AECOM

Prepared for:
UTC Aerospace Systems
Rockford, IL

Prepared by:
AECOM
Warrenville, IL
60312350
September 2014

Second Quarter 2014 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

US EPA RECORDS CENTER REGION 5
521536

AECOM

AECOM
27755 Diehl Road, Suite 100
Warrenville, Illinois, 60555

630 836-1700 tel
630 836-1711 fax

Letter of Transmittal

Attention	Mr Timothy Drexler (USEPA) Mr Doyle Wilson (IEPA)	Date	September 9, 2014
	UTC Aerospace Systems Plants 1/2 Facility Area 9/10 Remedial Action Southeast Rockford Groundwater Contamination Superfund Site 2421 11th Street Rockford, Illinois 61104		
Project reference	ILD981000417	Project number	60312350

We are sending you the following:

Number of originals	Number of copies	Description
1	1	Second Quarter 2014 GMZ Monitoring and System Performance Report

Enclosed please find the Second Quarter 2014 GMZ Monitoring and System Performance Report for UTC Aerospace Systems Plants 1/2 Facility, Area 9/10 Remedial Action, Southeast Rockford Groundwater Contamination Superfund Site, Rockford, Illinois

Thank You

Peter Hollatz, P E.

cc Mr Scott Moyer, United Technologies Corporation (cd only)
Ms Diane Bellantoni, UTC Aerospace Systems (cd only)
Mr Jon Alberg, AECOM
Project File

AECOM

Prepared for:
UTC Aerospace Systems
Rockford, IL

Prepared by:
AECOM
Warrenville, IL
60312350
September 2014

Second Quarter 2014 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

AECOM
27755 Diehl Road, Suite 100
Warrenville, IL 60555

630 836 1700 tel
630 836 1711 fax

September 9, 2014

Mr Timothy Drexler
Remedial Project Manager
United States Environmental Protection Agency
Region 5
Superfund Division
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Mr Doyle W. Wilson
National Priorities List Unit
Federal Sites Remediation Section
Division of Remediation Management
Bureau of Land
Illinois Environmental Protection Agency
1021 N Grand Avenue East
P O. Box 19276
Springfield, Illinois 62794-9276

Subject: Second Quarter 2014 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. 60312350

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 2014

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 (-)
SMW04	TCE (-), cis-1,2-DCE (+), PCE (-), VC (-)
SMW08	PCE (+)
SMW19	TCE (-)
PMW01	PCE (+)
PMW02	PCE (-)

Trichloroethene (TCE), cis-1,2-Dichloroethene (cis-1,2-DCE), Tetrachloroethene (PCE), Vinyl Chloride (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 2014 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, 2014 to August 31, 2014

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

Prepared by

Peter Hollatz, P E
Project Manager
peter hollatz@aecom com
(630) 839-5386

Reviewed by

Jon Alberg
Program Manager / Engineer
jon alberg@aecom com
(651) 367-2321

cc Mr Scott R Moyer, P.G – United Technologies Corporation
Ms Diane Bellantoni – United Technologies Corporation
Mr William Elwell – AECOM
Project File

Attachments

Tables

Table 1	Third Quarter 2013 to Second Quarter 2014 Cumulative Groundwater Elevations
Table 2	Third Quarter 2013 to Second Quarter 2014 VOC Analytical Results - GMZ Wells
Table 3	Third Quarter 2013 to Second Quarter 2014 Cumulative VOC Analytical Results - Performance Wells
Table 4 1	Cell 1 Phase 1 SVE System Data, December 2009 – June 2014
Table 4 2	Cell 2 Phase 1 SVE System Data, December 2009 – June 2014
Table 4 3	Cell 3 Phase 1 SVE System Data, December 2009 – June 2014
Table 4 4	Cell 4 Phase 2 SVE System Data, March 2011 – June 2014
Table 4 5	Cell 5 Phase 2 SVE System Data, March 2011 – June 2014
Table 4 6	VOC Mass Removal Phase 1 and Phase 2 AS/SVE Systems, December 2009 – June 2014

Figures

Figure 1	Facility Location Map
Figure 2	GMZ/ Performance Well Network
Figure 3	Second Quarter 2014 Potentiometric Surface Map
Figure 4	Second Quarter 2014 Rolling 12 Month GMZ Well VOC Analytical Results Exceeding the PRG
Figure 5	Quarterly GMZ VOC Analytical Results Trends
Figure 6	Quarterly Performance Monitoring Well VOC Analytical Results Trends
Figure 7	Average VOC Mass Removal Rate vs. Time Phase 1 AS/SVE System
Figure 8	Average VOC Mass Removal Rate vs. Time Phase 2 AS/SVE System
Figure 9	Cumulative Mass Removal Phase 1/Phase 2 AS/SVE System

