170	800	2.81E-03	3.0 U	0.00E+00	12	3.13E-05	3.0 U	0.00E+00	13	3.32E-05	33	8.43E-05	3.0 U	0.00E+00	6.4	2.80E-05
2/15/2012		18566	6189	170	1600	5.63E-03	4.5 U	0.00E+00	22	5.74E-05	4.5 U	0.00E+00	260	6.64E-04	95	2.43E-04	4.5 U	0.00E+00	6.7	2.93E-05
3/15/2012		19262	6421	170	1600	5.63E-03	5.1 U	0.00E+00	28	7.30E-05	5.1 U	0.00E+00	22	5.62E-05	59	1.51E-04	5.1 U	0.00E+00	7.3	3.19E-05
4/19/2012		20102	6701	160	580	1.92E-03	1.8 U	0.00E+00	14	3.44E-05	1.8 U	0.00E+00	5.8	1.39E-05	23	5.53E-05	1.8 U	0.00E+00	11	4.53E-05
5/16/2012		20748	6916	160	300	9.93E-04	0.80 U	0.00E+00	9.3	2.28E-05	0.80 U	0.00E+00	3.7	8.90E-06	21	5.05E-05	0.80 U	0.00E+00	7.5	3.09E-05
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		21282	7094	160	1200	3.97E-03	4.7 U	0.00E+00	20	4.91E-05	4.7 U	0.00E+00	17	4.09E-05	8.4	2.02E-05	4.7 U	0.00E+00	26	1.07E-04
9/17/2012		21952	7317	160	5000	1.65E-02	16 U	0.00E+00	38	9.33E-05	16 U	0.00E+00	16 U	0.00E+00	130	3.13E-04	16 U	0.00E+00	100	4.11E-04
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		21959	7320	160	640	2.12E-03	2.1 U	0.00E+00	130	3.19E-04	2.1 U	0.00E+00	22	5.29E-05	18	4.33E-05	2.1 U	0.00E+00	18	7.40E-05
12/14/2012		22554	7518	170	1100	3.87E-03	4.6 U	0.00E+00	17 J	4.43E-05	4.6 U	0.00E+00	15	3.83E-05	70 J	1.79E-04	4.6 U	0.00E+00	7.1 J	3.10E-05
12/14/2012	Dup	22554	7518	170	1100 J	3.87E-03	4.5 U	0.00E+00	25 J	6.52E-05	4.5 U	0.00E+00	17 J	4.34E-05	36 J	9.20E-05	4.5 U	0.00E+00	49 J	2.14E-04
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/13		22556	7519	160	640	2.12E-03	2.4 U	0.00E+00	12	2.95E-05	2.4 U	0.00E+00	8	1.92E-05	23	5.53E-05	2.4 U	0.00E+00	15	6.17E-05
4/11/13		23581	8134	160	180	5.96E-04	1.2 U	0.00E+00	7	1.72E-05	1.2 U	0.00E+00	2.8	6.73E-06	28	6.73E-05	1.2 U	0.00E+00	4.6	1.89E-05
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/13		23583	8135	160	200	6.62E-04	1.1 U	0.00E+00	5.5	1.35E-05	1.1 U	0.00E+00	3.3	7.94E-06	22	5.29E-05	1.1 U	0.00E+00	4.4	1.81E-05

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.3
Cell 3 - Phase 1 SVE System Data
December 2009 - May 2013
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
12/14/2009		181	60	140	1000	2.85E-03	270 U	0.00E+00	270 U	0.00E+00	270 U	0.00E+00	270 U	0.00E+00	270 U	0.00E+00	270 U	0.00E+00	270 U	0.00E+00
12/16/2009		229	76	150	550	1.68E-03	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00
1/5/2010		707	236	140	250	7.13E-04	150 U	0.00E+00	220	4.06E-04	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00
1/21/2010		1084	361	150	140	4.28E-04	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00
1/21/2010	Dup	1084	361	150	140	4.28E-04	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00
2/24/2010		1893	631	150	66	2.02E-04	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00
3/15/2010		2345	782	140	120	3.42E-04	51	6.92E-05	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00
4/14/2010		2804	935	150	190	5.81E-04	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00
5/13/2010		3495	1165	140	43	1.23E-04	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00
6/21/2010		4430	1477	108	55	1.21E-04	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00
7/21/2010		5058	1686	140	44	1.25E-04	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00
8/23/2010		5784	1928	0	66	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00
9/23/2010		6523	2174	145	50	1.48E-04	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00
10/22/2010		7219	2406	140	31	8.84E-05	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00
11/15/2010		7794	2598	140	29	8.27E-05	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00
12/22/2010		8508	2777	150	21	6.42E-05	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00
1/24/2011		9302	2975	170	17	5.89E-05	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00
2/25/2011		10071	3167	165	16	5.38E-05	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00
3/18/2011		10573	3293	165	5.9	1.98E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.4 U	0.00E+00	1.9	3.80E-06	1.3 U	0.00E+00
4/15/2011		11241	3460	160	7.7	2.51E-05	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	4.1 U	0.00E+00	2.6	5.04E-06	1.0 U	0.00E+00
5/19/2011		12061	3665	160	6.9	2.25E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.9	3.68E-06	1.2 U	0.00E+00
6/16/2011		12722	3830	170	9.8	3.39E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.6	3.29E-06	1.2 U	0.00E+00
7/15/2011		13417	4472	170	9.3	3.22E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
8/22/2011		14324	4775	170	21	7.27E-05	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	17 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00
9/15/2011		14905	4968	170	14	4.85E-05	3.7 U	0.00E+00	3.7 U	0.00E+00	3.7 U	0.00E+00	3.7 U	0.00E+00	15 U	0.00E+00	4.1	8.44E-06	3.7 U	0.00E+00
10/14/2011		15598	5199	160	13	4.24E-05	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	12 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00
11/21/2011		16510	5503	170	9.2	3.19E-05	1.4 U	0.00E+00	1.4 UJ	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.5 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00
12/14/2011		17010	5670	170	22	7.62E-05	3.5 U	0.00E+00	35 U	0.00E+00	3.5 U	0.00E+00	3.5 U	0.00E+00	14 U	0.00E+00	3.5 U	0.00E+00	3.5 U	0.00E+00
1/19/2012		17923	5974	170	12	4.16E-05	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	12 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00
2/15/2012		18566	6189	170	24	8.31E-05	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	18 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00
3/15/2012		19262	6421	170	30	1.04E-04	5.1 U	0.00E+00	5.1 U	0.00E+00	5.1 U	0.00E+00	5.1 U	0.00E+00	20 U	0.00E+00	5.1 U	0.00E+00	5.1 U	0.00E+00
4/19/2012		20102	6701	160	19	6.19E-05	1.8 U	0.00E+00	1.8 U	0.00E+00	1.8 U	0.00E+00	1.8 U	0.00E+00	7.3 U	0.00E+00	1.8 U	0.00E+00	1.8 U	0.00E+00
5/16/2012		20748	6916	160	18	5.87E-05	0.80 U	0.00E+00	0.80 U	0.00E+00	0.80 U	0.00E+00	0.80 U	0.00E+00	3.2 U	0.00E+00	0.80 U	0.00E+00	0.80 U	0.00E+00
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		21282	7094	160	25	8.15E-05	4.7 U	0.00E+00	47 U	0.00E+00	4.7 U	0.00E+00	4.7 U	0.00E+00	19 U	0.00E+00	4.7 U	0.00E+00	4.7 U	0.00E+00
9/17/2012		21952	7317	160	180	5.87E-04	16 U	0.00E+00	160 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	65 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		21959	7320	160	39	1.27E-04	2.1 U	0.00E+00	21 U	0.00E+00	2.1 U	0.00E+00	2.1 U	0.00E+00	8.5 U	0.00E+00	2.1 U	0.00E+00	2.1 U	0.00E+00
12/14/2012		22554	7518	170	90 J	3.12E-04	4.6 U	0.00E+00	46 U	0.00E+00	4.6 U	0.00E+00	4.6 U	0.00E+00	18 U	0.00E+00	4.6 U	0.00E+00	4.6 U	0.00E+00
12/14/2012	Dup	22554	7518	170	52 J	1.80E-04	4.5 U	0.00E+00	45 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	18 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/13		22556	7519	160	36	1.17E-04	2.4 U	0.00E+00	24 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	9.5 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00
4/11/13		23581	8134	160	15	4.89E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/13		23583	8135	160	13	4.24E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results *are used in the mass calculations.*

Table 4.3
Cell 3 - Phase 1 SVE System Data
December 2009 - May 2013
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
12/14/2009		181	60	140	270 U	0.00E+00	1600	3.69E-03	510	1.18E-03	1100 U	0.00E+00	270 U	0.00E+00	3.07E-01	18.51
12/16/2009		229	76	150	110 U	0.00E+00	540	1.33E-03	240	5.93E-04	590	7.97E-04	110 U	0.00E+00	1.65E-01	21.16
1/5/2010		707	236	140	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00	590 U	0.00E+00	150 U	0.00E+00	1.29E-01	41.78
1/21/2010		1084	361	150	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00	170 U	0.00E+00	42 U	0.00E+00	5.25E-02	48.37
1/21/2010	Dup	1084	361	150	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00	170 U	0.00E+00	43 U	0.00E+00	5.59E-02	48.80
2/24/2010		1893	631	150	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	110 U	0.00E+00	28 U	0.00E+00	3.85E-02	58.76
3/15/2010		2345	782	140	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	83 U	0.00E+00	21 U	0.00E+00	6.53E-02	68.60
4/14/2010		2804	935	150	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	420 U	0.00E+00	100 U	0.00E+00	1.06E-01	84.81
5/13/2010		3495	1165	140	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	48 U	0.00E+00	12 U	0.00E+00	2.78E-02	91.21
6/21/2010		4430	1477	108	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	83 U	0.00E+00	21 U	0.00E+00	1.83E-02	96.92
7/21/2010		5058	1686	140	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	79 U	0.00E+00	20 U	0.00E+00	1.97E-02	101.05
8/23/2010		5784	1928	0	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	81 U	0.00E+00	20 U	0.00E+00	0.00E+00	101.05
9/23/2010		6523	2174	145	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	43 U	0.00E+00	11 U	0.00E+00	2.21E-02	106.49
10/22/2010		7219	2406	140	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	55 U	0.00E+00	14 U	0.00E+00	1.20E-02	109.27
11/15/2010		7794	2598	140	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	59 U	0.00E+00	15 U	0.00E+00	1.45E-02	112.05
12/22/2010		8508	2777	150	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	82 U	0.00E+00	20 U	0.00E+00	1.90E-02	115.44
1/24/2011		9302	2975	170	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00	33 U	0.00E+00	8.3 U	0.00E+00	8.87E-03	117.20
2/25/2011		10071	3167	165	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	4.96E-03	118.15
3/18/2011		10573	3293	165	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	10	1.49E-05	5.4 U	0.00E+00	1.48E-03	118.34
4/15/2011		11241	3460	160	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	7.3 J,B	1.05E-05	4.1 U	0.00E+00	7.48E-04	118.47
5/19/2011		12061	3665	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	4.8 U	0.00E+00	3.34E-04	118.53
6/16/2011		12722	3830	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	6.8	1.04E-05	4.7 U	0.00E+00	1.70E-03	118.81
7/15/2011		13417	4472	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	7.7	1.18E-05	4.8 U	0.00E+00	8.96E-04	119.39
8/22/2011		14324	4775	170	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	17 U	0.00E+00	17 U	0.00E+00	6.30E-03	121.30
9/15/2011		14905	4968	170	3.7 U	0.00E+00	3.7 U	0.00E+00	3.7 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	3.19E-03	121.91
10/14/2011		15598	5199	160	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	2.73E-03	122.54
11/21/2011		16510	5503	170	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.5 UJ	0.00E+00	5.5 U	0.00E+00	1.50E-03	123.00
12/14/2011		17010	5670	170	3.5 U	0.00E+00	3.5 U	0.00E+00	3.5 U	0.00E+00	380 J	5.82E-04	58	1.10E-04	4.00E-03	123.67
1/19/2012		17923	5974	170	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	3.03E-03	124.59
2/15/2012		18566	6189	170	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	18 U	0.00E+00	18 U	0.00E+00	6.70E-03	126.03
3/15/2012		19262	6421	170	5.1 U	0.00E+00	5.1 U	0.00E+00	5.1 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	6.04E-03	127.43
4/19/2012		20102	6701	160	1.8 U	0.00E+00	1.8 U	0.00E+00	1.8 U	0.00E+00	7.3 U	0.00E+00	7.3 U	0.00E+00	2.13E-03	128.02
5/16/2012		20748	6916	160	0.80 U	0.00E+00	0.80 U	0.00E+00	0.80 U	0.00E+00	3.2 U	0.00E+00	3.2 U	0.00E+00	1.16E-03	128.27
Pulse -off period June 1, 2012 to August 14, 2012																
8/14/2012		21282	7094	160	4.7 U	0.00E+00	4.7 U	0.00E+00	4.7 U	0.00E+00	47 U	0.00E+00	19 U	0.00E+00	4.27E-03	129.03
9/17/2012		21952	7317	160	16 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	160 U	0.00E+00	65 U	0.00E+00	1.80E-02	133.04
Pulse -off period September 17, 2012 to November 15, 2012																
11/15/2012		21959	7320	160	2.1 U	0.00E+00	2.1 U	0.00E+00	2.1 U	0.00E+00	21 U	0.00E+00	8.5 U	0.00E+00	2.73E-03	133.05
12/14/2012		22554	7518	170	4.6 U	0.00E+00	4.6 U	0.00E+00	4.6 U	0.00E+00	46 U	0.00E+00	18 U	0.00E+00	4.47E-03	133.94
12/14/2012	Dup	22554	7518	170	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	45 U	0.00E+00	18 U	0.00E+00	4.46E-03	166.42
Pulse -off period December 14, 2012 to February 26, 2013																
2/26/13		22556	7519	160	2.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	24 U	0.00E+00	9.5 U	0.00E+00	2.40E-03	166.43
4/11/13		23581	8134	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	7.55E-04	166.89
Pulse -off period April 11, 2013 to May 10, 2013																
5/10/13		23583	8135	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	7.97E-04	166.89

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.4
Cell 4 - Phase 2 SVE System Data
March 2011 - May 2013
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
3/11/2011		222	222	500	150000	1.55E+00	600 U	0.00E+00	1800	1.38E-02	600 U	0.00E+00	860	6.46E-03	1400	1.05E-02	600 U	0.00E+00
3/18/2011		366	366	500	41000	4.24E-01	150 U	0.00E+00	1000	7.67E-03	150 U	0.00E+00	250	1.88E-03	460	3.46E-03	150 U	0.00E+00
3/18/2011	Dup	366	366	500	40000	4.14E-01	130 U	0.00E+00	1000	7.67E-03	130 U	0.00E+00	300	2.25E-03	480	3.61E-03	130 U	0.00E+00
3/25/2011		463	463	500	22000	2.28E-01	62 U	0.00E+00	980	7.52E-03	62 U	0.00E+00	87	6.54E-04	290	2.18E-03	62 U	0.00E+00
3/30/2011		558	558	500	25000	2.59E-01	68 U	0.00E+00	820	6.29E-03	68 U	0.00E+00	190	1.43E-03	290	2.18E-03	68 U	0.00E+00
4/8/2011		764	764	500	22000	2.28E-01	80 U	0.00E+00	1000	7.67E-03	80 U	0.00E+00	170	1.28E-03	340	2.56E-03	80 U	0.00E+00
4/15/2011		924	924	500	18000	1.86E-01	84 U	0.00E+00	930	7.13E-03	84 U	0.00E+00	110	8.27E-04	280	2.10E-03	84 U	0.00E+00
4/15/2011	Dup	924	924	500	16000 J	1.65E-01	60 U	0.00E+00	820 J	6.29E-03	60 U	0.00E+00	60 UJ	0.00E+00	260 J	1.95E-03	60 U	0.00E+00
5/19/2011		1685	1685	500	11000	1.14E-01	11 U	0.00E+00	640	4.91E-03	11 U	0.00E+00	100	7.52E-04	190	1.43E-03	11 U	0.00E+00
6/16/2011		2191	2191	420	10000	8.69E-02	11 U	0.00E+00	530	3.42E-03	11 U	0.00E+00	110 J	6.94E-04	160	1.01E-03	11 U	0.00E+00
6/16/2011	Dup	2191	2191	420	9600	8.34E-02	11 U	0.00E+00	510	3.29E-03	11 U	0.00E+00	110 J	6.94E-04	160	1.01E-03	11 U	0.00E+00
7/15/2011		2750	2750	420	7600	6.60E-02	24 U	0.00E+00	290	1.87E-03	24 U	0.00E+00	58	3.66E-04	79	4.99E-04	24 U	0.00E+00
8/22/2011		3133	3133	420	9000	7.82E-02	27 U	0.00E+00	410	2.64E-03	27 U	0.00E+00	92	5.81E-04	160	1.01E-03	27 U	0.00E+00
8/22/2011	Dup	3133	3133	420	9000	7.82E-02	22 U	0.00E+00	400	2.58E-03	22 U	0.00E+00	80	5.05E-04	150	9.47E-04	22 U	0.00E+00
9/15/2011		3630	3630	420	7000	6.08E-02	22 U	0.00E+00	250	1.61E-03	22 U	0.00E+00	55	3.47E-04	97	6.12E-04	22 U	0.00E+00
10/14/2011		4226	4226	420	4400	3.82E-02	19 U	0.00E+00	180	1.16E-03	19 U	0.00E+00	59	3.72E-04	60	3.79E-04	19 U	0.00E+00
11/21/2011		5019	5019	380	3700	2.91E-02	16 U	0.00E+00	170	9.91E-04	16 U	0.00E+00	320	1.83E-03	63	3.60E-04	16 U	0.00E+00
12/14/2011		5343	5343	260	4000	2.15E-02	19 U	0.00E+00	140	5.58E-04	19 U	0.00E+00	300	1.17E-03	55	2.15E-04	19 U	0.00E+00
1/19/2012		5993	5993	0	5200	0.00E+00	24 U	0.00E+00	160	0.00E+00	24 U	0.00E+00	58	0.00E+00	38	0.00E+00	24 U	0.00E+00
2/15/2012		6368	6368	260	4200	2.26E-02	19 U	0.00E+00	100	3.99E-04	19 U	0.00E+00	700	2.74E-03	53	2.07E-04	19 U	0.00E+00
3/15/2012		6946	6946	350	4000	2.90E-02	15 U	0.00E+00	120	6.44E-04	15 U	0.00E+00	38	2.00E-04	38	2.00E-04	15 U	0.00E+00
4/19/2012		7629	7629	380	5200	4.09E-02	16 U	0.00E+00	160	9.33E-04	16 U	0.00E+00	42	2.40E-04	43	2.46E-04	16 U	0.00E+00
5/16/2012		8143	8143	420	4100	3.56E-02	15 U	0.00E+00	110	7.09E-04	15 U	0.00E+00	43	2.71E-04	40	2.53E-04	15 U	0.00E+00
Pulse -off period June 1, 2012 to August 14, 2012																		
8/14/2012		8546	8546	420	5000	4.34E-02	16 U	0.00E+00	98	6.32E-04	16 U	0.00E+00	66	4.17E-04	27	1.70E-04	16 U	0.00E+00
9/17/2012		9033	9033	470	3700	3.60E-02	15 U	0.00E+00	140	1.01E-03	15 U	0.00E+00	15 U	0.00E+00	26	1.84E-04	15 U	0.00E+00
Pulse -off period September 17, 2012 to November 15, 2012																		
11/15/2012		9037	9037	420	4900 J	4.26E-02	28 U	0.00E+00	74 J	4.77E-04	28 U	0.00E+00	110 J	6.94E-04	29 J	1.83E-04	28 U	0.00E+00
11/15/2012	Dup	9037	9037	420	8700	7.56E-02	24 U	0.00E+00	200 J	1.29E-03	24 U	0.00E+00	220	1.39E-03	360 J	2.27E-03	24 U	0.00E+00
12/14/2012		9439	9439	150	500	1.55E-03	1.9 U	0.00E+00	14	3.22E-05	1.9 U	0.00E+00	6.8	1.53E-05	18	4.06E-05	1.9 U	0.00E+00
Pulse -off period December 14, 2012 to February 26, 2013																		
2/26/13		9439	9439	0	520	0.00E+00	2.2 U	0.00E+00	23	0.00E+00	2.2 U	0.00E+00	5.7	0.00E+00	28	0.00E+00	2.2 U	0.00E+00
4/11/13		9876	9876	340	430	3.02E-03	1.8 U	0.00E+00	26	1.36E-04	1.8 U	0.00E+00	7.1	3.63E-05	28	1.43E-04	1.8 U	0.00E+00
Pulse -off period April 11, 2013 to May 10, 2013																		
5/10/13		9882	9882	340	270	1.90E-03	1.1 U	0.00E+00	23	1.20E-04	1.1 U	0.00E+00	3.4	1.74E-05	30	1.53E-04	1.1 U	0.00E+00

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.4
Cell 4 - Phase 2 SVE System Data
March 2011 - May 2013
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	Tetrachloroethene		Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
3/11/2011		222	222	500	7200	9.26E-02	3900	3.97E-02	600 U	0.00E+00	600 U	0.00E+00	600 U	0.00E+00	600 U	0.00E+00	2400 U	0.00E+00	600 U	0.00E+00
3/18/2011		366	366	500	2900	3.73E-02	1600	1.63E-02	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00	750 J	3.75E-03	150 U	0.00E+00
3/18/2011	Dup	366	366	500	3000	3.86E-02	1600	1.63E-02	130 UJ	0.00E+00	130 U	0.00E+00	130 U	0.00E+00	130 U	0.00E+00	1100 J	5.50E-03	130 U	0.00E+00
3/25/2011		463	463	500	3200	4.11E-02	970	9.88E-03	62 U	0.00E+00	61 NJ	4.02E-04	62 U	0.00E+00	62 U	0.00E+00	610	3.05E-03	62 U	0.00E+00
3/30/2011		558	558	500	2500	3.21E-02	1000	1.02E-02	68 U	0.00E+00	68 U	0.00E+00	68 U	0.00E+00	68 U	0.00E+00	470	2.35E-03	68 U	0.00E+00
4/8/2011		764	764	500	2400	3.09E-02	1000	1.02E-02	80 U	0.00E+00	80 U	0.00E+00	80 U	0.00E+00	80 U	0.00E+00	430	2.15E-03	80 U	0.00E+00
4/15/2011		924	924	500	1700	2.19E-02	920	9.37E-03	84 U	0.00E+00	84 U	0.00E+00	84 U	0.00E+00	84 U	0.00E+00	340 U	0.00E+00	84 U	0.00E+00
4/15/2011	Dup	924	924	500	1500 J	1.93E-02	830 J	8.45E-03	60 U	0.00E+00	60 U	0.00E+00	60 U	0.00E+00	60 U	0.00E+00	260 J	1.30E-03	60 U	0.00E+00
5/19/2011		1685	1685	500	1400	1.80E-02	530	5.40E-03	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	67	3.35E-04	26	1.57E-04
6/16/2011		2191	2191	420	1000	1.08E-02	410	3.51E-03	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	46 U	0.00E+00	14	7.12E-05
6/16/2011	Dup	2191	2191	420	960	1.04E-02	400	3.42E-03	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	45 U	0.00E+00	12	6.10E-05
7/15/2011		2750	2750	420	570	6.16E-03	250	2.14E-03	24 U	0.00E+00	28	1.55E-04	24 U	0.00E+00	24 U	0.00E+00	95 U	0.00E+00	24 U	0.00E+00
8/22/2011		3133	3133	420	920	9.93E-03	380	3.25E-03	27 U	0.00E+00	27 U	0.00E+00	27 U	0.00E+00	27 U	0.00E+00	110 U	0.00E+00	27 U	0.00E+00
8/22/2011	Dup	3133	3133	420	940	1.02E-02	360	3.08E-03	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	90 U	0.00E+00	22 U	0.00E+00
9/15/2011		3630	3630	420	660	7.13E-03	270	2.31E-03	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	90 U	0.00E+00	22 U	0.00E+00
10/14/2011		4226	4226	420	390	4.21E-03	180	1.54E-03	19 U	0.00E+00	19 U	0.00E+00	19 U	0.00E+00	19 U	0.00E+00	77 U	0.00E+00	19 U	0.00E+00
11/21/2011		5019	5019	380	360	3.52E-03	180	1.39E-03	16 U	0.00E+00	160 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	63 U	0.00E+00	16 U	0.00E+00
12/14/2011		5343	5343	260	360	2.41E-03	160	8.47E-04	19 U	0.00E+00	190 U	0.00E+00	19 U	0.00E+00	19 U	0.00E+00	74 U	0.00E+00	19 U	0.00E+00
1/19/2012		5993	5993	0	320	0.00E+00	180	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	97 U	0.00E+00	24 U	0.00E+00
2/15/2012		6368	6368	260	280	1.87E-03	150	7.94E-04	19 U	0.00E+00	19 U	0.00E+00	19 U	0.00E+00	19 U	0.00E+00	78 U	0.00E+00	19 U	0.00E+00
3/15/2012		6946	6946	350	240	2.16E-03	140	9.98E-04	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	58 U	0.00E+00	15 U	0.00E+00
4/19/2012		7629	7629	380	400	3.91E-03	180	1.39E-03	16 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	62 U	0.00E+00	16 U	0.00E+00
5/16/2012		8143	8143	420	320	3.46E-03	150	1.28E-03	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	61 U	0.00E+00	15 U	0.00E+00
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		8546	8546	420	490	5.29E-03	180	1.54E-03	16 U	0.00E+00	160 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	63 U	0.00E+00	16 U	0.00E+00
9/17/2012		9033	9033	470	410	4.95E-03	220	2.11E-03	15 U	0.00E+00	150 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	61 U	0.00E+00	15 U	0.00E+00
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		9037	9037	420	260 J	2.81E-03	150 J	1.28E-03	28 U	0.00E+00	280 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	110 U	0.00E+00	28 U	0.00E+00
11/15/2012	Dup	9037	9037	420	1200 J	1.30E-02	390 J	3.34E-03	24 U	0.00E+00	240 U	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	94 U	0.00E+00	24 U	0.00E+00
12/14/2012		9439	9439	150	62	2.39E-04	28	8.56E-05	1.9 U	0.00E+00	19 U	0.00E+00	1.9 U	0.00E+00	1.9 U	0.00E+00	7.5 U	0.00E+00	1.9 U	0.00E+00
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/13		9439	9439	0	130	0.00E+00	27	0.00E+00	2.2 U	0.00E+00	22 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	8.7 U	0.00E+00	2.2 U	0.00E+00
4/11/13		9876	9876	340	98	8.57E-04	25	1.73E-04	1.8 U	0.00E+00	18 U	0.00E+00	1.8 U	0.00E+00	1.8 U	0.00E+00	7.1 U	0.00E+00	1.8 U	0.00E+00
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/13		9882	9882	340	120	1.05E-03	23	1.59E-04	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.4
Cell 4 - Phase 2 SVE System Data
March 2011 - May 2013
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	Toluene		Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
3/11/2011		222	222	500	600 U	0.00E+00	600 U	0.00E+00	710	5.84E-03	600 U	0.00E+00	2400 U	0.00E+00	2400 U	0.00E+00	1.72E+00	381.87
3/18/2011		366	366	500	620 J	4.43E-03	150 U	0.00E+00	240	1.98E-03	200	1.65E-03	1500 J	6.75E-03	590 U	0.00E+00	5.09E-01	453.50
3/18/2011	Dup	366	366	500	380 J	2.71E-03	130 U	0.00E+00	250	2.06E-03	240	1.98E-03	690 J	3.11E-03	540 U	0.00E+00	4.97E-01	453.50
3/25/2011		463	463	500	140	1.00E-03	62 U	0.00E+00	78	6.42E-04	67	5.51E-04	250 U	0.00E+00	250 U	0.00E+00	2.95E-01	482.07
3/30/2011		558	558	500	190	1.36E-03	68 U	0.00E+00	250	2.06E-03	140	1.15E-03	270 U	0.00E+00	270 U	0.00E+00	3.18E-01	512.25
4/8/2011		764	764	500	200	1.43E-03	120	9.88E-04	560	4.61E-03	260	2.14E-03	320 U	0.00E+00	320 U	0.00E+00	2.91E-01	572.27
4/15/2011		924	924	500	170	1.21E-03	110	9.05E-04	540	4.44E-03	260	2.14E-03	340 U	0.00E+00	340 U	0.00E+00	2.36E-01	610.05
4/15/2011	Dup	924	924	500	140 J	1.00E-03	99 J	8.15E-04	540 J	4.44E-03	230 J	1.89E-03	240 J,B	1.08E-03	240 U	0.00E+00	2.12E-01	610.05
5/19/2011		1685	1685	500	100	7.14E-04	140	1.15E-03	920	7.57E-03	420	3.46E-03	81	3.65E-04	43 U	0.00E+00	1.58E-01	730.28
6/16/2011		2191	2191	420	51	3.06E-04	83	5.74E-04	600	4.15E-03	280	1.94E-03	46 J,B	1.74E-04	46 U	0.00E+00	1.14E-01	753.86
6/16/2011	Dup	2191	2191	420	53	3.18E-04	78	5.39E-04	580	4.01E-03	270	1.87E-03	69 J,B	2.61E-04	45 U	0.00E+00	1.09E-01	785.55
7/15/2011		2750	2750	420	28	1.68E-04	41	2.83E-04	270	1.87E-03	120	8.30E-04	180	6.81E-04	95 U	0.00E+00	8.10E-02	830.85
8/22/2011		3133	3133	420	35 J	2.10E-04	59 J	4.08E-04	340	2.35E-03	140	9.68E-04	110 U	0.00E+00	110 U	0.00E+00	9.95E-02	868.97
8/22/2011	Dup	3133	3133	420	22 UJ	0.00E+00	30 J	2.07E-04	310	2.14E-03	130	8.99E-04	90 U	0.00E+00	90 U	0.00E+00	9.87E-02	868.65
9/15/2011		3630	3630	420	22 U	0.00E+00	31	2.14E-04	340	2.35E-03	130	8.99E-04	90 U	0.00E+00	90 U	0.00E+00	7.63E-02	906.88
10/14/2011		4226	4226	420	38	2.28E-04	19 U	0.00E+00	170	1.18E-03	70	4.84E-04	77 U	0.00E+00	77 U	0.00E+00	4.78E-02	935.35
11/21/2011		5019	5019	380	16 U	0.00E+00	17	1.06E-04	220	1.38E-03	100	6.25E-04	160 U	0.00E+00	63 U	0.00E+00	3.93E-02	966.50
12/14/2011		5343	5343	260	19 U	0.00E+00	19 U	0.00E+00	76	3.25E-04	55	2.35E-04	190 UJ	0.00E+00	74 U	0.00E+00	2.73E-02	975.34
1/19/2012		5993	5993	0	36	0.00E+00	24 U	0.00E+00	78	0.00E+00	50	0.00E+00	97 U	0.00E+00	97 U	0.00E+00	0.00E+00	975.34
2/15/2012		6368	6368	260	19 U	0.00E+00	19 U	0.00E+00	58	2.48E-04	40	1.71E-04	300	7.02E-04	78 U	0.00E+00	2.97E-02	986.48
3/15/2012		6946	6946	350	15 U	0.00E+00	15 U	0.00E+00	44	2.53E-04	31	1.79E-04	58 U	0.00E+00	58 U	0.00E+00	3.36E-02	1005.89
4/19/2012		7629	7629	380	16 U	0.00E+00	16 U	0.00E+00	48	3.00E-04	33	2.06E-04	62 U	0.00E+00	62 U	0.00E+00	4.81E-02	1038.74
5/16/2012		8143	8143	420	15 U	0.00E+00	15 U	0.00E+00	28	1.94E-04	23	1.59E-04	61 U	0.00E+00	61 U	0.00E+00	4.19E-02	1060.30
Pulse -off period June 1, 2012 to August 14, 2012																		
8/14/2012		8546	8546	420	16 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	160 U	0.00E+00	63 U	0.00E+00	5.15E-02	1081.05
9/17/2012		9033	9033	470	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	150 U	0.00E+00	61 U	0.00E+00	4.42E-02	1102.58
Pulse -off period September 17, 2012 to November 15, 2012																		
11/15/2012		9037	9037	420	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	280 U	0.00E+00	110 U	0.00E+00	4.80E-02	1102.78
11/15/2012	Dup	9037	9037	420	24 U	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	240 U	0.00E+00	94 U	0.00E+00	9.68E-02	1102.97
12/14/2012		9439	9439	150	1.9 U	0.00E+00	1.9 U	0.00E+00	1.9 U	0.00E+00	1.9 U	0.00E+00	19 U	0.00E+00	7.5 U	0.00E+00	1.96E-03	1103.57
Pulse -off period December 14, 2012 to February 26, 2013																		
2/26/13		9439	9439	0	2.2 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	22 U	0.00E+00	8.7 U	0.00E+00	0.00E+00	1103.57
4/11/13		9876	9876	340	1.8 U	0.00E+00	1.8 U	0.00E+00	1.8 U	0.00E+00	1.8 U	0.00E+00	18 U	0.00E+00	7.1 U	0.00E+00	4.37E-03	1105.48
Pulse -off period April 11, 2013 to May 10, 2013																		
5/10/13		9882	9882	340	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	3.40E-03	1105.50

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.5
Cell 5 - Phase 2 SVE System Data
March 2011 - May 2013
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
3/11/2011		218	218	360	28000	2.08E-01	100 U	0.00E+00	2400	1.33E-02	100 U	0.00E+00	740	4.00E-03	10000	5.41E-02	100 U	0.00E+00	5900	5.46E-02
3/18/2011		362	362	360	13000	9.68E-02	52 U	0.00E+00	1100	6.08E-03	52 U	0.00E+00	280	1.52E-03	4800	2.60E-02	52 U	0.00E+00	6800	6.29E-02
3/25/2011		459	459	360	8900	6.63E-02	30 U	0.00E+00	650	3.59E-03	30 U	0.00E+00	200	1.08E-03	2600	1.41E-02	30 U	0.00E+00	5400	5.00E-02
3/30/2011		553	553	360	4600	3.43E-02	13 U	0.00E+00	310	1.71E-03	13 U	0.00E+00	100	5.41E-04	1300	7.03E-03	13 U	0.00E+00	4000	3.70E-02
4/8/2011		759	759	360	4600	3.43E-02	20 U	0.00E+00	330	1.82E-03	20 U	0.00E+00	95	5.14E-04	1100	5.95E-03	20 U	0.00E+00	5700	5.28E-02
4/15/2011		920	920	360	4600	3.43E-02	20 U	0.00E+00	370	2.04E-03	20 U	0.00E+00	69	3.73E-04	980	5.30E-03	20 U	0.00E+00	4600	4.26E-02
5/19/2011		1681	1681	330	2800	1.91E-02	12 U	0.00E+00	250	1.27E-03	12 U	0.00E+00	34	1.69E-04	730	3.62E-03	12 U	0.00E+00	7800	6.62E-02
6/16/2011		2187	2187	300	1800	1.12E-02	7.8 U	0.00E+00	170	7.82E-04	7.8 U	0.00E+00	23 J	1.04E-04	520	2.34E-03	7.8 U	0.00E+00	2400	1.85E-02
7/15/2011		2745	2745	220	2400	1.09E-02	7.6 U	0.00E+00	180	6.08E-04	7.6 U	0.00E+00	27	8.93E-05	840	2.78E-03	7.6 U	0.00E+00	2700	1.53E-02
8/22/2011		3129	3129	260	1700	9.14E-03	5.0 U	0.00E+00	150	5.98E-04	5.0 U	0.00E+00	21	8.21E-05	690	2.70E-03	5.0 U	0.00E+00	2000	1.34E-02
9/15/2011		3626	3626	220	1400	6.37E-03	4.5 U	0.00E+00	69	2.33E-04	4.5 U	0.00E+00	22	7.27E-05	380	1.26E-03	4.5 U	0.00E+00	1100	6.22E-03
10/14/2011		4222	4222	220	980	4.46E-03	3.9 U	0.00E+00	57	1.92E-04	3.9 U	0.00E+00	19	6.28E-05	310	1.03E-03	3.9 U	0.00E+00	760	4.30E-03
11/21/2011		5015	5015	200	690	2.85E-03	3.2 U	0.00E+00	55	1.69E-04	3.2 U	0.00E+00	45	1.35E-04	290	8.72E-04	3.2 U	0.00E+00	380	1.95E-03
11/21/2011	Dup	5015	5015	200	700	2.90E-03	3.1 U	0.00E+00	57	1.75E-04	3.1 U	0.00E+00	59	1.77E-04	300	9.02E-04	3.1 U	0.00E+00	390	2.01E-03
12/14/2011		5339	5339	200	890	3.68E-03	3.2 U	0.00E+00	62	1.90E-04	3.2 U	0.00E+00	64	1.92E-04	270	8.12E-04	3.2 U	0.00E+00	350	1.80E-03
1/19/2012		5958	5958	0	540	0.00E+00	2.8 U	0.00E+00	17	0.00E+00	2.8 U	0.00E+00	9.9	0.00E+00	69	0.00E+00	2.8 U	0.00E+00	78	0.00E+00
2/15/2012		6364	6364	0	990	0.00E+00	4.1 U	0.00E+00	24	0.00E+00	4.1 U	0.00E+00	100	0.00E+00	230	0.00E+00	4.1 U	0.00E+00	150	0.00E+00
3/15/2012		6942	6942	0	1100	0.00E+00	3.8 U	0.00E+00	43	0.00E+00	3.8 U	0.00E+00	20	0.00E+00	220	0.00E+00	3.8 U	0.00E+00	140	0.00E+00
4/19/2012		7625	7625	80	650	1.08E-03	2.4 U	0.00E+00	28	3.44E-05	2.4 U	0.00E+00	8.1	9.74E-06	130	1.56E-04	2.4 U	0.00E+00	100	2.06E-04
5/16/2012		8138	8138	200	650	2.69E-03	2.0 U	0.00E+00	28	8.59E-05	2.0 U	0.00E+00	8.9	2.68E-05	110	3.31E-04	2.0 U	0.00E+00	130	6.68E-04
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		8541	8541	360	710	3.23E-03	2.5 U	0.00E+00	44	1.49E-04	2.5 U	0.00E+00	11	3.64E-05	110	3.64E-04	2.5 U	0.00E+00	540	3.05E-03
9/17/2012		9029	9029	360	2000	8.27E-03	8.0 U	0.00E+00	29	8.90E-05	8.0 U	0.00E+00	19	5.71E-05	42	1.26E-04	8.0 U	0.00E+00	190	9.77E-04
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		9033	9033	220	1200	5.46E-03	4.4 U	0.00E+00	19	6.41E-05	4.4 U	0.00E+00	33	1.09E-04	8.0	2.65E-05	4.4 U	0.00E+00	55	3.11E-04
12/14/2012		9436	9436	200	1200	4.96E-03	4.8 U	0.00E+00	35	1.07E-04	4.8 U	0.00E+00	16	4.81E-05	37	1.11E-04	4.8 U	0.00E+00	61	3.14E-04
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/13		9511	9511	440	70	6.37E-04	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00
4/11/13		9952	9952	420	1600	1.39E-02	8	6.95E-05	160	1.03E-03	5.1 U	0.00E+00	20	1.26E-04	88	5.56E-04	5.1 U	0.00E+00	320	3.46E-03
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/13		9958	9958	420	1200	1.04E-02	5.4 U	0.00E+00	86	5.54E-04	5.4 U	0.00E+00	12	7.57E-05	45	2.84E-04	5.4 U	0.00E+00	220	2.38E-03

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.5
Cell 5 - Phase 2 SVE System Data
March 2011 - May 2013
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
3/11/2011		218	218	360	1400	1.03E-02	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	420 U	0.00E+00	100 U	0.00E+00	350	1.80E-03
3/18/2011		362	362	360	1100	8.07E-03	52 U	0.00E+00	52 U	0.00E+00	52 U	0.00E+00	52 U	0.00E+00	210 U	0.00E+00	52 U	0.00E+00	120 JB	6.17E-04
3/25/2011		459	459	360	760	5.57E-03	30 U	0.00E+00	33	1.56E-04	30 U	0.00E+00	30 U	0.00E+00	120 U	0.00E+00	30 U	0.00E+00	73	3.75E-04
3/30/2011		553	553	360	420	3.08E-03	13 U	0.00E+00	13 U	0.00E+00	13 U	0.00E+00	13 U	0.00E+00	51 U	0.00E+00	13 U	0.00E+00	37	1.90E-04
4/8/2011		759	759	360	560	4.11E-03	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	81 U	0.00E+00	20 U	0.00E+00	57	2.93E-04
4/15/2011		920	920	360	560	4.11E-03	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	81 U	0.00E+00	20 U	0.00E+00	85	4.37E-04
5/19/2011		1681	1681	330	360	2.42E-03	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	47 U	0.00E+00	12 U	0.00E+00	120	5.66E-04
6/16/2011		2187	2187	300	180	1.10E-03	7.8 U	0.00E+00	7.8 U	0.00E+00	7.8 U	0.00E+00	7.8 U	0.00E+00	31 U	0.00E+00	12	4.36E-05	7.8 U	0.00E+00
7/15/2011		2745	2745	220	280	1.25E-03	7.6 U	0.00E+00	20	5.79E-05	7.6 U	0.00E+00	7.6 U	0.00E+00	30 U	0.00E+00	7.6 U	0.00E+00	49	1.54E-04
8/22/2011		3129	3129	260	160	8.47E-04	5.0 U	0.00E+00	5.0 U	0.00E+00	5.0 U	0.00E+00	5.0 U	0.00E+00	20 U	0.00E+00	7.6	2.39E-05	5.0 U	0.00E+00
9/15/2011		3626	3626	220	83	3.72E-04	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	18 U	0.00E+00	5.0	1.33E-05	4.5 U	0.00E+00
10/14/2011		4222	4222	220	50	2.24E-04	3.9 U	0.00E+00	3.9 U	0.00E+00	3.9 U	0.00E+00	3.9 U	0.00E+00	16 U	0.00E+00	3.9 U	0.00E+00	3.9 U	0.00E+00
11/21/2011		5015	5015	200	27	1.10E-04	3.2 U	0.00E+00	32 U	0.00E+00	3.2 U	0.00E+00	3.2 U	0.00E+00	13 U	0.00E+00	3.2 U	0.00E+00	3.2 U	0.00E+00
11/21/2011	Dup	5015	5015	200	28	1.14E-04	3.1 U	0.00E+00	31 U	0.00E+00	3.1 U	0.00E+00	3.1 U	0.00E+00	12 U	0.00E+00	3.1 U	0.00E+00	3.1 U	0.00E+00
12/14/2011		5339	5339	200	24	9.78E-05	3.2 U	0.00E+00	32 U	0.00E+00	3.2 U	0.00E+00	3.2 U	0.00E+00	13 U	0.00E+00	3.2 U	0.00E+00	3.2 U	0.00E+00
1/19/2012		5958	5958	0	10	0.00E+00	2.8 U	0.00E+00	2.8 U	0.00E+00	2.8 U	0.00E+00	2.8 U	0.00E+00	11 U	0.00E+00	2.8 U	0.00E+00	2.8 U	0.00E+00
2/15/2012		6364	6364	0	19	0.00E+00	4.1 U	0.00E+00	4.1 U	0.00E+00	4.1 U	0.00E+00	4.1 U	0.00E+00	16 U	0.00E+00	4.1 U	0.00E+00	4.1 U	0.00E+00
3/15/2012		6942	6942	0	25	0.00E+00	3.8 U	0.00E+00	3.8 U	0.00E+00	3.8 U	0.00E+00	3.8 U	0.00E+00	15 U	0.00E+00	3.8 U	0.00E+00	3.8 U	0.00E+00
4/19/2012		7625	7625	80	19	3.10E-05	2.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	9.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00
5/16/2012		8138	8138	200	24	9.78E-05	2.0 U	0.00E+00	2.0 U	0.00E+00	2.0 U	0.00E+00	2.0 U	0.00E+00	7.9 U	0.00E+00	2.0 U	0.00E+00	2.0 U	0.00E+00
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		8541	8541	360	64	2.87E-04	2.5 U	0.00E+00	25 U	0.00E+00	2.5 U	0.00E+00	2.5 U	0.00E+00	9.9 U	0.00E+00	2.5 U	0.00E+00	2.5 U	0.00E+00
9/17/2012		9029	9029	360	71	2.89E-04	8.0 U	0.00E+00	80 U	0.00E+00	8.0 U	0.00E+00	8.0 U	0.00E+00	32 U	0.00E+00	8.0 U	0.00E+00	8.0 U	0.00E+00
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		9033	9033	220	39	1.75E-04	4.4 U	0.00E+00	44 U	0.00E+00	4.4 U	0.00E+00	4.4 U	0.00E+00	18 U	0.00E+00	4.4 U	0.00E+00	4.4 U	0.00E+00
12/14/2012		9436	9436	200	60	2.44E-04	4.8 U	0.00E+00	48 U	0.00E+00	4.8 U	0.00E+00	4.8 U	0.00E+00	19 U	0.00E+00	4.8 U	0.00E+00	4.8 U	0.00E+00
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/13		9511	9511	440	6.8 U	0.00E+00	6.8 U	0.00E+00	68 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00	27 U	0.00E+00	12	6.39E-05	6.8 U	0.00E+00
4/11/13		9952	9952	420	110	9.41E-04	5.1 U	0.00E+00	51 U	0.00E+00	5.1 U	0.00E+00	5.1 U	0.00E+00	20 U	0.00E+00	5.1 U	0.00E+00	5.1 U	0.00E+00
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/13		9958	9958	420	79	6.76E-04	5.4 U	0.00E+00	54 U	0.00E+00	5.4 U	0.00E+00	5.4 U	0.00E+00	22 U	0.00E+00	5.4 U	0.00E+00	5.4 U	0.00E+00