Appendices

Appendix A	Second Quarter 2014 GMZ and Performance Monitoring Well Analytical Data
Appendix B	Second Quarter 2014 Effluent Air Laboratory Analytical Reports
Appendix C	Second Quarter 2014 Phase 1/Phase 2 AS/SVE System Operations Data Sheets
Appendix D	Second Quarter 2014 Groundwater Sampling Data Sheets
Appendix E	Third Quarter 2014 Progress Report

TABLES

TABLES

Tables

Table 1
Third Quarter 2013 to Second Quarter 2014 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 Elevaion (ft AMSL)	Depth to Groundwater (ft BTOC)	Groundwater Elevaion (ft AMSL)
		8/5/2013		12/2/2013		2/24/2014		5/5/2014	
MW07FGA	727 49	27 45	700 04	28 39	699 10	29 15	698 34	28 96	698 53
MW203	728 58	28 22	700 36	29 10	699 48	29 91	698 67	29 75	698 83
SMW01	729 71	30 11	699 60	31 20	698 51	31 91	697 80	31 69	698 02
SMW02	726 77	26 71	700 06	27 66	699 11	28 43	698 34	28 26	698 51
SMW04	728 51	29 19	699 32	30 42	698 09	31 13	697 38	30 90	697 61
SMW08	728 81	29 48	699 33	30 61	698 20	31 34	697 47	31 06	697 75
SMW19	728 49	28 33	700 16	29 32	699 17	30 11	698 38	29 97	698 52
SMW20	727 69	28 30	699 39	29 51	698 18	30 27	697 42	29 96	697 73
SMW21	727 25	27 81	699 44	28 93	698 32	29 70	697 55	29 49	697 76
GMZ01	731 41	32 04	699 37	33 17	698 24	33 90	697 51	33 64	697 77
GMZ02	728 76	29 60	699 16	30 70	698 06	31 48	697 28	31 18	697 58
GMZ03	728 22	29 00	699 22	30 12	698 10	30 87	697 35	30 20	698 02
GMZ04	726 84	27 29	699 55	28 38	698 46	29 13	697 71	28 91	697 93
BGW01	728 19	28 18	700 01	29 11	699 08	29 92	698 27	29 74	698 45
BGW02	728 81	28 61	700 20	29 59	699 22	30 05	698 76	30 16	698 65
BGW03	728 96	28 66	700 30	29 62	699 34	30 42	698 54	30 29	698 67
RAMW01	728 91	29 61	699 30	30 74	698 17	31 49	697 42	31 24	697 67
RAMW02	728 90	29 50	699 40	30 61	698 29	31 35	697 55	31 09	697 81
RAMW03	728 71	29 32	699 39	30 41	698 30	31 15	697 56	30 92	697 79
RAMW04	728 80	29 19	699 61	30 23	698 57	30 94	697 86	30 77	698 03
RAMW05	727 65	28 08	699 57	29 15	698 50	29 88	697 77	29 66	697 99
RAMW06	727 64	28 09	699 55	29 17	698 47	29 91	697 73	29 68	697 96
RAMW07	732 20	32 57	699 63	33 61	698 59	34 35	697 85	34 18	698 02
RAMW08	728 45	28 74	699 71	29 74	698 71	30 50	697 95	30 31	698 14
PMW01	728 88	29 65	699 23	30 89	697 99	31 60	697 28	31 32	697 56
PMW02	728 88	29 61	699 27	30 84	698 04	31 55	697 33	31 29	697 59

Notes
NM = Not monitored
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
RAMW04 riser was lowered due to ice damage that occurred during the previous winter Well was resurveyed on July 1, 2013

Table 2
Third Quarter 2013 to Second Quarter 2014 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-GMZ01-080613	6-Aug-13		**0.0063[A]**	0.0020 U	0.0016 J	**0.0120**	0.0020 U	**0.0059**	0.0020 U	**0.0240**	0.0020 U	0.0020 U	**0.0330[A]**	0.0020 U	0.0020 U
	HS SER-GMZ01-120213	2-Dec-13		**0.0022**	0.0010 U	0.00044 J	**0.0064**	0.0010 U	**0.0022**	0.0010 U	**0.0083**	0.0010 U	0.0010 U	**0.0230[A]**	0.0010 U	0.0010 U
	HS SER-GMZ01-022514	25-Feb-14		**0.0052[A]**	0.0017 U	0.0013 J	**0.0051**	0.0017 U	**0.0024**	0.0017 U	**0.0160**	0.0017 U	0.0017 U	**0.0360[A]**	0.0017 U	0.0017 U
	HS SER-GMZ01-050614	6-May-14		**0.0022**	0.002 U	0.0010 U	**0.0034**	0.0010 U	**0.00078**	0.0010 U	**0.0062**	0.0010 U	0.0005 U	**0.0254[A]**	0.0010 U	0.0010 U
GMZ02	HS SER-GMZ02-080813	8-Aug-13		0.00028 J	0.0010 U	0.00021 J	**0.0011**	0.0010 U	0.0010 U	0.0010 U	**0.0026**	0.0010 U	0.0010 U	0.00057 J	0.0010 U	0.0010 U
	HS SER-GMZ02-120413	4-Dec-13		0.00056 J	0.0010 U	0.0010 U	**0.0014**	0.0010 U	0.0010 U	0.0010 U	**0.0042**	0.0010 U	0.0010 U	0.00075 J	0.0010 U	0.0010 U
	HS SER-GMZ02-022614	26-Feb-14		0.00025 J	0.0010 U	0.00074 J	**0.0036**	0.0010 U	0.00096 J	0.0010 U	**0.0094**	0.0010 U	0.0010 U	0.00063 J	0.0010 U	0.0010 U
	HS SER-GMZ02-050714	7-May-14		0.0010 J	0.002 U	0.0010 U	**0.0020**	0.0010 U	0.00034 J	0.0010 U	**0.0027**	0.0010 U	0.0005 U	0.00061 J	0.0010 U	0.0010 U
GMZ03	HS SER-GMZ02-080713	7-Aug-13		0.0010 U	0.0010 U	0.0010 U	**0.0014**	0.0010 U	0.00048 J	0.0010 U	0.00043 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-DUP01-080713	7-Aug-13	Field Duplicate	0.0010 U	0.0010 U	0.0010 U	**0.0013**	0.0010 U	0.00043 J	0.0010 U	0.00037 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-120413	4-Dec-13		0.0010 U	0.0010 U	0.0010 U	0.00038 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
	HS SER-DUP01-120413	4-Dec-13	Field Duplicate	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00076 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-022614	26-Feb-14		0.0010 U	0.0010 U	0.0010 U	0.00051 J	0.0010 U	0.00062 J	0.0010 U	**0.0011**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-DUP01-022614	26-Feb-14	Field Duplicate	0.0010 U	0.00034 JB	0.0010 U	0.00056 J	0.0010 U	0.00058 J	0.0010 U	**0.0010**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-050714	7-May-14		0.0010 U	0.0020 U	0.0010 U	**0.0013**	0.0010 U	0.00057 J	0.0010 U	**0.0010**	0.0010 U	0.0005 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-DUP01-050714	7-May-14	Field Duplicate	0.0010 U	0.0020 U	0.0010 U	**0.0012**	0.0010 U	0.00062 J	0.0010 U	**0.0010**	0.0010 U	0.0005 U	0.0010 U	0.0010 U	0.0010 U
GMZ04	HS SER-GMZ04-080713	7-Aug-13		0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00086 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ04-120413	4-Dec-13		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-GMZ04-022614	26-Feb-14		0.0010 U	0.00052 J	0.0010 U	0.00028 J	0.0010 U	**0.0013**	0.0010 U	**0.0025**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ04-050714	7-May-14		0.0010 U	0.0020 U	0.00048 J	**0.0016**	0.0010 U	**0.0098**	0.0010 U	**0.0176**	0.0010 U	0.0005 U	0.0010 U	0.0010 U	0.0010 U