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.5
Cell 5 - Phase 2 SVE System Data
March 2011 - May 2013
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
3/11/2011		218	218	360	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	420 U	0.00E+00	420 U	0.00E+00	3.47E-01	75.54
3/18/2011		362	362	360	52 U	0.00E+00	59	3.50E-04	110	6.52E-04	210 U	0.00E+00	210 U	0.00E+00	2.03E-01	104.77
3/25/2011		459	459	360	30 U	0.00E+00	30 U	0.00E+00	47	2.79E-04	130	4.21E-04	120 U	0.00E+00	1.42E-01	118.53
3/30/2011		553	553	360	16	9.48E-05	23	1.36E-04	46	2.73E-04	99	3.21E-04	51 U	0.00E+00	8.47E-02	126.48
4/8/2011		759	759	360	38	2.25E-04	84	4.98E-04	120	7.11E-04	81 U	0.00E+00	81 U	0.00E+00	1.01E-01	147.32
4/15/2011		920	920	360	45	2.67E-04	160	9.48E-04	140	8.30E-04	180 J,B	5.83E-04	81 U	0.00E+00	9.17E-02	162.08
5/19/2011		1681	1681	330	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	360	1.07E-03	47 U	0.00E+00	9.44E-02	233.92
6/16/2011		2187	2187	300	15	7.41E-05	54	2.67E-04	64	3.16E-04	69 J,B	1.86E-04	31 U	0.00E+00	3.49E-02	251.58
7/15/2011		2745	2745	220	13	4.71E-05	120	4.35E-04	140	5.07E-04	94	1.86E-04	30 U	0.00E+00	3.23E-02	269.61
8/22/2011		3129	3129	260	5.9	2.52E-05	19	8.13E-05	29	1.24E-04	62 J,B	1.45E-04	20 U	0.00E+00	2.71E-02	280.03
9/15/2011		3626	3626	220	4.5 U	0.00E+00	14	5.07E-05	17	6.16E-05	49	9.71E-05	18 U	0.00E+00	1.47E-02	287.36
10/14/2011		4222	4222	220	3.9 U	0.00E+00	7.1	2.57E-05	10	3.62E-05	16 U	0.00E+00	16 U	0.00E+00	1.03E-02	293.51
11/21/2011		5015	5015	200	3.2 U	0.00E+00	4.5	1.48E-05	6.1	2.01E-05	36	6.48E-05	13 U	0.00E+00	6.19E-03	298.43
11/21/2011	Dup	5015	5015	200	3.1 U	0.00E+00	4.2	1.38E-05	6.2	2.04E-05	31 U	0.00E+00	12 U	0.00E+00	6.30E-03	298.51
12/14/2011		5339	5339	200	3.2 U	0.00E+00	3.2 U	0.00E+00	3.2 U	0.00E+00	32 UJ	0.00E+00	13 U	0.00E+00	6.77E-03	300.62
1/19/2012		5958	5958	0	2.8 U	0.00E+00	2.8 U	0.00E+00	2.8 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	0.00E+00	300.62
2/15/2012		6364	6364	0	4.1 U	0.00E+00	4.1 U	0.00E+00	4.1 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	0.00E+00	300.62
3/15/2012		6942	6942	0	3.8 U	0.00E+00	3.8 U	0.00E+00	3.8 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	0.00E+00	300.62
4/19/2012		7625	7625	80	2.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	9.4 U	0.00E+00	9.4 U	0.00E+00	1.51E-03	301.65
5/16/2012		8138	8138	200	2.0 U	0.00E+00	2.0 U	0.00E+00	2.0 U	0.00E+00	7.9 U	0.00E+00	7.9 U	0.00E+00	3.90E-03	303.65
Pulse -off period June 1, 2012 to August 14, 2012																
8/14/2012		8541	8541	360	2.5 U	0.00E+00	2.5 U	0.00E+00	2.5 U	0.00E+00	25 U	0.00E+00	9.9 U	0.00E+00	7.12E-03	306.52
9/17/2012		9029	9029	360	8.0 U	0.00E+00	8.0 U	0.00E+00	8.0 U	0.00E+00	80 U	0.00E+00	32 U	0.00E+00	9.81E-03	311.31
Pulse -off period September 17, 2012 to November 15, 2012																
11/15/2012		9033	9033	220	4.4 U	0.00E+00	4.4 U	0.00E+00	4.4 U	0.00E+00	44 U	0.00E+00	18 U	0.00E+00	6.15E-03	311.34
12/14/2012		9436	9436	200	4.8 U	0.00E+00	4.8 U	0.00E+00	4.8 U	0.00E+00	48 U	0.00E+00	19 U	0.00E+00	5.79E-03	313.67
Pulse -off period December 14, 2012 to February 26, 2013																
2/26/13		9511	9511	440	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00	68 U	0.00E+00	27 U	0.00E+00	7.01E-04	313.72
4/11/13		9952	9952	420	5.1 U	0.00E+00	5.1 U	0.00E+00	5.1 U	0.00E+00	51 U	0.00E+00	20 U	0.00E+00	2.01E-02	322.58
Pulse -off period April 11, 2013 to May 10, 2013																
5/10/13		9958	9958	420	5.4 U	0.00E+00	5.4 U	0.00E+00	5.4 U	0.00E+00	54 U	0.00E+00	22 U	0.00E+00	1.44E-02	322.66

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.6
VOC Mass Removal - Phase 1 and Phase 2 AS/SVE Systems
December 2009 - May 2013
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

Date	Cell 1			Cell 2			Cell 3			Cell 4			Cell 5			Total Cumulative Mass Removal (lb)
	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	
12/03/09	SYSTEM STARTUP															0.00
12/10/09	53	0.22	11.91													11.91
12/11/09				59	0.25	15.05										26.97
12/14/09							60	0.31	18.51							45.48
12/15/09				68	0.16	16.48										46.91
12/16/09							76	0.17	21.16							49.55
12/22/09	124	0.05	15.23													52.86
12/29/09				180	0.12	29.76										66.15
01/05/10							236	0.13	41.78							86.77
01/13/10				301	0.05	35.75										92.75
01/21/10							361	0.05	48.37							99.35
01/27/10				408	0.06	42.68										106.27
02/24/10	631	0.01	20.06	631	0.04	51.44	631	0.04	58.76							130.26
03/15/10	782	0.01	22.02	782	0.09	64.40	782	0.07	68.60							155.02
04/14/10	935	0.02	25.22	935	0.04	70.89	935	0.11	84.81							180.92
05/13/10	1165	0.01	27.75	1165	0.04	79.74	1165	0.03	91.21							198.69
06/21/10	1477	0.01	30.20	1477	0.02	86.90	1477	0.02	96.92							214.02
07/21/10	1686	0.01	32.52	1686	0.02	91.24	1686	0.02	101.05							224.81
08/23/10	1928	0.00	32.52	1928	0.00	91.24	1928	0.00	101.05							224.81
09/23/10	2174	0.01	34.49	2174	0.02	96.27	2174	0.02	106.49							237.25
10/22/10	2406	0.01	35.86	2406	0.01	98.85	2406	0.01	109.27							243.98
11/15/10	2598	0.01	36.96	2598	0.01	101.41	2598	0.01	112.05							250.42
12/22/10	2777	0.01	38.22	2955	0.02	107.99	2777	0.02	115.44							261.65
01/24/11	2975	0.01	39.47	3352	0.01	110.39	2975	0.01	117.20							267.06
02/25/11	3167	0.01	40.53	3737	0.01	114.08	3167	0.00	118.15							272.76
03/11/11										222	1.72	381.87	218	0.35	75.54	730.17
03/18/11	3293	0.01	41.27	3988	0.00	114.57	3293	0.00	118.34	366	0.51	453.50	362	0.20	104.77	832.46
03/25/11										463	0.29	482.07	459	0.14	118.53	874.78
03/30/11										558	0.32	512.25	553	0.08	126.48	912.92
04/08/11										764	0.29	572.27	759	0.10	147.32	993.77
04/15/11	3460	0.01	42.15	4322	0.00	115.07	3460	0.00	118.47	924	0.24	610.05	920	0.09	162.08	1047.81
05/19/11	3665	0.00	42.87	4732	0.00	115.31	3665	0.00	118.53	1685	0.16	730.28	1681	0.09	233.92	1240.92
06/16/11	3830	0.00	43.39	5062	0.00	115.55	3830	0.00	118.81	2191	0.11	753.86	2187	0.03	251.58	1283.20
07/15/11	4472	0.00	44.96	4472	0.00	115.18	4472	0.00	119.39	2750	0.08	830.85	2745	0.03	269.61	1380.36
08/22/11	4775	0.00	45.59	4775	0.00	115.40	4775	0.01	121.30	3133	0.10	868.97	3129	0.03	280.03	1431.44
09/15/11	4968	0.00	45.93	4968	0.00	115.51	4968	0.00	121.91	3630	0.08	906.88	3626	0.01	287.36	1477.64
10/14/11	5199	0.00	46.20	5199	0.00	115.57	5199	0.00	122.54	4226	0.05	935.35	4222	0.01	293.51	1513.18
11/21/11	5503	0.00	46.43	5503	0.00	115.62	5503	0.00	123.00	5019	0.04	966.50	5015	0.01	298.43	1549.98
12/14/11	5670	0.00	46.53	5670	0.00	115.65	5670	0.00	123.67	5343	0.03	975.34	5339	0.01	300.62	1561.80
01/19/12	5974	0.00	46.69	5974	0.00	115.71	5974	0.00	124.59	5993	0.00	975.34	5958	0.00	300.62	1562.94
02/15/12	6189	0.00	46.80	6189	0.00	115.74	6189	0.01	126.03	6368	0.03	986.48	6364	0.00	300.62	1575.67
03/15/12	6421	0.00	46.89	6421	0.00	115.79	6421	0.01	127.43	6946	0.03	1005.89	6942	0.00	300.62	1596.62
04/19/12	6701	0.00	47.04	6701	0.00	115.84	6701	0.00	128.02	7629	0.05	1038.74	7625	0.00	301.65	1631.30
05/16/12	6916	0.00	47.18	6916	0.00	115.88	6916	0.00	128.27	8143	0.04	1060.30	8138	0.00	303.65	1655.28
Pulse -off period June 1, 2012 to August 14, 2012																
08/14/12	7094	0.00	47.54	7094	0.00	116.20	7094	0.00	129.03	8546	0.05	1081.05	8541	0.01	306.52	1680.34
09/17/12	7317	0.00	47.99	7317	0.00	116.40	7317	0.02	133.04	9033	0.04	1102.58	9029	0.01	311.31	1711.33
Pulse -off period September 17, 2012 to November 14, 2012																
11/15/12	7320	0.00	48.00	7320	0.00	116.40	7320	0.00	133.05	9037	0.05	1102.78	9033	0.01	311.34	1711.56
12/14/12	7518	0.00	48.24	7518	0.00	116.86	7518	0.00	133.94	9439	0.00	1103.57	9436	0.01	313.67	1716.27
Pulse -off period December 14, 2012 to February 26, 2013																
2/26/2013	7518	0.00	48.19	7518	0.00	116.86	7519	0.00	133.94	9439	0.00	1103.57	9511	0.00	313.72	1716.32
4/11/2013	7723	0.00	48.32	7723	0.00	116.97	8134	0.00	134.40	9876	0.00	1105.48	9952	0.02	322.58	1727.74
Pulse -off period April 11, 2013 to May 10, 2013																
5/10/2013	7724	0.00	48.32	7724	0.00	116.97	8135	0.00	134.40	9882	0.00	1105.50	9958	0.01	322.66	1727.85

Figures

AECOM

AECOM
27755 DIEHL RD. SUITE 100
WARRENVILLE, ILLINOIS 60555
PHONE: (630) 836-1700
FAX: (630) 836-1711
WEB: HTTP://WWW.AECOM.COM

Facility Location Map
Area 9/10 Remedial Action
Southeast Rockford Groundwater
Contamination Superfund Site
Rockford, IL

FIGURE NUMBER	
1	

DRAWN BY:	DATE:	PROJECT NUMBER:	SHEET NUMBER:
JG	07/18/13	60288803.4212	1 of 1

Path: U:\Cad_Drive_New\UTC\60288803 UTC Rockford SER 9-10\Q2 2013\GIS\Site Location Map.mxd

LEGEND:

- GMZ Monitoring Well
- Performance Monitoring Well
- Site and GMZ Boundary
- Approximate Extent of Phase 1 AS/SVE System Influence
- Approximate Extent of Phase 2 AS/SVE System Influence

N

60 0 120

1"=120'

AECOM

AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS

PROJECT NO. 60288803.4212

DATE: 07/18/13 | DRWN: JG

GMZ / PERFORMANCE WELL NETWORK

FIGURE 2

File: U:\Cad_Drive_New\UTC\60288803 UTC Rockford SER 9-10\02 2013\Well Network.dwg Layout: ANSI_B\-LU User: garciaj Plotted: Jul 19, 2013 - 8:36am

AECOM

AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS
PROJECT NO. 60288803.4212

DATE: 07/18/13 | DRWN: JG

POTENTIOMETRIC SURFACE
SECOND QUARTER 2013

FIGURE 3

File: U:\Cad_Drive_New\UTC\60288803 UTC Rockford SER 9-10\Q2 2013\Potentiometric Surface Q2 2013.dwg Layout: ANSI B(-LJ User: garciaj Plotted: Aug 05, 2013 - 12:24pm

GMZ01		
Date	TCE	PCE
8/8/2012	0.0079	0.057 JB
11/15/2012	<PRG	0.028
11/15/2012	<PRG	0.024
2/14/2013	<PRG	0.013
5/7/2013	<PRG	0.021

SMW08	
Date	PCE
8/8/2012	0.028 JB
11/14/2012	0.025
2/14/2013	0.025
2/14/2013	0.025
5/8/2013	0.038

SMW04			
Date	TCE	PCE	Vinyl Chloride
8/9/2012	0.0075	0.02	0.0062
11/15/2012	<PRG	0.015	0.0087
2/13/2013	<PRG	0.006	0.021
5/8/2013	<PRG	0.0084	0.021

PMW02		
Date	PCE	Vinyl Chloride
8/9/2012	0.018 JB	<PRG
8/9/2012	0.017 JB	<PRG
11/14/2012	0.018	<PRG
2/14/2013	0.023	0.0034
5/8/2013	0.02	0.0024

PMW01	
Date	PCE
8/8/2012	0.035 JB
11/15/2012	0.031
2/14/2013	0.037
5/8/2013	0.022

MW203	
Date	PCE
8/8/2012	0.015
11/13/2012	0.018
2/13/2013	0.0099
5/7/2013	0.016

SMW19	
Date	TCE
8/7/2012	0.016
11/14/2012	0.0084
2/13/2013	0.0053
5/8/2013	0.0089

GMZ04				
Date	TCE	1,1-DCE	cis-1,2-DCE	1,1,1-TCA
8/6/2012	0.0097 NJ	0.011	0.078	0.34 J
11/12/2013	<PRG	<PRG	<PRG	<PRG
2/13/2013	<PRG	<PRG	<PRG	<PRG
5/8/2013	<PRG	<PRG	<PRG	<PRG

LEGEND:

GMZ Monitoring Well

Site and GMZ Boundary

NOTES:

1. Values are listed only for those wells in which a VOC was identified above the PRG for any sampling event.
2. U - Laboratory estimated quantitation limit exceeded PRG
3. NJ - Estimated concentration
4. J - Indicates estimated value
5. B - The analyte was detected in the method, field and/or trip blank.

Prelimiary Remediation Goal (PRG)	
Trichloroethene (TCE)	0.005 mg/L
Tetrachloroethene (PCE)	0.005 mg/L
Vinyl chloride	0.002 mg/L
1,1-Dichloroethene (1,1-DCE)	0.007 mg/L
1,1,1-Trichloroethane (1,1,1-TCA)	0.2 mg/L
cis-1,2-Dichloroethene (cis-1,2-DCE)	0.07 mg/L

N

65 0 130

1"=130'

AECOM

AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS

PROJECT NO. 60288803.4212

DATE: 07/25/13 | DRWN: JG

VOC ANALYTICAL RESULTS
EXCEEDING THE PRG
SECOND QUARTER 2013

FIGURE 4

File: U:\Cad_Drive_New\UTC\60288803 UTC Rockford SER 9-10\Q2 2013\VOC Analytical Results.dwg Layout: ANSI B(-LJ User: garcioj Plotted: Aug 05, 2013 - 12:22pm

LEGEND:

- GMZ Monitoring Wells
- Site and GMZ Boundary
- PCE
- TCE
- PRG

NOTES:

1. Analytes not detected above the Laboratory estimated quantitation limit are expressed graphically as one half the reporting limit.

Preliminary Remediation Goal (PRG)	
TCE	0.005 (mg/L)
PCE	0.005 (mg/L)

62.5 0 125

1"=125'

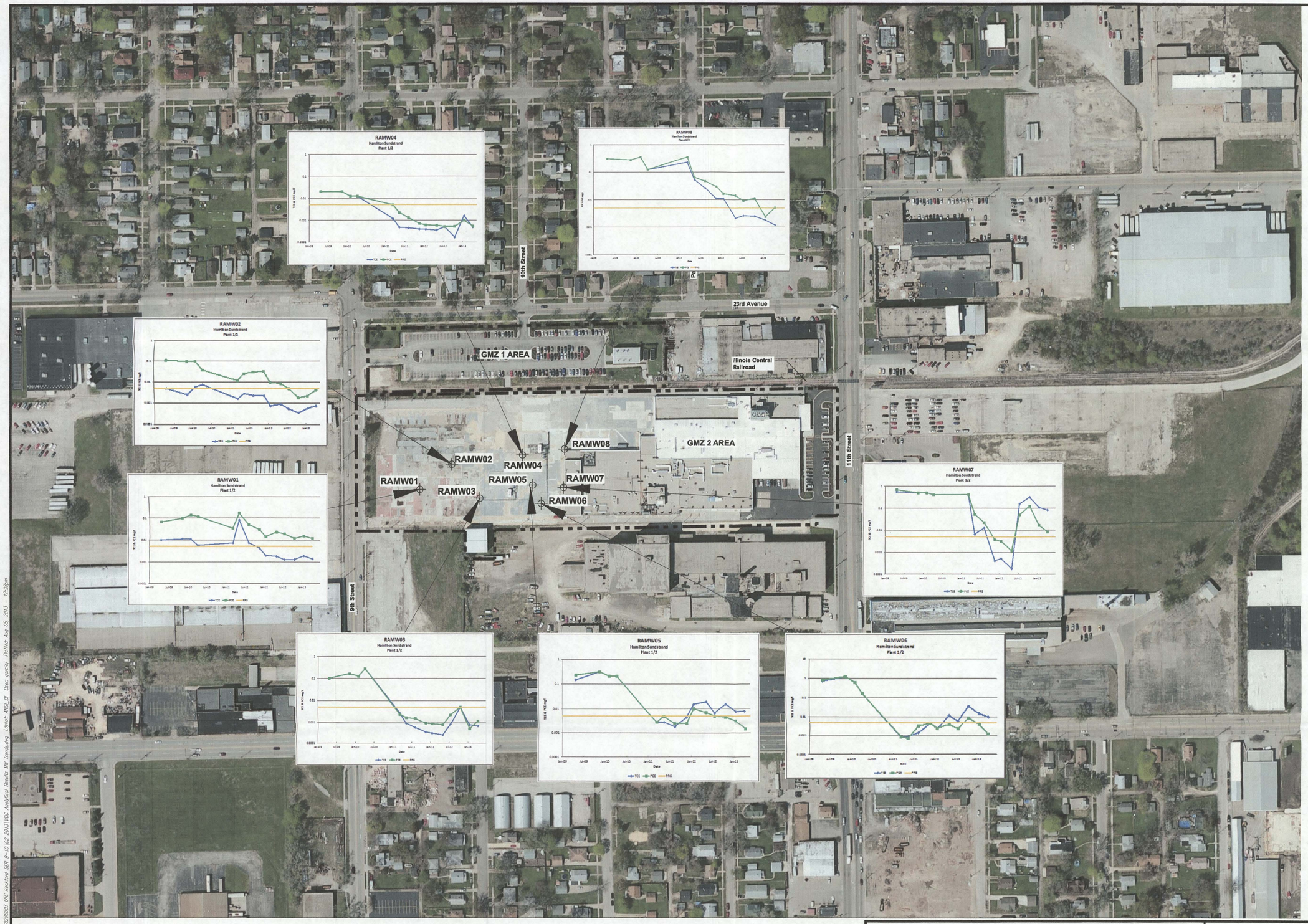
AECOM

AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS
PROJECT NO. 60288803.4212

DATE: 07/26/13 DRWN: JG

QUATERLY GMZ VOC
ANALYTICAL RESULTS TRENDS

FIGURE 5



LEGEND:

- Performance Monitoring Wells
- Site and GMZ Boundary
- PCE
- TCE
- PRG

NOTES:

1. Analytes not detected above the Laboratory estimated quantitation limit are expressed graphically as one half the reporting limit.

Preliminary Remediation Goal (PRG)	
TCE	0.005 (mg/L)
PCE	0.005 (mg/L)

62.5 0 125

1"=125'

AECOM

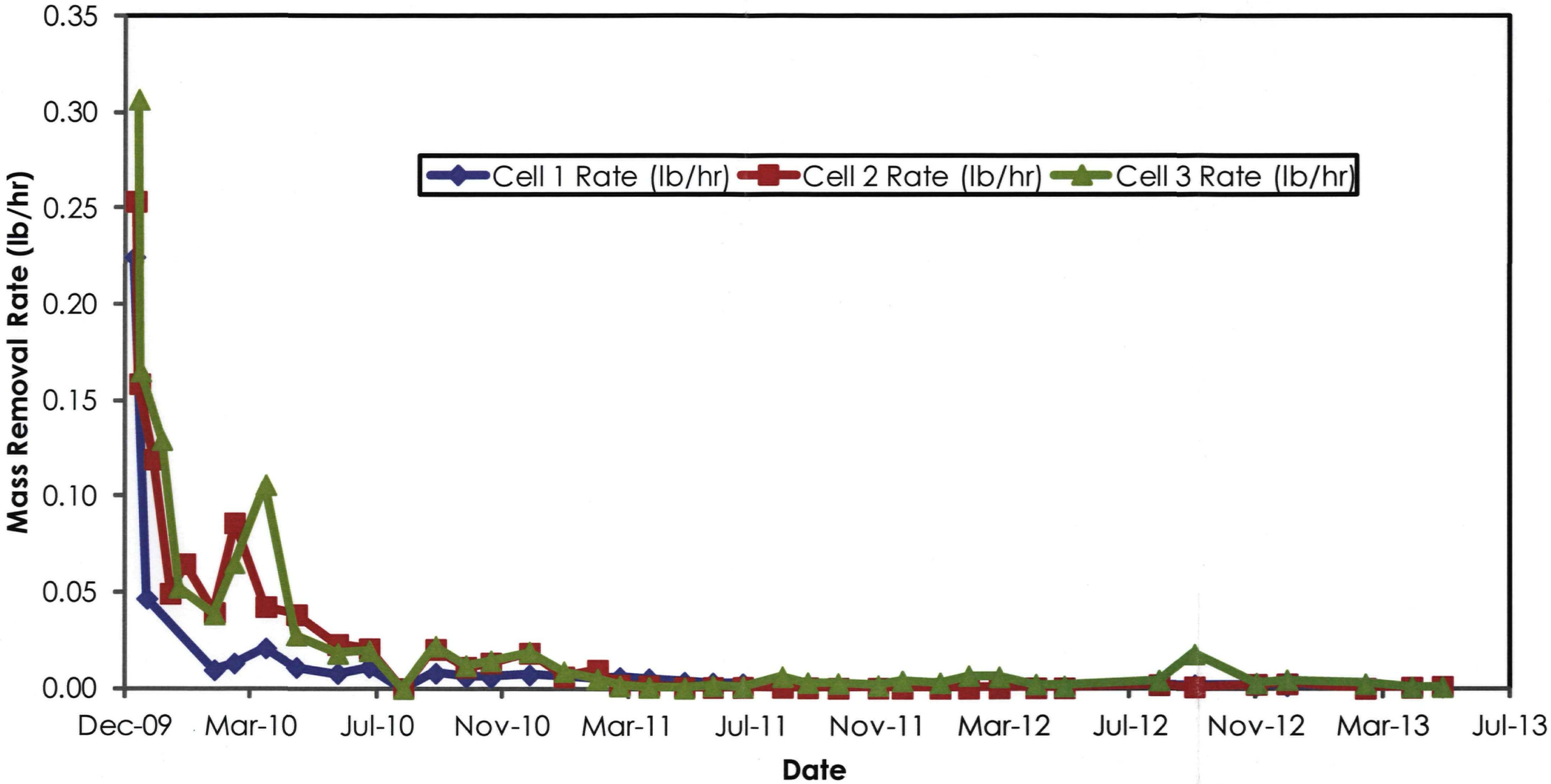
AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS

PROJECT NO. 60288803.4212

DATE: 07/25/13 DRWN: JG

QUATERLY PERFORMANCE MONITORING WELL VOC ANALYTICAL RESULTS TRENDS

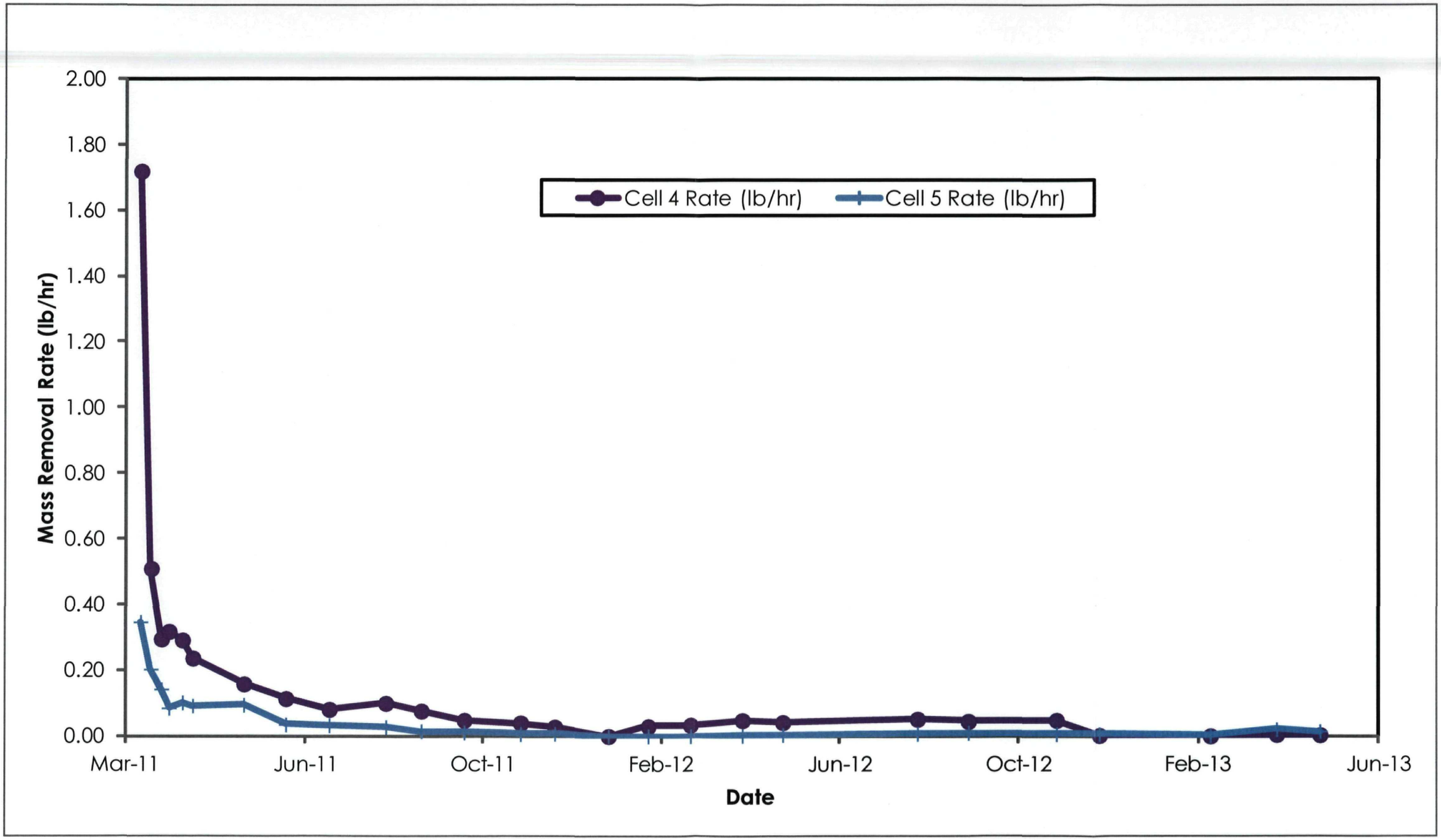
FIGURE 6



AECOM

AREA 9/10 REMEDIAL ACTION ROCKFORD, ILLINOIS PROJECT NO. 60288803.4212	AVERAGE VOC MASS REMOVAL RATE VS TIME PHASE 1 AS/SVE SYSTEM
DATE: 07/25/13 DRWN: JG	FIGURE 7

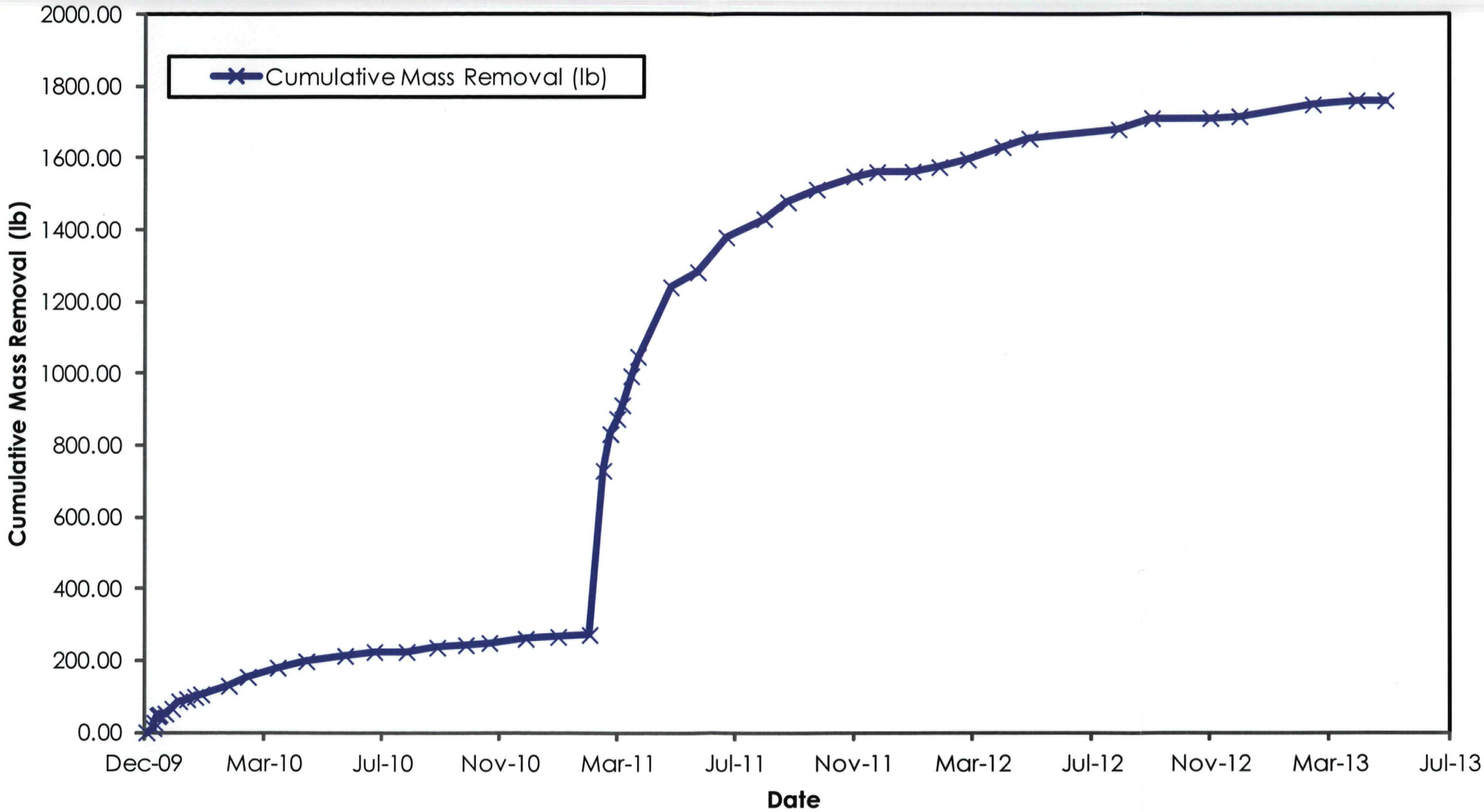
File: U:\Cad_Drive_New\UTC\60288803 UTC Rockford SER 9-10\Q2 2013\VOC vs Time Phase 1.dwg Layout: ANSI B(-LJ User: garciaj Plotted: Aug 05, 2013 - 12:31pm



AECOM

AREA 9/10 REMEDIAL ACTION ROCKFORD, ILLINOIS PROJECT NO. 60288803.4212			AVERAGE VOC MASS REMOVAL RATE VS TIME PHASE 2 AS/SVE SYSTEM
DATE: 07/25/13	DRWN: JG		FIGURE 8

File: U:\Cad_Drive_New\UTC\60288803 UTC Rockford SER 9-10\Q2 2013\VOC vs Time Phase 2.dwg Layout: ANSI_B1-LJ User: garciaj Plotted: Aug 05, 2013 - 12:32pm



AECOM

AREA 9/10 REMEDIAL ACTION ROCKFORD, ILLINOIS PROJECT NO. 60288803.4212	CUMULATIVE MASS REMOVAL PHASE 1/ PHASE 2 AS/SVE SYSTEM
DATE: 07/25/13 DRWN: JG	FIGURE 9

File: U:\Cad_Drive_New\UTC\60288803 UTC Rockford SER 9-10\Q2 2013\Cumulative Phase 1 & 2.dwg Layout: ANSI_B1-LJ User: garciaj Plotted: Aug 05, 2013 - 12:33pm

APPENDIX

Appendix A

Second Quarter 2013 GMZ and Performance Monitoring Well Analytical Data

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-24239-1
Client Project/Site: UTC - HS - Plant 1

For:
AECOM, Inc.
27755 Diehl Road
Suite 100
Warrenville, Illinois 60555

Attn: Peter Hollatz

Kris Brooks

Authorized for release by:
5/28/2013 4:52:16 PM
Kris Brooks, Project Manager II
(330)966-9790
kris.brooks@testamericainc.com

Designee for

Patrick O'Meara, Project Manager II
patrick.omeara@testamericainc.com

LINKS

Review your project results through
Total Access

Have a Question?
Ask The Expert

Visit us at:
www.testamericainc.com

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

Results relate only to the items tested and the sample(s) as received by the laboratory.

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QC Association Summary 34
Lab Chronicle 35
Certification Summary 39
Chain of Custody 40

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-24239-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: AECOM, Inc.

Project: UTC - HS - Plant 1

Report Number: 240-24239-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

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

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 05/10/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 2.1 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples HSSER-SMW01-050713 (240-24239-1), HSSER-SMW02-050713 (240-24239-2), HSSER-MW07FGA-050713 (240-24239-3), HSSER-GMZ01-050713 (240-24239-4), HSSER-MW203-050713 (240-24239-5), HSSER-FBLK01-050813 (240-24239-6), HSSER-SMW08-050813 (240-24239-7), HSSER-EBLK01-050813 (240-24239-8), HSSER-PMW02-050813 (240-24239-9), HSSER-PMW01-050813 (240-24239-10), HSSER-SMW04-050813 (240-24239-11), HSSER-GMZ04-050813 (240-24239-12), HSSER-SMW21-050813 (240-24239-13), HSSER-GMZ02-050813 (240-24239-14), HSSER-GMZ03-050813 (240-24239-15), HSSER-SMW20-050813 (240-24239-16), HSSER-SMW19-050813 (240-24239-17), HSSER-DUP01-050813 (240-24239-18) and HSSER-TRIP01-050713 (240-24239-19) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 05/21/2013.

Methylene Chloride was detected in method blank MB 240-86709/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

Job ID: 240-24239-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

Method Summary

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN

Protocol References:

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-24239-1	HSSER-SMW01-050713	Water	05/07/13 09:53	05/10/13 10:00
240-24239-2	HSSER-SMW02-050713	Water	05/07/13 11:37	05/10/13 10:00
240-24239-3	HSSER-MW07FGA-050713	Water	05/07/13 13:51	05/10/13 10:00
240-24239-4	HSSER-GMZ01-050713	Water	05/07/13 15:21	05/10/13 10:00
240-24239-5	HSSER-MW203-050713	Water	05/07/13 16:31	05/10/13 10:00
240-24239-6	HSSER-FBLK01-050813	Water	05/08/13 06:45	05/10/13 10:00
240-24239-7	HSSER-SMW08-050813	Water	05/08/13 07:15	05/10/13 10:00
240-24239-8	HSSER-EBLK01-050813	Water	05/08/13 07:45	05/10/13 10:00
240-24239-9	HSSER-PMW02-050813	Water	05/08/13 08:17	05/10/13 10:00
240-24239-10	HSSER-PMW01-050813	Water	05/08/13 09:08	05/10/13 10:00
240-24239-11	HSSER-SMW04-050813	Water	05/08/13 09:50	05/10/13 10:00
240-24239-12	HSSER-GMZ04-050813	Water	05/08/13 10:08	05/10/13 10:00
240-24239-13	HSSER-SMW21-050813	Water	05/08/13 11:12	05/10/13 10:00
240-24239-14	HSSER-GMZ02-050813	Water	05/08/13 11:14	05/10/13 10:00
240-24239-15	HSSER-GMZ03-050813	Water	05/08/13 12:00	05/10/13 10:00
240-24239-16	HSSER-SMW20-050813	Water	05/08/13 12:01	05/10/13 10:00
240-24239-17	HSSER-SMW19-050813	Water	05/08/13 13:21	05/10/13 10:00
240-24239-18	HSSER-DUP01-050813	Water	05/08/13 00:00	05/10/13 10:00
240-24239-19	HSSER-TRIP01-050713	Water	05/07/13 00:00	05/10/13 10:00

Detection Summary

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-SMW01-050713 — Lab Sample ID: 240-24239

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.0020		0.0010	0.00022	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0022		0.0010	0.00029	mg/L	1		8260B	Total/NA
Trichloroethene	0.00019	J	0.0010	0.00017	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-SMW02-050713 — Lab Sample ID: 240-24239-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.0010		0.0010	0.00015	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00047	J	0.0010	0.00029	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-MW07FGA-050713 — Lab Sample ID: 240-24239-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.00070	J	0.0010	0.00022	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00092	J	0.0010	0.00029	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-GMZ01-050713 — Lab Sample ID: 240-24239-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.010		0.0010	0.00022	mg/L	1		8260B	Total/NA
1,1-Dichloroethane	0.0066		0.0010	0.00015	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00026	J	0.0010	0.00019	mg/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.0023		0.0010	0.00017	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.021		0.0010	0.00029	mg/L	1		8260B	Total/NA
Trichloroethene	0.0020		0.0010	0.00017	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-MW203-050713 — Lab Sample ID: 240-24239-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.016		0.0010	0.00029	mg/L	1		8260B	Total/NA
Trichloroethene	0.00043	J	0.0010	0.00017	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-FBLK01-050813 — Lab Sample ID: 240-24239-6

No Detections.

Client Sample ID: HSSER-SMW08-050813 — Lab Sample ID: 240-24239-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.015		0.0010	0.00022	mg/L	1		8260B	Total/NA
1,1-Dichloroethane	0.0035		0.0010	0.00015	mg/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.0017		0.0010	0.00017	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.038		0.0010	0.00029	mg/L	1		8260B	Total/NA
Trichloroethene	0.0033		0.0010	0.00017	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-EBLK01-050813 — Lab Sample ID: 240-24239-8

No Detections.

Client Sample ID: HSSER-PMW02-050813 — Lab Sample ID: 240-24239-9

This Detection Summary does not include radiochemical test results.