MW07FGA	HS SER-MW07FGA-080613	6-Aug-13		0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00046 J	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U
	HS SER-MW07FGA-120313	3-Dec-13		0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U	0.00083 J	0.0010 U	0.0010 U
	HS SER-MW07FGA-022514	25-Feb-14		0.0010 U	0.00050 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0016**	0.0010 U	0.0010 U	0.00098 J	0.0010 U	0.0010 U
	HS SER-MW07FGA-050614	6-May-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00043 J	0.0010 U	0.0005 U	**0.0011**	0.0010 U	0.0010 U
MW203	HS SER-MW203-080613	6-Aug-13		0.00027 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	**0.0130[A]**	0.0010 U	0.0010 U
	HS SER-MW203-120313	3-Dec-13		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	**0.0064[A]**	0.0010 U	0.0010 U
	HS SER-MW203-022514	25-Feb-14		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	**0.0060[A]**	0.0010 U	0.0010 U
	HS SER-MW203-050614	6-May-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0005 U	**0.0047**	0.0010 U	0.0010 U
SMW01	HS SER-SMW01-080613	6-Aug-13		0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0020**	0.0010 U	0.0010 U	**0.0023**	0.0010 U	0.0010 U
	HS SER-SMW01-120313	3-Dec-13		0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00087 J	0.0010 U	0.0010 U	**0.0012**	0.0010 U	0.0010 U
	HS SER-SMW01-022514	25-Feb-14		0.0010 U	0.00057 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0010**	0.0010 U	0.0010 U	**0.0020**	0.0010 U	0.0010 U
	HS SER-SMW01-050614	6-May-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0015**	0.0010 U	0.0005 U	**0.0020**	0.0010 U	0.0010 U
SMW02	HS SER-SMW02-080613	6-Aug-13		0.0010 U	0.0010 U	0.0010 U	0.00024 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00032 J	0.0010 U	0.0010 U
	HS SER-SMW02-120313	3-Dec-13		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	0.00069 J	0.0010 U	0.0010 U
	HS SER-SMW02-022514	25-Feb-14		0.0010 U	0.00041 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00026 J	0.0010 U	0.0010 U	0.00065 J	0.0010 U	0.0010 U
	HS SER-SMW02-050614	6-May-14		0.0010 U	0.0020 U	0.0010 U	0.00066 J	0.0010 U	0.00042 J	0.0010 U	0.0010 U	0.0010 U	0.0005 U	0.0004 J	0.0010 U	0.0010 U
SMW04	HS SER-SMW04-080713	7-Aug-13		**0.0035**	0.0010 U	0.0006 J	**0.0065**	0.0010 U	**0.0130**	0.0010 U	**0.0037**	0.0010 U	0.0010 U	**0.0110[A]**	0.0010 U	**0.0068[A]**
	HS SER-SMW04-120513	5-Dec-13		**0.0042**	0.0010 U	0.00093 J	**0.0095**	0.0010 U	**0.0440**	0.00033 J	**0.0012**	0.0010 U	0.0010 U	**0.0260[A]**	0.0010 U	**0.0051[A]**
	HS SER-SMW04-022814	28-Feb-14		**0.007[A]**	0.00040 JB	**0.0017**	**0.0075**	0.0010 U	**0.0290**	0.00045 J	0.00080 J	0.0010 U	0.0010 U	**0.0160[A]**	0.0010 U	**0.019[A]**
	HS SER-SMW04-050614	6-May-14		**0.0051[A]**	0.0020 U	**0.0013**	**0.0103**	0.0010 U	**0.0828[A]**	0.00066 J	**0.0016**	0.0010 U	0.0005 U	**0.0115[A]**	0.0010 U	**0.0151[A]**