Client Sample ID: HSSER-PMW02-050813 (Continued) — Lab Sample ID: 240-24239-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.012		0.0010	0.00022	mg/L	1		8260B	Total/NA
1,1-Dichloroethane	0.013		0.0010	0.00015	mg/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.0016		0.0010	0.00017	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.020		0.0010	0.00029	mg/L	1		8260B	Total/NA
Trichloroethene	0.0027		0.0010	0.00017	mg/L	1		8260B	Total/NA
Vinyl chloride	0.0024		0.0010	0.00022	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-PMW01-050813 — Lab Sample ID: 240-24239-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.0097		0.0010	0.00022	mg/L	1		8260B	Total/NA
1,1-Dichloroethane	0.025		0.0010	0.00015	mg/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.0020		0.0010	0.00017	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.022		0.0010	0.00029	mg/L	1		8260B	Total/NA
Trichloroethene	0.0012		0.0010	0.00017	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-SMW04-050813 — Lab Sample ID: 240-24239-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.0035		0.0010	0.00022	mg/L	1		8260B	Total/NA
1,1-Dichloroethane	0.0050		0.0010	0.00015	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00075	J	0.0010	0.00019	mg/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.013		0.0010	0.00017	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0084		0.0010	0.00029	mg/L	1		8260B	Total/NA
Trichloroethene	0.0039		0.0010	0.00017	mg/L	1		8260B	Total/NA
Vinyl chloride	0.021		0.0010	0.00022	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-GMZ04-050813 — Lab Sample ID: 240-24239-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.00073	J	0.0010	0.00022	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-SMW21-050813 — Lab Sample ID: 240-24239-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.020		0.0010	0.00022	mg/L	1		8260B	Total/NA
1,1-Dichloroethane	0.00043	J	0.0010	0.00015	mg/L	1		8260B	Total/NA
Trichloroethene	0.0024		0.0010	0.00017	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-GMZ02-050813 — Lab Sample ID: 240-24239-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.0067		0.0010	0.00022	mg/L	1		8260B	Total/NA
1,1-Dichloroethane	0.0021		0.0010	0.00015	mg/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.00039	J	0.0010	0.00017	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00035	J	0.0010	0.00029	mg/L	1		8260B	Total/NA
Trichloroethene	0.00039	J	0.0010	0.00017	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-GMZ03-050813 — Lab Sample ID: 240-24239-15

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-GMZ03-050813 (Continued) — Lab Sample ID: 240-24239-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.0010		0.0010	0.00022	mg/L	1		8260B	Total/NA
1,1-Dichloroethane	0.00072	J	0.0010	0.00015	mg/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.00042	J	0.0010	0.00017	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-SMW20-050813 — Lab Sample ID: 240-24239-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.00084	J	0.0010	0.00022	mg/L	1		8260B	Total/NA
1,1-Dichloroethane	0.00032	J	0.0010	0.00015	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-SMW19-050813 — Lab Sample ID: 240-24239-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.00046	J	0.0010	0.00022	mg/L	1		8260B	Total/NA
1,1-Dichloroethane	0.00075	J	0.0010	0.00015	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00029	J	0.0010	0.00019	mg/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.00049	J	0.0010	0.00017	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00064	J	0.0010	0.00029	mg/L	1		8260B	Total/NA
Trichloroethene	0.0089		0.0010	0.00017	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-DUP01-050813 — Lab Sample ID: 240-24239-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.0011		0.0010	0.00022	mg/L	1		8260B	Total/NA
1,1-Dichloroethane	0.00071	J	0.0010	0.00015	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-TRIP01-050713 — Lab Sample ID: 240-24239-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.0021		0.0010	0.00033	mg/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-SMW01-050713
Date Collected: 05/07/13 09:53
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.0020**		0.0010	0.00022	mg/L			05/21/13 05:42	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 05:42	1
1,1-Dichloroethane	ND		0.0010	0.00015	mg/L			05/21/13 05:42	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 05:42	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 05:42	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 05:42	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 05:42	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 05:42	1
Tetrachloroethene	**0.0022**		0.0010	0.00029	mg/L			05/21/13 05:42	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 05:42	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 05:42	1
Trichloroethene	**0.00019**	J	0.0010	0.00017	mg/L			05/21/13 05:42	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 05:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*63 - 129*		*05/21/13 05:42*	*1*
4-Bromofluorobenzene (Surr)	*91*		*66 - 117*		*05/21/13 05:42*	*1*
Toluene-d8 (Surr)	*89*		*74 - 115*		*05/21/13 05:42*	*1*
Dibromofluoromethane (Surr)	*89*		*75 - 121*		*05/21/13 05:42*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-SMW02-050713
Date Collected: 05/07/13 11:37
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 06:05	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 06:05	1
1,1-Dichloroethane	**0.0010**		0.0010	0.00015	mg/L			05/21/13 06:05	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 06:05	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 06:05	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 06:05	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 06:05	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 06:05	1
Tetrachloroethene	**0.00047**	J	0.0010	0.00029	mg/L			05/21/13 06:05	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 06:05	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 06:05	1
Trichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 06:05	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 06:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*63 - 129*		*05/21/13 06:05*	*1*
4-Bromofluorobenzene (Surr)	*90*		*66 - 117*		*05/21/13 06:05*	*1*
Toluene-d8 (Surr)	*88*		*74 - 115*		*05/21/13 06:05*	*1*
Dibromofluoromethane (Surr)	*93*		*75 - 121*		*05/21/13 06:05*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-MW07FGA-050713
Date Collected: 05/07/13 13:51
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.00070**	J	0.0010	0.00022	mg/L			05/21/13 06:28	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 06:28	1
1,1-Dichloroethane	ND		0.0010	0.00015	mg/L			05/21/13 06:28	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 06:28	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 06:28	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 06:28	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 06:28	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 06:28	1
Tetrachloroethene	**0.00092**	J	0.0010	0.00029	mg/L			05/21/13 06:28	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 06:28	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 06:28	1
Trichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 06:28	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 06:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*63 - 129*		*05/21/13 06:28*	*1*
4-Bromofluorobenzene (Surr)	*93*		*66 - 117*		*05/21/13 06:28*	*1*
Toluene-d8 (Surr)	*89*		*74 - 115*		*05/21/13 06:28*	*1*
Dibromofluoromethane (Surr)	*92*		*75 - 121*		*05/21/13 06:28*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-GMZ01-050713
Date Collected: 05/07/13 15:21
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.010**		0.0010	0.00022	mg/L			05/21/13 06:50	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 06:50	1
1,1-Dichloroethane	**0.0066**		0.0010	0.00015	mg/L			05/21/13 06:50	1
1,1-Dichloroethene	**0.00026**	J	0.0010	0.00019	mg/L			05/21/13 06:50	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 06:50	1
cis-1,2-Dichloroethene	**0.0023**		0.0010	0.00017	mg/L			05/21/13 06:50	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 06:50	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 06:50	1
Tetrachloroethene	**0.021**		0.0010	0.00029	mg/L			05/21/13 06:50	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 06:50	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 06:50	1
Trichloroethene	**0.0020**		0.0010	0.00017	mg/L			05/21/13 06:50	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 06:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*63 - 129*		*05/21/13 06:50*	*1*
4-Bromofluorobenzene (Surr)	*88*		*66 - 117*		*05/21/13 06:50*	*1*
Toluene-d8 (Surr)	*88*		*74 - 115*		*05/21/13 06:50*	*1*
Dibromofluoromethane (Surr)	*94*		*75 - 121*		*05/21/13 06:50*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-MW203-050713
Date Collected: 05/07/13 16:31
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 07:13	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 07:13	1
1,1-Dichloroethane	ND		0.0010	0.00015	mg/L			05/21/13 07:13	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 07:13	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 07:13	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 07:13	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 07:13	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 07:13	1
Tetrachloroethene	**0.016**		0.0010	0.00029	mg/L			05/21/13 07:13	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 07:13	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 07:13	1
Trichloroethene	**0.00043**	J	0.0010	0.00017	mg/L			05/21/13 07:13	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 07:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*63 - 129*		*05/21/13 07:13*	*1*
4-Bromofluorobenzene (Surr)	*83*		*66 - 117*		*05/21/13 07:13*	*1*
Toluene-d8 (Surr)	*87*		*74 - 115*		*05/21/13 07:13*	*1*
Dibromofluoromethane (Surr)	*93*		*75 - 121*		*05/21/13 07:13*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-FBLK01-050813
Date Collected: 05/08/13 06:45
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 14:11	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 14:11	1
1,1-Dichloroethane	ND		0.0010	0.00015	mg/L			05/21/13 14:11	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 14:11	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 14:11	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 14:11	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 14:11	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 14:11	1
Tetrachloroethene	ND		0.0010	0.00029	mg/L			05/21/13 14:11	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 14:11	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 14:11	1
Trichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 14:11	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*63 - 129*		*05/21/13 14:11*	*1*
4-Bromofluorobenzene (Surr)	*86*		*66 - 117*		*05/21/13 14:11*	*1*
Toluene-d8 (Surr)	*84*		*74 - 115*		*05/21/13 14:11*	*1*
Dibromofluoromethane (Surr)	*87*		*75 - 121*		*05/21/13 14:11*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-SMW08-050813
Date Collected: 05/08/13 07:15
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.015**		0.0010	0.00022	mg/L			05/21/13 14:34	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 14:34	1
1,1-Dichloroethane	**0.0035**		0.0010	0.00015	mg/L			05/21/13 14:34	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 14:34	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 14:34	1
cis-1,2-Dichloroethene	**0.0017**		0.0010	0.00017	mg/L			05/21/13 14:34	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 14:34	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 14:34	1
Tetrachloroethene	**0.038**		0.0010	0.00029	mg/L			05/21/13 14:34	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 14:34	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 14:34	1
Trichloroethene	**0.0033**		0.0010	0.00017	mg/L			05/21/13 14:34	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*63 - 129*		*05/21/13 14:34*	*1*
4-Bromofluorobenzene (Surr)	*88*		*66 - 117*		*05/21/13 14:34*	*1*
Toluene-d8 (Surr)	*86*		*74 - 115*		*05/21/13 14:34*	*1*
Dibromofluoromethane (Surr)	*86*		*75 - 121*		*05/21/13 14:34*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-EBLK01-050813

Lab Sample ID: 240-24239

Date Collected: 05/08/13 07:45
Date Received: 05/10/13 10:00

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 14:56	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 14:56	1
1,1-Dichloroethane	ND		0.0010	0.00015	mg/L			05/21/13 14:56	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 14:56	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 14:56	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 14:56	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 14:56	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 14:56	1
Tetrachloroethene	ND		0.0010	0.00029	mg/L			05/21/13 14:56	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 14:56	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 14:56	1
Trichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 14:56	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*63 - 129*		*05/21/13 14:56*	*1*
4-Bromofluorobenzene (Surr)	*92*		*66 - 117*		*05/21/13 14:56*	*1*
Toluene-d8 (Surr)	*88*		*74 - 115*		*05/21/13 14:56*	*1*
Dibromofluoromethane (Surr)	*88*		*75 - 121*		*05/21/13 14:56*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-PMW02-050813
Date Collected: 05/08/13 08:17
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.012**		0.0010	0.00022	mg/L			05/21/13 15:19	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 15:19	1
1,1-Dichloroethane	**0.013**		0.0010	0.00015	mg/L			05/21/13 15:19	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 15:19	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 15:19	1
cis-1,2-Dichloroethene	**0.0016**		0.0010	0.00017	mg/L			05/21/13 15:19	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 15:19	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 15:19	1
Tetrachloroethene	**0.020**		0.0010	0.00029	mg/L			05/21/13 15:19	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 15:19	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 15:19	1
Trichloroethene	**0.0027**		0.0010	0.00017	mg/L			05/21/13 15:19	1
Vinyl chloride	**0.0024**		0.0010	0.00022	mg/L			05/21/13 15:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*63 - 129*		*05/21/13 15:19*	*1*
4-Bromofluorobenzene (Surr)	*87*		*66 - 117*		*05/21/13 15:19*	*1*
Toluene-d8 (Surr)	*86*		*74 - 115*		*05/21/13 15:19*	*1*
Dibromofluoromethane (Surr)	*89*		*75 - 121*		*05/21/13 15:19*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-PMW01-050813
Date Collected: 05/08/13 09:08
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239-
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.0097**		0.0010	0.00022	mg/L			05/21/13 15:42	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 15:42	1
1,1-Dichloroethane	**0.025**		0.0010	0.00015	mg/L			05/21/13 15:42	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 15:42	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 15:42	1
cis-1,2-Dichloroethene	**0.0020**		0.0010	0.00017	mg/L			05/21/13 15:42	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 15:42	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 15:42	1
Tetrachloroethene	**0.022**		0.0010	0.00029	mg/L			05/21/13 15:42	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 15:42	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 15:42	1
Trichloroethene	**0.0012**		0.0010	0.00017	mg/L			05/21/13 15:42	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 15:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*63 - 129*		*05/21/13 15:42*	*1*
4-Bromofluorobenzene (Surr)	*94*		*66 - 117*		*05/21/13 15:42*	*1*
Toluene-d8 (Surr)	*87*		*74 - 115*		*05/21/13 15:42*	*1*
Dibromofluoromethane (Surr)	*89*		*75 - 121*		*05/21/13 15:42*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-SMW04-050813
Date Collected: 05/08/13 09:50
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239-11
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.0035**		0.0010	0.00022	mg/L			05/21/13 16:05	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 16:05	1
1,1-Dichloroethane	**0.0050**		0.0010	0.00015	mg/L			05/21/13 16:05	1
1,1-Dichloroethene	**0.00075**	J	0.0010	0.00019	mg/L			05/21/13 16:05	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 16:05	1
cis-1,2-Dichloroethene	**0.013**		0.0010	0.00017	mg/L			05/21/13 16:05	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 16:05	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 16:05	1
Tetrachloroethene	**0.0084**		0.0010	0.00029	mg/L			05/21/13 16:05	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 16:05	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 16:05	1
Trichloroethene	**0.0039**		0.0010	0.00017	mg/L			05/21/13 16:05	1
Vinyl chloride	**0.021**		0.0010	0.00022	mg/L			05/21/13 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*63 - 129*		*05/21/13 16:05*	*1*
4-Bromofluorobenzene (Surr)	*99*		*66 - 117*		*05/21/13 16:05*	*1*
Toluene-d8 (Surr)	*86*		*74 - 115*		*05/21/13 16:05*	*1*
Dibromofluoromethane (Surr)	*89*		*75 - 121*		*05/21/13 16:05*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-GMZ04-050813
Date Collected: 05/08/13 10:08
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.00073	J	0.0010	0.00022	mg/L			05/21/13 16:27	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 16:27	1
1,1-Dichloroethane	ND		0.0010	0.00015	mg/L			05/21/13 16:27	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 16:27	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 16:27	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 16:27	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 16:27	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 16:27	1
Tetrachloroethene	ND		0.0010	0.00029	mg/L			05/21/13 16:27	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 16:27	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 16:27	1
Trichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 16:27	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*63 - 129*		*05/21/13 16:27*	*1*
4-Bromofluorobenzene (Surr)	*92*		*66 - 117*		*05/21/13 16:27*	*1*
Toluene-d8 (Surr)	*87*		*74 - 115*		*05/21/13 16:27*	*1*
Dibromofluoromethane (Surr)	*89*		*75 - 121*		*05/21/13 16:27*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-SMW21-050813
Date Collected: 05/08/13 11:12
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239-13
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.020**		0.0010	0.00022	mg/L			05/21/13 16:50	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 16:50	1
1,1-Dichloroethane	**0.00043**	J	0.0010	0.00015	mg/L			05/21/13 16:50	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 16:50	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 16:50	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 16:50	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 16:50	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 16:50	1
Tetrachloroethene	ND		0.0010	0.00029	mg/L			05/21/13 16:50	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 16:50	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 16:50	1
Trichloroethene	**0.0024**		0.0010	0.00017	mg/L			05/21/13 16:50	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 16:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*63 - 129*		*05/21/13 16:50*	*1*
4-Bromofluorobenzene (Surr)	*92*		*66 - 117*		*05/21/13 16:50*	*1*
Toluene-d8 (Surr)	*84*		*74 - 115*		*05/21/13 16:50*	*1*
Dibromofluoromethane (Surr)	*86*		*75 - 121*		*05/21/13 16:50*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-GMZ02-050813
Date Collected: 05/08/13 11:14
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.0067**		0.0010	0.00022	mg/L			05/21/13 17:13	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 17:13	1
1,1-Dichloroethane	**0.0021**		0.0010	0.00015	mg/L			05/21/13 17:13	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 17:13	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 17:13	1
cis-1,2-Dichloroethene	**0.00039**	J	0.0010	0.00017	mg/L			05/21/13 17:13	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 17:13	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 17:13	1
Tetrachloroethene	**0.00035**	J	0.0010	0.00029	mg/L			05/21/13 17:13	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 17:13	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 17:13	1
Trichloroethene	**0.00039**	J	0.0010	0.00017	mg/L			05/21/13 17:13	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*63 - 129*		*05/21/13 17:13*	*1*
4-Bromofluorobenzene (Surr)	*87*		*66 - 117*		*05/21/13 17:13*	*1*
Toluene-d8 (Surr)	*88*		*74 - 115*		*05/21/13 17:13*	*1*
Dibromofluoromethane (Surr)	*89*		*75 - 121*		*05/21/13 17:13*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-GMZ03-050813
Date Collected: 05/08/13 12:00
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239-15
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.0010**		0.0010	0.00022	mg/L			05/21/13 18:21	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 18:21	1
1,1-Dichloroethane	**0.00072**	J	0.0010	0.00015	mg/L			05/21/13 18:21	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 18:21	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 18:21	1
cis-1,2-Dichloroethene	**0.00042**	J	0.0010	0.00017	mg/L			05/21/13 18:21	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 18:21	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 18:21	1
Tetrachloroethene	ND		0.0010	0.00029	mg/L			05/21/13 18:21	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 18:21	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 18:21	1
Trichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 18:21	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*63 - 129*		*05/21/13 18:21*	*1*
4-Bromofluorobenzene (Surr)	*92*		*66 - 117*		*05/21/13 18:21*	*1*
Toluene-d8 (Surr)	*87*		*74 - 115*		*05/21/13 18:21*	*1*
Dibromofluoromethane (Surr)	*90*		*75 - 121*		*05/21/13 18:21*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-SMW20-050813

Lab Sample ID: 240-24239-

Date Collected: 05/08/13 12:01
Date Received: 05/10/13 10:00

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.00084**	J	0.0010	0.00022	mg/L			05/21/13 18:43	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 18:43	1
1,1-Dichloroethane	**0.00032**	J	0.0010	0.00015	mg/L			05/21/13 18:43	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 18:43	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 18:43	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 18:43	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 18:43	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 18:43	1
Tetrachloroethene	ND		0.0010	0.00029	mg/L			05/21/13 18:43	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 18:43	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 18:43	1
Trichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 18:43	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*63 - 129*		*05/21/13 18:43*	*1*
4-Bromofluorobenzene (Surr)	*91*		*66 - 117*		*05/21/13 18:43*	*1*
Toluene-d8 (Surr)	*86*		*74 - 115*		*05/21/13 18:43*	*1*
Dibromofluoromethane (Surr)	*91*		*75 - 121*		*05/21/13 18:43*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-SMW19-050813
Date Collected: 05/08/13 13:21
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239-17
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.00046**	J	0.0010	0.00022	mg/L			05/21/13 19:06	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 19:06	1
1,1-Dichloroethane	**0.00075**	J	0.0010	0.00015	mg/L			05/21/13 19:06	1
1,1-Dichloroethene	**0.00029**	J	0.0010	0.00019	mg/L			05/21/13 19:06	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 19:06	1
cis-1,2-Dichloroethene	**0.00049**	J	0.0010	0.00017	mg/L			05/21/13 19:06	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 19:06	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 19:06	1
Tetrachloroethene	**0.00064**	J	0.0010	0.00029	mg/L			05/21/13 19:06	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 19:06	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 19:06	1
Trichloroethene	**0.0089**		0.0010	0.00017	mg/L			05/21/13 19:06	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 19:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*63 - 129*		*05/21/13 19:06*	*1*
4-Bromofluorobenzene (Surr)	*90*		*66 - 117*		*05/21/13 19:06*	*1*
Toluene-d8 (Surr)	*84*		*74 - 115*		*05/21/13 19:06*	*1*
Dibromofluoromethane (Surr)	*91*		*75 - 121*		*05/21/13 19:06*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-DUP01-050813
Date Collected: 05/08/13 00:00
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.0011**		0.0010	0.00022	mg/L			05/21/13 19:29	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 19:29	1
1,1-Dichloroethane	**0.00071**	J	0.0010	0.00015	mg/L			05/21/13 19:29	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 19:29	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 19:29	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 19:29	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 19:29	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 19:29	1
Tetrachloroethene	ND		0.0010	0.00029	mg/L			05/21/13 19:29	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 19:29	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 19:29	1
Trichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 19:29	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*63 - 129*		*05/21/13 19:29*	*1*
4-Bromofluorobenzene (Surr)	*93*		*66 - 117*		*05/21/13 19:29*	*1*
Toluene-d8 (Surr)	*86*		*74 - 115*		*05/21/13 19:29*	*1*
Dibromofluoromethane (Surr)	*89*		*75 - 121*		*05/21/13 19:29*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-TRIP01-050713
Date Collected: 05/07/13 00:00
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239-19
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 07:35	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 07:35	1
1,1-Dichloroethane	ND		0.0010	0.00015	mg/L			05/21/13 07:35	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 07:35	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 07:35	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 07:35	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 07:35	1
Methylene Chloride	***0.0021***		0.0010	0.00033	mg/L			05/21/13 07:35	1
Tetrachloroethene	ND		0.0010	0.00029	mg/L			05/21/13 07:35	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 07:35	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 07:35	1
Trichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 07:35	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 07:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*63 - 129*		*05/21/13 07:35*	*1*
4-Bromofluorobenzene (Surr)	*89*		*66 - 117*		*05/21/13 07:35*	*1*
Toluene-d8 (Surr)	*89*		*74 - 115*		*05/21/13 07:35*	*1*
Dibromofluoromethane (Surr)	*92*		*75 - 121*		*05/21/13 07:35*	*1*

Surrogate Summary

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	**Client Sample ID**	**(63-129)**	**(66-117)**	**(74-115)**	**(75-121)**
240-24239-1	HSSER-SMW01-050713	89	91	89	89
240-24239-2	HSSER-SMW02-050713	88	90	88	93
240-24239-3	HSSER-MW07FGA-050713	90	93	89	92
240-24239-4	HSSER-GMZ01-050713	88	88	88	94
240-24239-5	HSSER-MW203-050713	90	83	87	93
240-24239-6	HSSER-FBLK01-050813	87	86	84	87
240-24239-7	HSSER-SMW08-050813	83	88	86	86
240-24239-8	HSSER-EBLK01-050813	86	92	88	88
240-24239-9	HSSER-PMW02-050813	84	87	86	89
240-24239-10	HSSER-PMW01-050813	85	94	87	89
240-24239-11	HSSER-SMW04-050813	82	99	86	89
240-24239-12	HSSER-GMZ04-050813	84	92	87	89
240-24239-13	HSSER-SMW21-050813	86	92	84	86
240-24239-14	HSSER-GMZ02-050813	82	87	88	89
240-24239-14 MS	HSSER-GMZ02-050813	87	99	86	87
240-24239-14 MSD	HSSER-GMZ02-050813	89	103	88	87
240-24239-15	HSSER-GMZ03-050813	84	92	87	90
240-24239-16	HSSER-SMW20-050813	88	91	86	91
240-24239-17	HSSER-SMW19-050813	86	90	84	91
240-24239-18	HSSER-DUP01-050813	85	93	86	89
240-24239-19	HSSER-TRIP01-050713	90	89	89	92
LCS 240-86620/4	Lab Control Sample	87	101	90	89
LCS 240-86709/4	Lab Control Sample	83	102	90	86
MB 240-86620/5	Method Blank	92	89	88	91
MB 240-86709/5	Method Blank	89	90	89	92

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-86620/5
Matrix: Water
Analysis Batch: 86620

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0010	0.00022	mg/L			05/20/13 23:20	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/20/13 23:20	1
1,1-Dichloroethane	ND		0.0010	0.00015	mg/L			05/20/13 23:20	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/20/13 23:20	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/20/13 23:20	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/20/13 23:20	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/20/13 23:20	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/20/13 23:20	1
Tetrachloroethene	ND		0.0010	0.00029	mg/L			05/20/13 23:20	1
Toluene	ND		0.0010	0.00013	mg/L			05/20/13 23:20	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/20/13 23:20	1
Trichloroethene	ND		0.0010	0.00017	mg/L			05/20/13 23:20	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/20/13 23:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*63 - 129*		*05/20/13 23:20*	*1*
4-Bromofluorobenzene (Surr)	*89*		*66 - 117*		*05/20/13 23:20*	*1*
Toluene-d8 (Surr)	*88*		*74 - 115*		*05/20/13 23:20*	*1*
Dibromofluoromethane (Surr)	*91*		*75 - 121*		*05/20/13 23:20*	*1*

Lab Sample ID: LCS 240-86620/4
Matrix: Water
Analysis Batch: 86620

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.0100	0.00923		mg/L		92	74 - 118
1,1,2-Trichloroethane	0.0100	0.00978		mg/L		98	80 - 112
1,1-Dichloroethane	0.0100	0.00970		mg/L		97	82 - 115
1,1-Dichloroethene	0.0100	0.00984		mg/L		98	78 - 131
1,2-Dichloroethane	0.0100	0.00952		mg/L		95	71 - 127
cis-1,2-Dichloroethene	0.0100	0.00949		mg/L		95	80 - 113
Ethylbenzene	0.0100	0.00937		mg/L		94	83 - 112
Methylene Chloride	0.0100	0.00901		mg/L		90	66 - 131
Tetrachloroethene	0.0100	0.00875		mg/L		88	79 - 114
Toluene	0.0100	0.00892		mg/L		89	84 - 111
trans-1,2-Dichloroethene	0.0100	0.00898		mg/L		90	83 - 117
Trichloroethene	0.0100	0.00922		mg/L		92	76 - 117
Vinyl chloride	0.0100	0.00969		mg/L		97	53 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*87*		*63 - 129*
4-Bromofluorobenzene (Surr)	*101*		*66 - 117*
Toluene-d8 (Surr)	*90*		*74 - 115*
Dibromofluoromethane (Surr)	*89*		*75 - 121*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-86709/5
Matrix: Water
Analysis Batch: 86709

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 11:11	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 11:11	1
1,1-Dichloroethane	ND		0.0010	0.00015	mg/L			05/21/13 11:11	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 11:11	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 11:11	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 11:11	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 11:11	1
Methylene Chloride	0.000396	J	0.0010	0.00033	mg/L			05/21/13 11:11	1
Tetrachloroethene	ND		0.0010	0.00029	mg/L			05/21/13 11:11	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 11:11	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 11:11	1
Trichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 11:11	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 11:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*63 - 129*		*05/21/13 11:11*	*1*
4-Bromofluorobenzene (Surr)	*90*		*66 - 117*		*05/21/13 11:11*	*1*
Toluene-d8 (Surr)	*89*		*74 - 115*		*05/21/13 11:11*	*1*
Dibromofluoromethane (Surr)	*92*		*75 - 121*		*05/21/13 11:11*	*1*

Lab Sample ID: LCS 240-86709/4
Matrix: Water
Analysis Batch: 86709

Client Sample ID: Lab Control Samp
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.0100	0.0100		mg/L		100	74 - 118
1,1,2-Trichloroethane	0.0100	0.00974		mg/L		97	80 - 112
1,1-Dichloroethane	0.0100	0.00934		mg/L		93	82 - 115
1,1-Dichloroethene	0.0100	0.0111		mg/L		111	78 - 131
1,2-Dichloroethane	0.0100	0.00920		mg/L		92	71 - 127
cis-1,2-Dichloroethene	0.0100	0.00915		mg/L		92	80 - 113
Ethylbenzene	0.0100	0.00949		mg/L		95	83 - 112
Methylene Chloride	0.0100	0.0104		mg/L		104	66 - 131
Tetrachloroethene	0.0100	0.00894		mg/L		89	79 - 114
Toluene	0.0100	0.00899		mg/L		90	84 - 111
trans-1,2-Dichloroethene	0.0100	0.00886		mg/L		89	83 - 117
Trichloroethene	0.0100	0.00911		mg/L		91	76 - 117
Vinyl chloride	0.0100	0.0112		mg/L		112	53 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*83*		*63 - 129*
4-Bromofluorobenzene (Surr)	*102*		*66 - 117*
Toluene-d8 (Surr)	*90*		*74 - 115*
Dibromofluoromethane (Surr)	*86*		*75 - 121*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-24239-14 MS — **Client Sample ID: HSSER-GMZ02-050813**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 86709

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.0067		0.0100	0.0166		mg/L		99	68 - 121
1,1,2-Trichloroethane	ND		0.0100	0.00920		mg/L		92	75 - 115
1,1-Dichloroethane	0.0021		0.0100	0.0114		mg/L		93	79 - 116
1,1-Dichloroethene	ND		0.0100	0.0114		mg/L		114	74 - 135
1,2-Dichloroethane	ND		0.0100	0.00901		mg/L		90	68 - 129
cis-1,2-Dichloroethene	0.00039	J	0.0100	0.00939		mg/L		90	70 - 120
Ethylbenzene	ND		0.0100	0.00891		mg/L		89	75 - 116
Methylene Chloride	ND		0.0100	0.00936		mg/L		94	63 - 128
Tetrachloroethene	0.00035	J	0.0100	0.00878		mg/L		84	70 - 117
Toluene	ND		0.0100	0.00832		mg/L		83	78 - 114
trans-1,2-Dichloroethene	ND		0.0100	0.00876		mg/L		88	80 - 119
Trichloroethene	0.00039	J	0.0100	0.00933		mg/L		89	66 - 120
Vinyl chloride	ND		0.0100	0.0114		mg/L		114	49 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*87*		*63 - 129*
4-Bromofluorobenzene (Surr)	*99*		*66 - 117*
Toluene-d8 (Surr)	*86*		*74 - 115*
Dibromofluoromethane (Surr)	*87*		*75 - 121*

Lab Sample ID: 240-24239-14 MSD — **Client Sample ID: HSSER-GMZ02-050813**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 86709

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.0067		0.0100	0.0166		mg/L		99	68 - 121	0	30
1,1,2-Trichloroethane	ND		0.0100	0.00946		mg/L		95	75 - 115	3	30
1,1-Dichloroethane	0.0021		0.0100	0.0115		mg/L		94	79 - 116	1	30
1,1-Dichloroethene	ND		0.0100	0.0120		mg/L		120	74 - 135	5	30
1,2-Dichloroethane	ND		0.0100	0.00920		mg/L		92	68 - 129	2	30
cis-1,2-Dichloroethene	0.00039	J	0.0100	0.00952		mg/L		91	70 - 120	1	30
Ethylbenzene	ND		0.0100	0.00949		mg/L		95	75 - 116	6	30
Methylene Chloride	ND		0.0100	0.00929		mg/L		93	63 - 128	1	30
Tetrachloroethene	0.00035	J	0.0100	0.00922		mg/L		89	70 - 117	5	30
Toluene	ND		0.0100	0.00878		mg/L		88	78 - 114	5	30
trans-1,2-Dichloroethene	ND		0.0100	0.00903		mg/L		90	80 - 119	3	30
Trichloroethene	0.00039	J	0.0100	0.00967		mg/L		93	66 - 120	4	30
Vinyl chloride	ND		0.0100	0.0116		mg/L		116	49 - 130	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*63 - 129*
4-Bromofluorobenzene (Surr)	*103*		*66 - 117*
Toluene-d8 (Surr)	*88*		*74 - 115*
Dibromofluoromethane (Surr)	*87*		*75 - 121*

QC Association Summary

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

GC/MS VOA

Analysis Batch: 86620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-24239-1	HSSER-SMW01-050713	Total/NA	Water	8260B	
240-24239-2	HSSER-SMW02-050713	Total/NA	Water	8260B	
240-24239-3	HSSER-MW07FGA-050713	Total/NA	Water	8260B	
240-24239-4	HSSER-GMZ01-050713	Total/NA	Water	8260B	
240-24239-5	HSSER-MW203-050713	Total/NA	Water	8260B	
240-24239-19	HSSER-TRIP01-050713	Total/NA	Water	8260B	
LCS 240-86620/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-86620/5	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 86709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-24239-6	HSSER-FBLK01-050813	Total/NA	Water	8260B	
240-24239-7	HSSER-SMW08-050813	Total/NA	Water	8260B	
240-24239-8	HSSER-EBLK01-050813	Total/NA	Water	8260B	
240-24239-9	HSSER-PMW02-050813	Total/NA	Water	8260B	
240-24239-10	HSSER-PMW01-050813	Total/NA	Water	8260B	
240-24239-11	HSSER-SMW04-050813	Total/NA	Water	8260B	
240-24239-12	HSSER-GMZ04-050813	Total/NA	Water	8260B	
240-24239-13	HSSER-SMW21-050813	Total/NA	Water	8260B	
240-24239-14	HSSER-GMZ02-050813	Total/NA	Water	8260B	
240-24239-14 MS	HSSER-GMZ02-050813	Total/NA	Water	8260B	
240-24239-14 MSD	HSSER-GMZ02-050813	Total/NA	Water	8260B	
240-24239-15	HSSER-GMZ03-050813	Total/NA	Water	8260B	
240-24239-16	HSSER-SMW20-050813	Total/NA	Water	8260B	
240-24239-17	HSSER-SMW19-050813	Total/NA	Water	8260B	
240-24239-18	HSSER-DUP01-050813	Total/NA	Water	8260B	
LCS 240-86709/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-86709/5	Method Blank	Total/NA	Water	8260B	

Lab Chronicle

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-SMW01-050713 — Lab Sample ID: 240-24239-1

Date Collected: 05/07/13 09:53
Date Received: 05/10/13 10:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86620	05/21/13 05:42	LE	TAL CAN

Client Sample ID: HSSER-SMW02-050713 — Lab Sample ID: 240-24239-2

Date Collected: 05/07/13 11:37
Date Received: 05/10/13 10:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86620	05/21/13 06:05	LE	TAL CAN

Client Sample ID: HSSER-MW07FGA-050713 — Lab Sample ID: 240-24239-3

Date Collected: 05/07/13 13:51
Date Received: 05/10/13 10:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86620	05/21/13 06:28	LE	TAL CAN

Client Sample ID: HSSER-GMZ01-050713 — Lab Sample ID: 240-24239-4

Date Collected: 05/07/13 15:21
Date Received: 05/10/13 10:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86620	05/21/13 06:50	LE	TAL CAN

Client Sample ID: HSSER-MW203-050713 — Lab Sample ID: 240-24239-5

Date Collected: 05/07/13 16:31
Date Received: 05/10/13 10:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86620	05/21/13 07:13	LE	TAL CAN

Client Sample ID: HSSER-FBLK01-050813 — Lab Sample ID: 240-24239-6

Date Collected: 05/08/13 06:45
Date Received: 05/10/13 10:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86709	05/21/13 14:11	LE	TAL CAN

Lab Chronicle

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-SMW08-050813 — Lab Sample ID: 240-24239

Date Collected: 05/08/13 07:15
Date Received: 05/10/13 10:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86709	05/21/13 14:34	LE	TAL CAN

Client Sample ID: HSSER-EBLK01-050813 — Lab Sample ID: 240-24239-8

Date Collected: 05/08/13 07:45
Date Received: 05/10/13 10:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86709	05/21/13 14:56	LE	TAL CAN

Client Sample ID: HSSER-PMW02-050813 — Lab Sample ID: 240-24239-9

Date Collected: 05/08/13 08:17
Date Received: 05/10/13 10:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86709	05/21/13 15:19	LE	TAL CAN

Client Sample ID: HSSER-PMW01-050813 — Lab Sample ID: 240-24239-10

Date Collected: 05/08/13 09:08
Date Received: 05/10/13 10:00
Matrix: Wat

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86709	05/21/13 15:42	LE	TAL CAN

Client Sample ID: HSSER-SMW04-050813 — Lab Sample ID: 240-24239-11

Date Collected: 05/08/13 09:50
Date Received: 05/10/13 10:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86709	05/21/13 16:05	LE	TAL CAN

Client Sample ID: HSSER-GMZ04-050813 — Lab Sample ID: 240-24239-12

Date Collected: 05/08/13 10:08
Date Received: 05/10/13 10:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86709	05/21/13 16:27	LE	TAL CAN

Lab Chronicle

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-SMW21-050813 — Lab Sample ID: 240-24239-13

Date Collected: 05/08/13 11:12
Date Received: 05/10/13 10:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86709	05/21/13 16:50	LE	TAL CAN

Client Sample ID: HSSER-GMZ02-050813 — Lab Sample ID: 240-24239-14

Date Collected: 05/08/13 11:14
Date Received: 05/10/13 10:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86709	05/21/13 17:13	LE	TAL CAN

Client Sample ID: HSSER-GMZ03-050813 — Lab Sample ID: 240-24239-15

Date Collected: 05/08/13 12:00
Date Received: 05/10/13 10:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86709	05/21/13 18:21	LE	TAL CAN

Client Sample ID: HSSER-SMW20-050813 — Lab Sample ID: 240-24239-16

Date Collected: 05/08/13 12:01
Date Received: 05/10/13 10:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86709	05/21/13 18:43	LE	TAL CAN

Client Sample ID: HSSER-SMW19-050813 — Lab Sample ID: 240-24239-17

Date Collected: 05/08/13 13:21
Date Received: 05/10/13 10:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86709	05/21/13 19:06	LE	TAL CAN

Client Sample ID: HSSER-DUP01-050813 — Lab Sample ID: 240-24239-18

Date Collected: 05/08/13 00:00
Date Received: 05/10/13 10:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86709	05/21/13 19:29	LE	TAL CAN

Lab Chronicle

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Client Sample ID: HSSER-TRIP01-050713
Date Collected: 05/07/13 00:00
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24239-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86620	05/21/13 07:35	LE	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24239-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAP	5	200004	07-31-13
Kansas	NELAP	7	E-10336	01-31-14
Kentucky	State Program	4	58	06-30-13
L-A-B	DoD ELAP		L2315	07-28-13
Minnesota	NELAP	5	039-999-348	12-31-13
Nevada	State Program	9	OH-000482008A	07-31-13
New Jersey	NELAP	2	OH001	06-30-13
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-13
Texas	NELAP	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-13
Washington	State Program	10	C971	01-12-14
West Virginia DEP	State Program	3	210	12-31-13
Wisconsin	State Program	5	999518190	08-31-13

Chain of Custody Record

TestAmerica
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TAL-4142 (0408)

Client	Project Manager	Date	Chain of Custody Number
AECOM	Peter Hollatz Peter.Hollatz@aecom.com	5-9-13	004510
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	
27755 Diehl Rd Suite #100	630-836-1700 / 630-836-1711		Page 1 of 2

City	State	Zip Code	Site Contact	Lab Contact
Warrenville	IL	60555		Pat Omeara

Project Name and Location (State)	Carrier/Waybill Number
UTC-HS-Plant 6	5427-1268-1268-1974

Contract/Purchase Order/Quote No.: 460300 ACM

Analysis (Attach list if more space is needed): VOC's 8260B*

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil		Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH		VOC's 8260B*
HSSER-SMW01-050713	5-7-13	0953		X							~~3~~				X
HSSER-SMW02-050713	5-7-13	1137		X							3				X
HSSER-MW07FGA-050713	5-7-13	1351		X							3				X
HSSER-GMW01-050713	5-7-13	1521		X							3				X
HSSER-MW203-050713	5-7-13	1631		X							3				X
HSSER-FBLK01-050813	5-8-13	0645		X							3				X
HSSER-SMW08-050813	5-8-13	0715		X							3				X
HSSER-EBLK01-050813	5-8-13	0745		X							3				X
HSSER-PMW02-050813	5-8-13	0817		X							3				X
HSSER-PMW01-050813	5-8-13	0908		X							3				X
HSSER-SMW04-050813	5-8-13	0950		X							3				X
HSSER-GMW04-050813	5-8-13	1008		X							3				X

240-24239 Chain of Custody

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: [ ] 24 Hours [ ] 48 Hours [ ] 7 Days [ ] 14 Days [ ] 21 Days [X] Other Standard.

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
[signature]	5-9-13	1800	Fedex 5427-1268-1268 1974	5-9-13	1800
2. Relinquished By	**Date**	**Time**	**2. Received By**	**Date**	**Time**
			[signature]	5/10/13	1000
3. Relinquished By	**Date**	**Time**	**3. Received By**	**Date**	**Time**

Comments: * List of 13 VOC's; Level IV Data.

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica Canton Sample Receipt Form/Narrative Login # : 24239
Canton Facility

Client AECOM Site Name _____ Cooler unpacked by: [signature]

Cooler Received on 5-10-13 Opened on 5-10-13.

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # A965 Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt
   - IR GUN# 1 (CF –0 °C) Observed Cooler Temp. 2.1 °C Corrected Cooler Temp. 2.1 °C
   - IR GUN# 4G (CF +1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
   - IR GUN# 5G (CF +1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
   - IR GUN# 8 (CF +1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

   ☐ See Multiple Cooler Form
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   - -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   - -Were custody seals on the bottle(s)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Did all bottles arrive in good condition (Unbroken)? (Yes) No
7. Could all bottle labels be reconciled with the COC? (Yes) No
8. Were correct bottle(s) used for the test(s) indicated? (Yes) No
9. Sufficient quantity received to perform indicated analyses? (Yes) No
10. Were sample(s) at the correct pH upon receipt? Yes No (NA) pH Strip Lot# HC379740
11. Were VOAs on the COC? (Yes) No
12. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
13. Was a trip blank present in the cooler(s)? (Yes) No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: [signature]

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

Ref: SOP NC-SC-0005, Sample Receiving
C:\Users\livengoodc\AppData\Local\Microsoft\Windows\Temporary Internet Files\OLKD16\WI-NC-099-042513 Cooler Receipt Form.doc rls

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-24262-1
Client Project/Site: UTC - HS - Plant 1

For:
AECOM, Inc.
27755 Diehl Road
Suite 100
Warrenville, Illinois 60555

Attn: Peter Hollatz

Kris Brooks

Authorized for release by:
5/28/2013 4:46:56 PM
Kris Brooks, Project Manager II
(330)966-9790
kris.brooks@testamericainc.com

Designee for

Patrick O'Meara, Project Manager II
patrick.omeara@testamericainc.com

LINKS

Review your project results through
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Ask The Expert

Visit us at:
www.testamericainc.com

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

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE

Client: AECOM, Inc.

Project: UTC - HS - Plant 1

Report Number: 240-24262-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

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

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 05/10/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 2.3 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples HSSER-RAMW08-050713 (240-24262-1), HSSER-RAMW07-050713 (240-24262-2), HSSER-RAMW06-050713 (240-24262-3), HSSER-RAMW05-050713 (240-24262-4), HSSER-RAMW03-050713 (240-24262-5), HSSER-RAMW02-050713 (240-24262-6), HSSER-DUP02-050713 (240-24262-7), HSSER-FBLK02-050813 (240-24262-8), HSSER-RAMW01-050813 (240-24262-9), HSSER-EBLK02-050813 (240-24262-10), HSSER-RAMW04-050813 (240-24262-11) and HSSER-TRIP02-050713 (240-24262-12) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 05/20/2013 and 05/21/2013.