See next page for notes.

Table 2
Third Quarter 2013 to Second Quarter 2014 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-SMW08-080613	6-Aug-13		**0.0044**	0.0020 U	0.0010 J	**0.0070**	0.0020 U	**0.0085**	0.0020 U	**0.0180**	0.0020 U	0.0020 U	**0.0420[A]**	0.0020 U	0.0020 U
	HS SER-SMW08-120213	2-Dec-13		**0.0054 J[A]**	***0.0067 U***	0.0067 U	**0.0180**	***0.0067 U***	**0.3[A]**	0.0067 U	**0.0140**	***0.0067 U***	0.0067 U	**0.0690[A]**	0.0067 U	***0.0067 U***
	HS SER-SMW08-022514	25-Feb-14		0.0014 J	0.0020 U	0.0020 U	**0.0075**	0.0020 U	**0.0020**	0.00046 J	**0.0047**	0.0020 U	0.0020 U	**0.0450[A]**	0.0020 U	0.0020 U
	HS SER-SMW08-050614	6-May-14		**0.0025**	0.0020 U	0.0010 U	**0.0120**	0.0010 U	**0.0528**	0.0007 J	**0.0106**	0.0010 U	0.0005 U	**0.0670[A]**	0.0010 U	0.0010 U
SMW19	HS SER-SMW19-080713	7-Aug-13		**0.0013**	0.0010 U	0.00024 J	0.00084 J	0.0010 U	**0.0010**	0.0010 U	0.00077 J	0.0010 U	0.0010 U	0.00076 J	0.0010 U	0.0010 U
	HS SER-SMW19-120513	5-Dec-13		**0.017[A]**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0010**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00075 J	0.0010 U	0.0010 U
	HS SER-SMW19-022814	28-Feb-14		**0.023[A]**	0.0010 U	0.0010 U	0.00035 J	0.0010 U	**0.0020**	0.00032 J	0.00049 J	0.0010 U	0.0010 U	**0.0010**	0.0010 U	0.0010 U
	HS SER-SMW19-050714	7-May-14		**0.0154[A]**	0.0020 U	0.00038 J	**0.0017**	0.0010 U	**0.0011**	0.0010 U	**0.00036**	0.0010 U	0.0005 U	**0.0010**	0.0010 U	0.0010 U
SMW20	HS SER-SMW20-080713	7-Aug-13		0.0010 U	0.0010 U	0.0010 U	0.0002 J	0.0010 U	0.00029 J	0.0010 U	0.00028 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW20-120413	4-Dec-13		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-SMW20-022614	26-Feb-14		0.0010 U	0.0010 U	0.0010 U	0.00019 J	0.0010 U	0.00041 J	0.0010 U	0.00054 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW20-050714	7-May-14		0.0010 U	0.0020 U	0.0010 U	0.00035 J	0.0010 U	0.00059 J	0.0010 U	**0.0005**	0.0010 U	0.0005 U	0.0010 U	0.0010 U	0.0010 U
SMW21	HS SER-SMW21-080713	7-Aug-13		0.00041 J	0.0010 U	0.00026 J	0.0010 U	0.0010 U	0.00055 J	0.0010 U	**0.0041**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER SMW21-120413	4-Dec-13		0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0031**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW21-022614	26-Feb-14		**0.0026**	0.0010 U	**0.0022**	0.00076 J	0.0010 U	**0.0051**	0.0010 U	**0.0360**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW21-050714	7-May-14		0.0010 U	0.0020 U	0.0010 U	**0.0017**	0.0010 U	0.00080 J	0.0010 U	**0.0061**	0.0010 U	0.0005 U	0.0010 U	0.0010 U	0.0010 U
PMW01	HS SER-PMW01-080713	7-Aug-13		**0.0014**	0.0010 U	0.00053 J	**0.0170**	0.0010 U	**0.0012**	0.00019 J	**0.0090**	0.0003 J	0.0010 U	**0.0260[A]**	0.0010 U	0.0010 U
	HS SER-PMW01-120413	4-Dec-13		0.00090 J	0.0010 U	0.0010 U	**0.0130**	0.0010 U	0.00099 J	0.0010 U	**0.0066**	0.0010 U	0.0010 U	**0.021[A]**	0.0010 U	0.0010 U
	HS SER-PMW01-022814	28-Feb-14		**0.0016**	0.00038 JB	0.00023 J	**0.0130**	0.0010 U	**0.0011**	0.0010 U	**0.0150**	0.0010 U	0.0010 U	**0.017[A]**	0.0010 U	0.0010 U
	HS SER-PMW01-050714	7-May-14		**0.0016**	0.0020 U	**0.0026**	**0.0118**	0.0010 U	**0.0027**	0.0010 U	**0.0503**	0.0010 U	0.0005 U	**0.0233[A]**	0.0010 U	0.0010 U
PMW02	HS SER-PMW02-080713	7-Aug-13		**0.0020**	0.0010 U	0.0008 J	**0.0110**	0.0010 U	0.00071 J	0.0010 U	**0.0150**	0.0010 U	0.0010 U	**0.0200[A]**	0.0010 U	0.0010 U
	HSSER-PMW02-120513	5-Dec-13		**0.0028**	0.0010 U	0.00024 J	**0.0082**	0.0010 U	**0.0018**	0.0010 U	**0.0180**	0.0010 U	0.0010 U	**0.028[A]**	0.0010 U	0.0010 U
	HS SER-PMW02-022814	28-Feb-14		**0.0034**	0.0010 U	0.0010 U	**0.0062**	0.0010 U	**0.0014**	0.0010 U	**0.0120**	0.0010 U	0.0010 U	**0.035[A]**	0.0010 U	0.0010 U
	HS SER-PMW02-050714	7-May-14		**0.0023**	0.0020 U	0.0010 U	**0.0086**	0.0010 U	**0.0035**	0.0010 U	**0.0059**	0.0010 U	0.0005 U	**0.0199[A]**	0.0010 U	0.00091 J