Methylene Chloride was detected in method blank MB 240-86641/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Samples HSSER-RAMW07-050713 (240-24262-2)[20X], HSSER-RAMW06-050713 (240-24262-3)[2.5X] and HSSER-RAMW05-050713 (240-24262-4)[2.86X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Job ID: 240-24262-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

Method Summary

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN

Protocol References:

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-24262-1	HSSER-RAMW08-050713	Water	05/07/13 09:57	05/10/13 10:00
240-24262-2	HSSER-RAMW07-050713	Water	05/07/13 11:49	05/10/13 10:00
240-24262-3	HSSER-RAMW06-050713	Water	05/07/13 13:05	05/10/13 10:00
240-24262-4	HSSER-RAMW05-050713	Water	05/07/13 14:22	05/10/13 10:00
240-24262-5	HSSER-RAMW03-050713	Water	05/07/13 16:01	05/10/13 10:00
240-24262-6	HSSER-RAMW02-050713	Water	05/07/13 17:02	05/10/13 10:00
240-24262-7	HSSER-DUP02-050713	Water	05/07/13 00:00	05/10/13 10:00
240-24262-8	HSSER-FBLK02-050813	Water	05/08/13 07:33	05/10/13 10:00
240-24262-9	HSSER-RAMW01-050813	Water	05/08/13 07:33	05/10/13 10:00
240-24262-10	HSSER-EBLK02-050813	Water	05/08/13 07:55	05/10/13 10:00
240-24262-11	HSSER-RAMW04-050813	Water	05/08/13 08:33	05/10/13 10:00
240-24262-12	HSSER-TRIP02-050713	Water	05/07/13 00:00	05/10/13 10:00

Detection Summary

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Client Sample ID: HSSER-RAMW08-050713 — Lab Sample ID: 240-24262-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.030		0.0010	0.00022	mg/L	1		8260B	Total/NA
1,1-Dichloroethane	0.0048		0.0010	0.00015	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.0090		0.0010	0.00019	mg/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.0065		0.0010	0.00017	mg/L	1		8260B	Total/NA
Ethylbenzene	0.0010		0.0010	0.00017	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0051		0.0010	0.00029	mg/L	1		8260B	Total/NA
Trichloroethene	0.0012		0.0010	0.00017	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-RAMW07-050713 — Lab Sample ID: 240-24262-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.0		0.020	0.0044	mg/L	20		8260B	Total/NA
1,1-Dichloroethane	0.022		0.020	0.0030	mg/L	20		8260B	Total/NA
1,1-Dichloroethene	0.16		0.020	0.0038	mg/L	20		8260B	Total/NA
cis-1,2-Dichloroethene	0.041		0.020	0.0034	mg/L	20		8260B	Total/NA
Methylene Chloride	0.0083	J B	0.020	0.0066	mg/L	20		8260B	Total/NA
Tetrachloroethene	0.0082	J	0.020	0.0058	mg/L	20		8260B	Total/NA
Trichloroethene	0.082		0.020	0.0034	mg/L	20		8260B	Total/NA

Client Sample ID: HSSER-RAMW06-050713 — Lab Sample ID: 240-24262-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.15		0.0025	0.00055	mg/L	2.5		8260B	Total/NA
1,1-Dichloroethane	0.0031		0.0025	0.00038	mg/L	2.5		8260B	Total/NA
1,1-Dichloroethene	0.021		0.0025	0.00048	mg/L	2.5		8260B	Total/NA
cis-1,2-Dichloroethene	0.020		0.0025	0.00043	mg/L	2.5		8260B	Total/NA
Methylene Chloride	0.00096	J B	0.0025	0.00083	mg/L	2.5		8260B	Total/NA
Trichloroethene	0.010		0.0025	0.00043	mg/L	2.5		8260B	Total/NA

Client Sample ID: HSSER-RAMW05-050713 — Lab Sample ID: 240-24262-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.17		0.0029	0.00063	mg/L	2.857		8260B	Total/NA
1,1-Dichloroethane	0.0026	J	0.0029	0.00043	mg/L	2.857		8260B	Total/NA
1,1-Dichloroethene	0.023		0.0029	0.00054	mg/L	2.857		8260B	Total/NA
cis-1,2-Dichloroethene	0.0028	J	0.0029	0.00049	mg/L	2.857		8260B	Total/NA
Trichloroethene	0.0080		0.0029	0.00049	mg/L	2.857		8260B	Total/NA

Client Sample ID: HSSER-RAMW03-050713 — Lab Sample ID: 240-24262-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.0017		0.0010	0.00022	mg/L	1		8260B	Total/NA
1,1-Dichloroethane	0.00084	J	0.0010	0.00015	mg/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0 0014		0.0010	0.00017	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0010		0.0010	0.00029	mg/L	1		8260B	Total/NA
Trichloroethene	0.00049	J	0.0010	0.00017	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-RAMW02-050713 — Lab Sample ID: 240-24262-6

This Detection Summary does not include radiochemical test results.

Client Sample ID: HSSER-RAMW02-050713 (Continued) — Lab Sample ID: 240-24262

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.0060		0.0010	0.00022	mg/L	1		8260B	Total/NA
1,1-Dichloroethane	0.015		0.0010	0.00015	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00091	J	0.0010	0.00019	mg/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.0023		0.0010	0.00017	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0042		0.0010	0.00029	mg/L	1		8260B	Total/NA
Trichloroethene	0.00075	J	0.0010	0.00017	mg/L	1		8260B	Total/NA
Vinyl chloride	0.00033	J	0.0010	0.00022	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-DUP02-050713 — Lab Sample ID: 240-24262-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.0017		0.0010	0.00022	mg/L	1		8260B	Total/NA
1,1-Dichloroethane	0.00078	J	0.0010	0.00015	mg/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.0012		0.0010	0.00017	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0011		0.0010	0.00029	mg/L	1		8260B	Total/NA
Trichloroethene	0.00062	J	0.0010	0.00017	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-FBLK02-050813 — Lab Sample ID: 240-24262-8

No Detections.

Client Sample ID: HSSER-RAMW01-050813 — Lab Sample ID: 240-24262-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.0073		0.0010	0.00022	mg/L	1		8260B	Total/NA
1,1-Dichloroethane	0.012		0.0010	0.00015	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.0013		0.0010	0.00019	mg/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.0030		0.0010	0.00017	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.012		0.0010	0.00029	mg/L	1		8260B	Total/NA
Trichloroethene	0.0014		0.0010	0.00017	mg/L	1		8260B	Total/NA
Vinyl chloride	0.00029	J	0.0010	0.00022	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-EBLK02-050813 — Lab Sample ID: 240-24262-10

No Detections.

Client Sample ID: HSSER-RAMW04-050813 — Lab Sample ID: 240-24262-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.00064	J	0.0010	0.00022	mg/L	1		8260B	Total/NA
1,1-Dichloroethane	0.00034	J	0.0010	0.00015	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00055	J	0.0010	0.00029	mg/L	1		8260B	Total/NA

Client Sample ID: HSSER-TRIP02-050713 — Lab Sample ID: 240-24262-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.00084	J B	0.0010	0.00033	mg/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Client Sample ID: HSSER-RAMW08-050713
Date Collected: 05/07/13 09:57
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24262-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.030		0.0010	0.00022	mg/L			05/20/13 19:55	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/20/13 19:55	1
1,1-Dichloroethane	0.0048		0.0010	0.00015	mg/L			05/20/13 19:55	1
1,1-Dichloroethene	0.0090		0.0010	0.00019	mg/L			05/20/13 19:55	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/20/13 19:55	1
cis-1,2-Dichloroethene	0.0065		0.0010	0.00017	mg/L			05/20/13 19:55	1
Ethylbenzene	0.0010		0.0010	0.00017	mg/L			05/20/13 19:55	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/20/13 19:55	1
Tetrachloroethene	0.0051		0.0010	0.00029	mg/L			05/20/13 19:55	1
Toluene	ND		0.0010	0.00013	mg/L			05/20/13 19:55	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/20/13 19:55	1
Trichloroethene	0.0012		0.0010	0.00017	mg/L			05/20/13 19:55	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/20/13 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*63 - 129*		*05/20/13 19:55*	*1*
4-Bromofluorobenzene (Surr)	*101*		*66 - 117*		*05/20/13 19:55*	*1*
Toluene-d8 (Surr)	*109*		*74 - 115*		*05/20/13 19:55*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 121*		*05/20/13 19:55*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Client Sample ID: HSSER-RAMW07-050713
Date Collected: 05/07/13 11:49
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24262
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.0**		0.020	0.0044	mg/L			05/20/13 20:22	20
1,1,2-Trichloroethane	ND		0.020	0.0054	mg/L			05/20/13 20:22	20
1,1-Dichloroethane	**0.022**		0.020	0.0030	mg/L			05/20/13 20:22	20
1,1-Dichloroethene	**0.16**		0.020	0.0038	mg/L			05/20/13 20:22	20
1,2-Dichloroethane	ND		0.020	0.0044	mg/L			05/20/13 20:22	20
cis-1,2-Dichloroethene	**0.041**		0.020	0.0034	mg/L			05/20/13 20:22	20
Ethylbenzene	ND		0.020	0.0034	mg/L			05/20/13 20:22	20
Methylene Chloride	**0.0083**	**J B**	0.020	0.0066	mg/L			05/20/13 20:22	20
Tetrachloroethene	**0.0082**	**J**	0.020	0.0058	mg/L			05/20/13 20:22	20
Toluene	ND		0.020	0.0026	mg/L			05/20/13 20:22	20
trans-1,2-Dichloroethene	ND		0.020	0.0038	mg/L			05/20/13 20:22	20
Trichloroethene	**0.082**		0.020	0.0034	mg/L			05/20/13 20:22	20
Vinyl chloride	ND		0.020	0.0044	mg/L			05/20/13 20:22	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*63 - 129*		*05/20/13 20:22*	*20*
4-Bromofluorobenzene (Surr)	*101*		*66 - 117*		*05/20/13 20:22*	*20*
Toluene-d8 (Surr)	*104*		*74 - 115*		*05/20/13 20:22*	*20*
Dibromofluoromethane (Surr)	*114*		*75 - 121*		*05/20/13 20:22*	*20*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Client Sample ID: HSSER-RAMW06-050713
Date Collected: 05/07/13 13:05
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24262-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.15**		0.0025	0.00055	mg/L			05/20/13 20:46	2.5
1,1,2-Trichloroethane	ND		0.0025	0.00068	mg/L			05/20/13 20:46	2.5
1,1-Dichloroethane	**0.0031**		0.0025	0.00038	mg/L			05/20/13 20:46	2.5
1,1-Dichloroethene	**0.021**		0.0025	0.00048	mg/L			05/20/13 20:46	2.5
1,2-Dichloroethane	ND		0.0025	0.00055	mg/L			05/20/13 20:46	2.5
cis-1,2-Dichloroethene	**0.020**		0.0025	0.00043	mg/L			05/20/13 20:46	2.5
Ethylbenzene	ND		0.0025	0.00043	mg/L			05/20/13 20:46	2.5
Methylene Chloride	**0.00096**	J B	0.0025	0.00083	mg/L			05/20/13 20:46	2.5
Tetrachloroethene	ND		0.0025	0.00073	mg/L			05/20/13 20:46	2.5
Toluene	ND		0.0025	0.00033	mg/L			05/20/13 20:46	2.5
trans-1,2-Dichloroethene	ND		0.0025	0.00048	mg/L			05/20/13 20:46	2.5
Trichloroethene	**0.010**		0.0025	0.00043	mg/L			05/20/13 20:46	2.5
Vinyl chloride	ND		0.0025	0.00055	mg/L			05/20/13 20:46	2.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*63 - 129*		*05/20/13 20:46*	*2.5*
4-Bromofluorobenzene (Surr)	*104*		*66 - 117*		*05/20/13 20:46*	*2.5*
Toluene-d8 (Surr)	*108*		*74 - 115*		*05/20/13 20:46*	*2.5*
Dibromofluoromethane (Surr)	*108*		*75 - 121*		*05/20/13 20:46*	*2.5*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Client Sample ID: HSSER-RAMW05-050713
Date Collected: 05/07/13 14:22
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24262
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.17**		0.0029	0.00063	mg/L			05/20/13 21:12	2.857
1,1,2-Trichloroethane	ND		0.0029	0.00077	mg/L			05/20/13 21:12	2.857
1,1-Dichloroethane	**0.0026**	J	0.0029	0.00043	mg/L			05/20/13 21:12	2.857
1,1-Dichloroethene	**0.023**		0.0029	0.00054	mg/L			05/20/13 21:12	2.857
1,2-Dichloroethane	ND		0.0029	0.00063	mg/L			05/20/13 21:12	2.857
cis-1,2-Dichloroethene	**0.0028**	J	0.0029	0.00049	mg/L			05/20/13 21:12	2.857
Ethylbenzene	ND		0.0029	0.00049	mg/L			05/20/13 21:12	2.857
Methylene Chloride	ND		0.0029	0.00094	mg/L			05/20/13 21:12	2.857
Tetrachloroethene	ND		0.0029	0.00083	mg/L			05/20/13 21:12	2.857
Toluene	ND		0.0029	0.00037	mg/L			05/20/13 21:12	2.857
trans-1,2-Dichloroethene	ND		0.0029	0.00054	mg/L			05/20/13 21:12	2.857
Trichloroethene	**0.0080**		0.0029	0.00049	mg/L			05/20/13 21:12	2.857
Vinyl chloride	ND		0.0029	0.00063	mg/L			05/20/13 21:12	2.857

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*63 - 129*		*05/20/13 21:12*	*2.857*
4-Bromofluorobenzene (Surr)	*106*		*66 - 117*		*05/20/13 21:12*	*2.857*
Toluene-d8 (Surr)	*108*		*74 - 115*		*05/20/13 21:12*	*2.857*
Dibromofluoromethane (Surr)	*109*		*75 - 121*		*05/20/13 21:12*	*2.857*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Client Sample ID: HSSER-RAMW03-050713
Date Collected: 05/07/13 16:01
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24262-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.0017**		0.0010	0.00022	mg/L			05/20/13 21:36	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/20/13 21:36	1
1,1-Dichloroethane	**0.00084**	J	0.0010	0.00015	mg/L			05/20/13 21:36	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/20/13 21:36	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/20/13 21:36	1
cis-1,2-Dichloroethene	**0.0014**		0.0010	0.00017	mg/L			05/20/13 21:36	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/20/13 21:36	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/20/13 21:36	1
Tetrachloroethene	**0.0010**		0.0010	0.00029	mg/L			05/20/13 21:36	1
Toluene	ND		0.0010	0.00013	mg/L			05/20/13 21:36	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/20/13 21:36	1
Trichloroethene	**0.00049**	J	0.0010	0.00017	mg/L			05/20/13 21:36	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/20/13 21:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*63 - 129*		*05/20/13 21:36*	*1*
4-Bromofluorobenzene (Surr)	*102*		*66 - 117*		*05/20/13 21:36*	*1*
Toluene-d8 (Surr)	*109*		*74 - 115*		*05/20/13 21:36*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 121*		*05/20/13 21:36*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Client Sample ID: HSSER-RAMW02-050713
Date Collected: 05/07/13 17:02
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24262
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.0060**		0.0010	0.00022	mg/L			05/20/13 22:03	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/20/13 22:03	1
1,1-Dichloroethane	**0.015**		0.0010	0.00015	mg/L			05/20/13 22:03	1
1,1-Dichloroethene	**0.00091**	J	0.0010	0.00019	mg/L			05/20/13 22:03	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/20/13 22:03	1
cis-1,2-Dichloroethene	**0.0023**		0.0010	0.00017	mg/L			05/20/13 22:03	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/20/13 22:03	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/20/13 22:03	1
Tetrachloroethene	**0.0042**		0.0010	0.00029	mg/L			05/20/13 22:03	1
Toluene	ND		0.0010	0.00013	mg/L			05/20/13 22:03	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/20/13 22:03	1
Trichloroethene	**0.00075**	J	0.0010	0.00017	mg/L			05/20/13 22:03	1
Vinyl chloride	**0.00033**	J	0.0010	0.00022	mg/L			05/20/13 22:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*63 - 129*		*05/20/13 22:03*	*1*
4-Bromofluorobenzene (Surr)	*105*		*66 - 117*		*05/20/13 22:03*	*1*
Toluene-d8 (Surr)	*107*		*74 - 115*		*05/20/13 22:03*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 121*		*05/20/13 22:03*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Client Sample ID: HSSER-DUP02-050713
Date Collected: 05/07/13 00:00
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24262-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.0017**		0.0010	0.00022	mg/L			05/20/13 22:29	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/20/13 22:29	1
1,1-Dichloroethane	**0.00078**	J	0.0010	0.00015	mg/L			05/20/13 22:29	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/20/13 22:29	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/20/13 22:29	1
cis-1,2-Dichloroethene	**0.0012**		0.0010	0.00017	mg/L			05/20/13 22:29	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/20/13 22:29	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/20/13 22:29	1
Tetrachloroethene	**0.0011**		0.0010	0.00029	mg/L			05/20/13 22:29	1
Toluene	ND		0.0010	0.00013	mg/L			05/20/13 22:29	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/20/13 22:29	1
Trichloroethene	**0.00062**	J	0.0010	0.00017	mg/L			05/20/13 22:29	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/20/13 22:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*63 - 129*		*05/20/13 22:29*	*1*
4-Bromofluorobenzene (Surr)	*99*		*66 - 117*		*05/20/13 22:29*	*1*
Toluene-d8 (Surr)	*107*		*74 - 115*		*05/20/13 22:29*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 121*		*05/20/13 22:29*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Client Sample ID: HSSER-FBLK02-050813
Date Collected: 05/08/13 07:33
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24262
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0010	0.00022	mg/L			05/20/13 22:55	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/20/13 22:55	1
1,1-Dichloroethane	ND		0.0010	0.00015	mg/L			05/20/13 22:55	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/20/13 22:55	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/20/13 22:55	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/20/13 22:55	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/20/13 22:55	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/20/13 22:55	1
Tetrachloroethene	ND		0.0010	0.00029	mg/L			05/20/13 22:55	1
Toluene	ND		0.0010	0.00013	mg/L			05/20/13 22:55	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/20/13 22:55	1
Trichloroethene	ND		0.0010	0.00017	mg/L			05/20/13 22:55	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/20/13 22:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*63 - 129*		*05/20/13 22:55*	*1*
4-Bromofluorobenzene (Surr)	*101*		*66 - 117*		*05/20/13 22:55*	*1*
Toluene-d8 (Surr)	*110*		*74 - 115*		*05/20/13 22:55*	*1*
Dibromofluoromethane (Surr)	*111*		*75 - 121*		*05/20/13 22:55*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Client Sample ID: HSSER-RAMW01-050813

Lab Sample ID: 240-24262-9

Date Collected: 05/08/13 07:33

Matrix: Water

Date Received: 05/10/13 10:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.0073**		0.0010	0.00022	mg/L			05/20/13 23:22	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/20/13 23:22	1
1,1-Dichloroethane	**0.012**		0.0010	0.00015	mg/L			05/20/13 23:22	1
1,1-Dichloroethene	**0.0013**		0.0010	0.00019	mg/L			05/20/13 23:22	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/20/13 23:22	1
cis-1,2-Dichloroethene	**0.0030**		0.0010	0.00017	mg/L			05/20/13 23:22	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/20/13 23:22	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/20/13 23:22	1
Tetrachloroethene	**0.012**		0.0010	0.00029	mg/L			05/20/13 23:22	1
Toluene	ND		0.0010	0.00013	mg/L			05/20/13 23:22	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/20/13 23:22	1
Trichloroethene	**0.0014**		0.0010	0.00017	mg/L			05/20/13 23:22	1
Vinyl chloride	**0.00029**	J	0.0010	0.00022	mg/L			05/20/13 23:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*63 - 129*		*05/20/13 23:22*	*1*
4-Bromofluorobenzene (Surr)	*102*		*66 - 117*		*05/20/13 23:22*	*1*
Toluene-d8 (Surr)	*107*		*74 - 115*		*05/20/13 23:22*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 121*		*05/20/13 23:22*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Client Sample ID: HSSER-EBLK02-050813
Date Collected: 05/08/13 07:55
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24262-
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0010	0.00022	mg/L			05/20/13 23:48	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/20/13 23:48	1
1,1-Dichloroethane	ND		0.0010	0.00015	mg/L			05/20/13 23:48	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/20/13 23:48	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/20/13 23:48	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/20/13 23:48	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/20/13 23:48	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/20/13 23:48	1
Tetrachloroethene	ND		0.0010	0.00029	mg/L			05/20/13 23:48	1
Toluene	ND		0.0010	0.00013	mg/L			05/20/13 23:48	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/20/13 23:48	1
Trichloroethene	ND		0.0010	0.00017	mg/L			05/20/13 23:48	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/20/13 23:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*63 - 129*		*05/20/13 23:48*	*1*
4-Bromofluorobenzene (Surr)	*98*		*66 - 117*		*05/20/13 23:48*	*1*
Toluene-d8 (Surr)	*107*		*74 - 115*		*05/20/13 23:48*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 121*		*05/20/13 23:48*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Client Sample ID: HSSER-RAMW04-050813 **Lab Sample ID: 240-24262-11**

Date Collected: 05/08/13 08:33 **Matrix: Water**

Date Received: 05/10/13 10:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.00064**	J	0.0010	0.00022	mg/L			05/21/13 00:14	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 00:14	1
1,1-Dichloroethane	**0.00034**	J	0.0010	0.00015	mg/L			05/21/13 00:14	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 00:14	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 00:14	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 00:14	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 00:14	1
Methylene Chloride	ND		0.0010	0.00033	mg/L			05/21/13 00:14	1
Tetrachloroethene	**0.00055**	J	0.0010	0.00029	mg/L			05/21/13 00:14	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 00:14	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 00:14	1
Trichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 00:14	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 00:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*63 - 129*		*05/21/13 00:14*	*1*
4-Bromofluorobenzene (Surr)	*102*		*66 - 117*		*05/21/13 00:14*	*1*
Toluene-d8 (Surr)	*105*		*74 - 115*		*05/21/13 00:14*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 121*		*05/21/13 00:14*	*1*

Client Sample Results

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Client Sample ID: HSSER-TRIP02-050713
Date Collected: 05/07/13 00:00
Date Received: 05/10/13 10:00

Lab Sample ID: 240-24262-
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 00:41	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/21/13 00:41	1
1,1-Dichloroethane	ND		0.0010	0.00015	mg/L			05/21/13 00:41	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 00:41	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/21/13 00:41	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 00:41	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/21/13 00:41	1
Methylene Chloride	**0.00084**	**J B**	0.0010	0.00033	mg/L			05/21/13 00:41	1
Tetrachloroethene	ND		0.0010	0.00029	mg/L			05/21/13 00:41	1
Toluene	ND		0.0010	0.00013	mg/L			05/21/13 00:41	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/21/13 00:41	1
Trichloroethene	ND		0.0010	0.00017	mg/L			05/21/13 00:41	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/21/13 00:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*63 - 129*		*05/21/13 00:41*	*1*
4-Bromofluorobenzene (Surr)	*106*		*66 - 117*		*05/21/13 00:41*	*1*
Toluene-d8 (Surr)	*110*		*74 - 115*		*05/21/13 00:41*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 121*		*05/21/13 00:41*	*1*

Surrogate Summary

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(63-129)	(66-117)	(74-115)	(75-121)
240-24262-1	HSSER-RAMW08-050713	103	101	109	105
240-24262-2	HSSER-RAMW07-050713	105	101	104	114
240-24262-3	HSSER-RAMW06-050713	107	104	108	108
240-24262-4	HSSER-RAMW05-050713	110	106	108	109
240-24262-5	HSSER-RAMW03-050713	104	102	109	107
240-24262-6	HSSER-RAMW02-050713	107	105	107	110
240-24262-6 MS	HSSER-RAMW02-050713	103	105	111	110
240-24262-6 MSD	HSSER-RAMW02-050713	107	106	111	109
240-24262-7	HSSER-DUP02-050713	104	99	107	110
240-24262-8	HSSER-FBLK02-050813	109	101	110	111
240-24262-9	HSSER-RAMW01-050813	103	102	107	110
240-24262-10	HSSER-EBLK02-050813	104	98	107	108
240-24262-11	HSSER-RAMW04-050813	108	102	105	110
240-24262-12	HSSER-TRIP02-050713	105	106	110	106
LCS 240-86641/6	Lab Control Sample	109	100	108	110
MB 240-86641/5	Method Blank	107	103	107	105

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-86641/5
Matrix: Water
Analysis Batch: 86641

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0010	0.00022	mg/L			05/20/13 19:02	1
1,1,2-Trichloroethane	ND		0.0010	0.00027	mg/L			05/20/13 19:02	1
1,1-Dichloroethane	ND		0.0010	0.00015	mg/L			05/20/13 19:02	1
1,1-Dichloroethene	ND		0.0010	0.00019	mg/L			05/20/13 19:02	1
1,2-Dichloroethane	ND		0.0010	0.00022	mg/L			05/20/13 19:02	1
cis-1,2-Dichloroethene	ND		0.0010	0.00017	mg/L			05/20/13 19:02	1
Ethylbenzene	ND		0.0010	0.00017	mg/L			05/20/13 19:02	1
Methylene Chloride	0.000430	J	0.0010	0.00033	mg/L			05/20/13 19:02	1
Tetrachloroethene	ND		0.0010	0.00029	mg/L			05/20/13 19:02	1
Toluene	ND		0.0010	0.00013	mg/L			05/20/13 19:02	1
trans-1,2-Dichloroethene	ND		0.0010	0.00019	mg/L			05/20/13 19:02	1
Trichloroethene	ND		0.0010	0.00017	mg/L			05/20/13 19:02	1
Vinyl chloride	ND		0.0010	0.00022	mg/L			05/20/13 19:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*63 - 129*		*05/20/13 19:02*	*1*
4-Bromofluorobenzene (Surr)	*103*		*66 - 117*		*05/20/13 19:02*	*1*
Toluene-d8 (Surr)	*107*		*74 - 115*		*05/20/13 19:02*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 121*		*05/20/13 19:02*	*1*

Lab Sample ID: LCS 240-86641/6
Matrix: Water
Analysis Batch: 86641

Client Sample ID: Lab Control Samp
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.0200	0.0189		mg/L		94	74 - 118
1,1,2-Trichloroethane	0.0200	0.0194		mg/L		97	80 - 112
1,1-Dichloroethane	0.0200	0.0193		mg/L		96	82 - 115
1,1-Dichloroethene	0.0200	0.0207		mg/L		104	78 - 131
1,2-Dichloroethane	0.0200	0.0204		mg/L		102	71 - 127
cis-1,2-Dichloroethene	0.0200	0.0199		mg/L		100	80 - 113
Ethylbenzene	0.0200	0.0181		mg/L		91	83 - 112
Methylene Chloride	0.0200	0.0203		mg/L		101	66 - 131
Tetrachloroethene	0.0200	0.0204		mg/L		102	79 - 114
Toluene	0.0200	0.0203		mg/L		102	84 - 111
trans-1,2-Dichloroethene	0.0200	0.0206		mg/L		103	83 - 117
Trichloroethene	0.0200	0.0190		mg/L		95	76 - 117
Vinyl chloride	0.0200	0.0182		mg/L		91	53 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*109*		*63 - 129*
4-Bromofluorobenzene (Surr)	*100*		*66 - 117*
Toluene-d8 (Surr)	*108*		*74 - 115*
Dibromofluoromethane (Surr)	*110*		*75 - 121*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-24262-6 MS — **Client Sample ID: HSSER-RAMW02-050713**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 86641

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.0060		0.0200	0.0253		mg/L		96	68 - 121
1,1,2-Trichloroethane	ND		0.0200	0.0189		mg/L		95	75 - 115
1,1-Dichloroethane	0.015		0.0200	0.0350		mg/L		99	79 - 116
1,1-Dichloroethene	0.00091	J	0.0200	0.0231		mg/L		111	74 - 135
1,2-Dichloroethane	ND		0.0200	0.0204		mg/L		102	68 - 129
cis-1,2-Dichloroethene	0.0023		0.0200	0.0225		mg/L		101	70 - 120
Ethylbenzene	ND		0.0200	0.0194		mg/L		97	75 - 116
Methylene Chloride	ND		0.0200	0.0197		mg/L		99	63 - 128
Tetrachloroethene	0.0042		0.0200	0.0247		mg/L		103	70 - 117
Toluene	ND		0.0200	0.0204		mg/L		102	78 - 114
trans-1,2-Dichloroethene	ND		0.0200	0.0216		mg/L		108	80 - 119
Trichloroethene	0.00075	J	0.0200	0.0203		mg/L		98	66 - 120
Vinyl chloride	0.00033	J	0.0200	0.0189		mg/L		93	49 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*63 - 129*
4-Bromofluorobenzene (Surr)	*105*		*66 - 117*
Toluene-d8 (Surr)	*111*		*74 - 115*
Dibromofluoromethane (Surr)	*110*		*75 - 121*

Lab Sample ID: 240-24262-6 MSD — **Client Sample ID: HSSER-RAMW02-050713**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 86641

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.0060		0.0200	0.0252		mg/L		96	68 - 121	0	30
1,1,2-Trichloroethane	ND		0.0200	0.0191		mg/L		95	75 - 115	1	30
1,1-Dichloroethane	0.015		0.0200	0.0342		mg/L		95	79 - 116	2	30
1,1-Dichloroethene	0.00091	J	0.0200	0.0213		mg/L		102	74 - 135	8	30
1,2-Dichloroethane	ND		0.0200	0.0195		mg/L		97	68 - 129	5	30
cis-1,2-Dichloroethene	0.0023		0.0200	0.0221		mg/L		99	70 - 120	2	30
Ethylbenzene	ND		0.0200	0.0185		mg/L		92	75 - 116	5	30
Methylene Chloride	ND		0.0200	0.0205		mg/L		102	63 - 128	4	30
Tetrachloroethene	0.0042		0.0200	0.0250		mg/L		104	70 - 117	1	30
Toluene	ND		0.0200	0.0201		mg/L		101	78 - 114	1	30
trans-1,2-Dichloroethene	ND		0.0200	0.0205		mg/L		103	80 - 119	5	30
Trichloroethene	0.00075	J	0.0200	0.0204		mg/L		98	66 - 120	1	30
Vinyl chloride	0.00033	J	0.0200	0.0194		mg/L		95	49 - 130	2	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*63 - 129*
4-Bromofluorobenzene (Surr)	*106*		*66 - 117*
Toluene-d8 (Surr)	*111*		*74 - 115*
Dibromofluoromethane (Surr)	*109*		*75 - 121*

QC Association Summary

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

GC/MS VOA

Analysis Batch: 86641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-24262-1	HSSER-RAMW08-050713	Total/NA	Water	8260B	
240-24262-2	HSSER-RAMW07-050713	Total/NA	Water	8260B	
240-24262-3	HSSER-RAMW06-050713	Total/NA	Water	8260B	
240-24262-4	HSSER-RAMW05-050713	Total/NA	Water	8260B	
240-24262-5	HSSER-RAMW03-050713	Total/NA	Water	8260B	
240-24262-6	HSSER-RAMW02-050713	Total/NA	Water	8260B	
240-24262-6 MS	HSSER-RAMW02-050713	Total/NA	Water	8260B	
240-24262-6 MSD	HSSER-RAMW02-050713	Total/NA	Water	8260B	
240-24262-7	HSSER-DUP02-050713	Total/NA	Water	8260B	
240-24262-8	HSSER-FBLK02-050813	Total/NA	Water	8260B	
240-24262-9	HSSER-RAMW01-050813	Total/NA	Water	8260B	
240-24262-10	HSSER-EBLK02-050813	Total/NA	Water	8260B	
240-24262-11	HSSER-RAMW04-050813	Total/NA	Water	8260B	
240-24262-12	HSSER-TRIP02-050713	Total/NA	Water	8260B	
LCS 240-86641/6	Lab Control Sample	Total/NA	Water	8260B	
MB 240-86641/5	Method Blank	Total/NA	Water	8260B	

Lab Chronicle

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Client Sample ID: HSSER-RAMW08-050713 — Lab Sample ID: 240-24262-1

Date Collected: 05/07/13 09:57
Date Received: 05/10/13 10:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86641	05/20/13 19:55	TL	TAL CAN

Client Sample ID: HSSER-RAMW07-050713 — Lab Sample ID: 240-24262-2

Date Collected: 05/07/13 11:49
Date Received: 05/10/13 10:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	86641	05/20/13 20:22	TL	TAL CAN

Client Sample ID: HSSER-RAMW06-050713 — Lab Sample ID: 240-24262-3

Date Collected: 05/07/13 13:05
Date Received: 05/10/13 10:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2.5	86641	05/20/13 20:46	TL	TAL CAN

Client Sample ID: HSSER-RAMW05-050713 — Lab Sample ID: 240-24262-4

Date Collected: 05/07/13 14:22
Date Received: 05/10/13 10:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2.857	86641	05/20/13 21:12	TL	TAL CAN

Client Sample ID: HSSER-RAMW03-050713 — Lab Sample ID: 240-24262-5

Date Collected: 05/07/13 16:01
Date Received: 05/10/13 10:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86641	05/20/13 21:36	TL	TAL CAN

Client Sample ID: HSSER-RAMW02-050713 — Lab Sample ID: 240-24262-6

Date Collected: 05/07/13 17:02
Date Received: 05/10/13 10:00
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86641	05/20/13 22:03	TL	TAL CAN

Lab Chronicle

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Client Sample ID: HSSER-DUP02-050713

Lab Sample ID: 240-24262

Date Collected: 05/07/13 00:00
Date Received: 05/10/13 10:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86641	05/20/13 22:29	TL	TAL CAN

Client Sample ID: HSSER-FBLK02-050813

Lab Sample ID: 240-24262-8

Date Collected: 05/08/13 07:33
Date Received: 05/10/13 10:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86641	05/20/13 22:55	TL	TAL CAN

Client Sample ID: HSSER-RAMW01-050813

Lab Sample ID: 240-24262-9

Date Collected: 05/08/13 07:33
Date Received: 05/10/13 10:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86641	05/20/13 23:22	TL	TAL CAN

Client Sample ID: HSSER-EBLK02-050813

Lab Sample ID: 240-24262-10

Date Collected: 05/08/13 07:55
Date Received: 05/10/13 10:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86641	05/20/13 23:48	TL	TAL CAN

Client Sample ID: HSSER-RAMW04-050813

Lab Sample ID: 240-24262-11

Date Collected: 05/08/13 08:33
Date Received: 05/10/13 10:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86641	05/21/13 00:14	TL	TAL CAN

Client Sample ID: HSSER-TRIP02-050713

Lab Sample ID: 240-24262-12

Date Collected: 05/07/13 00:00
Date Received: 05/10/13 10:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	86641	05/21/13 00:41	TL	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: AECOM, Inc.
Project/Site: UTC - HS - Plant 1

TestAmerica Job ID: 240-24262-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAP	5	200004	07-31-13
Kansas	NELAP	7	E-10336	01-31-14
Kentucky	State Program	4	58	06-30-13
L-A-B	DoD ELAP		L2315	07-28-13
Minnesota	NELAP	5	039-999-348	12-31-13
Nevada	State Program	9	OH-000482008A	07-31-13
New Jersey	NELAP	2	OH001	06-30-13
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-13
Texas	NELAP	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-13
Washington	State Program	10	C971	01-12-14
West Virginia DEP	State Program	3	210	12-31-13
Wisconsin	State Program	5	999518190	08-31-13

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4142 (0408)

Client	Project Manager	Date	Chain of Custody Number
AECOM	Peter Hollatz Peter.Hollatz@aecom.com	5-9-13	004511

Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page
27755 Diehl Rd Suite #100	630-836-1700 / 630-836-1711		1 of 2

City	State	Zip Code	Site Contact	Lab Contact
Warrenville	IL	60555		Pat Omeara

Project Name and Location (State)	Carrier/Waybill Number
UTC-HS-Plant 1	5427 1268 1985

Contract/Purchase Order/Quote No.: 46300 ACM

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOC 8260B ☆	Special Instructions/ Conditions of Receipt
HSSER-RAMW08-050713	5-7-13	0957		X						X			X	
HSSER-RAMW07-050713	5-7-13	1149		X						X			X	
HSSER-RAMW06-050713	5-7-13	1305		X						X			X	
HSSER-RAMW05-050713	5-7-13	1422		X						X			X	
HSSER-RAMW03-050713	5-7-13	1601		X						X			X	
HSSER-RAMW02-050713	5-7-13	1702		X						X			X	
HSSER-MS02-050713	5-7-13	1702		X						X			X	
HSSER-MSD02-050713	5-7-13	1702		X						X			X	
HSSER-DUP02-050713	5-7-13	0000		X						X			X	
HSSER-FBLK02-050813	5-8-13	0733 ~~0645AH~~		X						X			X	
HSSER-RAMW01-050813	5-8-13	0733		X						X			X	
HSSER-EBLK02-050813	5-8-13	0755		X						X			X	

240-24262 Chain of Custody

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

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

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	5-9-13	1800	1. Received By: Fedex 5427 1268 1985	5-9-13	1800
2. Relinquished By			2. Received By: [signature]	5-10-13	1000
3. Relinquished By			3. Received By		

Comments: ☆ List of 13 VOC's; Level IV Data

DISTRIB[illegible] WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

5/28/2013

[redacted]

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4142 (0408)

Client	Project Manager	Date	Chain of Custody Number
AECOM	Peter Hollatz Peter.Hollatz@aecom.com	5-9-13	004510
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	Page 2 of 2
27755 Diehl Rd Suite 100	630-836-1700 / 630-836-1711		

City	State	Zip Code	Site Contact	Lab Contact
Warrenville	IL	60555		Pat Omeara

Project Name and Location (State)	Carrier/Waybill Number
UTC-HS-Plant I	5427 1268 1985

Contract/Purchase Order/Quote No.: 46300 ACM

Analysis (Attach list if more space is needed): VOC's 8260B

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOC's 8260B
HSSER-RAMW04-050813	5-8-13	0833		X						X			X
HSSER-Trip02-050713	5-7-13	—		X						X			X

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: [ ] 24 Hours [ ] 48 Hours [ ] 7 Days [ ] 14 Days [ ] 21 Days [ ] Other Standard

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By	5-9-13	1800	1. Received By: Fedex 5427 1268 1985	5-9-13	1800
2. Relinquished By			2. Received By	5-10-13	1000
3. Relinquished By			3. Received By		

Comments: List of 13 VOC's; Level IV Data

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 242102
Canton Facility

Client AECOM Site Name _____ Cooler unpacked by:

Cooler Received on 5-10-13 Opened on 5-10-13

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF -0 °C) Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	
IR GUN# 4G	(CF +1 °C) Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	☐ See Multiple Cooler Form
IR GUN# 5G	(CF +1 °C) Observed Cooler Temp. ____ °C	Corrected Cooler Temp. ____ °C	
IR GUN# 8	(CF +1 °C) Observed Cooler Temp. 1.3 °C	Corrected Cooler Temp. 2.3 °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   - Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   - Were custody seals on the bottle(s)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Did all bottles arrive in good condition (Unbroken)? Yes No
7. Could all bottle labels be reconciled with the COC? Yes No
8. Were correct bottle(s) used for the test(s) indicated? Yes No
9. Sufficient quantity received to perform indicated analyses? Yes No
10. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC379740
11. Were VOAs on the COC? Yes No
12. Were air bubbles >6 mm in any VOA vials? Yes No NA
13. Was a trip blank present in the cooler(s)? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____.

Appendix B

Second Quarter 2013 Effluent Air Laboratory Analytical Reports

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5/2/2013
Mr. Peter Hollatz
AECOM Environment
27755 Diehl Road
Suite 100
Warrenville IL 60555

Project Name: UTC SER 9110
Project #: 60288803.4181
Workorder #: 1304357

Dear Mr. Peter Hollatz

The following report includes the data for the above referenced project for sample(s) received on 4/16/2013 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-14A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott
Project Manager

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WORK ORDER #: 1304357

Work Order Summary

CLIENT:	Mr. Peter Hollatz AECOM Environment 27755 Diehl Road Suite 100 Warrenville, IL 60555	**BILL TO:**	Accounts Payable-Warrenville AECOM Environment 27755 Diehl Road Suite 100 Warrenville, IL 60555
PHONE:	630-836-1700	**P.O. #**	46287ACM
FAX:	630-836-1711	**PROJECT #**	60288803.4181 UTC SER 9110
DATE RECEIVED:	04/16/2013	**CONTACT:**	Ausha Scott
DATE COMPLETED:	04/29/2013		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	P1SVE-EFFC1-041113	Modified TO-14A	3.9 "Hg	15 psi
02A	P1SVE-EFFC2-041113	Modified TO-14A	4.3 "Hg	14.9 psi
03A	P1SVE-EFFC3-041113	Modified TO-14A	3.9 "Hg	15.1 psi
04A	P2SVE-EFFC4-041113	Modified TO-14A	1.8 "Hg	14.7 psi
05A	P2SVE-EFFC5-041113	Modified TO-14A	0.4 "Hg	14.9 psi
06A	Lab Blank	Modified TO-14A	NA	NA
07A	CCV	Modified TO-14A	NA	NA
08A	LCS	Modified TO-14A	NA	NA
08AA	LCSD	Modified TO-14A	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 04/29/13

Technical Director

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,
TX NELAP - T104704434-12-4, UT NELAP CA009332012-3, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2012, Expiration date: 10/17/2013.
Eurofins Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-14A
AECOM Environment
Workorder# 1304357

Five 1 Liter Summa Canister samples were received on April 16, 2013. The laboratory performed analysis via modified EPA Method TO-14A using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications. Please note that TO-14A was validated for specially treated canisters, and the use of Tedlar bags for sample collection is outside the scope of the method.

Requirement	*TO-14A*	*ATL Modifications*
Initial Calibration criteria	RSD</=30%	Follow TO-15 requirements of RSD</=30% with two compounds allowed out to </=40%RSD.
BFB absolute abundance criteria	Within 10% of that from previous day	CCV internal standard area counts are compared to ICAL, corrective action when recovery is less than 60%.
Blank acceptance criteria	<0.20 ppbv	<Reporting Limit
Sample Drying System	Nafion Dryer	Multibed hydrophobic sorbent
BFB ion abundance criteria	Ion abundance listed in Table 4 of TO-14A	Follow ion abundance criteria listed in Method TO-15

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Dilution was performed on samples P2SVE-EFFC4-041113 and P2SVE-EFFC5-041113 due to the presence of high level target species.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: P1SVE-EFFC1-041113

Lab ID#: 1304357-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.2	3.8	4.6	15
1,1-Dichloroethane	1.2	54	4.7	220
cis-1,2-Dichloroethene	1.2	7.4	4.6	29
1,1,1-Trichloroethane	1.2	85	6.3	470
Trichloroethene	1.2	8.2	6.2	44
Toluene	1.2	1.4	4.4	5.4
Tetrachloroethene	1.2	38	7.9	260

Client Sample ID: P1SVE-EFFC2-041113

Lab ID#: 1304357-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.2	4.0	4.6	16
1,1-Dichloroethane	1.2	10	4.8	41
cis-1,2-Dichloroethene	1.2	3.3	4.6	13
1,1,1-Trichloroethane	1.2	140	6.4	740
Trichloroethene	1.2	8.0	6.3	43
Tetrachloroethene	1.2	5.4	8.0	36

Client Sample ID: P1SVE-EFFC3-041113

Lab ID#: 1304357-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.2	2.8	4.6	11
1,1-Dichloroethane	1.2	7.0	4.7	28
cis-1,2-Dichloroethene	1.2	28	4.6	110
1,1,1-Trichloroethane	1.2	180	6.4	980
Trichloroethene	1.2	15	6.3	81
Tetrachloroethene	1.2	4.6	7.9	31

Client Sample ID: P2SVE-EFFC4-041113

Lab ID#: 1304357-04A

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: P2SVE-EFFC4-041113

Lab ID#: 1304357-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.8	7.1	7.0	28
1,1-Dichloroethane	1.8	26	7.2	100
cis-1,2-Dichloroethene	1.8	28	7.0	110
1,1,1-Trichloroethane	1.8	430	9.7	2300
Trichloroethene	1.8	25	9.5	140
Tetrachloroethene	1.8	98	12	670

Client Sample ID: P2SVE-EFFC5-041113

Lab ID#: 1304357-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	5.1	20	20	81
1,1-Dichloroethane	5.1	160	21	670
cis-1,2-Dichloroethene	5.1	88	20	350
1,1,1-Trichloroethane	5.1	1600	28	8900
Trichloroethene	5.1	110	27	600
1,1,2-Trichloroethane	5.1	8.0	28	44
Tetrachloroethene	5.1	320	34	2200

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Client Sample ID: P1SVE-EFFC1-041113

Lab ID#: 1304357-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p042209	Date of Collection:	4/11/13 1:30:00 PM
Dil. Factor:	2.32	Date of Analysis:	4/22/13 04:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
1,1-Dichloroethene	1.2	3.8	4.6	15
Acetone	12	Not Detected	28	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
1,1-Dichloroethane	1.2	54	4.7	220
2-Butanone (Methyl Ethyl Ketone)	4.6	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	7.4	4.6	29
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	85	6.3	470
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	8.2	6.2	44
Toluene	1.2	1.4	4.4	5.4
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	38	7.9	260
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: P1SVE-EFFC2-041113

Lab ID#: 1304357-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p042210	Date of Collection:	4/11/13 2:00:00 PM
Dil. Factor:	2.35	Date of Analysis:	4/22/13 04:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
1,1-Dichloroethene	1.2	4.0	4.6	16
Acetone	12	Not Detected	28	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
1,1-Dichloroethane	1.2	10	4.8	41
2-Butanone (Methyl Ethyl Ketone)	4.7	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	3.3	4.6	13
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	140	6.4	740
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	8.0	6.3	43
Toluene	1.2	Not Detected	4.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	5.4	8.0	36
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: P1SVE-EFFC3-041113

Lab ID#: 1304357-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p042211	Date of Collection:	4/11/13 2:30:00 PM
Dil. Factor:	2.33	Date of Analysis:	4/22/13 05:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
1,1-Dichloroethene	1.2	2.8	4.6	11
Acetone	12	Not Detected	28	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
1,1-Dichloroethane	1.2	7.0	4.7	28
2-Butanone (Methyl Ethyl Ketone)	4.7	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	28	4.6	110
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	180	6.4	980
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	15	6.3	81
Toluene	1.2	Not Detected	4.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	4.6	7.9	31
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: P2SVE-EFFC4-041113

Lab ID#: 1304357-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p042212	Date of Collection:	4/11/13 2:45:00 PM
Dil. Factor:	3.55	Date of Analysis:	4/22/13 05:34 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.8	Not Detected	4.5	Not Detected
Chloroethane	7.1	Not Detected	19	Not Detected
1,1-Dichloroethene	1.8	7.1	7.0	28
Acetone	18	Not Detected	42	Not Detected
Methylene Chloride	18	Not Detected	62	Not Detected
trans-1,2-Dichloroethene	1.8	Not Detected	7.0	Not Detected
1,1-Dichloroethane	1.8	26	7.2	100
2-Butanone (Methyl Ethyl Ketone)	7.1	Not Detected	21	Not Detected
cis-1,2-Dichloroethene	1.8	28	7.0	110
Chloroform	1.8	Not Detected	8.7	Not Detected
1,1,1-Trichloroethane	1.8	430	9.7	2300
Carbon Tetrachloride	1.8	Not Detected	11	Not Detected
Benzene	1.8	Not Detected	5.7	Not Detected
1,2-Dichloroethane	1.8	Not Detected	7.2	Not Detected
Trichloroethene	1.8	25	9.5	140
Toluene	1.8	Not Detected	6.7	Not Detected
1,1,2-Trichloroethane	1.8	Not Detected	9.7	Not Detected
Tetrachloroethene	1.8	98	12	670
Ethyl Benzene	1.8	Not Detected	7.7	Not Detected
m,p-Xylene	1.8	Not Detected	7.7	Not Detected
o-Xylene	1.8	Not Detected	7.7	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: P2SVE-EFFC5-041113

Lab ID#: 1304357-05A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p042213	Date of Collection:	4/11/13 3:00:00 PM
Dil. Factor:	10.2	Date of Analysis:	4/22/13 06:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	5.1	Not Detected	13	Not Detected
Chloroethane	20	Not Detected	54	Not Detected
1,1-Dichloroethene	5.1	20	20	81
Acetone	51	Not Detected	120	Not Detected
Methylene Chloride	51	Not Detected	180	Not Detected
trans-1,2-Dichloroethene	5.1	Not Detected	20	Not Detected
1,1-Dichloroethane	5.1	160	21	670
2-Butanone (Methyl Ethyl Ketone)	20	Not Detected	60	Not Detected
cis-1,2-Dichloroethene	5.1	88	20	350
Chloroform	5.1	Not Detected	25	Not Detected
1,1,1-Trichloroethane	5.1	1600	28	8900
Carbon Tetrachloride	5.1	Not Detected	32	Not Detected
Benzene	5.1	Not Detected	16	Not Detected
1,2-Dichloroethane	5.1	Not Detected	21	Not Detected
Trichloroethene	5.1	110	27	600
Toluene	5.1	Not Detected	19	Not Detected
1,1,2-Trichloroethane	5.1	8.0	28	44
Tetrachloroethene	5.1	320	34	2200
Ethyl Benzene	5.1	Not Detected	22	Not Detected
m,p-Xylene	5.1	Not Detected	22	Not Detected
o-Xylene	5.1	Not Detected	22	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1304357-06A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p042208	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 4/22/13 03:29 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: CCV

Lab ID#: 1304357-07A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p042202	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 4/22/13 10:15 AM	

Compound	%Recovery
Vinyl Chloride	90
Chloroethane	100
1,1-Dichloroethene	94
Acetone	91
Methylene Chloride	97
trans-1,2-Dichloroethene	92
1,1-Dichloroethane	93
2-Butanone (Methyl Ethyl Ketone)	99
cis-1,2-Dichloroethene	91
Chloroform	93
1,1,1-Trichloroethane	90
Carbon Tetrachloride	91
Benzene	94
1,2-Dichloroethane	90
Trichloroethene	89
Toluene	96
1,1,2-Trichloroethane	96
Tetrachloroethene	88
Ethyl Benzene	99
m,p-Xylene	99
o-Xylene	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: LCS

Lab ID#: 1304357-08A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p042204	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 4/22/13 12:38 PM	

Compound	%Recovery
Vinyl Chloride	91
Chloroethane	99
1,1-Dichloroethene	101
Acetone	92
Methylene Chloride	92
trans-1,2-Dichloroethene	101
1,1-Dichloroethane	91
2-Butanone (Methyl Ethyl Ketone)	102
cis-1,2-Dichloroethene	93
Chloroform	92
1,1,1-Trichloroethane	87
Carbon Tetrachloride	87
Benzene	94
1,2-Dichloroethane	86
Trichloroethene	90
Toluene	95
1,1,2-Trichloroethane	93
Tetrachloroethene	84
Ethyl Benzene	95
m,p-Xylene	98
o-Xylene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCSD

Lab ID#: 1304357-08AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p042205	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 4/22/13 01:29 PM	

Compound	%Recovery
Vinyl Chloride	95
Chloroethane	102
1,1-Dichloroethene	103
Acetone	97
Methylene Chloride	93
trans-1,2-Dichloroethene	104
1,1-Dichloroethane	92
2-Butanone (Methyl Ethyl Ketone)	104
cis-1,2-Dichloroethene	96
Chloroform	94
1,1,1-Trichloroethane	86
Carbon Tetrachloride	86
Benzene	94
1,2-Dichloroethane	83
Trichloroethene	87
Toluene	94
1,1,2-Trichloroethane	93
Tetrachloroethene	85
Ethyl Benzene	95
m,p-Xylene	99
o-Xylene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	101	70-130

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5/30/2013
Mr. Peter Hollatz
AECOM Environment
27755 Diehl Road
Suite 100
Warrenville IL 60555

Project Name: UTC SER 9110
Project #: 60288803
Workorder #: 1305328

Dear Mr. Peter Hollatz

The following report includes the data for the above referenced project for sample(s) received on 5/15/2013 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-14A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott
Project Manager

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WORK ORDER #: 1305328

Work Order Summary

CLIENT:	Mr. Peter Hollatz AECOM Environment 27755 Diehl Road Suite 100 Warrenville, IL 60555	**BILL TO:**	Accounts Payable-Warrenville AECOM Environment 27755 Diehl Road Suite 100 Warrenville, IL 60555
PHONE:	630-836-1700	**P.O. #**	46287ACM
FAX:	630-836-1711	**PROJECT #**	60288803 UTC SER 9110
DATE RECEIVED:	05/15/2013	**CONTACT:**	Ausha Scott
DATE COMPLETED:	05/30/2013		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	P1SVE-EFFC1-051013	Modified TO-14A	2.6 "Hg	15.3 psi
01AA	P1SVE-EFFC1-051013 Lab Duplicate	Modified TO-14A	2.6 "Hg	15.3 psi
02A	P1SVE-EFFC2-051013	Modified TO-14A	2.8 "Hg	15.1 psi
03A	P1SVE-EFFC3-051013	Modified TO-14A	1.6 "Hg	15.4 psi
04A	P2SVE-EFFC4-051013	Modified TO-14A	3.3 "Hg	15 psi
05A	P2SVE-EFFC5-051013	Modified TO-14A	2 "Hg	15.2 psi
06A	Lab Blank	Modified TO-14A	NA	NA
07A	CCV	Modified TO-14A	NA	NA
08A	LCS	Modified TO-14A	NA	NA
08AA	LCSD	Modified TO-14A	NA	NA

CERTIFIED BY: Heidi Rayo DATE: 05/30/13

Technical Director

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,
TX NELAP - T104704434-12-4, UT NELAP CA009332012-3, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2012, Expiration date: 10/17/2013.
Eurofins Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-14A
AECOM Environment
Workorder# 1305328

Five 1 Liter Summa Canister samples were received on May 15, 2013. The laboratory performed analysis via modified EPA Method TO-14A using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications. Please note that TO-14A was validated for specially treated canisters, and the use of Tedlar bags for sample collection is outside the scope of the method.

Requirement	*TO-14A*	*ATL Modifications*
Initial Calibration criteria	RSD</=30%	Follow TO-15 requirements of RSD</=30% with two compounds allowed out to </=40%RSD.
BFB absolute abundance criteria	Within 10% of that from previous day	CCV internal standard area counts are compared to ICAL, corrective action when recovery is less than 60%.
Blank acceptance criteria	<0.20 ppbv	<Reporting Limit
Sample Drying System	Nafion Dryer	Multibed hydrophobic sorbent
BFB ion abundance criteria	Ion abundance listed in Table 4 of TO-14A	Follow ion abundance criteria listed in Method TO-15

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Dilution was performed on sample P2SVE-EFFC5-051013 due to the presence of high level target species.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: P1SVE-EFFC1-051013

Lab ID#: 1305328-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.1	1.7	4.4	6.6
1,1-Dichloroethane	1.1	55	4.5	220
cis-1,2-Dichloroethene	1.1	6.0	4.4	24
1,1,1-Trichloroethane	1.1	71	6.1	390
Trichloroethene	1.1	6.1	6.0	33
Toluene	1.1	1.7	4.2	6.5
Tetrachloroethene	1.1	37	7.6	250

Client Sample ID: P1SVE-EFFC1-051013 Lab Duplicate

Lab ID#: 1305328-01AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.1	1.6	4.4	6.2
1,1-Dichloroethane	1.1	54	4.5	220
cis-1,2-Dichloroethene	1.1	6.2	4.4	25
1,1,1-Trichloroethane	1.1	70	6.1	380
Trichloroethene	1.1	6.2	6.0	34
Toluene	1.1	1.7	4.2	6.4
Tetrachloroethene	1.1	36	7.6	250

Client Sample ID: P1SVE-EFFC2-051013

Lab ID#: 1305328-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloroethane	4.5	18	12	46
1,1-Dichloroethene	1.1	3.9	4.4	15
1,1-Dichloroethane	1.1	62	4.5	250
cis-1,2-Dichloroethene	1.1	5.4	4.4	22
1,1,1-Trichloroethane	1.1	210	6.1	1200
Trichloroethene	1.1	9.5	6.0	51
Tetrachloroethene	1.1	6.4	7.6	44

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: P1SVE-EFFC3-051013

Lab ID#: 1305328-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.1	3.3	4.3	13
1,1-Dichloroethane	1.1	5.5	4.4	22
cis-1,2-Dichloroethene	1.1	22	4.3	86
1,1,1-Trichloroethane	1.1	200	5.9	1100
Trichloroethene	1.1	13	5.8	69
Tetrachloroethene	1.1	4.4	7.3	30

Client Sample ID: P2SVE-EFFC4-051013

Lab ID#: 1305328-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.1	3.4	4.5	13
1,1-Dichloroethane	1.1	23	4.6	92
cis-1,2-Dichloroethene	1.1	30	4.5	120
1,1,1-Trichloroethane	1.1	270	6.2	1500
Trichloroethene	1.1	23	6.1	120
Tetrachloroethene	1.1	120	7.7	830

Client Sample ID: P2SVE-EFFC5-051013

Lab ID#: 1305328-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	5.4	12	22	47
1,1-Dichloroethane	5.4	86	22	350
cis-1,2-Dichloroethene	5.4	45	22	180
1,1,1-Trichloroethane	5.4	1200	30	6500
Trichloroethene	5.4	79	29	420
Tetrachloroethene	5.4	220	37	1500

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Client Sample ID: P1SVE-EFFC1-051013

Lab ID#: 1305328-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**17052218**	**Date of Collection:**	**5/10/13 12:40:00 PM**
Dil. Factor:	**2.24**	**Date of Analysis:**	**5/23/13 12:31 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
1,1-Dichloroethene	1.1	1.7	4.4	6.6
Acetone	11	Not Detected	27	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.1	55	4.5	220
2-Butanone (Methyl Ethyl Ketone)	4.5	Not Detected	13	Not Detected
cis-1,2-Dichloroethene	1.1	6.0	4.4	24
Chloroform	1.1	Not Detected	5.5	Not Detected
1,1,1-Trichloroethane	1.1	71	6.1	390
Carbon Tetrachloride	1.1	Not Detected	7.0	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.5	Not Detected
Trichloroethene	1.1	6.1	6.0	33
Toluene	1.1	1.7	4.2	6.5
1,1,2-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Tetrachloroethene	1.1	37	7.6	250
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	Not Detected	4.9	Not Detected
o-Xylene	1.1	Not Detected	4.9	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: P1SVE-EFFC1-051013 Lab Duplicate

Lab ID#: 1305328-01AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**17052219**	**Date of Collection:**	**5/10/13 12:40:00 PM**
Dil. Factor:	**2.24**	**Date of Analysis:**	**5/23/13 12:53 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
1,1-Dichloroethene	1.1	1.6	4.4	6.2
Acetone	11	Not Detected	27	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.1	54	4.5	220
2-Butanone (Methyl Ethyl Ketone)	4.5	Not Detected	13	Not Detected
cis-1,2-Dichloroethene	1.1	6.2	4.4	25
Chloroform	1.1	Not Detected	5.5	Not Detected
1,1,1-Trichloroethane	1.1	70	6.1	380
Carbon Tetrachloride	1.1	Not Detected	7.0	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.5	Not Detected
Trichloroethene	1.1	6.2	6.0	34
Toluene	1.1	1.7	4.2	6.4
1,1,2-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Tetrachloroethene	1.1	36	7.6	250
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	Not Detected	4.9	Not Detected
o-Xylene	1.1	Not Detected	4.9	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: P1SVE-EFFC2-051013

Lab ID#: 1305328-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	17052220	Date of Collection:	5/10/13 1:30:00 PM
Dil. Factor:	2.24	Date of Analysis:	5/23/13 01:15 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Chloroethane	4.5	18	12	46
1,1-Dichloroethene	1.1	3.9	4.4	15
Acetone	11	Not Detected	27	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.1	62	4.5	250
2-Butanone (Methyl Ethyl Ketone)	4.5	Not Detected	13	Not Detected
cis-1,2-Dichloroethene	1.1	5.4	4.4	22
Chloroform	1.1	Not Detected	5.5	Not Detected
1,1,1-Trichloroethane	1.1	210	6.1	1200
Carbon Tetrachloride	1.1	Not Detected	7.0	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.5	Not Detected
Trichloroethene	1.1	9.5	6.0	51
Toluene	1.1	Not Detected	4.2	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Tetrachloroethene	1.1	6.4	7.6	44
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	Not Detected	4.9	Not Detected
o-Xylene	1.1	Not Detected	4.9	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: P1SVE-EFFC3-051013

Lab ID#: 1305328-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	17052221	Date of Collection:	5/10/13 11:45:00 AM
Dil. Factor:	2.16	Date of Analysis:	5/23/13 01:36 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
1,1-Dichloroethene	1.1	3.3	4.3	13
Acetone	11	Not Detected	26	Not Detected
Methylene Chloride	11	Not Detected	38	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.1	5.5	4.4	22
2-Butanone (Methyl Ethyl Ketone)	4.3	Not Detected	13	Not Detected
cis-1,2-Dichloroethene	1.1	22	4.3	86
Chloroform	1.1	Not Detected	5.3	Not Detected
1,1,1-Trichloroethane	1.1	200	5.9	1100
Carbon Tetrachloride	1.1	Not Detected	6.8	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	13	5.8	69
Toluene	1.1	Not Detected	4.1	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Tetrachloroethene	1.1	4.4	7.3	30
Ethyl Benzene	1.1	Not Detected	4.7	Not Detected
m,p-Xylene	1.1	Not Detected	4.7	Not Detected
o-Xylene	1.1	Not Detected	4.7	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: P2SVE-EFFC4-051013

Lab ID#: 1305328-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**17052222**	**Date of Collection:**	**5/10/13 12:20:00 PM**
Dil. Factor:	**2.27**	**Date of Analysis:**	**5/23/13 01:58 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
1,1-Dichloroethene	1.1	3.4	4.5	13
Acetone	11	Not Detected	27	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
1,1-Dichloroethane	1.1	23	4.6	92
2-Butanone (Methyl Ethyl Ketone)	4.5	Not Detected	13	Not Detected
cis-1,2-Dichloroethene	1.1	30	4.5	120
Chloroform	1.1	Not Detected	5.5	Not Detected
1,1,1-Trichloroethane	1.1	270	6.2	1500
Carbon Tetrachloride	1.1	Not Detected	7.1	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	23	6.1	120
Toluene	1.1	Not Detected	4.3	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	120	7.7	830
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	Not Detected	4.9	Not Detected
o-Xylene	1.1	Not Detected	4.9	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: P2SVE-EFFC5-051013

Lab ID#: 1305328-05A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	17052224	Date of Collection:	5/10/13 12:30:00 PM
Dil. Factor:	10.9	Date of Analysis:	5/23/13 02:40 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	5.4	Not Detected	14	Not Detected
Chloroethane	22	Not Detected	58	Not Detected
1,1-Dichloroethene	5.4	12	22	47
Acetone	54	Not Detected	130	Not Detected
Methylene Chloride	54	Not Detected	190	Not Detected
trans-1,2-Dichloroethene	5.4	Not Detected	22	Not Detected
1,1-Dichloroethane	5.4	86	22	350
2-Butanone (Methyl Ethyl Ketone)	22	Not Detected	64	Not Detected
cis-1,2-Dichloroethene	5.4	45	22	180
Chloroform	5.4	Not Detected	27	Not Detected
1,1,1-Trichloroethane	5.4	1200	30	6500
Carbon Tetrachloride	5.4	Not Detected	34	Not Detected
Benzene	5.4	Not Detected	17	Not Detected
1,2-Dichloroethane	5.4	Not Detected	22	Not Detected
Trichloroethene	5.4	79	29	420
Toluene	5.4	Not Detected	20	Not Detected
1,1,2-Trichloroethane	5.4	Not Detected	30	Not Detected
Tetrachloroethene	5.4	220	37	1500
Ethyl Benzene	5.4	Not Detected	24	Not Detected
m,p-Xylene	5.4	Not Detected	24	Not Detected
o-Xylene	5.4	Not Detected	24	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1305328-06A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	17052206	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 5/22/13 12:38 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: CCV

Lab ID#: 1305328-07A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	17052202	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 5/22/13 10:44 AM	

Compound	%Recovery
Vinyl Chloride	95
Chloroethane	97
1,1-Dichloroethene	92
Acetone	93
Methylene Chloride	89
trans-1,2-Dichloroethene	92
1,1-Dichloroethane	91
2-Butanone (Methyl Ethyl Ketone)	94
cis-1,2-Dichloroethene	95
Chloroform	89
1,1,1-Trichloroethane	86
Carbon Tetrachloride	88
Benzene	87
1,2-Dichloroethane	78
Trichloroethene	85
Toluene	83
1,1,2-Trichloroethane	83
Tetrachloroethene	80
Ethyl Benzene	82
m,p-Xylene	82
o-Xylene	82

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: LCS

Lab ID#: 1305328-08A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**17052203**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/22/13 11:06 AM**	

Compound	**%Recovery**
Vinyl Chloride	91
Chloroethane	90
1,1-Dichloroethene	92
Acetone	86
Methylene Chloride	83
trans-1,2-Dichloroethene	98
1,1-Dichloroethane	86
2-Butanone (Methyl Ethyl Ketone)	88
cis-1,2-Dichloroethene	89
Chloroform	85
1,1,1-Trichloroethane	82
Carbon Tetrachloride	82
Benzene	83
1,2-Dichloroethane	75
Trichloroethene	81
Toluene	78
1,1,2-Trichloroethane	84
Tetrachloroethene	81
Ethyl Benzene	84
m,p-Xylene	84
o-Xylene	83

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: LCSD

Lab ID#: 1305328-08AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	17052204	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 5/22/13 11:28 AM	

Compound	%Recovery
Vinyl Chloride	90
Chloroethane	91
1,1-Dichloroethene	92
Acetone	84
Methylene Chloride	82
trans-1,2-Dichloroethene	96
1,1-Dichloroethane	84
2-Butanone (Methyl Ethyl Ketone)	86
cis-1,2-Dichloroethene	90
Chloroform	84
1,1,1-Trichloroethane	82
Carbon Tetrachloride	82
Benzene	82
1,2-Dichloroethane	73
Trichloroethene	80
Toluene	77
1,1,2-Trichloroethane	82
Tetrachloroethene	80
Ethyl Benzene	81
m,p-Xylene	82
o-Xylene	81

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

Appendix C

Second Quarter 2013 Phase 1 / Phase 2 AS/SVE System Operations Data Sheets

Stantec

DAILY DOCUMENTATION SHEET

Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	6-25-13	6-26-13	6-27-13	6-28-13	6-29-13	6-30-13	7-1-13	7-2-13	7-3-13	7-4-13
TIME	12:13 Pm	1:47 Pm	2:25 Pm	10:48AM	9:20AM	7:46 AM	10:25AM	2:31 Pm	10:38AM	8:24 AM
OBSERVER'S INITIALS	RK	RK	RK	KA	KA	EH	RK	RK	RK	EH
ALARMS										
Shut Down Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Non-critical Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HOURS METERS										
B-701 SVE (hrs)	22745	22770	22795	22815	22838	22860	22887	22915	22935	22957
C-2201 SPRG (hrs)	21967	21992	22017	22038	22060	22083	22110	22138	22159	22181
F-2501 H-XCH (hrs)	21967	21992	22017	22038	22060	22083	22110	22138	22159	22181
ANALOGS										
MV-701 SVE POS (%)	29	29	29	29	29	29	29	29	29	28
PT-701 SVE (-wc)	81.6	81.6	68.0	81.6	68.0	81.6	68.0	81.6	81.6	68.0
PT-2501 SPRG (psi)	13.3	13.3	13.3	13.3	13.1	13.3	13.2	13.1	13.2	13.1
SET POINTS										
PTLA-2501 SPRG (psi)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
PTHA-2501 SPRG (psi)	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
SET POINTS 2										
SVON-101 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-102 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-103 SVE (min)	180	180	180	180	180	180	180	180	180	180
SET POINTS 3										
SVON-2801 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2802 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2803 SPRG (min)	180	180	180	180	180	180	180	180	180	180
SPRG DELAY (min)	0	Ø	Ø	Ø	Ø	0	Ø	Ø	Ø	Ø
SET POINTS 4										
MV-701 SVE POS (%)	30	30	30	30	30	30	30	30	30	30

If system is in alarm mode, contact John Puckett or David Vasquez of Stantec at (630) 792-1680

Stantec

DAILY DOCUMENTATION SHEET

Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	6-15-13	6-16-13	6-17-13	6-18-13	6-19-13	6-20-13	6-21-13	6-22-13	6-23-13	6-24-13
TIME	10:09 Am	9:20 Am	1:33 Am	1:18 Pm	2:43 Pm	12:32 Pm	2:05 Pm	10:40 Am	6:45 AM	8:13 Am
OBSERVER'S INITIALS	RK	KA	RK	RK	RK	RK	KA	EH	RK	RK
ALARMS										
Shut Down Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Non-critical Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HOURS METERS										
B-701 SVE (hrs)	22503	22526	22554	22578	22604	22625	22651	22671	22691	22717
C-2201 SPRG (hrs)	21723	21746	21774	21798	21824	21846	21872	21892	21913	21938
F-2501 H-XCH (hrs)	21723	21746	21774	21798	21824	21846	21872	21893	21913	21938
ANALOGS										
MV-701 SVE POS (%)	29	29	29	29	29	29	29	29	29	29
PT-701 SVE (-wc)	81.6	81.6	68.0	81.6	68.0	81.6	81.6	81.6	81.6	81.6
PT-2501 SPRG (psi)	13.2	13.5	11.9	13.2	12.0	13.4	13.3	13.2	13.3	13.2
SET POINTS										
PTLA-2501 SPRG (psi)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
PTHA-2501 SPRG (psi)	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
SET POINTS 2										
SVON-101 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-102 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-103 SVE (min)	180	180	180	180	180	180	180	180	180	180
SET POINTS 3										
SVON-2801 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2802 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2803 SPRG (min)	180	180	180	180	180	180	180	180	180	180
SPRG DELAY (min)	0	Ø	Ø	Ø	Ø	Ø	Ø	0	Ø	Ø
SET POINTS 4										
MV-701 SVE POS (%)	30	30	30	30	30	30	30	30	30	30

[illegible]stem is in alarm mode, contact ~~John Puckett~~ or ~~David Vasquez~~ of S[illegible]es at ~~(630) 792-1699~~

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DAILY DOCUMENTATION SHEET

Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	6-5-13	6-6-13	6-7-13	6-8-13	6-9-13	6-10-13	6-11-13	6-12-13	6-13-13	6-14-13
TIME	2:10 Pm	11:00 AM	1:50 AM	9:20 AM	10:27 Am	12:44 Pm	1:29 Pm	2:35 Pm	10:38 Am	10:39 Am
OBSERVER'S INITIALS	KA	KA	KA	KA	SH	TK	TK	TK	TK	TK
ALARMS										
Shut Down Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Non-critical Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HOURS METERS										
B-701 SVE (hrs)	22268	22288	22315	22335	22360	22386	22411	22436	22456	22480
C-2201 SPRG (hrs)	21485	21506	21533	21552	21578	21604	21629	21655	21675	21699
F-2501 H-XCH (hrs)	21485	21506	21533	21552	21578	21604	21629	21655	21675	21699
ANALOGS										
MV-701 SVE POS (%)	29	29	29	29	29	29	29	29	29	29
PT-701 SVE (-wc)	68	68	81.6	81.6	81.6	68.0	68.0	68.0	68.0	68.0
PT-2501 SPRG (psi)	13.5	13.0	13.2	13.2	13.1	12.0	12.0	11.9	9.7	12.2
SET POINTS										
PTLA-2501 SPRG (psi)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
PTHA-2501 SPRG (psi)	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
SET POINTS 2										
SVON-101 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-102 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-103 SVE (min)	180	180	180	180	180	180	180	180	180	180
SET POINTS 3										
SVON-2801 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2802 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2803 SPRG (min)	180	180	180	180	180	180	180	180	180	180
SPRG DELAY (min)	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø
SET POINTS 4										
MV-701 SVE POS (%)	30	30	30	30	30	30	30	30	30	30

If system is in alarm mode, contact John Puckett or David Vasquez of Stantec at (630) 792-1680

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DAILY DOCUMENTATION SHEET

Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	5-26-13	5-27-13	5-28-13	5-29-13	5-30-13	5-31-13	6-1-13	6-2-13	6-3-13	6-4-13
TIME	8:36 AM	12:37 Pm	12:40 PM	12:28 Pm	10:44 AM	12:41 Pm	7:57 AM	8:15 AM	2:10 PM	2:50 PM
OBSERVER'S INITIALS	KA	TK	JD	TK	TK	TK	KA	JD	KA	KA
ALARMS										
Shut Down Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Non-critical Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HOURS METERS										
B-701 SVE (hrs)	22023	22050	22074	22098	22120	22146	22166	22190	22220	22244
C-2201 SPRG (hrs)	21237	21265	21290	21314	21336	21362	21382	21406	21436	21461
F-2501 H-XCH (hrs)	21237	21265	21290	21314	21336	21362	21382	21406	21436	21461
ANALOGS										
MV-701 SVE POS (%)	29	29	29	29	29	29	29	29	29	29
PT-701 SVE (-wc)	81.6	68.0	68.0	68.0	68.0	68.0	68.0	81.6	81.6	81.6
PT-2501 SPRG (psi)	13.0	12.9	11.9	13.2	13.4	13.3	13.2	13.4	13.1	13.2
SET POINTS										
PTLA-2501 SPRG (psi)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
PTHA-2501 SPRG (psi)	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
SET POINTS 2										
SVON-101 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-102 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-103 SVE (min)	180	180	180	180	180	180	180	180	180	180
SET POINTS 3										
SVON-2801 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2802 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2803 SPRG (min)	180	180	180	180	180	180	180	180	180	180
SPRG DELAY (min)	0	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø
SET POINTS 4										
MV[illegible] SVE POS (%)	30	30	30	30	30	30	30	30	30	[illegible]

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DAILY DOCUMENTATION SHEET

Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	5-16-13	5-17-13	5-18-13	5-19-13	5-20-13	5-21-13	5-22-13	5-23-13	5-24-13	5-25-13
TIME	1:08 Pm	2:19 Pm	10:28 AM	6:40 AM	10:37 AM	8:42 AM	2:36 Pm	1:07 Pm	10:28 Am	9:17 Am
OBSERVER'S INITIALS	RK	RK	ZH	JD	RK	RK	RK	RK	RK	RK
ALARMS										
Shut Down Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Non-critical Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HOURS METERS										
B-701 SVE (hrs)	21787	21813	21833	21853	21881	21903	21933	21955	21976	21999
C-2201 SPRG (hrs)	21000	21025	21045	21066	21094	21116	21146	21169	21191	21214
F-2501 H-XCH (hrs)	21000	21025	21045	21066	21094	21116	21146	21169	21191	21214
ANALOGS										
MV-701 SVE POS (%)	29	29	29	29	29	29	29	29	29	29
PT-701 SVE (-wc)	68.0	68.0	68.0	81.6	68.0	68.0	68.0	68.0	68.0	81.6
PT-2501 SPRG (psi)	14.1	13.0	12.9	14.0	12.0	13.1	13.2	12.0	12.9	13.0
SET POINTS										
PTLA-2501 SPRG (psi)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
PTHA-2501 SPRG (psi)	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
SET POINTS 2										
SVON-101 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-102 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-103 SVE (min)	180	180	180	180	180	180	180	180	180	180
SET POINTS 3										
SVON-2801 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2802 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2803 SPRG (min)	180	180	180	180	180	180	180	180	180	180
SPRG DELAY (min)	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø
SET POINTS 4										
MV-701 SVE POS (%)	30	30	30	30	30	30	30	30	30	30

If system is in alarm mode, contact John Puckett or David Vasquez of Stantec at (630) 792-1680

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DAILY DOCUMENTATION SHEET

Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

				Shutdown	5-10-13	5-11-13	5-12-13	5-13-13	5-14-13	5-15-13
DATE	4-8-13	4-9-13	4-10-13	4-11-13	~~4-12-13~~	~~4-13-13~~	~~4-14-13~~	~~4-15-13~~	~~4-16-13~~	~~4-17-13~~
TIME	1:42 Pm	10:59 Am	1:51 Pm	10:12 Am	1115	12:24 Pm	8:30 AM	1:35 Pm	8:23 AM	2:48 Pm
OBSERVER'S INITIALS	RL	RL	RL	RL	PH	RL	RA	RL	RL	RL
ALARMS										
Shut Down Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Non-critical Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HOURS METERS										
B-701 SVE (hrs)	20878	20899	20926	20946	21642	21667	21687	21716	21735	21765
C-2201 SPRG (hrs)	20777	20799	20826	20846	20853	20878	20898	20928	20947	20977
F-2501 H-XCH (hrs)	20777	20799	20826	20846	20853	20878	20898	20928	20947	20977
ANALOGS										
MV-701 SVE POS (%)	29	29	29	29	29	29	29	29	29	29
PT-701 SVE (-wc)	81.6	81.6	68.0	68.0	81.6	81.6	81.6	81.6	81.6	68.0
PT-2501 SPRG (psi)	13.0	12.6	11.3	12.5	13.1	13.0	12.9	12.9	12.8	13.0
SET POINTS										
PTLA-2501 SPRG (psi)	2.0	2.0	2.0	2.0	2	2.0	2.0	2.0	2.0	2.0
PTHA-2501 SPRG (psi)	17.0	17.0	17.0	17.0	17	17.0	17.0	17.0	17.0	17.0
SET POINTS 2										
SVON-101 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-102 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-103 SVE (min)	180	180	180	180	180	180	180	180	180	180
SET POINTS 3										
SVON-2801 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2802 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2803 SPRG (min)	180	180	180	180	180	180	180	180	180	180
SPRG DELAY (min)	0	0	0	Ø	0	Ø	Ø	Ø	0	0
SET POINTS 4										
MV[illegible] SVE POS (%)	30	30	30	30	30	30	30	30	30	[illegible]

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DAILY DOCUMENTATION SHEET

Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	3-29-13	3-30-13	3-31-13	4-1-13	4-2-13	4-3-13	4-4-13	4-5-13	4-6-13	4-7-13
TIME	11:18 Am	9:16 AM	10:44 AM	10:05 Am	1:02 Pm	1:17 Pm	10:49 Am	12:30 Pm	8:20 Am	9:15 Am
OBSERVER'S INITIALS	KA	JD	[illegible]	TK	RK	RK	TK	TK	JD	TK
ALARMS										
Shut Down Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Non-critical Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HOURS METERS										
B-701 SVE (hrs)	20636	20658	20683	20707	20733	20758	20779	20805	20825	20849
C-2201 SPRG (hrs)	20533	20555	20581	20604	20632	20656	20678	20704	20724	20749
F-2501 H-XCH (hrs)	20533	20555	20581	20604	20632	20656	20678	20704	20724	20749
ANALOGS										
MV-701 SVE POS (%)	29	29%	29	29	29	29	29	29	29	29
PT-701 SVE (-wc)	-81.6	-81.6	-68.0	81.6	68.0	68.0	81.6	81.6	81.6	81.6
PT-2501 SPRG (psi)	12.5	12.4	11.2	12.6	12.4	11.2	12.4	12.5	12.4	12.5
SET POINTS										
PTLA-2501 SPRG (psi)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
PTHA-2501 SPRG (psi)	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
SET POINTS 2										
SVON-101 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-102 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-103 SVE (min)	180	180	180	180	180	180	180	180	180	180
SET POINTS 3										
SVON-2801 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2802 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2803 SPRG (min)	180	180	180	180	180	180	180	180	180	180
SPRG DELAY (min)	0	0	0	Ø	Ø	Ø	Ø	Ø	Ø	Ø
SET POINTS 4										
MV-701 SVE POS (%)	30	30%	30	30	30	30	30	30	30	30

WEEKLY DOCUMENTATION SHEET

SYSTEM COMPONENTS

~~Ph: (630) 792-1680~~
~~Fx: (630) 792-1691~~

DATE	5-29-13	6-3-13	6-10-13	6-18-13	6-24-13	7-1-13	7-8-13	7-15-13	
TIME	12:30pm	2:10pm	12:45 PM	1:20pm	8:16Am	10:26Am	10:42Am	7:46Am	
OBSERVER'S INITIALS	RK	KA	RK	RK	RK	RK	RK	RK	

SYSTEM LEAKS, EXCESSIVE OR UNFAMILAR NOISE, MOISTURE, ETC.

Comments and Notes	N/A	N/A	N/A	NA	NA	NA	NA	NA	

SOIL VAPOR EXTRACTION (SVE)

Hours of Operation (hrs)	22098	22220	22386	22578	22717	22887	23055	23219	
Inlet Vacuum (-wc)	82	80	80	82	82	80	80	84	
Pre-Filter Vacuum (-wc)	84	86	84	84	84	80	82	86	
Post-Filter Vacuum (-wc)	76	74	72	74	77	68	72	78	
Outlet Pressure (wc)	8	7	8	8	8	8	7	7	
Outlet Temperature (°F)	160	160	158	164	162	154	163	170	
Outlet Magnehelic* (in H_2O)	0.9	0.9	0.9	0.9	0.9	0.9	0.9	.9	
Water Level Sight Glass (in)	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	

AIR SPARGE (SPRG)

Hours Operation (hrs)	21314	21436	21604	21798	21938	22110	22280	22446	
Oil Sight Glass (half pt.)	OK	OK	OK	OK	OK	OK	OK	OK	

HEAT EXCHANGER (H-XCH)

Hours Operation (hrs)	21314	21436	21604	21798	21938	22110	22280	22446	
Inlet Temperature (°F)	210	210	210	215	210	215	211	225	
Inlet Pressure (psi)	15	14	14.5	15.5	15.5	15.5	16	17	
Outlet Temperature (°F)	116	115	116	118	115	116	118	118	
Outlet Pressure (psi)	14.5	14.5	14	14	14.5	14	12.5	14.5	
Outlet Magnehelic* (in H_2O)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	

ELECTRICAL USAGE (see display panel below main breaker and next to control panel)

Kilowatts (kwh)	125003	125624	126480	127476	128196	129077	129946	130811	

* [illegible]p plastic pinch valves on tubing to magnehelic gauge closed except [illegible]n taking a reading.

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WEEKLY DOCUMENTATION SHEET

SYSTEM COMPONENTS

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	2-28-13	3-11-13	3-18-13	3-25-13	4-2-13	4-9-13	5-10-13	5-13-13	5-20-13
TIME	8:56AM	1:37pm	12:31pm	1:19pm	1:03pm	11:02Am	1115	1:37pm	10:34Am
OBSERVER'S INITIALS	TK	TK	TK	TK	TK	TK	PH	TK	TK

SYSTEM LEAKS, EXCESSIVE OR UNFAMILAR NOISE, MOISTURE, ETC.

Comments and Notes	NA	NA	NA	NA	NA	NA	*appears SVE hour continuous count when OFF	N/A	N/A

SOIL VAPOR EXTRACTION (SVE)

Hours of Operation (hrs)	19940	20207	20374	20542	20733	20899	21642	21716	21881
Inlet Vacuum (-wc)	82	82	82	82	78	82	82	82	79
Pre-Filter Vacuum (-wc)	84	84	84	84	80	84	86	84	82
Post-Filter Vacuum (-wc)	78	78	84	82	78	76	76	76	72
Outlet Pressure (wc)	8	7	6	7	9	8	7	7	8
Outlet Temperature (°F)	132	140	140	140	140	148	146	154	159
Outlet Magnehelic* (in H_2O)	0.9	0.9	0.9	0.9	1.0	.9	0.9	0.9	0.9
Water Level Sight Glass (in)	1FT	1FT 6"	1FT 6"	4"	3"	3"	0	3"	1"

AIR SPARGE (SPRG)

Hours Operation (hrs)	19830	20100	20268	20438	20632	20799	20853	20928	21094
Oil Sight Glass (half pt.)	OK	OK	OK	OK	OK	OK	OK	OK	OK

HEAT EXCHANGER (H-XCH)

Hours Operation (hrs)	19830	20100	20268	20438	20632	20799	20853	20928	21094
Inlet Temperature (°F)	196	200	200	200	202	204	200	220	220
Inlet Pressure (psi)	14	14.5	14.5	14.5	15	15.5	15	14	14.5
Outlet Temperature (°F)	92	100	100	100	103	104	98	115	111
Outlet Pressure (psi)	14	14	13	13.5	13	13	14.5	14.5	12
Outlet Magnehelic* (in H_2O)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

ELECTRICAL USAGE (see display panel below main breaker and next to control panel)

Kilowatts (kwh)	117329	118705	119564	120439	121418	122241	122664	123039	123886

* Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading.

Stantec

MONTHLY DOCUMENTATION SHEET

SVE MANIFOLD

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	3/15/12	4-19-21	5-16-12	9/17/12	11-15-12	4-11-13	5-10-13	6-17-13	7-15-13	
TIME	12:00	1400	11:00	12:00	2:30	1300	1145	1555	0945	
INITIALS	DV	LT	DV	DV	DV	PH	PH	ABK	PH	

MAGNEHELIC GAUGE*

CELL 1	SVE-1 (in H_2O)	1.1	1.2	1.2	1.2	1.0	1.1	1.0	1.2	1.2	
	SVE-2 (in H_2O)	1.3	1.4	1.4	1.4	1.5	1.3	1.5	1.5	1.4	
CELL 2	SVE-3 (in H_2O)	1.2	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.2	
	SVE-4 (in H_2O)	1.2	1.3	1.3	1.3	1.1	1.2	1.3	1.3	1.3	
CELL 3	SVE-5 (in H_2O)	0.7	1.10	1.2	1.2	0.6	1.1	1.1	1.1	1.1	
	SVE-6 (in H_2O)	0.9	1	1.0	1.0	0.7	0.9	1.0	1.0	1.0	

VACUUM GAUGE

CELL 1	SVE-1 (-wc)	32	-30	30	30	32	30	28	30	30	
	SVE-2 (-wc)	30	-32	30	30	30	30	28	28	28	
CELL 2	SVE-3 (-wc)	20	26	20	20	20	20	20	18	18	
	SVE-4 (-wc)	20	20	20	20	20	20	18	20	20	
CELL 3	SVE-5 (-wc)	34	-41	35	35	36	34	36	34	36	
	SVE-6 (-wc)	36	-44	36	36	38	36	36	36	36	

*[illegible]ep plastic pinch valves on tubing to magnehelic gauge closed excep[illegible]n taking a reading.