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 2013 to Second Quarter 2014 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-RAMW01-080713	7-Aug-13		**0.0017**	0.0010 U	0.0010 U	**0.0190**	0.0010 U	**0.0024**	0.0010 U	**0.0075**	0.00048 J	0.0010 U	**0.0120**[A]	0.0010 U	0.0010 U
	HS SER-RAMW01-120413	4-Dec-13		**0.0013**	0.0010 U	0.0010 U	**0.0160**	0.0010 U	**0.0021**	0.0010 U	**0.0085**	0.0010 U	0.0010 U	**0.014**[A]	0.0010 U	0.0010 U
	HS SER-RAMW01-022814	28-Feb-14		**0.0016**	0.00044 JB	0.0010 U	**0.0084**	0.0010 U	**0.0011**	0.0010 U	**0.0071**	0.0010 U	0.0010 U	**0.016**[A]	0.0010 U	0.0010 U
	HS SER-RAMW01-050714	7-May-14		**0.0014**	0.0020 U	0.0010 U	**0.0037**	0.0010 U	**0.0012**	0.0010 U	**0.0046**	0.00031 J	0.0005 U	**0.0108**[A]	0.0010 U	0.0010 U
RAMW02	HS SER-RAMW02-080613	6-Aug-13		0.00091 J	0.0010 U	0.0010 U	**0.0200**	0.0010 U	0.00094 J	0.0010 U	**0.0049**	0.0010 U	0.0010 U	**0.0028**	0.0010 U	0.0010 U
	HS SER-RAMW02-120313	3-Dec-13		**0.0016**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00064 J	0.0010 U	**0.0057**	0.0010 U	0.0010 U	**0.0054**[A]	0.0010 U	0.0010 U
	HS SER-RAMW02-022814	28-Feb-14		**0.0012**	0.00053 JB	0.0010 U	**0.0025**	0.0010 U	0.00041 J	0.0010 U	**0.0036**	0.0010 U	0.0010 U	**0.0050**	0.0010 U	0.0010 U
	HS SER-RAMW02-050614	6-May-14		0.00097 J	0.0020 U	0.0010 U	**0.0047**	0.0010 U	0.00073 J	0.0010 U	**0.0046**	0.0010 U	0.0005 U	**0.0045**	0.0010 U	0.0010 U
RAMW03	HS SER-RAMW03-080613	6-Aug-13		0.00026 J	0.0010 U	0.0010 U	0.00042 J	0.0010 U	**0.0011**	0.0010 U	0.00074 J	0.0010 U	0.0010 U	0.00029 J	0.0010 U	0.0010 U
	HS SER-DUP02-080613	6-Aug-13	Field Duplicate	0.0002 J	0.0010 U	0.0010 U	0.0004 J	0.0010 U	**0.0010**	0.0010 U	0.00074 J	0.0010 U	0.0010 U	0.00035 J	0.0010 U	0.0010 U
	HS SER-RAMW03-120313	3-Dec-13		0.00028 J	0.0010 U	0.0010 U	0.00058 J	0.0010 U	0.0010 U	0.0010 U	0.00081 J	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U
	HS SER-DUP02-120313	3-Dec-13	Field Duplicate	0.00031 J	0.0010 U	0.0010 U	0.00060 J	0.0010 U	0.0010 U	0.0010 U	0.00075 J	0.0010 U	0.0010 U	**0.0012**	0.0010 U	0.0010 U
	HS SER-RAMW03-022814	28-Feb-14		0.00037 J	0.00039 JB	0.0010 U	0.00058 J	0.0010 U	0.00037 J	0.0010 U	0.00066 J	0.0010 U	0.0010 U	0.00098 J	0.0010 U	0.0010 U
	HS SER-DUP02-022814	28-Feb-14	Field Duplicate	0.00033 J	0.00061 JB	0.0010 U	0.00060 J	0.0010 U	0.00035 J	0.0010 U	0.00065 J	0.0010 U	0.0010 U	0.00090 J	0.0010 U	0.0010 U
	HS SER-RAMW03-050614	6-May-14		0.0010 U	0.0020 U	0.0010 U	0.00082 J	0.0010 U	0.00082 J	0.0010 U	0.00091 J	0.0010 U	0.0005 U	0.0006 J	0.0010 U	0.0010 U
	HS SER-DUP02-050614	6-May-14	Field Duplicate	0.0010 U	0.0020 U	0.0010 U	0.00082 J	0.0010 U	0.00075 J	0.0010 U	0.00078 J	0.0010 U	0.0005 U	0.00055 J	0.0010 U	0.0010 U