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MONTHLY DOCUMENTATION SHEET

AIR SPARGE MANIFOLD

Ph: (630) 792-1680
Fx: (630) 792-1691

	DATE	3/15/12	4-19-12	5-16-12	9-17-12	11-15-12	4-11-13	5-16-13	6-12-13	7-15-13	
	TIME	12:00	1200	11:00	12:00	2:30	1330	1145	1600	0945	
	INITIALS	DV	LT	DV	DV	DV	PH	PH	ARK	PH	
	ROTOMETER										
CELL 1	AS-1 (scfm)	18	18	18	18	19	19	19	17	17	
CELL 1	AS-2 (scfm)	19	19	19	19	20	20	20	20	20	
CELL 1	AS-3 (scfm)	20	19	19	18	19	20	20	20	20	
CELL 1	AS-4 (scfm)	18	18	18	19	17	19	19	19	19	
CELL 1	AS-5 (scfm)	18	19	18	18	18	20	19	18	18	
CELL 2	AS-6 (scfm)	15	15	14	14	15	17	16	16	16	
CELL 2	AS-7 (scfm)	16	16	15	15	16	17	16	16	16	
CELL 2	AS-8 (scfm)	20	20	20	20	20	21	21	21	21	
CELL 2	AS-9 (scfm)	19	19	19	18	18	18	19	15	16	
CELL 2	AS-10 (scfm)	21	21.5	22	21	21	22	23	22	22	
CELL 3	AS-11 (scfm)	18	18	18	19	15	15	15	15	15	
CELL 3	AS-12 (scfm)	17	18	17	18	13	18	18	18	18	
CELL 3	AS-13 (scfm)	20	19	18	19	14	17	17	17	17	
CELL 3	AS-14 (scfm)	20	19	20	20	30	23	23	23	23	
CELL 3	AS-15 (scfm)	17	17	17	17	16	20	21	21	20	
	PRESSURE GAUGE										
CELL 1	AS-1 (psi)	10	10.5	10	10	10	10.5	10.5	11.0	11	
CELL 1	AS-2 (psi)	11	11	10	10	9.5	11	10.5	10.5	11	
CELL 1	AS-3 (psi)	10	10.5	10	10	10	12	9.5	9.5	10	
CELL 1	AS-4 (psi)	10	10	10	10	10	10.5	10	10.5	11	
CELL 1	AS-5 (psi)	10	10.5	10.5	10.5	10	10	10.5	10.5	11	
CELL 2	AS-6 (psi)	10	11	10	10	10	10	10.5	11.0	11	
CELL 2	AS-7 (psi)	13	13	12	12	12	10	11	12.5	12.5	
CELL 2	AS-8 (psi)	11	11	11	11	11	11	11	11.0	11.5	
CELL 2	AS-9 (psi)	11.5	11	11	11	11	11.5	12	12.5	12.5	
CELL 2	AS-10 (psi)	13	13	13	13	10.5	11	12.5	11.0	12.5	
CELL 3	AS-11 (psi)	11	10.5	10.5	10.5	10	10.5	11	10.5	10.5	
CELL 3	AS-12 (psi)	11	11.5	11	11	11	9.0	11	10.5	13	
CELL 3	AS-13 (psi)	10.5	11.5	11	11	11	10	13	10.5	11	
CELL 3	AS-14 (psi)	11	11.5	11	11	12.5	9.5	11.5	10.5	12	
CELL 3	AS-15 (psi)	13	13	13.5	13.5	11	10	11.5	11.5	12.5	

Stantec

MONTHLY DOCUMENTATION SHEET

WELL HEAD GAUGES

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE		4-19-12	5-16-12	9-17-12	11-15-12	7/15/13					
TIME		1210	11:00	12:00	2:30	0945					
INITIALS		LT	DV	DV	DV	PH					
CELL 1	AS-1 (psi)	3	3	3	5	3					
	AS-2 (psi)	5	5	5	7	2					
	AS-3 (psi)	3	3	3	0	6					
	AS-4 (psi)	4	4	4	6	2					
	AS-5 (psi)	12	12	12	12	12					
CELL 2	AS-6 (psi)	4	3	4	5	5					
	AS-7 (psi)	4	5	4	6	0					
	AS-8 (psi)	6	6	6	7	15					
	AS-9 (psi)	0	2	2	5	1					
	AS-10 (psi)	4	4	4	5	1					
CELL 3	AS-11 (psi)	0	0	0	0	0					
	AS-12 (psi)	2	2	2	4	0					
	AS-13 (psi)	5	4	4	6	4					
	AS-14 (psi)	3	4	4	5	0					
	AS-15 (psi)	6	6	6	8	5					
CELL 1	SVE-1 (in H_2O)	-6	5	5	5	5					
	SVE-2 (in H_2O)	-5	5	5	5	5					
CELL 2	SVE-3 (in H_2O)	-9	9	9	8	10					
	SVE-4 (in H_2O)	-2	2	2	2	3					
CELL 3	SVE-5 (in H_2O)	-10	10	10	10	10					
	SVE-6 (in H_2O)	-2	2	2	2	0					

Stantec

Ph: (630) 792-1680
Fx: (630) 792-1691

DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	6-29-13	6-30-13	7-1-13	7-2-13	7-3-13	7-4-13	7-5-13	7-6-13	7-7-13
TIME	9:07AM	7:51 Am	9:56Am	2:24 Pm	10:30 Am	8:31 Am	9:54Am	8:54 Am	9:05Am
OBSERVER'S INITIALS	KA	EH	RC	RC	RC	EH	KA	EH	KA

WEATHER CONDITIONS

Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)	Rain 72°F	overcast 61°F	Sunny 80°F	Sunny 86°F	Cloudy 76°F	Sunny 73°F	Sunny 84°F	Sunny 70°F	Sunny 84°F

ALARMS

Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA

P&ID

PDT-701 SVE (-wc)	0.40	0.39	0.43	0.40	0.38	0.42	0.37	0.41	0.35
PT-701 SVE (-wc)	-74	-71	-67	-68	-69	-68	-69	-69	-69
PT-702 SVE (-wc)	51.8	51.9	51.8	51.4	52.1	52.3	51.2	51.9	51.3
PT-2201 SPRG (psi)	14.7	26.3	26.4	25.7	26.2	26.5	15.6	14.9	25.9
P-401 PUMP (cycles)	64	64	64	64	64	64	64	64	64

P&ID2

PDT-801 SVE (-wc)	0.28	0.27	0.26	0.29	0.28	0.30	0.28	0.30	0.27
PT-801 SVE (-wc)	-83	-79	-75	-76	-76	-75	-75	-76	-76
PT-802 SVE (-wc)	42.7	43.3	43.4	43.9	44.2	44.5	44.6	44.2	43.8
PT-2301 SPRG (psi)	4.9	0.6	0.8	1.7	1.0	2.1	1.5	0.8	2.6
P-501 PUMP (cycles)	255	259	264	270	275	280	285	290	295

If system is in alarm mode, contact John Puckett or David Vasquez of Stantec at (630) 792-1680

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DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	6-29-13	6-30-13	7-1-13	7-2-13	7-3-13	7-4-13	7-5-13	7-6-13	7-7-13
TIME	9:07AM	7:51 AM	9:56AM	2:25pm	10:31Am	8:31 Am	9:54AM	8:54 Am	9:05AM
OBSERVER'S INITIALS	KA	SH	RL	RC	RL	SH	KA	SH	KA
HOURS METERS									
B-701 SVE (hrs)	10737	10752	10769	10788	10801	10816	10832	10846	10861
C-2201 SPRG (hrs)	10648	10663	10680	10699	10712	10727	10743	10757	10772
C-2202 SPRG (hrs)	10578	10593	10610	10629	10642	10657	10673	10687	10702
B-801 SVE (hrs)	10660	10675	10692	10711	10725	10739	10755	10770	10784
C-2301 SPRG (hrs)	10368	10383	10400	10419	10432	10446	10462	10477	10492
C-2302 SPRG (hrs)	10352	10367	10384	10403	10416	10430	10446	10461	10476
SET POINTS									
PAL-701 SVE (wc)	-27	-27	-27	-27	-27	-27	-27	-27	-27
PAH-702 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-702 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2201 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2201 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAL-801 SVE (wc)	-25	-25	-25	-25	-25	-25	-25	-25	-25
PAH-802 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-802 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2301 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SV-2801 SPRG (min)	40	40	40	40	40	40	40	40	40
SV-2802 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2901 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2902 SPRG (min)	20	20	20	20	20	20	20	20	20

ystem is in alarm mode, contact John Puckett or David Vasquez of St ec at (630) 792-1680

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Ph: (630) 792-1680
Fx: (630) 792-1691

DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	6-20-13	6-21-13	6-22-13	6-23-13	6-24-13	6-25-13	6-26-13	6-27-13	6-28-13
TIME	12:23 Pm	1:55 Pm	10:41 Am	6:37AM	8:31 Am	12:18 Pm	1:39 Pm	2:19 Pm	10:40 Am
OBSERVER'S INITIALS	RK	KA	EH	RK	RK	RK	RK	RK	KA

WEATHER CONDITIONS

Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)	CLEAR 94°F	RAIN 74	5/31/13	LAHH 8001 SUMP FULL BUILDING 1 & 2 PUMPED & RESTARTED RK	RAIN ROOF LEAKS 76°F	RAIN SUN 84°F	RAIN 80°F	CLEAR 98°F	CLEAR 86°F

ALARMS

Alarm Code	N/A	NA	DOWN	LAHH 8001 BLDG-2	NA	NA	NA	NA	NA

P&ID

PDT-701 SVE (-wc)	0.37	0.39		0.45	0.39	0.38	0.39	0.35	0.32
PT-701 SVE (-wc)	-65	-68		-67	-68	-71	-72	-71	-73
PT-702 SVE (-wc)	50.5	52.9		53.3	53.1	51.0	51.1	50.2	50.7
PT-2201 SPRG (psi)	14.6	26.2		16.3	25.9	25.7	26.3	25.4	14.7
P-401 PUMP (cycles)	64	64		64	64	64	64	64	64

P&ID2

PDT-801 SVE (-wc)	0.30	0.30		0.34	0.25	0.30	0.27	0.28	0.29
PT-801 SVE (-wc)	-70	-72		-67	-75	-77	-80	-80	-81
PT-802 SVE (-wc)	44.0	45.5		46.6	44.9	43.8	42.8	42.6	42.6
PT-2301 SPRG (psi)	9.0	5.4		0.8	1.4	6.1	1.0	3.0	2.8
P-501 PUMP (cycles)	234	236		238	240	243	246	249	251

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DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

. Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	6-20-13		6-22-13	6-23-13	6-24-13	6-25-13	6-26-13	6-27-13	6-28-13
TIME	12:24pm	1:55PM	10:41 Am	6:37Am	8:32Am	12:19pm	1:40pm	2:20pm	10:40Am
OBSERVER'S INITIALS	RL	KA	SH	TRL	RL	RL	RL	RL	KA
HOURS METERS									
B-701 SVE (hrs)	10613	10630		10643	10660	10677	10694	10710	10723
C-2201 SPRG (hrs)	10525	10541		10554	10571	10589	10605	10621	10634
C-2202 SPRG (hrs)	10454	10471		10484	10501	10519	10535	10551	10564
B-801 SVE (hrs)	10537	10553		10566	10581	10601	10617	10633	10646
C-2301 SPRG (hrs)	10244	10261		10274	10291	10308	10324	10340	10353
C-2302 SPRG (hrs)	10228	10245		10258	10275	10292	10308	10324	10337
SET POINTS									
PAL-701 SVE (wc)	-27	-27		-27	-27	-27	-27	-27	-27
PAH-702 SVE (wc)	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0
PAL-702 SVE (wc)	10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0
PAH-2201 SPRG (psi)	30.0	30.0		30.0	30.0	30.0	30.0	30.0	30.0
PAL-2201 SPRG (psi)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
PAL-801 SVE (wc)	-25	-25		-25	-25	-25	-25	-25	-25
PAH-802 SVE (wc)	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0
PAL-802 SVE (wc)	10.0	10.0		10.0	10.0	10.0	10.0	10.0	10.0
PAH-2301 SPRG (psi)	30.0	30.0		30.0	30.0	30.0	30.0	30.0	30.0
PAL-2301 SPRG (psi)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
SV-2801 SPRG (min)	40	40		40	40	40	40	40	40
SV-2802 SPRG (min)	20	20		20	20	20	20	20	20
SV-2901 SPRG (min)	20	20		20	20	20	20	20	20
SV-2902 SPRG (min)	20	20		20	20	20	20	20	20

ystem is in alarm mode, contact John Puckett or David Vasquez of S c at (630) 792-1680

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DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	6-11-13	6-12-13	6-13-13	6-14-13	6-15-13	6-16-13	6-17-13	6-18-13	6-19-13
TIME	11:11 Am	2:39 Pm	10:48 Am	10:31 Am	10:03 Am	9:30 Am	1:40 Pm	12:56 Am	2:37 Pm
OBSERVER'S INITIALS	RK	RK	RK	RK	RK	KA	RK	RK	RK

WEATHER CONDITIONS

Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)	CLEAR 88°F	CLEAR 96°F	CLEAR 84°F	CLEAR 78°F	RAIN 76°F	SUNNY 84°F	SUNNY 100°F	SUNNY 82°F	SUNNY 86°F

ALARMS

Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA

P&ID

PDT-701 SVE (-wc)	0.37	0.35	0.40	0.38	0.41	0.40	0.33	0.37	0.39
PT-701 SVE (-wc)	-68	-70	-68	-66	-69	-68	-68	-68	-67
PT-702 SVE (-wc)	51.9	51.1	52.0	51.7	52.9	51.7	51.0	50.4	51.6
PT-2201 SPRG (psi)	26.4	25.2	25.6	25.9	25.8	25.6	25.1	25.5	25.0
P-401 PUMP (cycles)	64	64	64	64	64	64	64	64	64

P&ID2

PDT-801 SVE (-wc)	0.31	0.29	0.33	0.31	0.32	0.31	0.29	0.27	0.31
PT-801 SVE (-wc)	-73	-76	-73	-70	-73	-73	[illegible]	-72	-71
PT-802 SVE (-wc)	44.1	43.3	44.2	45.0	45.3	44.3	43.5	44.4	44.6
PT-2301 SPRG (psi)	4.3	4.5	3.6	3.1	2.5	4.5	4.3	1.8	6.2
P-501 PUMP (cycles)	217	219	221	223	225	227	228	230	232

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DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	6-11-13	6-12-13	6-13-13	6-14-13	6-15-13	6-16-13	6-17-13	6-18-13	6-19-13
TIME	11:11 Am	2:39 Am	10:48 Am	10:32 Am	10:04 Am	9:30 Am	1:40 Pm	12:57 Pm	2:37 Pm
OBSERVER'S INITIALS	RC	RC	RC	RC	RC	RC	RC	RC	RC
HOURS METERS									
B-701 SVE (hrs)	10467	10485	10499	10515	10531	10546	10556	10566	10599
C-2201 SPRG (hrs)	10378	10396	10410	10426	10442	10457	10477	10493	10510
C-2202 SPRG (hrs)	10308	10326	10340	10356	10372	10387	10407	10423	10440
B-801 SVE (hrs)	10390	10408	10422	10438	10454	10470	10489	10505	10522
C-2301 SPRG (hrs)	10097	10116	10130	10146	10161	10177	10196	10212	10230
C-2302 SPRG (hrs)	10081	10100	10114	10130	10145	10161	10180	10196	10214
SET POINTS									
PAL-701 SVE (wc)	-27	-27	-27	-27	-27	-27	-27	-27	-27
PAH-702 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-702 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2201 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2201 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAL-801 SVE (wc)	-25	-25	-25	-25	-25	-25	-25	-25	-25
PAH-802 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-802 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2301 SPRG (psi)	30.	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SV-2801 SPRG (min)	40	40	40	40	40	40	40	40	40
SV-2802 SPRG (min)	20	20	20	20	20	20	20	20	20
V-2901 SPRG (min)	20	20	20	20	20	20	20	20	20
2902 SPRG (min)	20	20	20	20	20	20	20	20	20

is in alarm mode, contact John Puckett or David Vasquez of S c at (630) 792-1680

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DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	6-2-13	6-3-13	6-4-13	6-5-13	6-6-13	6-7-13	6-8-13	6-9-13	6-10-13
TIME	8:05	2:20 PM	2:40 P.M	2:20pm	11:10 Am	1:45pm	9:25 Am	10:36 Am	1:02 Pm
OBSERVER'S INITIALS	JD	RA	KA	KA	KA	KA	KA	SH	TK
HOURS METERS									
B-701 SVE (hrs)	10316	10337	10354	10370	10384	10403	10417	10434	10452
C-2201 SPRG (hrs)	10228	10248	10265	10281	10296	10314	10328	10345	10363
C-2202 SPRG (hrs)	10157	10178	10195	10211	10225	10244	10258	10275	10293
B-801 SVE (hrs)	10240	10260	10277	10293	10308	10326	10340	10357	10375
C-2301 SPRG (hrs)	9947	9968	9984	10001	10015	10034	10047	10065	10082
C-2302 SPRG (hrs)	9931	9952	9968	9985	9999	10018	10031	10049	10067
SET POINTS									
PAL-701 SVE (wc)	-27	-27	-27	-27	-27	-27	-27	-27	-27
PAH-702 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-702 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2201 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2201 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAL-801 SVE (wc)	-25	-25	-25	-25	-25	-25	-25	-25	-25
PAH-802 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-802 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2301 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SV-2801 SPRG (min)	40	40	40	40	40	40	40	40	40
SV-2802 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2901 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2902 SPRG (min)	20	20	20	20	20	20	20	20	20

If system is in alarm mode, contact John Puckett or David Vasquez of Stantec at (630) 792-1680

DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

~~Ph: (630) 792-1680~~
~~Fx: (630) 792-1691~~

DATE	5-24-13	5-25-13	5-26-13	5-27-13	5-28-13	5-29-13	5-30-13	5-31-13	6-1-13
TIME	10:18 Am	9:08 Am	8:36 Am	12:30 Pm	12:30	12:49 Pm	10:38 Am	12:30 Pm	9:45 Am
OBSERVER'S INITIALS	TK	TK	KA	TK	JD	TK	RC	RK	KA

WEATHER CONDITIONS

Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)	64°F Rm TEMP CLEAR OUTSIDE	60°F Rm TEMP	64°F CLEAR	70°F Rm TEMP RAIN	76 R.T. RAIN	86°F CLOUDY	88°F CLEAR	80°F OVERCAST	76°F CLOUDY

ALARMS

Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA

P&ID

PDT-701 SVE (-wc)	0.49	0.46	0.48	0.41	0.40	0.36	0.41	0.43	0.41
PT-701 SVE (-wc)	-63	-63	-64	-69	-72	-68	-69	-71	-72
PT-702 SVE (-wc)	54.3	54.0	54.3	53.2	62.5	51.0	50.4	51.7	51.9
PT-2201 SPRG (psi)	15.0	15.0	26.0	26.2	14.7	14.8	25.9	25.5	14.8
P-401 PUMP (cycles)	64	64	64	64	64	64	64	64	64

P&ID2

PDT-801 SVE (-wc)	0.37	0.29	0.31	0.33	0.32	0.31	0.34	0.31	0.29
PT-801 SVE (-wc)	-66	-67	-68	-72	-75	-72	-73	-75	-76
PT-802 SVE (-wc)	46.2	46.4	46.2	46.1	45.0	44.1	44.6	44.4	44.5
PT-2301 SPRG (psi)	2.5	0.0	0.0	7.1	1.8	2.6	2.5	1.8	3.5
P-501 PUMP (cycles)	180	182	185	188	190	192	193	195	197

DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

~~Stantec~~

~~Ph: (630) 792-1680~~
~~Fx: (630) 792-1691~~

DATE	5-24-13	5-25-13	5-26-13	5-27-13	5-28-13	5-29-13	5-30-13	5-31-13	6-1-13
TIME	10:18 Am	9:03 Am	8:30 Am	12:30 pm	12:35 pm	12:50 pm	10:39 AM	12:30 Pm	7:50 Am
OBSERVER'S INITIALS	RL	RL	KA	RL	JD	RL	TCL	RK	KA
HOURS METERS									
B-701 SVE (hrs)	10171	10187	10203	10222	10238	10255	10269	10287	10300
C-2201 SPRG (hrs)	10083	10098	10114	10133	10149	10166	10181	10198	10211
C-2202 SPRG (hrs)	10013	10028	10044	10063	10079	10096	10110	10128	10141
B-801 SVE (hrs)	10095	10110	10126	10145	10162	10178	10933	10210	10223
C-2301 SPRG (hrs)	9802	9818	9834	9853	9869	9885	9900	9918	9931
C-2302 SPRG (hrs)	9786	9807	9818	9837	9853	9869	9884	9902	9915
SET POINTS									
PAL-701 SVE (wc)	-27	-27	-27	-27	-27	-27	-27	-27	-27
PAH-702 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-702 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2201 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2201 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAL-801 SVE (wc)	-25	-25	-25	-25	-25	-25	-25	-25	-25
PAH-802 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-802 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2301 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SV-2801 SPRG (min)	40	40	40	40	40	40	40	40	40
SV-2802 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2901 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2902 SPRG (min)	20	20	20	20	20	20	20	20	20

If system is in alarm mode, contact ~~John Puckett~~ or ~~David Vasquez of Stantec at (630) 792-1680~~

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DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	5-15-13	5-16-13	5-17-13	5-18-13	5-19-13	5-20-13	5-21-13	5-22-13	5-23-13
TIME	2:54 Pm	12:54 Pm	2:12 Pm	10:35 Am	6:15 Am	10:16 Am	8:31 Am	2:30 Pm	12:57 Pm
OBSERVER'S INITIALS	RC	RC	RC	EH	JD	RC	RC	RC	RC

WEATHER CONDITIONS

Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)	82°F Room Temp	90°F Room Temp	78°F Room Temp	82°F Room Temp	76°F R.T.	84°F Room Temp	74°F Room Temp	78°F Rm Temp	66°F Rm Temp.

ALARMS

Alarm Code	LAHH 8001 Blower Resistance	NA	NA	NA	NA	NA	NA	NA	NA

P&ID

PDT-701 SVE (-wc)	0.39	0.38	0.39	0.39	0.39	0.44	0.36	0.38	0.41
PT-701 SVE (-wc)	-66	-68	-68	-67	-70	-71	-72	-72	-68
PT-702 SVE (-wc)	51.5	51.3	52.7	52.0	52.8	51.2	52.8	51.5	52.9
PT-2201 SPRG (psi)	25.4	25.1	24.7	14.6	14.6	14.9	25.3	14.5	15.2
P-401 PUMP (cycles)	64	64	64	64	640	64	64	64	64

P&ID2

PDT-801 SVE (-wc)	0.37	0.33	0.30	0.34	0.32	0.33	0.29	0.30	0.32
PT-801 SVE (-wc)	-68	-72	-72	-71	-73	-75	-77	-77	-71
PT-802 SVE (-wc)	45.5	44.1	44.8	44.7	45.8	43.8	45.0	44.0	45.7
PT-2301 SPRG (psi)	10.0	3.9	3.2	3.3	4.2	4.1	1.5	4.0	2.4
P-501 PUMP (cycles)	169	169	170	171	171	172	173	175	177

[illegible]tem is in alarm mode, contact John Puckett or David Vasquez of St[illegible] at (630) 792-1680

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DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	5-15-13	5-16-13	5-17-13	5-18-13	5-19-13	5-20-13	5-21-13	5-22-13	5-23-13
TIME	3:54 Pm	12:55 Pm	2:13 Pm	10:35 AM	6:28 AM	10:16 AM	8:32 AM	2:31 Pm	12:58 Pm
OBSERVER'S INITIALS	TRK	TRK	TRK	ZH	JD	TRK	TCK	TRK	TRK
HOURS METERS									
B-701 SVE (hrs)	10088	10042	10059	10073	10087	10106	10121	10142	10157
C-2201 SPRG (hrs)	9939	9954	9970	9984	9998	10017	10032	10053	10068
C-2202 SPRG (hrs)	9869	9883	9900	9914	9928	9947	9962	9983	9998
B-801 SVE (hrs)	9951	9966	9983	9996	10010	10029	10044	10065	10080
C-2301 SPRG (hrs)	9659	9674	9690	9704	9717	9736	9752	9772	9788
C-2302 SPRG (hrs)	9643	9658	9674	9688	9701	9721	9736	9756	9772
SET POINTS									
PAL-701 SVE (wc)	-27	-27	-27	-27	-27	-27	-27	-27	-27
PAH-702 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-702 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2201 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2201 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAL-801 SVE (wc)	-25	-25	-25	-25	-25	-25	-25	-25	-25
PAH-802 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-802 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2301 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SV-2801 SPRG (min)	40	40	40	40	40	40	40	40	40
SV-2802 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2901 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2902 SPRG (min)	20	20	20	20	20	20	20	20	20

If system is in alarm mode, contact John Puckett or David Vasquez of Stantec at (630) 792-1680

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DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	4-8-13	4-9-13	4-10-13	4-11-13	~~4-12-13~~ 5-11-13	~~[illegible]~~ 5-11-13	~~4-14-13~~ 5-12-13	~~[illegible]~~ 5-13-13	~~[illegible]~~ 5-14-13
TIME	1:33 Pm	10:48 AM	1:43 Pm	9:57 Am	1415	12:14 Pm	8:20 AM	9:01 Am	8:10 Am
OBSERVER'S INITIALS	RK	RK	RK	RK	PEH	RK	KA	RK	RK
WEATHER CONDITIONS									
Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)	68°F CLEAR	55°F RAIN	52°F RAINY	52°F RAIN	60°F OVERCAST	68°F Room Temp CLEAR	52° CLEAR	62°F Rm TEMP CLEAR	74°F Rm TEMP CLEAR - TURNED WT HOSE/VALVE #54 HOLEM HOSE.
ALARMS									
Alarm Code	NA	NA	NA	NA	NA	NA	NA	LAHH 8001 PUMPED & RETARTED.	NA
P&ID									
PDT-701 SVE (-wc)	0.44	0.47	0.48	0.47	0.49	0.47	0.49	0.48	0.46
PT-701 SVE (-wc)	-71	-71	-70	-75	-70	-71	-69	-64	-72
PT-702 SVE (-wc)	53.1	54.7	55.0	54.1	54.3	53.2	54.0	54.5	53.0
PT-2201 SPRG (psi)	26.1	26.2	14.9	15.8	29.3	15.0	14.8	26.3	15.6
P-401 PUMP (cycles)	64	64	64	64	64	64	64	64	64
P&ID2									
PDT-801 SVE (-wc)	0.38	0.35	0.32	0.31	0.33	0.35	0.33	0.40	0.31
PT-801 SVE (-wc)	-72	-73	-71	-79	-75	-75	-74	-65	-75
PT-802 SVE (-wc)	45.4	47.2	47.0	46.2	45.8	44.9	45.7	47.5	44.9
PT-2301 SPRG (psi)	44	4.1	2.8	3.9	6.0	5.7	4.2	8.9	4.2
P-501 PUMP (cycles)	153	155	157	160	160	161	164	168	168

[illegible]stem is in alarm mode, contact John Puckett or David Vasquez of Sta[illegible]c at (630) 792-1680

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DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

					5-10-13	5-11-13	5-12-13	5-13-13	5-14-13
DATE	4-8-13	4-9-13	4-10-13	4-11-13	~~4-12-13~~	~~4-13-13~~	~~4-14-13~~	~~4-15-13~~	~~4-16-13~~
TIME	1:34 Pm	10:49Am	1:44Pm	9:59Am	1415	12:15Pm	8:20AM	9:02AM	8:11Am
OBSERVER'S INITIALS	RK	RK	RK	RK	RK	RK	KA	TOL	TOL
HOURS METERS									
B-701 SVE (hrs)	9907	9921	9939	9952	9958	9973	9987	10001	10017
C-2201 SPRG (hrs)	9818	9832	9850	9863	9869	9884	9898	9912	9928
C-2202 SPRG (hrs)	9748	9762	9780	9793	9799	9814	9828	9842	9858
B-801 SVE (hrs)	9831	9845	9862	9876	9882	9887	9911	9925	9941
C-2301 SPRG (hrs)	9538	9552	9570	9583	9589	9604	9618	9632	9648
C-2302 SPRG (hrs)	9522	9536	9554	9567	9573	9589	9602	9616	9632
SET POINTS									
PAL-701 SVE (wc)	-27	-27	-27	-27	-27	-27	-27	-27	-27
PAH-702 SVE (wc)	100.0	100.0	100.0	100.0	100	100.0	100.0	100.0	100.0
PAL-702 SVE (wc)	10.0	10.0	10.0	10.0	10	10.0	10.0	10.0	10.0
PAH-2201 SPRG (psi)	30.0	30.0	30.0	30.0	30	30.0	30.0	30.0	30.0
PAL-2201 SPRG (psi)	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
PAL-801 SVE (wc)	-25	-25	-25	-25	-25	-25	-25	-25	-25
PAH-802 SVE (wc)	100.0	100.0	100.0	100.0	100	100.0	100.0	100.0	100.0
PAL-802 SVE (wc)	10.0	10.0	10.0	10.0	10	10.0	10.0	10.0	10.0
PAH-2301 SPRG (psi)	30.0	30.0	30.0	30.0	30	30.0	30.0	30.0	30.0
PAL-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
SV-2801 SPRG (min)	40	40	40	40	40	40	40	40	40
SV-2802 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2901 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2902 SPRG (min)	20	20	20	20	20	20	20	20	20

If system is in alarm mode, contact John Puckett or David Vasquez of Stantec at (630) 792-1680

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DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	3-30-13	3-31-13	4-1-13	4-2-13	4-3-13	4-4-13	4-5-13	4-6-13	4-7-13
TIME			9:58Am	12:53Pm	1:07Pm	10:41Am	11:03Am	8:07Am	9:04Am
OBSERVER'S INITIALS			RK	RK	RK	RK	RK	JD	RK
WEATHER CONDITIONS									
Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)		S/Stem Down	LAHH 8001 Pumped out & Restarted	48°F	52°F	58°F	56°F	56°F	54°F
ALARMS									
Alarm Code			LAHH 8001	NA	NA	NA	NA	NA	NA
P&ID									
PDT-701 SVE (-wc)			0.55	0.54	0.46	0.51	0.50	0.52	0.44
PT-701 SVE (-wc)			-65	-66	-64	-67	-66	-70	-70
PT-702 SVE (-wc)			56.0	55.1	55.2	54.5	54.1	55.3	55.0
PT-2201 SPRG (psi)			27.2	14.4	27.2	14.5	26.4	25.6	25.8
P-401 PUMP (cycles)			64	64	64	64	64	64	64
P&ID2									
PDT-801 SVE (-wc)			0.38	0.40	0.43	0.40	0.36	0.37	0.35
PT-801 SVE (-wc)			-61	-66	-64	-68	-66	-72	-72
PT-802 SVE (-wc)			49.9	47.2	47.6	47.0	47.9	47.7	46.6
PT-2301 SPRG (psi)			9.2	3.9	3.3	3.6	3.4	3.1	3.0
P-501 PUMP (cycles)			137	140	143	145	147	149	151

system is in alarm mode, contact John Puckett or David Vasquez of Stantec at (630) 792-1680

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DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	———	———	4-1-13	4-2-13	4-3-13	4-4-13	4-5-13	4-6-13	4-7-13
TIME			10:00 Am	12:54 Pm	1:08 Pm	10:42 Am	11:04 Am	8:08	9:05 Am
OBSERVER'S INITIALS			TRK	TRK	TRK	TRK	TRK	JD	TRK
HOURS METERS									
B-701 SVE (hrs)			9792	9809	9826	9844	9858	9873	9889
C-2201 SPRG (hrs)			9703	9720	9737	9752	9769	9784	9800
C-2202 SPRG (hrs)			9633	9650	9667	9682	9699	9714	9730
B-801 SVE (hrs)			9716	9733	9749	9765	9782	9796	9813
C-2301 SPRG (hrs)			9423	9440	9457	9472	9489	9504	9520
C-2302 SPRG (hrs)			9407	9424	9441	9456	9473	9488	9504
SET POINTS									
PAL-701 SVE (wc)			-27	-27	-27	-27	-27	-27	-27
PAH-702 SVE (wc)			100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-702 SVE (wc)			10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2201 SPRG (psi)			30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2201 SPRG (psi)			0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAL-801 SVE (wc)			-25	-25	-25	-25	-25	-25	-25
PAH-802 SVE (wc)			100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-802 SVE (wc)			10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2301 SPRG (psi)			30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2301 SPRG (psi)			0.0	0.0	0.0	0.0	0.0	0.0	0.0
SV-2801 SPRG (min)			40	40	40	40	40	40	40
SV-2802 SPRG (min)			20	20	20	20	20	20	20
SV-2901 SPRG (min)			20	20	20	20	20	20	20
SV-2902 SPRG (min)			20	20	20	20	20	20	20

If system is in alarm mode, contact John Puckett or David Vasquez of Stantec at (630) 792-1680

Stantec

WEEKLY DOCUMENTATION SHEET
BUILDING 1
SYSTEM COMPONENTS

~~Ph: (630) 1630~~
~~Fx: (630) 792-1691~~

DATE	5-29-13	6-3-13	6-10-13	6-18-13	6-24-13	7-1-13	7-8-13	7-15-13	
TIME	12:56 Pm	2:20 PM	12:58 Am	1:02 Pm	8:28 Am	10:00 Am	10:25 Am	7:33 Am	
OBSERVER'S INITIALS	RK	KA	RK	RK	RK	RK	RK	RK	
SYSTEM LEAKS, EXCESSIVE OR UNFAMILAR NOISE, MOISTURE, ETC.									
Comments and Notes	N/A	N/A	N/A	N/A	ROOF LEAKING RAIN WATER	NA	NA	NA	
SOIL VAPOR EXTRACTION (SVE) BLOWER -B-701									
Pre-Filter Vacuum (-wc)	55	55	56	55	55	56	58	57	
Post-Filter Vacuum (-wc)	65	6.5	66	66	70	70	71	71	
Inlet Magnehelic* (in H_2O)	.6	.6	.6	.6	.5.5	.6	.6	.6	
Inlet Vacuum (-wc)	95	100	100	100	100	100	100	100	
SOIL VAPOR EXTRACTION (SVE) HEAT EXCHANGER (H-XCH)									
Inlet Pressure (wc)	55	55	56	55	57	55	55	55	
Inlet Temperature (°F)	130	130	127	126	125	126	130	130	
Outlet Pressure (wc)	6	6	6	8	8	8	8	8	
Outlet Temperature (°F)	105	95	104	101	92	98	100	105	
Water Level Sight Glass (in)	2"	Ø	Ø	Ø	Ø	Ø	Ø	Ø	
AIR SPARGE (SPRG) COMPRESSOR C-2201									
Upper Oil Sight Glass (half pt.)	OK	OK	OK	OK	OK	OK	OK	OK	
Lower Oil Sight Glass (half pt.)	OK	OK	OK	OK	OK	OK	OK	OK	
AIR SPARGE (SPRG) HEAT EXCHANGER (H-XCH)									
Inlet Pressure (psi)	13	26	13.5	25.5	27	26.5	28.5	26.5	
Inlet Temperature (°F)	210	24	240	250	245	249	208	210	
Outlet Pressure (psi)	14.5	25	14.5	25.5	26.5	26.5	15.5	27.5	
Outlet Temperature (°F)	116	110	122	119	115	116	108	118	

*[illegible]ep plastic pinch valves on tubing to magnehelic gauge closed except [illegible]en taking a reading.

Stantec

WEEKLY DOCUMENTATION SHEET
BUILDING 1
SYSTEM COMPONENTS

Ph: (630) 1680
Fx: (630) 1691

DATE	2-28-13	3-11-13	3-18-13	3-25-13	4-2-13	4-9-13	4-11-13	5-10-13	5-13-13
TIME	8:38 Am	1:26 PM	10:56 Am	11:02 Am	12:51 Pm	10:53 Am	1:00 pm	1350	12:50 pm
OBSERVER'S INITIALS	RK	RK	RK	RK	RK	RK	P.H	P&H	RK

SYSTEM LEAKS, EXCESSIVE OR UNFAMILAR NOISE, MOISTURE, ETC.

Comments and Notes	N/A	SYSTEM ON. ALL OK.	OK	OK	NA	NA	System Samples. System Shutdown today	NA	NA

SOIL VAPOR EXTRACTION (SVE) BLOWER B-701

Pre-Filter Vacuum (-wc)	60	60	60	58	60	58	70	65	55
Post-Filter Vacuum (-wc)	66	67	66	66	66	64	60	60	65
Inlet Magnehelic* (in H_2O)	0.4	.4	.4.5	0.4.5	-5.5	.5.5	0.5	0.5	.6
Inlet Vacuum (-wc)	110	110	110	110	110	110	110	100	100

SOIL VAPOR EXTRACTION (SVE) HEAT EXCHANGER (H-XCH)

Inlet Pressure (wc)	58	58	57	58	58	57	55	56	56
Inlet Temperature (°F)	100	96	100	60	105	110	105	115	126
Outlet Pressure (wc)	6	5	6	7	7	7	6	6	6
Outlet Temperature (°F)	62	62	60	52	70	78	78	80	89
Water Level Sight Glass (in)	2 Feet	5"	1½ Feet	6"	1 FT	1 FT	0	0	Ø

AIR SPARGE (SPRG) COMPRESSOR C-2201

Upper Oil Sight Glass (half pt.)	OK	OK	OK	OK	OK	OK	OK	OK	OK
Lower Oil Sight Glass (half pt.)	OK	OK	OK	OK	OK	OK	OK	OK	OK

AIR SPARGE (SPRG) HEAT EXCHANGER (H-XCH)

Inlet Pressure (psi)	16.5	15.5	15.5	16.5	14	25	26	13	12.5
Inlet Temperature (°F)	152	150	160	155	156	229	225	185	185
Outlet Pressure (psi)	15.5	15.5	15	16	14.5	25	26	14	13.5
Outlet Temperature (°F)	70	68	70	60	80	98	90	90	90

* Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading.

Stantec

WEEKLY DOCUMENTATION SHEET
BUILDING 2
SYSTEM COMPONENTS

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	6-10-13	6-24-13	7-1-13	7-8-13	7-15-13				
TIME	12:51 Pm	8:22 Am	1035	10:32 Am	7:38 Am				
OBSERVER'S INITIALS	RK	RK	A.H.	RK	RK				
SYSTEM LEAKS, EXCESSIVE OR UNFAMILAR NOISE, MOISTURE, ETC.									
Comments and Notes	84°F Room Temp (Clear)	Rain 76°F	Sunny.	Rain 80°F	Clear 82°F				
SOIL VAPOR EXTRACTION (SVE) BLOWER B-801									
Pre-Filter Vacuum (-wc)	60	65	67	66	66				
Post-Filter Vacuum (-wc)	66	70	70	71	71				
Inlet Magnehelic* (in H_2O)	0.3.5	.3.5	0.35	0.35	.4				
Inlet Vacuum (-wc)	120	120	120	110	110				
SOIL VAPOR EXTRACTION (SVE) HEAT EXCHANGER (H-XCH)									
Inlet Pressure (wc)	45	45	45	45	45				
Inlet Temperature (°F)	126	125	135	130	130				
Outlet Pressure (wc)	2	1	1	1	1				
Outlet Temperature (°F)	102	98	100	100	99				
Water Level Sight Glass (in)	1FT 6"	1FT	1ft	2FT	2FT				
AIR SPARGE (SPRG) COMPRESSOR C-2301									
Upper Oil Sight Glass (half pt.)	OK	OK	OK	OK	OK				
Lower Oil Sight Glass (half pt.)	OK	OK	OK	OK	OK				
AIR SPARGE (SPRG) HEAT EXCHANGER (H-XCH)									
Inlet Pressure (psi)	15.5	19	15.5	15.5	18				
Inlet Temperature (°F)	224	226	225	210	220				
Outlet Pressure (psi)	14.5	18.5	14.0	16	17.5				
Outlet Temperature (°F)	120	118	120	118	118				

*[illegible]p plastic pinch valves on tubing to magnehelic gauge closed except[illegible]n taking a reading.

Stantec

Ph: (630) 792-1680
Fx: (630) 792-1691

WEEKLY DOCUMENTATION SHEET
BUILDING 2
SYSTEM COMPONENTS

DATE	3-11-13	3-18-13	3-25-13	4-2-13	5-10-13	5-13-13	5-20-13	5-29-13	6-3-13
TIME	1:16 Pm	11:09 Am	1:11 Pm	12:45 Pm	12:45	12:40 Pm	10:27 Am	12:39 Pm	2:40 PM
OBSERVER'S INITIALS	RK	RK	RK	RK	PH	RK	RK	RK	WX

SYSTEM LEAKS, EXCESSIVE OR UNFAMILAR NOISE, MOISTURE, ETC.

Comments and Notes	+38°F	LEAKING WATER OUT OF KNOCKOUT PIT	46°F NA	52°F	60°F	68°F Rm TEMP.	82°F Room TEMP	80°F Rm TEMP CLOUDY	70 SUNNY

SOIL VAPOR EXTRACTION (SVE) BLOWER B-801

Pre-Filter Vacuum (-wc)	60	62	~~60~~	62	76	65	61	60	60
Post-Filter Vacuum (-wc)	70	68	65	67	65	68	66	65	65
Inlet Magnehelic* (in H_2O)	.3	.3	.3	.3.5	0.35	0.35	0.3.5	.3.5	3.5
Inlet Vacuum (-wc)	110	110	110	110	120	130	120	115	120

SOIL VAPOR EXTRACTION (SVE) HEAT EXCHANGER (H-XCH)

Inlet Pressure (wc)	50	48	47	48	46	46	45	45	45
Inlet Temperature (°F)	70	96	100	105	115	175	130	125	125
Outlet Pressure (wc)	2	2	2	2	2	2	2	2	2
Outlet Temperature (°F)	70	72	64	72	80	90	100	100	100
Water Level Sight Glass (in)	8"	2 FEET	6"	8"	7"	6"	6"	1 FT 4 INCHES	18"

AIR SPARGE (SPRG) COMPRESSOR C-2301

Upper Oil Sight Glass (half pt.)	OK	OK	OK	OK	OK	OK	OK	OK	OK
Lower Oil Sight Glass (half pt.)	OK	OK	OK	OK	OK	OK	OK	OK	OK

AIR SPARGE (SPRG) HEAT EXCHANGER (H-XCH)

Inlet Pressure (psi)	15.5	13.5	14.5	15	10.5	14.5	14	16	14
Inlet Temperature (°F)	102	190	168	171	190	200	224	220	220
Outlet Pressure (psi)	15	14.5	14.0	14	14.5	13.5	13.5	15	13.5
Outlet Temperature (°F)	62	108	82	88	100	104	120	120	112

* Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading.

Stantec

MONTHLY DOCUMENTATION SHEET
BUILDING 1 UPPER CELL
AIR SPARGE MANIFOLD

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	4-11-13	5-10-13	6-17-13	7-15-13						
TIME	1300	1350	1425	1130						
INITIALS	PEH	PEH	ARH.	PH						

ROTOMETER

UPPER CELL	AS-47 (scfm)	0	0	0	0						
	AS-38 (scfm)	0	0	15	12.5						
	AS-37 (scfm)	16	16	15	15						
	AS-23 (scfm)	17	16	24	24						
	AS-24 (scfm)	30	16	14	14						
	AS-39 (scfm)	17	17	16	16						
	AS-48 (scfm)	19	19	17	18						
	AS-52 (scfm)	16	17	15	15						
	AS-56 (scfm)	16	16	15	15						
	AS-54 (scfm)	17	17	15	15						
	AS-58 (scfm)	14	14	13	13						

PRESSURE GAUGE

UPPER CELL	AS-47 (psi)	28	28	0	0						
	AS-38 (psi)	3	3	13	18						
	AS-37 (psi)	10	9	8	9						
	AS-23 (psi)	13	13	12.5	14						
	AS-24 (psi)	13	13	12	14						
	AS-39 (psi)	11.5	12	11	11.5						
	AS-48 (psi)	12	12	11	12						
	AS-52 (psi)	11.5	12	10.5	12						
	AS-56 (psi)	10	11	10.5	12						
	AS-54 (psi)	14	14	11.5	13.5						
	AS-58 (psi)	11	11	10	10						

Stantec

Ph: (630) [illegible]-1680
Fx: (630) 792-1691

MONTHLY DOCUMENTATION SHEET
BUILDING 1 LOWER CELL
AIR SPARGE MANIFOLD

DATE	11-15-12	4-1-13	5-10-13	6-17-13	7-15-13					
TIME	7:40	1300	1350	1530	1130					
INITIALS	DV	PEH	PEH	ARA	PH					

ROTOMETER

LOWER CELL	AS-49 (scfm)	21	8	7	13	12					
	AS-44 (scfm)	17	12	10	11	10					
	AS-31 (scfm)	15	10	9	9	9					
	AS-32 (scfm)	30	25	25	24	24					
	AS-45 (scfm)	15	15	15	15	15					
	AS-51 (scfm)	12	13	14	14	14					
	AS-55 (scfm)	10	17	18	17	17					
	AS-53 (scfm)	24	21	20	15	15					
	AS-59 (scfm)	16	24	25	24	24					
	AS-57 (scfm)	off	20	20	17	17					
	AS-50 (scfm)	23	23	23	22	24					

PRESSURE GAUGE

LOWER CELL	AS-49 (psi)	10.5	10	10	10.5	11					
	AS-44 (psi)	10	0	0	0	0					
	AS-31 (psi)	10	10	10	10	10					
	AS-32 (psi)	12	10	10.5	10	10.5					
	AS-45 (psi)	10.5	11	11	11.5	12					
	AS-51 (psi)	10	11	10	11	11					
	AS-55 (psi)	9.5	10.5	10	11	11					
	AS-53 (psi)	10	10	9.5	8.5	9					
	AS-59 (psi)	10	11	11	12	11					
	AS-57 (psi)	off	12	12	12.5	13					
	AS-50 (psi)	11.5	11	11	12	12					

Stantec

MONTHLY DOCUMENTATION SHEET
BUILDING 1
SVE MANIFOLD

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	4-11-13	~~4-12~~ 5-10-13	6-17-13	7-15-13						
TIME	1315	1350	1425	1130						
INITIALS	PH	PH	ARH	PH						

MAGNEHELIC GAUGE*

SVE-15 (in H_2O)	0.35 ~~3.5~~	0.3	0.3	0.35						
SVE-14 (in H_2O)	.3	0.4	0.35	0.35						
SVE-13 (in H_2O)	0	0	0.0	0.0						
SVE-11 (in H_2O)	.4	0.4	0.35	0.40						
SVE-9 (in H_2O)	.6	0.6	0.60	0.60						

VACUUM GAUGE

SVE-15 (-wc)	55	50	50	50						
SVE-14 (-wc)	50	45	45	45						
SVE-13 (-wc)	60	55	55	55						
SVE-11 (-wc)	110	110	110	110						
SVE-9 (-wc)	55	50	50	55						

*Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading.

Stantec

MONTHLY DOCUMENTATION SHEET
BUILDING 1
PID MEASUREMENTS

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	5/9/11	6/16/11	7/13/11	9/15/11	10/4/11	2/15/12	3/15/12	4/19/12	5/16/12	5-10-13	6-17-13	7/15/13
TIME	4:45	1:30	4:30	3:30	4:15	3:15	1:40	1:30	1:30	1630	1430	1140
INITIALS	DV	DV	DV	DV	DV	DV	DV	DV	DV	PH	ARH.	PH

SVE Effluent	30	54.6	38.2	76.6	51.5	23.1	21.9	24.0	53.3	3.1	3.4 ~~5.0~~	7.4
SVE - 15	23	34.2	38	75.2	39.8	20.5	8.2	17	45.3	1.4	5.0 ~~182.0~~	21.0
SVE - 14	62	81.2	74	147	111	39.4	17.2	43.0	97.7	2.2	2.2 ~~182.0~~	334.5
SVE - 13	145	199	172	211	160	81.0	36.0	103.0	173.3	2.4	0.5	416.1
SVE - 11	80	79.8	55.4	120	43.8	8.2	3.7	25.0	11.2	1.7	5.6	~~434.2~~
SVE - 9	0	0.5	2.9	45	1.1	3.8	0.6	2493.0	2.7	1.2	2.2	321.7
Exhaust	24	35.9	11.4	11.0	9.5	N/A	1.9	24.0	47.3	3.1	3.0	7.4

Stantec

MONTHLY DOCUMENTATION SHEET
BUILDING 2 UPPER CELL
AIR SPARGE MANIFOLD

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	4-11-13	5-10-13	6-17-13	7-15-13						
TIME	1430	1330	1540	1100						
INITIALS	PKH	PKH	PRH.	PH						

ROTOMETER

UPPER CELL	AS-20 (scfm)	13	13	16	13						
	AS-26 (scfm)	13	13	13	11						
	AS-16 (scfm)	13	13	14	13.5						
	AS-18 (scfm)	13	14	Airline leak.	9						
	AS-22 (scfm)	14	14	20	11.5						
	AS-28 (scfm)	15	15	15	15						
	AS-30 (scfm)	17	18	18	17						
	AS-36 (scfm)	15	15	15	14.5						
	AS-42 (scfm)	14	14	15	14.5						
	AS-40 (scfm)	15	15	15	14.5						
	AS-34 (scfm)	16	16	15	15						

PRESSURE GAUGE

UPPER CELL	AS-20 (psi)	10	10	7.5	10.5						
	AS-26 (psi)	11	11	11	11						
	AS-16 (psi)	10	10	10	10						
	AS-18 (psi)	16	16	Airline leak.	14						
	AS-22 (psi)	10.5	10	5.5	10						
	AS-28 (psi)	11	11	11	11.5						
	AS-30 (psi)	10.5	10	11	11.5						
	AS-36 (psi)	11	11.5	12	11.5						
	AS-42 (psi)	11	11	11	11.5						
	AS-40 (psi)	10	10	11	11.5						
	AS-34 (psi)	10	10	11	11.5						

Stantec

Ph: (630) 792-1680
Fx: (630) 792-1691

MONTHLY DOCUMENTATION SHEET
BUILDING 2 LOWER CELL
AIR SPARGE MANIFOLD

DATE	11-15-12	4-11-13	5-18-13	6-17-13	7-15-13					
TIME	1:30	1430	1330	1540	1100					
INITIALS	DV	PEH	PEH	ARH	PH					

ROTOMETER

LOWER CELL	AS-27 (scfm)	17	15	15	15	15					
	AS-25 (scfm)	17	13	13	13	12					
	AS-17 (scfm)	17	12	12	12	11					
	AS-19 (scfm)	17	14	14	14	14					
	AS-21 (scfm)	18	15	15	15	15					
	AS-29 (scfm)	off	23	23	23	22					
	AS-43 (scfm)	17	16	16	16	15					
	AS-46 (scfm)	18	15	15	15	15					
	AS-41 (scfm)	18	15	15	15	15					
	AS-33 (scfm)	18	13	~~16~~ 13	12	12					
	AS-35 (scfm)	18	12	12	11	11					

PRESSURE GAUGE

LOWER CELL	AS-27 (psi)	12	12	11.5	11.5	11.5					
	AS-25 (psi)	10.5	10.5	10.5	10.5	10.5					
	AS-17 (psi)	11	11	11	10.5	10.5					
	AS-19 (psi)	13	12	13	12.5	12.5					
	AS-21 (psi)	12	12	11.5	11.5	11.5					
	AS-29 (psi)	off	13	13	12.5	13					
	AS-43 (psi)	11	11	11	11	11					
	AS-46 (psi)	11.5	11.5	11.5	11	11.5					
	AS-41 (psi)	10.5	10.5	10.5	10.5	10.5					
	AS-33 (psi)	11	11	10.5	10.5	11					
	AS-35 (psi)	11	10.5	10.5	10.5	11					

Stantec

MONTHLY DOCUMENTATION SHEET
BUILDING 2
SVE MANIFOLD

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	4-11-13	5-10-13	6-17-13	7-15-13						
TIME	1430	1330	1535	1100						
INITIALS	PEH	PEH	ARH	PH						
MAGNEHELIC GAUGE*										
SVE-10 (in H_2O)	0	0.5	0.4	0						
SVE-12 (in H_2O)	72	0.55	0.80	0.80						
SVE-8 (in H_2O)	0.95	0.5	0.65	0.70						
SVE-7 (in H_2O)	0	0.5	0.5	0.45						
VACUUM GAUGE										
SVE-10 (-wc)	65	65	60	60						
SVE-12 (-wc)	60	60	60	60						
SVE-8 (-wc)	60	60	60	60						
SVE-7 (-wc)	60	60	60	60						
ELECTRICAL USAGE										
Kilowatts (kwh)	9564.20	9756.60		238695.10						

*[illegible]ep plastic pinch valves on tubing to magnehelic gauge closed excep[illegible]en taking a reading.

Stantec

MONTHLY DOCUMENTATION SHEET
BUILDING 2
PID MEASUREMENTS

Ph: (630) 792-1680
Fx: (630) 792-1691

DATE	5/19/11	6/16/11	7/13/11	9/15/11	10/14/11	2/15/12	3/15/12	4/19/12	5/16/12	5-10-13	6-17-13	7-15-13
TIME	4:45	1:30	4:30	3:30	4:15	3:15	1:40	1:30	1:20	1650	1545	1100
INITIALS	DV	DV	DV	DV	DV	DV	DV	DV	DV	PH	ARH.	PH

SVE Effluent	24	22.9	12.9	23.9	15.7	3.1	2.5	2.5	3.6	0.5	0.7	1.5
SVE - 10	101	98.7	20.7	110	63.9	WATER	17.6	21.0	43.3	moisture	moisture.	moisture
SVE - 12	115	115	65.1	115	34.6	6.4	35	19.6	17.6	0.0	0.0	0.0
SVE - 8	0.3	2.1	4.7	43.4	0.8	0.5	0.9	42.0	2.7	moisture	moisture	moisture
SVE - 7	34	40.1	1	60	148	2.5	0	50.0	7.3	0.0	0.0	12.8
Exhaust	10	17.2	7.5	1.9	0	N/A	0	2.5	3.8	0.5	0.6	1.5

Appendix D

Second Quarter 2013 Groundwater Sampling Data Sheets

AECOM

Well ID: GMZ-01

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Date: 5/7/2013
Time: Start 1435 (24hr)
Finish 1540
Project No: 60288803-4212
Site Location: Rockford, Illinois
Weather: SUNNY - 70's
Collector(s): N. PINS

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 47.60
Screen interval(ft): 15
Approx. depth of pump intake(ft): 40.0
Water table depth (ft): 33.25
Casing type/diameter: PVC 2"
Minimum purge volume: 7.0 (gals)
Water column length (ft): 14.35
(calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	R24047
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402

Begin purge at 1450

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1450	0.00	14.86	7.09	1531	114	6.28	153	400	33.27	CLOUDY
1455	2000	14.83	7.00	1558	75	6.22	135	400	33.27	↓
1500	4000	14.23	7.01	1578	60	6.45	60.9	400	33.27	↓
1505	6000	15.03	7.02	1568	51	6.57	30.6	400	33.27	↓
1510	8000	15.03	7.03	1567	49	6.61	19.2	400	33.27	CLEAR
1516	10000	15.39	7.03	1556	56	6.68	12.1	400	33.27	↓
1521	12000	15.75	7.03	1558	52	6.66	8.92	400	33.27	↓

(continued on back)

Sample Collector(s): N. PINS
Date: 5/7/2013

SAMPLE COLLECTION DATA

Well ID: Gm2-01

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-GM201-050713	VOC's	3 - 40mL Clear Vials	1521	400	
	Ferrous Iron	2.32 mg/L			

VOCs - Volatile organic compounds

G - Glass.
HCl - Hydrchloric acid

AECOM

Well ID: GMZ-02

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Date: 5/8/2013
Time: Start 1020 (24hr)
Finish 1130
Project No: 60288803-4212
Site Location: Rockford, Illinois
Weather: SUNNY - 70's
Collector(s): N. PINS

1. **WELL and WATER LEVEL DATA: (measured from Top of Casing)**

Total well length (ft): 44.65
Screen interval(ft): 15
Approx. depth of pump intake(ft): 36
Water table depth (ft): 30.69
Casing type/diameter: PVC 2"
Minimum purge volume: 6.8 (gals)
Water column length (ft): 13.96
(calculations on reverse)

2. **WELL PURGE DATA**

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	R24047
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402

Begin purge at 1034

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1034	0.00	16.09	7.81	922.6	130	9.35	46.2	300	30.71	CLOUDY
1039	1500	16.16	7.75	910.6	153	9.30	39.0	300	30.71	↓
1044	3000	16.41	7.78	896.6	165	9.50	35.9	300	30.71	↓
1049	4500	16.26	7.81	897.1	180	9.71	20.3	300	30.71	CLEAR
1054	6000	16.58	7.82	893.2	190	9.73	12.8	300	30.71	↓
1059	7500	16.19	7.83	892.6	204	9.94	8.68	300	30.71	↓
1104	9000	15.90	7.84	886.4	216	10.28	6.52	300	30.71	↓
1109	10500	15.74	7.85	880.1	217	10.06	5.15	300	30.71	↓
1114	12000	15.65	7.85	876.1	218	10.12	4.05	300	30.71	↓

(continued on back)

Sample Collector(s): N. PINS
Date: 5/8/2013

SAMPLE COLLECTION DATA

Well ID: GM2-02

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-GM202-050[illegible]	VOC's	3 - 40mL Clear Vials	1114	300	
	Ferrous Iron	0.32 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: GMZ-03

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Date: 5/8/2013
Time: Start 1130 (24hr)
Finish 1210
Project No: 60288803-4212
Site Location: Rockford, Illinois
Weather: SUNNY - 70's
Collector(s):

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.50
Screen interval(ft): 15
Approx. depth of pump intake(ft): 36
Water table depth (ft): 30.15
Casing type/diameter: PVC 2"
Minimum purge volume: 7.0 (gals)
Water column length (ft): 14.35
(calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	R24047
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402

Begin purge at 1135

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1135	0.00	16.00	8.01	774.0	226	9.58	24.8	400	30.20	CLOUDY
1140	2000	16.34	7.93	783.1	192	9.57	17.1	400	30.20	CLEAR
1145	4000	16.71	7.93	782.3	204	9.46	10.42	400	30.20	↓
1150	6000	17.29	7.94	775.6	201	9.41	8.41	400	30.20	↓
1155	8000	17.43	7.95	773.2	191	9.45	7.40	400	30.20	↓
1200	10000	17.73	7.95	772.5	201	9.55	5.56	400	30.20	↓

(continued on back)

Sample Collector(s): N. Pins
Date: 5/8/2013

SAMPLE COLLECTION DATA

Well ID: GM2-03

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-GM2D3-050813	VOC's	3 - 40mL Clear Vials	1200	400	
HSSER-DUP01-050813	VOC's	3 - 40mL CLEAR VIALS	0000	400	
	Ferrous Iron	0.29 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: GM2-04

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Date: 5-8-13
Time: Start 0925 (24hr)
Finish 1020
Project No: 60288803-4212
Site Location: Rockford, Illinois
Weather: Sunny 60-70°F
Collector(s): A. Hollatz

1. **WELL and WATER LEVEL DATA: (measured from Top of Casing)**

Total well length (ft): 45.15
Screen interval(ft): 15
Approx. depth of pump intake(ft): 38
Water table depth (ft): 28.61
Casing type/diameter: 2" PVC
Minimum purge volume: 8.00 (gals)
Water column length (ft): 16.54
(calculations on reverse)

2. **WELL PURGE DATA**

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	43531
	Lamotte	2020	2577-3512
	Lamotte	Smart 2 Colorimeter	7798-2510
Begin purge at 0930			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0933	0	15.20	7.84	1722	206	10.61	149	500	28.61	Cloudy/none
0938	2500	15.41	7.87	1730	194	10.63	128	500	28.61	
0943	5000	15.38	7.95	1751	181	10.45	65.2	500	28.61	
0948	7500	15.11	8.00	1755	155	10.87	38.5	500	28.61	
0953	10000	14.98	6.03	1752	137	10.82	14.30	500	28.61	Clear/none
0958	12500	15.09	6.04	1767	114	10.69	10.18	500	28.61	
1003	15000	15.11	8.05	1752	106	10.64	10.01	500	28.61	
1008	17500	15.03	8.00	1747	102	10.62	9.90	500	28.61	

(continued on back)

Sample Collector(s): Allen Hollatz
Date: 5-8-13

SAMPLE COLLECTION DATA

Well ID: GMZ-04

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSDER-GMZ04-050813	VOC's	3 - 40mL Clear Vials	1008	500	
	Ferrous Iron	0.38 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: MW-07FGA

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 5/7/2013 Time: Start 1225 (24hr)
Project No: 60288803-4212 Finish 1425
Site Location: Rockford, Illinois
Weather: Sunny - 70's Collector(s): N. Pins

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 46.80 Screen interval(ft): 15 Approx. depth of pump intake(ft): 39.0
Water table depth (ft): 28.82 Casing type/diameter: SS 2" Minimum purge volume: 9.0 (gals)
Water column length (ft): 17.98 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	R24047
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402

Begin purge at 1240

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1240	0.00	17.28	7.17	1207	177	3.54	36.7	400	28.86	CLOUDY
1245	2000	18.23	7.15	1202	180	3.49	30.0	400	28.86	
1250	4000	18.30	7.14	1203	180	3.38	35.3	400	28.86	
1255	6000	18.76	7.14	1206	180	3.30	34.7	400	28.86	
1301	8000	18.91	7.14	1204	181	3.25	31.8	400	28.86	
1306	10000	19.27	7.13	1212	172	3.20	29.7	400	28.86	
1311	12000	19.84	7.13	1215	163	3.13	27.3	400	28.86	
1316	14000	20.17	7.13	1218	159	3.09	25.0	400	28.86	
1321	16000	17.65	7.13	1219	143	3.01	20.4	400	28.86	CLEAR
1326	18000	17.12	7.13	1230	133	2.91	15.1	400	28.86	PUMP STOPPED
1331	20000	18.04	7.30	1448	-2	4.05	17.0	400	28.86	CLEAR
1336	22000	17.49	7.13	1250	119	3.20	16.2	400	28.86	
1341	24000	17.53	7.13	1250	117	3.01	12.4	400	28.86	
1346	26000	18.53	7.12	1261	113	2.90	9.84	400	28.86	
1351	28000	18.08	7.12	1266	112	2.83	8.42	400	28.86	

(continued on back)

Sample Collector(s): N. Pins Date: 5/7/2013

SAMPLE COLLECTION DATA

Well ID: MW-07FGA

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-MW07FGA-050113	VOC's	3 - 40mL Clear Vials	1351	400	
	Ferrous Iron	0.83 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: MW-203

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Date: 5/7/2013
Time: Start 1545 (24hr)
Finish 1645
Project No: 60288803-4212
Site Location: Rockford, Illinois
Weather: Sunny - 70's
Collector(s):

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 47.50
Screen interval(ft): 15
Approx. depth of pump intake(ft): 40.0
Water table depth (ft): 29.66
Casing type/diameter: SS 2"
Minimum purge volume: 8.5 (gals)
Water column length (ft): 17.84
(calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	R24047
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402

Begin purge at 1551

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1551	0.00	16.57	7.13	880.9	127	3.41	1.98	400	29.68	CLEAR
1556	2000	16.43	7.07	1062	99	0.60	1.72	400	29.68	
1601	4000	16.31	7.06	1078	48	0.27	1.50	400	29.68	
1606	6000	16.16	7.04	1086	35	0.00	1.15	400	29.68	
1611	8000	16.14	7.04	1088	24	0.01	1.10	400	29.68	
1616	10000	16.20	7.05	1087	35	0.08	0.99	400	29.68	
1621	12000	16.19	7.05	1090	45	0.12	0.92	400	29.68	
1626	14000	15.93	7.05	1092	50	0.15	0.88	400	29.68	
1631	16000	15.86	7.05	1097	54	0.15	0.72	400	29.68	

(continued on back)

Sample Collector(s): N. Pins
Date: 5/7/2013

SAMPLE COLLECTION DATA

Well ID: MW-203

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-MW203-050713	VOC's	3 - 40mL Clear Vials	1631	400	
	Ferrous Iron	0.17 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: SMW-01

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Date: 5/7/2013
Time: Start 0900 (24hr)
Finish 1015
Project No: 60288803-4212
Site Location: Rockford, Illinois
Weather: Sunny - 70's
Collector(s): N. Pins

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 39.55
Screen interval(ft): 15
Approx. depth of pump intake(ft): 32
Water table depth (ft): 31.39
Casing type/diameter: PVC 2"
Minimum purge volume: 4.0 (gals)
Water column length (ft): 8.16
(calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	224047
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402

Begin purge at 0932

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0932	0.00	15.43	7.14	1429	88	8.59	14.2	500	31.40	CLEAR
0937	2500	15.33	7.15	1413	90	8.60	3.63	500	31.40	↓
0943	5000	16.37	7.15	1404	94	8.57	0.96	500	31.40	↓
0948	7500	15.71	7.15	1407	98	8.61	0.55	500	31.40	↓
0953	10000	15.30	7.16	1408	100	8.62	0.75	500	31.40	✓

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Sample Collector(s): N. Pins
Date: 5/7/2013

SAMPLE COLLECTION DATA

Well ID: SMW1-01

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-SMW01-050713	VOC's	3 - 40mL Clear Vials	0953	500	
	Ferrous Iron	0.19 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: SMW - 02

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Date: 5/7/2013
Time: Start 1015 (24hr)
Finish 1210
Project No: 60288803-4212
Site Location: Rockford, Illinois
Weather: Sunny - 70's
Collector(s): N. Pins

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 39.90
Screen interval(ft): 15
Approx. depth of pump intake(ft): 32.5
Water table depth (ft): 28.02
Casing type/diameter: PVC 2"
Minimum purge volume: 6.0 (gals)
Water column length (ft): 11.88
(calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	122407
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402

Begin purge at 1036

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1036	0.00	15.92	7.12	1196	122	4.26	37.8	500	28.10	CLOUDY
1041	2500	16.68	7.12	1172	116	4.81	25.5	500	28.10	CLEAR
1046	5000	16.17	7.12	1167	119	5.14	14.1	500	28.10	
1051	7500	16.32	7.12	1163	125	5.15	8.83	500	28.10	
1056	10000	16.27	7.12	1161	134	5.11	5.72	500	28.10	
1101	12500	16.10	7.12	1152	140	5.19	5.12	500	28.10	
1107	15000	16.44	7.12	1159	146	5.16	4.61	500	28.10	
1112	17500	16.61	7.12	1154	158	5.17	4.14	500	28.10	
1117	20000	16.95	7.13	1144	165	5.28	4.08	500	28.10	
1127	22500	17.25	7.12	1147	174	5.37	2.51	500	28.10	
1132	25000	18.26	7.13	1142	177	5.32	1.50	500	28.10	
1137	27500	17.92	7.13	1139	182	5.43	1.11	500	28.10	

(continued on back)

Sample Collector(s): N. Pins
Date: 5/7/2013

SAMPLE COLLECTION DATA

Well ID: SMW-02

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-SMW02-050613	VOC's	3 - 40mL Clear Vials	1137	500	
	Ferrous Iron	0.12 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: SMW-04

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Date: 5/8/2013
Time: Start 0925 (24hr)
Finish 1015
Project No: 60288803-4212
Site Location: Rockford, Illinois
Weather: Sunny - 70°s
Collector(s): N. Pins

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 42.50
Screen interval(ft): 15
Approx. depth of pump intake(ft): 35
Water table depth (ft): 30.41
Casing type/diameter: PVC 2"
Minimum purge volume: 6.0 (gals)
Water column length (ft): 12.09
(calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected. .

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	R24047
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402

Begin purge at 0931

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0931	0.00	16.96	7.15	1626	125	1.01	28.9	400	30.45	CLOUDY
0936	2000	15.14	7.09	1632	81	0.14	8.63	400	30.45	CLEAR
0940	4000	15.18	7.08	1634	75	0.26	6.50	400	30.45	↓
0945	6000	14.92	7.08	1644	71	0.30	4.25	400	30.45	
0950	8000	14.90	7.09	1652	66	0.27	3.26	400	30.45	

(continued on back)

Sample Collector(s): N. Pins
Date: 5/8/2013

SAMPLE COLLECTION DATA Well ID: SMW - 04

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-SMW04-050813	VOC's	3 - 40mL Clear Vials	0950	400	
	Ferrous Iron	0.27 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: SMW-08

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Date: 5/8/2013
Time: Start 0640 (24hr)
Finish 0735
Project No: 60288803-4212
Site Location: Rockford, Illinois
Weather: SUNNY - 70'S
Collector(s): N. PINS

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 41.75
Screen interval(ft): 15
Approx. depth of pump intake(ft): 39
Water table depth (ft): 30.60
Casing type/diameter: PVC 2"
Minimum purge volume: 5.4 (gals)
Water column length (ft): 11.15
(calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	i224047
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402

Begin purge at 0655

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0655	0.00	14.24	7.05	1565	178	1.62	28.9	400	30.62	CLOUDY
0700	2000	14.27	7.05	1563	103	1.67	10.27	400	30.62	CLEAR
0705	4000	14.41	7.05	1576	85	1.60	5.46	400	30.62	↓
0710	6000	14.66	7.05	1553	80	1.75	3.28	400	30.62	↓
0715	8000	14.33	7.05	1573	76	1.66	2.15	400	30.62	↓

(continued on back)

Sample Collector(s): N. PINS
Date: 5/8/2013

SAMPLE COLLECTION DATA

Well ID: SMW-08

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-SMW08-050813	VOC's	3 - 40mL Clear Vials	0715	400	
HSSER-FBLK01-050813	VOC's	3 - 40mL CLEAR VIALS	0645	–	
	Ferrous Iron	0.19 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: SMW-19

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Date: 5/8/2013
Time: Start 1235 (24hr)
Finish 1335
Project No: 60288803-4212
Site Location: Rockford, Illinois
Weather: Sunny - 70°s
Collector(s): N. Pins

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 41.05
Screen interval(ft): 15
Approx. depth of pump intake(ft): 34
Water table depth (ft): 29.75
Casing type/diameter: SS 2"
Minimum purge volume: 5.5 (gals)
Water column length (ft): 11.30
(calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	R24047
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402

Begin purge at 1246

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1246	0.00	21.55	6.90	1411	206	0.06	52.6	300	29.78	CLOUDY
1251	1500	18.55	6.88	1367	263	0.35	47.0	300	29.79	↓
1256	3000	18.06	6.89	1381	294	0.78	24.5	300	29.79	↓
1301	4500	18.12	6.89	1387	286	1.00	12.5	300	29.79	CLEAR
1306	6000	18.23	6.90	1381	262	1.16	9.94	300	29.79	↓
1311	7500	18.42	6.90	1393	242	1.28	8.09	300	29.79	↓
1316	9000	18.32	6.90	1394	232	1.37	5.50	300	29.79	↓
1321	10500	18.57	6.90	1396	220	1.46	4.75	300	29.79	↓

(continued on back)

Sample Collector(s): N. Pins
Date: 5/8/2013

SAMPLE COLLECTION DATA

Well ID: SMW-19

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSS ER-SMW19-050813	VOC's	3 - 40mL Clear Vials	1321	300	
	Ferrous Iron	2.37 mg/L			

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

AECOM

Well ID: SMW-20

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Date: 5-8-13
Time: Start 1130 (24hr)
Finish 1215
Project No: 60288803-4212
Site Location: Rockford, Illinois
Weather: Sunny 65-75°F
Collector(s): A. Hollatz

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 40.05
Screen interval(ft): 15
Approx. depth of pump intake(ft): 32
Water table depth (ft): 29.65
Casing type/diameter: 2" pvc
Minimum purge volume: 5.00 (gals)
Water column length (ft): 10.40
(calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	43531
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7798-3510

Begin purge at 1135

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1136	0	18.03	8.12	1331	170	9.76	38.8	500	29.65	cloudy/none
1141	2500	18.24	8.06	1227	166	9.75	31.9	500	29.65	↓
1146	5000	18.08	8.03	1174	163	9.74	16.6	500	29.65	clear/none
1151	7500	17.95	8.03	1155	160	9.71	7.43	500	29.65	↓
1156	10000	17.95	8.03	1159	159	9.78	7.38	500	29.65	
1201	12500	17.61	8.03	1150	156	9.75	7.26	500	29.65	↓

(continued on back)

Sample Collector(s): [signature]
Date: 5-8-13

SAMPLE COLLECTION DATA

Well ID: SMW-20

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSFR SMW20-050813	VOC's	3 - 40mL Clear Vials	1201	500	
	Ferrous Iron	0.30 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: SMW-21

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 5-8-13 Time: Start 1028 (24hr)
Project No: 60288803-4212 Finish 1125
Site Location: Rockford, Illinois
Weather: Sunny 65-75°F Collector(s): A. Hollatz

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 41.70 Screen interval(ft): 15 Approx. depth of pump intake(ft): 34
Water table depth (ft): 29.08 Casing type/diameter: 2" PVC Minimum purge volume: 6.00 (gals)
Water column length (ft): 12.22 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	43531
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7798-3510

Begin purge at 1035

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1037	0	16.68	8.22	1062	130	9.70	123.9	500	29.08	cloudy/none
1042	2500	16.25	8.14	1022	134	9.94	64	500	29.08	
1047	5000	16.23	8.13	1043	139	10.05	90.5	500	29.03	
1052	7500	16.27	8.12	1040	141	10.05	42.1	500	29.03	
1057	10000	16.14	8.11	1035	143	10.10	25.5	500	29.03	
1102	12500	16.18	8.11	1028	144	10.09	15.4	500	29.03	
1107	15000	16.10	8.10	1026	145	10.12	15.2	500	29.03	
1112	17500	16.05	8.10	1026	146	10.12	14.6	500	29.03	

(continued on back)

Sample Collector(s): [signature] Date: 5-8-13

SAMPLE COLLECTION DATA

Well ID: SMW-21

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSEQ.SMW21-050813	VOC's	3 - 40mL Clear Vials	1112	500	
	Ferrous Iron	1.17 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: PMW-01

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Date: 5/8/2013
Time: Start 0835 (24hr)
Finish 0925
Project No: 60288803-4212
Site Location: Rockford, Illinois
Weather: Sunny - 70's
Collector(s): N. Pins

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.66
Screen interval(ft): 25
Approx. depth of pump intake(ft): 38.5
Water table depth (ft): 30.87
Casing type/diameter: PVC 2"
Minimum purge volume: 6.7 (gals)
(calculations on reverse)
Water column length (ft): 13.73

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	R24047
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402

Begin purge at 0843

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0843	0.00	15.16	7.28	1105	150	7.08	55.4	300	30.89	CLOUDY
0848	1500	15.33	7.23	1082	164	6.56	21.9	300	30.89	CLEAR
0853	3000	15.43	7.23	1081	173	6.43	12.6	300	30.89	↓
0858	4500	15.43	7.23	1086	181	6.31	9.42	300	30.89	↓
0903	6000	15.51	7.23	1088	187	6.25	8.62	300	30.89	↓
0908	7500	15.57	7.24	1094	191	6.16	5.62	300	30.89	↓

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Sample Collector(s): N. Pins
Date: 5/8/2013

SAMPLE COLLECTION DATA

Well ID: PMW1-01

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
11SSEL-PMWD1-050813	VOC's	3 - 40mL Clear Vials	0900	300	
	Ferrous Iron	0.20 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: PMW-02

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Date: 5/8/2013
Time: Start 0740 (24hr)
Finish 0830
Project No: 60288803-4212
Site Location: Rockford, Illinois
Weather: SUNNY - 70°s
Collector(s): N. PINS

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.85
Screen interval(ft): 25
Approx. depth of pump intake(ft): 38.5
Water table depth (ft): 30.85
Casing type/diameter: PVC 2"
Minimum purge volume: 6.8 (gals)
Water column length (ft): 14.00
(calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	R24047
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402

Begin purge at 0757

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0757	0.00	14.91	6.98	1622	164	0.26	112	300	30.88	CLOUDY
0802	1500	15.18	6.97	1575	136	0.38	48.2	300	30.88	↓
0807	3000	15.24	6.95	1530	133	0.60	25.7	300	30.88	↓
0812	4500	15.25	6.95	1538	142	0.52	13.1	300	30.88	CLEAR
0817	6000	15.25	6.95	1515	139	0.63	8.42	300	30.88	CLEAR

(continued on back)

Sample Collector(s): N. PINS
Date: 5/8/2013

SAMPLE COLLECTION DATA

Well ID: PMW-02

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-PMW02-050813	VOC's	3 - 40mL Clear Vials	0817	300	
HSSER-EBLK01-050813	VOCs	3-40mL Clear Vials	0745	—	
	Ferrous Iron	0.64 mg/L			

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

AECOM

Well ID: RAMW-01

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Date: 5-8-13
Time: Start 0700 (24hr)
Finish 0745
Project No: 60288803-4212
Site Location: Rockford, Illinois
Weather: Sunny 55-65°F
Collector(s): A. Hollatz

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 45.85
Screen interval(ft): 15
Approx. depth of pump intake(ft): 38
Water table depth (ft): 30.85
Casing type/diameter: 2" PVC
Minimum purge volume: 7.50 (gals)
Water column length (ft): 15.00
(calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	43531
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7795-3510
Begin purge at 0708			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0713	0	16.17	7.08	1101	215	2.44	15.1	500	30.85	clear/none
0717	2500	16.37	7.10	1092	218	2.44	12.1	500	30.85	↓
0723	5000	16.48	7.10	1085	217	2.33	8.21	500	30.85	
0728	7500	16.47	7.11	1080	215	2.40	8.17	500	30.85	
0733	10000	16.46	7.11	1080	212	2.41	8.10	500	30.85	

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Sample Collector(s): [signature]
Date: 5-8-13

SAMPLE COLLECTION DATA

Well ID: RAMW-01

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-RAMW01-050813	VOC's	3 - 40mL Clear Vials	0733	500	
HSSER-FB-KO2-050813	VOC's	3 - 40mL clear vials	0733	—	
	Ferrous Iron	0.30 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: RAMW-02

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 5-7-13 Time: Start 1625 (24hr)
Project No: 60288803-4212 Finish 1720
Site Location: Rockford, Illinois
Weather: Sunny 75-80°F Collector(s): A Hollatz

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 49.70 Screen interval(ft): 15 Approx. depth of pump intake(ft): 37
Water table depth (ft): 30.75 Casing type/diameter: 2" PVC Minimum purge volume: 2.00 (gals)
Water column length (ft): 13.95 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	4353I
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7798-3510

Begin purge at 1630

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1633	0	17.76	7.18	1222	-21	0.15	60.3	500	30.75	cloudy/none
1637	2500	17.42	7.14	1259	-49	0.19	121.2	500	30.75	↓
1642	5000	17.20	7.18	1248	-51	0.57	41.3	500	30.75	↓
1647	7500	17.10	7.19	1223	-49	0.83	26.9	500	30.75	clear/none
1652	10000	17.29	7.17	1234	-49	0.90	17.2	500	30.75	↓
1657	12500	17.44	7.17	1339	-51	0.97	18.8	500	30.75	↓
1702	15000	17.14	7.16	1356	-51	1.00	17.8	500	30.75	↓

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Sample Collector(s): [signature] Date: 5-7-13

SAMPLE COLLECTION DATA Well ID: RAMW-02

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-RAMW02-050713	VOC's	3 - 40mL Clear Vials	1702	500	
HSSER-MS02-050713	" "	" "	1702	500	
HSSER-MSD02-050713	" "	" "	1702	500	
	Ferrous Iron	2.04 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: RAMW-03

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility	Date: 5-7-13	Time:	Start	1515	(24hr)
Project No: 60288803-4212			Finish	1615	
Site Location: Rockford, Illinois					
Weather: Sunny 75-80°F	Collector(s): A. Hollatz				

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 41.30 Screen interval(ft): 15 Approx. depth of pump intake(ft): 34

Water table depth (ft): 30.58 Casing type/diameter: 2" PVC Minimum purge volume: 5.25 (gals)

Water column length (ft): 10.72 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	413531
	Lamotte	2020	2531-7512
	Lamotte	Smart 2 Colorimeter	7798-3510
Begin purge at 1520			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1521	0	18.76	7.30	846.5	223	7.67	32.5	500	30.58	Cloudy/none
1526	2500	18.70	7.24	871.3	208	5.81	30.9	500	30.58	↓
1531	5000	18.26	7.20	954.3	201	4.05	25.3	500	30.58	
1536	7500	18.17	7.20	992.1	196	3.75	18.00	500	30.58	Clear/none
1541	10000	18.33	7.14	1025	186	2.94	13.10	500	30.58	
1546	12500	18.46	7.18	1045	165	2.64	9.87	500	30.58	
1551	15000	18.21	7.19	1054	135	2.51	7.91	500	30.58	
1556	17500	18.41	7.19	1067	106	2.35	6.55	500	30.58	
1601	20000	18.64	7.19	1060	89	2.42	3.73	500	30.58	
	* Parameters not stable but 3 well Volumes have been removed.									

(continued on back)

Sample Collector(s): [signature] Date:

SAMPLE COLLECTION DATA Well ID: RAMW-03

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-RAMW03-050713	VOC's	3 - 40mL Clear Vials	1601	500	
HSSER-DUP02-050713	VOC'S	3-40mL Clear Vials	0000	500	
	Ferrous Iron	0.52 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: RAMW-04

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 5-8-13 Time: Start 0755 (24hr)
Project No: 60288803-4212 Finish 0845
Site Location: Rockford, Illinois
Weather: Sunny, 55-65°F Collector(s): A. Hollatz

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 48.35 Screen interval(ft): 15 Approx. depth of pump intake(ft): 41
Water table depth (ft): 33.93 Casing type/diameter: 2" PVC Minimum purge volume: 7.00 (gals)
Water column length (ft): 14.42 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	43531
	Lamotte	2020	2537-2512
	Lamotte	Smart 2 Colorimeter	7784-3510

Begin purge at 0800

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0803	0	16.68	7.30	908.7	217	1.11	14.9	500	33.93	clear/none
0808	2500	16.95	7.30	924.2	199	0.58	9.77	500	33.93	
0813	5000	17.02	7.30	929.0	183	0.52	6.03	500	33.93	
0818	7500	16.95	7.31	932.6	165	0.41	4.29	500	33.93	
0823	10000	17.27	7.31	934.6	162	0.36	3.31	500	33.93	
0828	12500	17.51	7.31	934.7	157	0.34	3.30	500	33.93	
0833	15000	17.71	7.30	935.4	152	0.36	3.25	500	33.93	

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Sample Collector(s): [signature] Date: 5-8-13

SAMPLE COLLECTION DATA

Well ID: RAMW-04

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-RAMW04-050813	VOC's	3 - 40mL Clear Vials	0833	500	
HSSER-EBLK03-050813	VOC's	3-40mL Clear Vials	0755		
	Ferrous Iron	0.24 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: RAMW-05

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 5-7-13 Time: Start 1340 (24hr)
Project No: 60288803-4212 Finish 1435
Site Location: Rockford, Illinois
Weather: Sunny 70-80°F Collector(s): A. Hollatz

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 43.70 Screen interval(ft): 15 Approx. depth of pump intake(ft): 36
Water table depth (ft): 29.37 Casing type/diameter: 2" PVC Minimum purge volume: 7.00 (gals)
Water column length (ft): 14.33 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	43531
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7798-3510
Begin purge at 1345			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1347	0	17.44	7.88	1088	26	9.59	28	500	29.37	cloudy/none
1352	2500	17.34	7.82	1077	38	9.65	94.1	500	29.37	↓
1357	5000	17.38	7.84	1080	42	9.63	37.8	500	29.37	↓
1402	7500	17.27	7.84	1069	44	9.64	19.6	500	29.37	clear/none
1407	10000	17.42	7.83	1067	45	9.63	13.9	500	29.37	↓
1412	12500	17.46	7.83	1054	46	9.63	9.83	500	29.37	↓
1417	15000	17.57	7.82	1049	47	9.57	9.76	500	29.37	↓
1422	17500	17.47	7.82	1041	49	9.67	9.41	500	29.37	↓

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Sample Collector(s): [signature] Date: 5-7-13

SAMPLE COLLECTION DATA

Well ID: RH MW-05

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-RHMW05-050712	VOC's	3 - 40mL Clear Vials	1422	500	
	Ferrous Iron	0.38 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: RAMW-06

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Date: 5-7-13
Time: Start 1220 (24hr)
Finish 1320
Project No: 60288803-4212
Site Location: Rockford, Illinois
Weather: Sunny 65-75°F
Collector(s): A. Hollatz

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.15
Screen interval(ft): 15
Approx. depth of pump intake(ft): 37
Water table depth (ft): 29.40
Casing type/diameter: 2" PVC
Minimum purge volume: 7.25 (gals)
Water column length (ft): 14.75
(calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	43531
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7798-3510

Begin purge at 1225

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1225	0	17.21	7.65	1128	3	9.42	3.95	500	29.40	Clear/none
1230	2500	17.00	7.72	1124	10	9.53	2.43	500	29.40	
1235	5000	16.92	7.82	1049	11	9.78	1.90	500	29.40	
1240	7500	16.89	7.87	959.3	13	9.90	1.50	500	29.40	
1245	10000	16.85	7.89	970.0	15	9.94	0.88	500	29.40	
1250	12500	16.81	7.89	967.9	17	9.95	0.84	500	29.40	
1255	15000	16.77	7.89	965.1	20	9.91	0.39	500	29.40	
1300	17500	16.95	7.89	965.6	21	9.62	0.38	500	29.40	
1305	20000	16.88	7.90	980.6	20	9.65	0.37	500	29.40	

(continued on back)

Sample Collector(s): [signature]
Date: 5-7-13

SAMPLE COLLECTION DATA

Well ID: RA MW-06

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-RAMW06-050713	VOC's	3 - 40mL Clear Vials	1305	500	
	Ferrous Iron	0.06 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: RAMW-07

Ground Water Sample Collection Record

Client:	UTAS Plants 1/2 Facility	Date: 5-7-13	Time:	Start	1020 (24hr)
Project No:	60288803-4212			Finish	1200
Site Location:	Rockford, Illinois				
Weather:	Sunny 65-75°F	Collector(s):	A. Hollatz		

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 48.45 Screen interval(ft): 15 Approx. depth of pump intake(ft): 41

Water table depth (ft): 33.90 Casing type/diameter: 2" PVC Minimum purge volume: 7.15 (gals)

Water column length (ft): 14.55 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	43531
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7798-3510

Begin purge at 1035

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1039	0	18.37	7.08	1680	-70	0.42	3.59	400	33.90	Clear/none
1044	2000	18.43	7.08	1727	-71	0.22	2.43	400	33.90	
1049	4000	18.30	7.08	1762	-70	0.15	1.26	400	33.90	
1054	6000	18.38	7.08	1766	-70	0.16	0.41	400	33.90	
1059	8000	18.35	7.08	1765	-69	0.21	0.98	400	33.90	
1104	10000	18.38	7.08	1762	-59	0.27	0.97	400	33.90	
1109	12000	18.49	7.08	1763	-76	0.32	0.89	400	33.90	
1114	14000	18.41	7.08	1757	-61	0.38	0.87	400	33.90	
1119	16000	18.51	7.09	1755	-50	0.42	0.84	400	33.90	
1124	18000	18.50	7.08	1760	-45	0.46	0.34	400	33.90	
1129	20000	18.43	7.08	1767	-41	0.51	0.16	400	33.90	
1134	22000	18.41	7.09	1765	-38	0.55	0.14	400	33.90	
1139	24000	18.43	7.09	1771	-35	0.59	0.13	400	33.90	
1144	26000	18.48	7.09	1768	-32	0.61	0.14	400	33.90	
1149	28000	18.52	7.09	1768	-30	0.63	0.13	400	33.90	
	* Parameters not stable but 3 well volumes have been removed.									

(continued on back)

Sample Collector(s): [signature] Date: 5-7-13

SAMPLE COLLECTION DATA

Well ID: RAMW-07

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-RAM07-050713	VOC's	3 - 40mL Clear Vials	1149	400	
	Ferrous Iron	0.06 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID: RAMW-08

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 5-7-13 Time: Start 0900 (24hr)
Project No: 60288803-4212 Finish 1015
Site Location: Rockford, Illinois
Weather: Sunny 65-75°F Collector(s): A. Hallatz

1. **WELL and WATER LEVEL DATA: (measured from Top of Casing)**

Total well length (ft): 44.15 Screen interval(ft): 15 Approx. depth of pump intake(ft): 37
Water table depth (ft): 30.07 Casing type/diameter: 2" PVC Minimum purge volume: 7.0 (gals)
Water column length (ft): 14.08 (calculations on reverse)

2. **WELL PURGE DATA**

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings hae not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	In-Situ	9500	43531
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7798-3510
Begin purge at 0920			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0927	0	14.41	6.48	1840	-276	0.03	5.23	400	30.07	Black/Bro
0932	2000	14.57	6.48	1865	-278	0.02	4.85	400	30.07	↓
0937	4000	14.56	6.44	1900	-278	0.00	5.05	400	30.07	Clear/Bro
0942	6000	14.84	6.48	1932	-274	0.00	5.56	400	30.07	↓
0947	8000	14.79	6.44	1968	-271	0.01	5.22	400	30.07	
0952	10000	14.74	6.44	1991	-265	0.01	5.51	400	30.07	
0957	12000	14.72	6.44	2007	-261	0.00	5.53	400	30.07	↓

(continued on back)

Sample Collector(s): [signature] Date: 5-7-13

SAMPLE COLLECTION DATA Well ID: RAMW-08

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-RAMW-08	VOC's	3 - 40mL Clear Vials	0957	400	
	Ferrous Iron	3.02 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

Appendix E

Third Quarter 2013 Progress Report

AECOM

Submitted to:
UTC Aerospace Systems
Rockford, IL

Submitted by:
AECOM
Warrenville, IL
60288803
September 2013

QUARTERLY PROGRESS REPORT – Third Quarter 2013 (June – August 2013)

UTC Aerospace Systems Plants 1/2 Facility
Southeast Rockford Groundwater Contamination
Superfund Site
2421 11th Street
Rockford, Illinois 61104
ILD981000417, ILD010219665
AECOM Project No. 60288803

This Quarterly Progress Report has been prepared on behalf of UTC Aerospace Systems (UTAS, fka Hamilton Sundstrand or HS) by AECOM Technical Services Inc. (AECOM). This report summarizes activities that occurred during the months of June, July, and August of the Third Quarter of 2013 at the above-referenced facility.