RAMW04	HS SER-RAMW04-080613	6-Aug-13		0.0010 U	0.0010 U	0.0010 U	0.0005 J	0.0010 U	0.0010 U	0.0010 U	**0.0012**	0.0010 U	0.0010 U	0.00055 J	0.0010 U	0.0010 U
	HS SER-RAMW04-120313	3-Dec-13		0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00062 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW04-022814	28-Feb-14		0.00026 J	0.0010 U	0.0010 U	**0.0010**	0.0010 U	0.0010 U	0.0010 U	**0.0034**	0.0010 U	0.0010 U	0.00071 J	0.0010 U	0.0010 U
	HS SER-RAMW04-050614	6-May-14		0.0010 U	0.002 U	0.0010 U	0.00051 J	0.0010 U	0.0010 U	0.0010 U	0.00067 J	0.0010 U	0.0005 U	0.00054 J	0.0010 U	0.0010 U
RAMW05	HS SER-RAMW05-080613	6-Aug-13		0.00093 J	0.0010 U	0.0010 U	0.00037 J	0.0010 U	0.00048 J	0.0010 U	**0.0077**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW05-120313	3-Dec-13		**0.0012**	0.0010 U	0.00029 J	0.00053 J	0.0010 U	**0.0028**	0.0010 U	**0.0210**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW05-022814	28-Feb-14		**0.014**[A]	0.0010 U	0.0026 J	0.0038 J	0.0010 U	**0.0200**	0.0010 U	**0.37**[A]	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW05-050614	6-May-14		**0.0057**[A]	0.0020 U	0.00081 J	0.00094 J	0.0010 U	**0.0032**	0.0010 U	**0.0800**	0.0010 U	0.0005 U	0.00029 J	0.0010 U	0.0010 U
RAMW06	HS SER-RAMW06-080613	6-Aug-13		0.0021 J	0.0050 U	0.0011 J	0.0031 J	0.0050 U	0.0044 J	0.0050 U	**0.0660**	0.0050 U	0.0050 U	0.0050 U	0.0050 U	***0.0050 U***
	HS SER-RAMW06-120313	3-Dec-13		**0.012 J**[A]	***0.017 U***	**0.013 J**[A]	0.0099 J	***0.017 U***	**0.0380**	0.017 U	**0.84 J**[A]	***0.017 U***	0.017 U	***0.017 U***	0.017 U	***0.017 U***
	HS SER-RAMW06-022814	28-Feb-14		0.00036 J	0.00062 JB	0.0010 U	0.0010 U	0.0010 U	**0.0052**	0.0010 U	**0.0120**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW06-050614	6-May-14		**0.0024**	0.0020 U	**0.0049**	**0.0026**	0.0010 U	**0.0037**	0.0010 U	**0.259**[A]	0.0010 U	0.0005 U	0.00026 J	0.0010 U	0.0010 U
RAMW07	HS SER-RAMW07-080613	6-Aug-13		**0.0210 J**[A]	***0.040 U***	***0.040 U***	0.040 U	***0.040 U***	0.040 U	0.040 U	**0.3800**[A]	***0.040 U***	0.040 U	***0.040 U***	0.040 U	***0.040 U***
	HS SER-RAMW07-120313	3-Dec-13		**0.0050**	0.0025 U	0.00076 J	0.0015 J	0.0025 U	**0.0074**	0.0025 U	**0.11**	0.0025 U	0.0025 U	**0.0026**	0.0025 U	***0.0025 U***
	HS SER-RAMW07-022814	28-Feb-14		0.0043 J	***0.0071 U***	0.0028 J	0.0042 J	***0.0071 U***	0.0042 J	0.0071 U	**0.2800**[A]	***0.0071 U***	0.0071 U	0.0043 J	0.0071 U	***0.0071 U***
	HS SER-RAMW07-050614	6-May-14		**0.0027**	0.0020 U	**0.0074**	**0.0329**	0.0010 U	**0.0109**	0.0010 U	**0.2480**[A]	0.0010 U	0.0005 U	**0.0084**[A]	0.0010 U	0.0010 U