Progress Report- Reporting Quarters			
Q1	December	January	February
Q2	March	April	May
Q3	June	July	August
Q4	September	October	November

This report is the twentieth in the series of Quarterly Progress Reports and consistent with United States Environmental Protection Agency (EPA) approval of combining project reporting documents from a letter dated April 15, 2011. Quarterly Progress Reports are included as attachments to the Groundwater Management Zone (GMZ) Monitoring and System Performances Reports.

This Quarterly Progress Report follows the requirements outlined in Section X of the Consent Decree (CD) and includes the following:

Actions taken during the prior quarter to maintain compliance with the CD:

- Summaries of sampling results and tests;
- An identification of work plans and other deliverables completed in accordance with the CD;
- Actions scheduled for the next quarter;
- Information on the progress, percentage of completion, delays, and efforts to mitigate delays;
- Modifications to Work Plans and/or schedules; and
- Activities undertaken in support of the Community Relations Plan.

Each of these sections is described in more detail below.

Actions Taken During the Third Quarter to Achieve Compliance with the Consent Decree

The following actions were taken during June, July, and August of the Third Quarter of 2013:

- Phase 1 AS/SVE system air sampling of the SVE system effluent prior to the system being deactivated (switched to the pulse OFF mode). SVE process air effluent sampling was conducted on July 15, 2013;
- Phase 2 AS/SVE system air sampling of the SVE system effluent prior to the system being deactivated. SVE process air effluent samples were collected on July 15, 2013;
- Phase 2 SVE system (Cell 4) water sample was collected from the moisture separator prior to the system being deactivated. The moisture separator water sample was collected on July 15, 2013;
- On July 15, 2013, both Phase 1 and Phase 2 AS/SVE systems were deactivated;

- On July 16, 2013, Response to Comment letter was submitted to the EPA in response to EPA's comment letter dated June 13, 2013 regarding the *2012 Annual GMZ Monitoring and System Performance Report* that was originally submitted on March 14, 2013. UTAS is awaiting approval of the document.
- On July 17, 2013 via e-mail (with an attached memorandum dated July 16, 2013), EPA requested a new site specific Quality Assurance Project Plan (QAPP) be prepared using the Uniform Federal Policy (UFP)-QAPP format and also to create a new Quality Management Plan (QMP) specific to AECOM. On July 17th, AECOM requested that EPA provide specific reasoning why the approved existing site specific QAPP needed to be produced in a new format. Since that time, subsequent ongoing communications have occurred between EPA and AECOM regarding the specific format and content of a new QAPP for the site. On August 5, 2013, AECOM submitted a notification via email to EPA that the third quarter groundwater monitoring event would proceed as scheduled using the existing approved QAPP, while ongoing discussions regarding a new QAPP would continue;
- AECOM completed GMZ and performance well quarterly monitoring well network sampling between August 5 and August 8, 2013. The following wells were sampled for volatile organic compounds (VOCs): GMZ wells (which include the Phase 1 AS/SVE performance monitoring network) SMW01, SMW02, SMW04, SMW08, SMW19, SMW20, SMW21, MW07FG, MW203, GMZ01, GMZ02, GMZ03, GMZ04, PMW01 and PMW02; and performance monitoring wells RAMW01 RAMW02, RAMW03, RAMW04, RAMW05, RAMW06, RAMW07, and RAMW08; and
- Jet fuel recovery system monitoring between August 6 and August 8, 2013: No light non-aqueous phase liquid (LNAPL) has been measured in the recovery wells since August 2006 and no LNAPL has been recovered by the system since September 2006. Based on the lack of recoverable LNAPL and the damaged air line, the RW-2 leg of the recovery system was deactivated by facility personnel on May 14, 2010. Monitoring data since the startup of the Phase 1 and Phase 2 remediation systems has not indicated that the system's performance have been impacted by the jet fuel recovery area. Based on the absence of LNAPL for the past seven years, it appears that LNAPL has been removed to the maximum extent practicable. Future quarterly gauging/monitoring of the recovery system will be discontinued.

Summary of Results of Sampling and Tests

- Complete groundwater sampling results will be provided in the Third Quarter 2013 GMZ Monitoring and System Performance Report due to the Agency by December 15, 2013;
- Three process air samples were collected from the Phase 1 AS/SVE system effluent during the July 15, 2013 sampling event;
- Two process air samples were collected from the Phase 2 AS/SVE system effluent during the July 15, 2013 sampling event; and
- One duplicate and one field blank air sample were collected during the July 15, 2013 sampling event.

Work Plans and Other Deliverables Completed In Accordance With the CD

- The *First Quarter 2013 GMZ Monitoring and System Performance Report, Area 9/10 Remedial Action* (June 13, 2013) was submitted in accordance with Section X, paragraph 30 of the CD and consistent with Section V of the Statement of Work (SOW).

Actions Scheduled for Next Quarter

The following actions are scheduled for the next quarter:

- Operation of the Phase 1 and Phase 2 AS/SVE systems will be in "pulse on" mode (system operational) between September 9, 2013 and approximately November 18, 2013;
- Operation and monitoring of the Phase 1 and Phase 2 AS/SVE systems will be in "pulse off" mode (system in shutdown mode) from approximately November 18, 2013 to approximately January 20, 2014;
- Completion of the *Quarterly GMZ Monitoring and System Performance Report for the Second Quarter of 2013, Area 9/10 Remedial Action* which will be submitted by September 15, 2013;
- Completion of the Fourth Quarter 2013 Groundwater Monitoring event in December 2013. The monitoring event will include the GMZ monitoring well network (which includes the Phase 1 AS/SVE performance monitoring network) and the Phase 2 performance monitoring network; and
- Ongoing work between UTAS, Illinois Environmental Protection Agency (IEPA), and EPA on the Notice of Land-use Restrictions, Institutional Controls, and other related documents.

Percentage of Completion/Anticipated Delays

There are 39 specific deliverables or activities required to be completed as part of the CD. Some of these are ongoing activities and others, such as submittal of documents, require approval by the EPA/IEPA to fulfill the requirements of the CD. To date, UTAS has completed their current obligations for 28 of the 39 items or 69%. There are currently no anticipated delays to the schedule.

Modifications to Work Plans/Schedules Proposed

None

Activities Undertaken In Support of Community Relations Plan

No activities are required with regard to the Community Relations Plan at this time.

Appendix F

Pulse Mode Operation 1-Year Evaluation

AECOM

AECOM
27755 Diehl Road, Suite 100
Warrenville, Illinois, 60555

630.836.1700 tel
630.836.1711 fax

Memorandum

To	Mr. Timothy Drexler (USEPA), Mr. Doyle W. Wilson (IEPA)	Page	1
CC			
Subject	Pulse Mode Operation of the Phase 1 and Phase 2 AS/SVE Systems – 1 Year Evaluation UTC Aerospace Systems Plants 1/2 Facility Area 9/10 Remedial Action		
From	Peter Hollatz (AECOM)		
Date	September 10, 2013		

Purpose

This technical memorandum is intended to provide an evaluation of the first year (June 2012 – June 2013) of pulse mode operation of the Phase 1 and Phase 2 Air Sparge (AS) and Soil Vapor Extraction (SVE) systems. Documents pertaining to the development of the pulse mode operation include: *Request for Pulse Mode Operation of the Phase 1 and Phase 2 AS/SVE Systems (Stantec Consulting Corporation [Stantec], February 6, 2012),* United States Environmental Protection Agency (USEPA) and Illinois Environmental Protection Agency (IEPA) response email dated March 21, 2012, *Request for Pulse Mode Operation of the Phase 1 and Phase 2 AS/SVE Systems – Response to Comments (Stantec, April 13, 2012), and the USEPA approval email dated May 8, 2012.*

As detailed in the above referenced documents, the "optimum pulsing frequency and duration is achieved when the pulse OFF duration is long enough to allow the maximum diffusion of contaminant within the treatment zone, while not allowing these contaminants to move outside of the radius of influence of the AS/SVE systems" and the "optimum pulse ON frequency is achieved when the system operates long enough for the AS/SVE system to reduce contaminant concentrations to pre-pulse mode concentrations."

Metrics used to base system pulse mode optimization include SVE exhaust analytical data and groundwater analytical data from the systems performance wells.

The objectives of this evaluation are the following:

1. Review and compare SVE exhaust data and groundwater data from monitoring wells pre- and active pulse mode system operation.
2. Provide recommendations for pulse mode optimization.

Groundwater data for contaminants of concern (COC) from the Phase 1 (GMZ02, GMZ03, SMW20, SMW21 and GMZ04) GMZ wells remained below the Preliminary Remediation Goals (PRGs) and Phase 2 performance wells (RAMW03, RAMW04, RAMW05, RAMW06, RAMW07, and RAMW08) remained below the groundwater "source area" objective of two orders of magnitude above the PRGs during the first year of pulse mode operation.

The first year pulse mode operation was approximately 2 months pulse OFF followed by 1 month pulse ON frequency. This frequency was sufficient to meet the PRGs for the Phase 1 and Phase 2 performance wells as noted above. However, to further optimize the pulse mode, AECOM recommended (communicated to USEPA via a telephone call on June 13, 2013) and implemented (June 2013) a pulse mode adjustment where the ON frequency was increased by one month. The current pulse mode operation frequency is approximately 2 months pulse OFF followed by 2 months pulse ON.

Pulse Mode Operation System Performance (June 2012 – June 2013)

The Phase 1 and Phase 2 AS/SVE pulse mode operation was initiated in June 2012. A summary of pulse mode ON and OFF dates along with groundwater sampling events are shown below.

Timeline of Events:

1. Pulse-OFF period June 1, 2012 to August 14, 2012
2. 3rd quarter 2012 groundwater monitoring event August 6-9, 2012
3. Pulse-ON period August 14, 2012 to September 17, 2012
4. Pulse-OFF period September 17, 2012 to November 15, 2012
5. 4th quarter 2012 groundwater monitoring event November 12-15, 2012
6. Pulse-ON period November 15, 2012 to December 14, 2012
7. Pulse-OFF period December 14, 2012 to February 26, 2013
8. 1st quarter 2013 groundwater monitoring event February 12-14, 2013
9. Pulse-ON period February 26, 2013 to April 11, 2013
10. Pulse-OFF period April 11, 2013 to May 10, 2013
11. 2nd quarter 2013 groundwater monitoring event May 7-8, 2013

SVE Exhaust Data

Prior to each pulse OFF period and within 2 hours of starting a pulse ON period, SVE exhaust samples were collected from the systems (five different SVE 'cells') to be analyzed using modified EPA Method TO-14A. A summary of the total volatile organic compound (VOC) concentration for each exhaust sample collection event is provided in **Table 1**. A net decrease of total VOC concentration from the beginning of an ON period to the end of the ON period suggests that the pulse ON period is sufficient. The data set does not provide a conclusive result when comparisons are made among the individual SVE cells. However, it is clear there is not a uniform net decrease of total VOCs concentration for all cells from the beginning of an ON period to the end of the ON period, which suggests that increasing the duration of the pulse ON mode period may enhance system performance.

The SVE exhaust laboratory reports along with summary tables are provided in the *2012 Annual GMZ Monitoring and System Performance Report (Stantec March 2013)*, *First Quarter 2013 GMZ Monitoring and System Performance Report (AECOM Technical Services Inc. [AECOM] June 2013)*, and *Second Quarter 2013 GMZ Monitoring and System Performance Report (AECOM September 2013)*.

Monitoring Well Groundwater Data

The groundwater data set collected in the 2nd quarter groundwater monitoring event in 2012 was collected before the pulse mode operation was initiated. Subsequent to the beginning of the pulse mode operation, four quarters of groundwater monitoring have been completed. This analysis is focused on the monitoring wells within the estimated radius of influence of the Phase 1 and Phase 2 systems. A summary of the monitoring well groundwater data is provided in **Tables 2** and **3**, Phase 1 and Phase 2 systems, respectively. The monitoring well groundwater data (specifically trichloroethene [TCE] and tetrachloroethene [PCE]) are also illustrated on **Figures 1** and **2**, Phase 1 and Phase 2, respectively.

For the Phase 1 system, monitoring wells GMZ02, GMZ03, SMW20, SMW21 and GMZ04 were analyzed. These wells are GMZ wells and all COC concentrations have remained under the PRGs with the exception of TCE, 1,1-Dichloroethene (1,1-DCE), Cis-1,2-Dichloroethene (Cis-1,2-DCE), and 1,1,1-Trichloroethane (1,1,1-TCA) in August 2012 at GMZ04. Since August 2012 all COCs at GMZ04 have remained under the PRGs. Increases in TCE concentrations at SMW21 were observed but remain under the PRGs.

For the Phase 2 system, monitoring wells RAMW03, RAMW04, RAMW05, RAMW06, RAMW07, and RAMW08 were analyzed. Potential increases in COC concentrations have been observed in some of these wells. Most notably 1,1-DCE at RAMW05 and RAMW06, and multiple COC concentrations at RAMW07.

The groundwater analytical laboratory reports along with summary tables are provided in the *2012 Annual GMZ Monitoring and System Performance Report (Stantec March 2013)*, *First Quarter 2013 GMZ Monitoring and System Performance Report (AECOM June 2013)*, and *Second Quarter 2013 GMZ Monitoring and System Performance Report (AECOM September 2013)*.

Recommendations for Pulse Mode Optimization

Based on the SVE exhaust data that fluctuates between a decrease or increase of total VOC concentration from the start to the end of a pulse ON period, the TCE increase in groundwater concentrations at SMW21, and the apparent increases of COC concentrations in groundwater at RAMW05, RAMW06, and RAMW07, it is recommended that the duration of the pulse ON period be increase by one month. As indicated above, the frequency was changed in June 2013. Future adjustments to the pulse mode operation may be recommended and implemented based on review of VOC concentrations in SVE exhaust and the groundwater monitoring data.

Figures

Figure 1 – Phase 1 Performance Wells Analytical Trends (May 2011 – June 2013)

Figure 2 – Phase 2 Performance Wells Analytical Trends (May 2011 – June 2013)

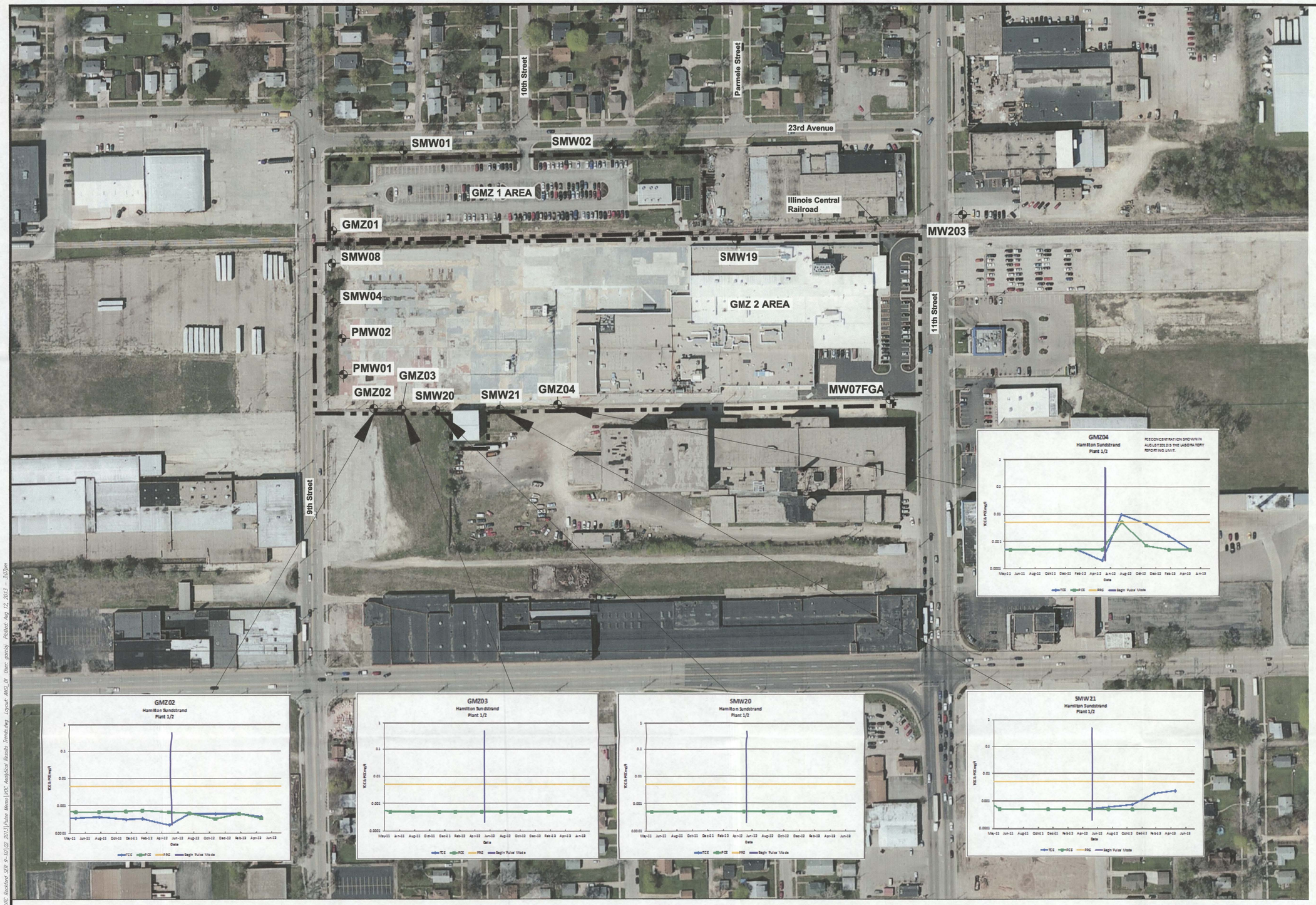
Tables

Table 1 – Phase 1 and Phase 2 SVE System Data (May 2012 – June 2013)

Table 2 – Second Quarter 2012 to Second Quarter 2013 VOC Analytical Results – Phase 1 Performance Wells

Table 3 – Second Quarter 2012 to Second Quarter 2013 VOC Analytical Results – Phase 2 Performance Wells

Figures



LEGEND:

- Performance Monitoring Well
- Site and GMZ Boundary
- PCE
- TCE
- PRG

NOTES:

1. Analytes not detected above the Laboratory estimated quantitation limit are expressed graphically as one half the reporting limit.

Preliminary Remediation Goal (PRG)	
TCE	0.005 (mg/L)
PCE	0.005 (mg/L)

50 0 100

1"=100'

AECOM

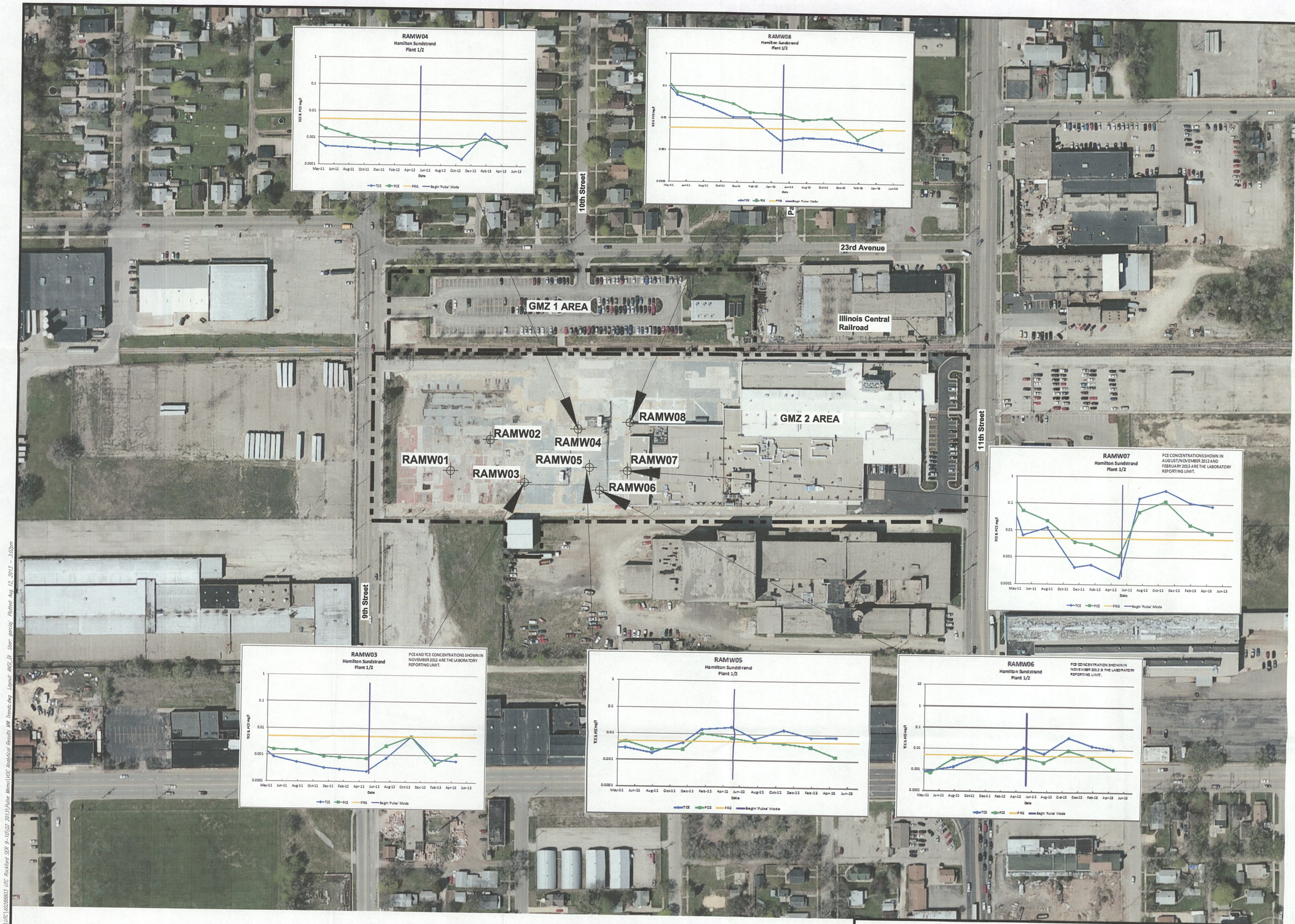
AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS

PROJECT NO. 60288803.4212

DATE: 07/26/13 DRWN: JG

PHASE 1 PERFORMANCE WELLS ANALYTICAL TRENDS (MAY 2011 - JUNE 2013)

FIGURE 1



LEGEND:

- Performance Monitoring Well
- Site and GMZ Boundary
- PCE
- TCE
- PRG

NOTES:

1. Analytes not detected above the Laboratory estimated quantitation limit are expressed graphically as one half the reporting limit.

Preliminary Remediation Goal (PRG)	
TCE	0.005 (mg/L)
PCE	0.005 (mg/L)

50 0 100
1"=100'

AECOM

AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS
PROJECT NO. 60288803.4212

DATE: 08/08/13 DRWN: JG

PHASE 2 PERFORMANCE WELLS ANALYTICAL TRENDS (MAY 2011 – JUNE 2013)

FIGURE 2

Tables

Table 1

Phase 1 and Phase 2 SVE System Data

May 2012 - June 2013

UTC Aerospace Systems

Plants 1/2 Facility

Rockford, Illinois

	Phase 1 System						Phase 2 System					
	Cell #1		Cell #2		Cell #3		Cell #4		Cell #5		All Cells	
Date	Total Concentration, ppbv		Total Concentration, ppbv		Total Concentration, ppbv		Total Concentration, ppbv		Total Concentration, ppbv		Average Total Concentration, ppbv	
5/16/2012	177		60		360		4814		951		1272	
Pulse -off period June 1, 2012 to August 14, 2012												
8/14/2012	544	+	595	-	1296	+	5861	-	1479	+	1955	+
9/17/2012	574		275		5448		4496		2351		2629	
Pulse -off period September 17, 2012 to November 15, 2012												
11/15/2012	470	-	662	-	867	+	5523	-	1354	+	1775	-
12/14/2012	361		659		1299		629		1409		871	
Pulse -off period December 14, 2012 to February 26, 2013												
2/26/2013	267	-	2	+	734	-	734	-	82	+	364	+
4/11/2013	198		171		237		614		2306		705	
Pulse -off period April 11, 2013 to May 10, 2013												
5/10/2013	179		315		248		469		1642		571	

Notes:

Total chemicals of conern concentration.

Compounds with non-detection at the specified reporting limit were not included in this anaylsis.

ppbv Concentration in parts per billion vapor.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

+	Net increase of total contaminant concentration during pulse ON mode.
-	Net decrease of total contaminant concentration during pulse ON mode.

Table 2
Second Quarter 2012 to Second Quarter 2013 VOC Analytical Results - Phase 1 Monitoring Wells
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

Well	Sample ID	Sample Date	Sample Type	Trichloroethene (TCE)	Methylene Chloride (Dichloromethane)	1,1-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Tetrachloroethene (PCE)	Toluene	Vinyl chloride
		Preliminary Remediation Goals (PRG)[A]		0.005[c,A]	0.005[c,A]	0.007[b,c,A]	0.7[A]	0.005[c,A]	0.07[c,A]	0.1[c,A]	0.2[b,c,A]	0.005[c,A]	0.7[c,A]	0.005[c,A]	1.0[c,A]	0.002[c,A]
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
GMZ02	HS SER-GMZ02-052212	22-May-12		0.00020 NJ	0.0010 U	0.0010 U	**0.0023**	0.0010 U	0.00022 NJ	0.0010 U	**0.0012**	0.0010 U	0.0010 U	0.00057 NJ	0.0010 U	0.0010 U
	HS SER-GMZ02-080612	6-Aug-12		0.0010 UJ	0.0010 UJ	0.0010 UJ	0.0016 J	0.0010 UJ	0.0010 UJ	0.0010 UJ	0.00070 NJ	0.0010 UJ	0.0010 UJ	0.00053 NJ	0.0010 UJ	0.0010 UJ
	HS SER-GMZ02-111312	13-Nov-12		0.0010 U	0.0010 U	0.00027 NJ	**0.0048**	0.0010 U	0.00065 NJ	0.0010 U	**0.0037**	0.0010 U	0.0010 U	0.00033 NJ	0.0010 U	0.0010 U
	HS SER-GMZ02-021213	12-Feb-13		0.0010 U	0.0010 U	0.00025 J	**0.030**	0.0010 U	0.00076 J	0.0010 U	**0.0067**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ02-050813	8-May-13		0.00039 J	0.0010 U	0.0010 U	**0.0021**	0.0010 U	0.00039 J	0.0010 U	**0.0067**	0.0010 U	0.0010 U	0.00035 J	0.0010 U	0.0010 U
GMZ03	HS SER-GMZ03-052112	21-May-12		0.0010 U	0.0010 U	0.0010 U	0.00029 NJ	0.0010 U	0.00019 NJ	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-080612	6-Aug-12		0.0010 U *	0.0010 U	0.0010 U	0.00095 NJ	0.0010 U	0.00067 NJ	0.0010 U	0.00054 NJ	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-111212	12-Nov-12		0.0010 U	0.0010 U	0.0010 U	**0.015**	0.0010 U	0.00084 NJ	0.0010 U	**0.0018**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-021213	12-Feb-13		0.0010 U	0.0010 U	0.0010 U	**0.0035**	0.0010 U	0.00064 J	0.0010 U	**0.0010**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-050813	8-May-13		0.0010 U	0.0010 U	0.0010 U	0.00072 J	0.0010 U	0.00042 J	0.0010 U	**0.001**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-DUP01-050813	8-May-13	Field Duplicate	0.0010 U	0.0010 U	0.0010 U	0.00071 J	0.0010 U	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
GMZ04	HS SER-GMZ04-052112	21-May-12		0.00020 NJ	0.0010 U	0.0010 U	0.00069 NJ	0.0010 U	**0.0019**	0.0010 U	**0.0011**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ04-080612	6-Aug-12		**0.0097 NJ[A]**	***0.010 U***	**0.011[A]**	**0.019**	***0.010 U***	**0.078[A]**	0.010 U	**0.34 J[A]**	***0.010 U***	0.010 U	***0.010 U***	0.010 U	***0.010 U***
	HS SER-GMZ04-111212	12-Nov-12		**0.0044**	***2.0 U JB***	**0.0024**	**0.0017**	0.0014 U	**0.017**	0.0014 U	**0.053**	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U
	HS SER-GMZ04-021313	13-Feb-13		**0.0016**	0.0010 U	0.00076 J	**0.0015**	0.0010 U	**0.0037**	0.0010 U	**0.034**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ04-050813	8-May-13		0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00073 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
SMW20	HS SER-SMW20-052112	21-May-12		0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW20-080612	6-Aug-12		0.0010 U *	0.0010 U	0.0010 U	0.00059 NJ	0.0010 U	0.00099 NJ	0.0010 U	0.00049 NJ	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW20-111212	12-Nov-12		0.0010 U	0.0010 U	0.0010 U	0.00056 NJ	0.0010 U	**0.0012**	0.0010 U	0.00060 NJ	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW20-021213	12-Feb-13		0.0010 U	0.0010 U	0.0010 U	0.00062 J	0.0010 U	**0.0011**	0.0010 U	**0.0012**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW20-050813	8-May-13		0.0010 U	0.0010 U	0.0010 U	0.00032 J	0.0010 U	0.0010 U	0.0010 U	0.00084 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
SMW21	HS SER-SMW21-052212	22-May-12		0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0039**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW21-080712	7-Aug-12		0.00059 NJ	0.0010 U	0.00057 NJ	0.00050 NJ	0.0010 U	**0.0024**	0.0010 U	**0.018**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW21-111212	12-Nov-12		0.00074 NJ	0.0010 U	**0.0012**	0.00032 NJ	0.0010 U	0.00055 NJ	0.0010 U	**0.020**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW21-021213	12-Feb-13		**0.0019**	0.0010 U	0.00057 J	0.0010 U	0.0010 U	0.00035 J	0.0010 U	**0.020**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW21-050813	8-May-13		**0.0024**	0.0010 U	0.0010 U	0.00043 J	0.0010 U	0.0010 U	0.0010 U	**0.020**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U

Notes:

PRG	Preliminary Remediation Goals (PRGs) from ROD
A	Class 1 - Groundwater Remediation Objectives
6.5[A]	Concentration exceeds the indicated standard.
15.2	Concentration was detected but did not exceed applicable standards.
0.50 U	Laboratory estimated quantitation limit exceeded standard.
0.03 U	The analyte was not detected above the laboratory estimated quantitation limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
b,c	Oral Reference Dose and/or Reference Concentration under review by USEPA. Listed values subject to change. Value listed is also the Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.
c	Value listed is also the Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.
*	LCS or LCSD exceeds the control limits
B	The analyte was detected in the method, field and/or trip blank.
H	Sample was prepped or analyzed beyond the specified holding time
J	Indicates estimated value.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 3
Second Quarter 2012 to Second Quarter 2013 VOC Analytical Results - Phase 2 Monitoring Wells
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

Well	Sample ID	Sample Date	Sample Type	Trichloroethene (TCE)	Methylene Chloride (Dichloromethane)	1,1-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Tetrachloroethene (PCE)	Toluene	Vinyl chloride
			Preliminary Remediation Goals (PRG)[A]	0.005$_{c}$[A]	0.005$_{c}$[A]	0.007$_{b,c}$[A]	0.7[A]	0.005$_{c}$[A]	0.07$_{c}$[A]	0.1$_{c}$[A]	0.2$_{b,c}$[A]	0.005$_{c}$[A]	0.7$_{c}$[A]	0.005$_{c}$[A]	1.0$_{c}$[A]	0.002$_{c}$[A]
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RAMW03	HS SER-RAMW03-052212	22-May-12		0.00024 NJ	0.0010 U	0.0010 U	0.00084 NJ	0.0010 U	0.0010 U	0.0010 U	**0.0014**	0.0010 U	0.0010 U	0.00073 NJ	0.0010 U	0.0010 U
	HS SER-RAMW03-080712	7-Aug-12		0.00077 NJ	0.0010 U	0.0010 U	**0.0013**	0.0010 U	**0.034**	0.0010 U	**0.0027**	0.0010 U	0.0010 U	**0.0022**	0.0010 U	0.0010 U
	HS SER-RAMW03-111312	13-Nov-12		***0.010 U***	0.0050 NJB	***0.010 U***	0.010 U	***0.010 U***	**0.33**[A]	0.010 U	0.0035 NJ	***0.010 U***	0.010 U	***0.010 U***	0.010 U	***0.010 U***
	HS SER-RAMW03-021313	13-Feb-13		0.00071 J	0.0010 U	0.0010 U	**0.0011**	0.0010 U	**0.0029**	0.0010 U	**0.0032**	0.0010 U	0.0010 U	0.00047 J	0.0010 U	0.0010 U
	HS SER-RAMW03-050713	7-May-13		0.00049 J	0.0010 U	0.0010 U	0.00084 J	0.0010 U	**0.0014**	0.0010 U	**0.0017**	0.0010 U	0.0010 U	**0.001**	0.0010 U	0.0010 U
	HS SER-DUP02-050713	7-May-13	Field Duplicate	0.00062 J	0.0010 U	0.0010 U	0.00078 J	0.0010 U	**0.0012**	0.0010 U	**0.0017**	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U
RAMW04	HS SER-RAMW04-052212	22-May-12		0.00036 NJ	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.00027 NJ	0.0010 U	**0.003**	0.0010 U	0.0010 U	0.00059 NJ	0.0010 U	0.0010 U
	HS SER-RAMW04-080812	8-Aug-12		0.0010 U	0.0010 U	0.0010 U	0.00087 NJ	0.0010 U	0.0010 U	0.0010 U	**0.0015**	0.0010 U	0.0010 U	0.00052 NJ	0.0010 U	0.0010 U
	HS SER-RAMW04-111312	13-Nov-12		0.00017 NJ	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U	0.00053 NJ	0.0010 U	0.0010 U
	HS SER-RAMW04-050813	8-May-13		0.0010 U	0.0010 U	0.0010 U	0.00034 J	0.0010 U	0.0010 U	0.0010 U	0.00064 J	0.0010 U	0.0010 U	0.00055 J	0.0010 U	0.0010 U
RAMW05	HS SER-RAMW05-052412	24-May-12		**0.019**[A]	***0.014 U***	0.0067 NJ	0.0031 NJ	***0.014 U***	0.0040 NJ	0.014 U	**0.41**[A]	***0.014 U***	0.014 U	***0.014 U***	0.014 U	***0.014 U***
	HS SER-RAMW05-080912	9-Aug-12		**0.0066 NJ**[A]	***0.010 U***	0.0062 NJ	0.010 U	***0.010 U***	0.010 U	0.010 U	**0.17**	***0.010 U***	0.010 U	***0.010 U***	0.010 U	***0.010 U***
	HS SER-DUP06-080912	9-Aug-12	Field Duplicate	**0.0067 NJ**[A]	***0.010 U***	0.0047 NJ	0.010 U	***0.010 U***	0.010 U	0.010 U	**0.17**	***0.010 U***	0.010 U	***0.010 U***	0.010 U	***0.010 U***
	HS SER-RAMW05-111412	14-Nov-12		**0.015**[A]	**0.0051 NJB**[A]	**0.016**[A]	0.0091 U	***0.0091 U***	0.0091 U	0.0091 U	**0.23**[A]	***0.0091 U***	0.0091 U	***0.0091 U***	0.0091 U	***0.0091 U***
	HS SER-RAMW05-021313	13-Feb-13		**0.0077**[A]	0.0033 U	0.0030 J	0.0012 J	0.0033 U	0.00081 J	0.0033 U	**0.079**	0.0033 U	0.0033 U	0.0033 U	0.0033 U	***0.0033 U***
	HS SER-RAMW05-050713	7-May-13		**0.008**[A]	0.0029 U	**0.023**[A]	0.0026 J	0.0029 U	0.0028 J	0.0029 U	**0.17**	0.0029 U	0.0029 U	0.0029 U	0.0029 U	***0.0029 U***
RAMW06	HS SER-RAMW06-052312	23-May-12		**0.012**[A]	***0.0080 U***	0.0037 NJ	0.0024 NJ	***0.0080 U***	**0.012**	0.0080 U	**0.24**[A]	***0.0080 U***	0.0080 U	***0.0080 U***	0.0080 U	***0.0080 U***
	HS SER-RAMW06-080912	9-Aug-12		**0.0062 NJ**[A]	***0.0067 U***	0.0035 NJ	0.0032 NJ	***0.0067 U***	0.0022 NJ	0.0067 U	**0.12**	***0.0067 U***	0.0067 U	0.0024 NJ	0.0067 U	***0.0067 U***
	HS SER-RAMW06-111412	13-Nov-12		**0.036**[A]	**0.0097 NJB**[A]	**0.028**[A]	0.0063 NJ	***0.018 U***	0.013 NJ	0.018 U	**0.54**[A]	***0.018 U***	0.018 U	***0.018 U***	0.018 U	***0.018 U***
	HS SER-RAMW06-021413	14-Feb-13		**0.015**[A]	***0.0080 U***	**0.0090**[A]	0.0026 J	***0.0080 U***	**0.0097**	0.008	**0.22**[A]	***0.0080 U***	0.0080 U	***0.0080 U***	0.0080 U	***0.0080 U***
	HS SER-RAMW06-050713	7-May-13		**0.010**[A]	0.00096 JB	**0.021**[A]	**0.0031**	0.0025 U	**0.02**	0.0025 U	**0.15**	0.0025 U	0.0025 U	0.0025 U	0.0025 U	***0.0025 U***
RAMW07	HS SER-RAMW07-052312	23-May-12		0.00018 NJ	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0092**	0.0010 U	0.0010 U	**0.0012**	0.0010 U	0.0010 U
	HS SER-RAMW07-080712	7-Aug-12		**0.16**[A]	***0.10 U***	**0.076 NJ**[A]	0.10 U	***0.10 U***	0.037 NJ	0.10 U	**2.0**[A]	***0.10 U***	0.10 U	***0.10 U***	0.10 U	***0.10 U***
	HS SER-RAMW07-111412	14-Nov-12		**0.32**[A]	**0.18 NJB**[A]	**0.40 J**[A]	0.25 U	***0.25 U***	**0.36**[A]	***0.25 U***	**6.3**[A]	***0.25 U***	0.25 U	***0.25 U***	0.25 U	***0.25 U***
	HS SER-DUP08-111412	15-Nov-12	Field Duplicate	**0.31**[A]	**0.16 JB**[A]	**0.59 J**[A]	0.25 U	***0.25 U***	**0.34**[A]	***0.25 U***	**5.9 J**[A]	***0.25 U***	0.25 U	***0.25 U J***	0.25 U	***0.25 U***
	HS SER-RAMW07-021413	14-Feb-13		**0.11**[A]	***0.033 U***	**0.040**[A]	0.033 U	***0.033 U***	**0.036**	0.033 U	**0.79**[A]	***0.033 U***	0.033 U	***0.033 U***	0.033 U	***0.033 U***
	HS SER-RAMW07-050713	7-May-13		**0.082**[A]	**0.0083 JB**	**0.16**[A]	**0.022**	***0.020 U***	**0.041**	0.020 U	**1.0**[A]	***0.020 U***	0.020 U	**0.0082 J**[A]	0.020 U	***0.020 U***

See next page for notes.

Table 3
Second Quarter 2012 to Second Quarter 2013 VOC Analytical Results - Phase 2 Monitoring Wells
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

Well	Sample ID	Sample Date	Sample Type	Trichloroethene (TCE)	Methylene Chloride (Dichloromethane)	1,1-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Tetrachloroethene (PCE)	Toluene	Vinyl chloride
			Preliminary Remediation Goals (PRG)[A]	0.005[c,A]	0.005[c,A]	0.007[b,c,A]	0.7[A]	0.005[c,A]	0.07[c,A]	0.1[c,A]	0.2[b,c,A]	0.005[c,A]	0.7[c,A]	0.005[c,A]	1.0[c,A]	0.002[c,A]
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RAMW08	HS SER-RAMW08-052412	24-May-12		0.0021 NJ	0.0025 U	0.00075 NJ	0.0025 U	0.0025 U	0.0025 U	0.0025 U	**0.084**	0.0025 U	0.0025 U	**0.014[A]**	0.0025 U	***0.0025 U***
	HS SER-DUP04-052412	24-May-12	Field Duplicate	0.0018 NJ	0.0025 U	0.00067 NJ	0.0025 U	0.0025 U	0.0025 U	0.0025 U	**0.08**	0.0025 U	0.00047 NJ	**0.014[A]**	0.0025 U	***0.0025 U***
	HS SER-RAMW08-080912	9-Aug-12		**0.0026**	0.0020 U	0.0020 U	**0.0046**	0.0020 U	0.0020 U	0.0020 U	**0.042**	0.0020 U	**0.0082**	**0.0091[A]**	0.00027 NJ	0.0020 U
	HS SER-RAMW08-111412	14-Nov-12		0.0025 NJ	**0.0066 NJB[A]**	***0.0083 U***	0.0070 NJ	**0.0083 U**	0.0083 U	0.0083 U	**0.044**	***0.0083 U***	0.0034 NJ	**0.011[A]**	0.0083 U	***0.0083 U***
	HS SER-RAMW08-021313	13-Feb-13		0.0017 J	0.0050 U	0.0015 J	**0.0088**	0.0050 U	**0.0078**	0.0050 U	**0.03**	0.0050 U	0.0019 J	0.0020 J	0.0050 U	***0.0050 U***
	HS SER-DUP02-021413	14-Feb-13	Field Duplicate	0.0018 J	0.0050 U	0.0014 J	**0.0085**	0.0050 U	**0.0081**	0.0050 U	**0.03**	0.0050 U	0.0018 J	0.0024 J	0.0050 U	***0.0050 U***
	HS SER-RAMW08-050713	7-May-13		**0.0012**	0.0010 U	**0.0090[A]**	**0.0048**	0.0010 U	**0.0065**	0.0010 U	**0.03**	0.0010 U	**0.001**	**0.0051[A]**	0.0010 U	0.0010 U

Notes:

PRG	Preliminary Remediation Goals (PRGs) from ROD
A	Class 1 - Groundwater Remediation Objectives
6.5[A]	Concentration exceeds the indicated standard at specified well; however, compliance with the standard is only applicable to GMZ wells.
15.2	Concentration was detected but did not exceed applicable standards.
0.50 U	Laboratory estimated quantitation limit exceeded standard.
0.03 U	The analyte was not detected above the laboratory estimated quantitation limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
b,c	Oral Reference Dose and/or Reference Concentration under review by USEPA. Listed values subject to change. Value listed is also the Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.
c	Value listed is also the Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.
B	The analyte was detected in the method, field and/or trip blank.
J	Indicates estimated value.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.