See next page for notes.

Table 3
Third Quarter 2013 to Second Quarter 2014 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-RAMW08-080613	6-Aug-13		0.0007 J	0.0010 U	0.00022 J	**0.0039**	0.0010 U	**0.0012**	0.0010 U	**0.0150**	0.0010 U	0.00017 J	**0.0017**	0.0010 U	0.0010 U
	HS SER-RAMW08-120313	3-Dec-13		0.0010 U	0.0010 U	0.0010 U	**0.0025**	0.0010 U	0.0010 U	0.0010 U	**0.0091**	0.0010 U	0.0010 U	**0.0013**	0.0010 U	0.0010 U
	HS SER-RAMW08-022814	28-Feb-14		0.00023 J	0.00042 JB	0.0010 U	**0.0032**	0.0010 U	0.0010 U	0.0010 U	**0.0025**	0.0010 U	0.0010 U	0.00073 J	0.0010 U	0.0010 U
	HS SER-RAMW08-050614	6-May-14		0.0010 U	0.0020 U	0.0010 U	**0.0021**	0.0010 U	**0.0015**	0.0010 U	**0.0013**	0.0010 U	0.0005 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 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.

Groundwater monitoring wells located within the influence of active treatment systems yield groundwater sample data that is potentially biased by the treatment activities. This potential bias should be considered during evaluation of this data.

Table 4.1
Cell 1 - Phase 1 SVE System Data
December 2009 - June 2014
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	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 8	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	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																				
2/26/2013		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
4/11/2013		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																				
5/10/2013		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
7/15/2013		25160	8039	160	190	6 29E-04	1 2 U	0 00E+00	79	1 94E-04	1 2 U	0 00E+00	4 7	1 56E-05	11	2 65E-05	1 2 U	0 00E+00	190	7 82E-04
Pulse -off period July 15, 2013 to September 9, 2013																				
9/9/2013		25162	8040	160	180	5 96E-04	1 3 U	0 00E+00	67	1 64E-04	1 3 U	0 00E+00	1 6	3 85E-06	9 3	2 24E-05	1 3 U	0 00E+00	270	1 11E-03
11/18/2013		26825	8372	160	120	3 97E-04	1 1 U	0 00E+00	35	8 59E-05	1 1 U	0 00E+00	3 2	7 70E-06	7 3	1 76E-05	1 1 U	0 00E+00	81	3 33E-04
Pulse -off period November 18, 2013 to January 15 2014																				
1/15/2014		28218	8651	160	100	3 31E-04	1 1 U	0 00E+00	30	7 36E-05	1 1 U	0 00E+00	1 3	3 13E-06	4 7	1 13E-05	1 1 U	0 00E+00	69	2 84E-04
3/14/2014		29432	8894	160	78	2 58E-04	1 1 U	0 00E+00	34	8 35E-05	1 1 U	0 00E+00	3 8	9 14E-06	6 1	1 47E-05	1 1 U	0 00E+00	30	1 23E-04
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		29914	8990	160	95	3 14E-04	1 2 U	0 00E+00	32	7 86E-05	1 2 U	0 00E+00	1 9	4 57E-06	6	1 44E-05	1 2 U	0 00E+00	55	2 26E-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 - June 2014
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	9.18E-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	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	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	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	1.3 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	1.1 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	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
12/14/2012		22554	7518	170	13	4.50E-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	2.1	4.32E-06	7	1.70E-05
Pulse -off period December 14 2012 to February 26 2013																				
2/26/2013		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
4/11/2013		23581	7723	160	8.2	2.67E-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	1.2 U	0.00E+00	1.4	3.20E-06
Pulse -off period April 11 2013 to May 10, 2013																				
5/10/2013		23583	7724	160	6.1	1.99E-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	1.1 U	0.00E+00	1.7	3.89E-06
7/15/2013		25160	8039	160	23	7.50E-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	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period July 15, 2013 to September 9, 2013																				
9/9/2013		25162	8040	160	21	6.84E-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	5.1 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
11/18/2013		26825	8372	160	12	3.91E-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	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period November 18 2013 to January 15 2014																				
1/15/2014		28218	8851	160	9.1	2.97E-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	1.1 U	0.00E+00	1.1 U	0.00E+00
3/14/2014		29432	8894	160	7	2.28E-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	4.4 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period March 14 2014 to May 15, 2014																				
5/15/2014		29914	8990	160	6.8	2.22E-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

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 - June 2014
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	2408	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	38 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 98
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																
2/26/2013		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
4/11/2013		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																
5/10/2013		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
7/15/2013		25160	8039	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	1 72E-03	48 86
Pulse -off period July 15, 2013 to September 9 2013																
9/9/2013		25162	8040	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 1 U	0 00E+00	1 97E-03	48 86
11/18/2013		26825	8372	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	8 81E-04	49 15
Pulse -off period November 18, 2013 to January 15, 2014																
1/15/2014		28218	8651	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	7 32E-04	49 36
3/14/2014		29432	8894	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 4 U	0 00E+00	5 12E-04	49 48
Pulse -off period March 14, 2014 to May 15, 2014																
5/15/2014		29914	8990	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 8 U	0 00E+00	6 60E-04	49 54

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 - June 2014
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		538	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 08E-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	3 08E-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	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	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	8 58E-05
9/17/2012		21952	7317	160	180	5 98E-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	1 02E-05	1 9 U	0 00E+00	5 3	2 32E-05
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/2013		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
4/11/2013		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																				
5/10/2013		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
7/15/2013		25160	8039	160	160	5 29E-04	1 1 U	0 00E+00	20	4 91E-05	1 1 U	0 00E+00	3 7	8 90E-06	3 7	8 90E-06	1 1 U	0 00E+00	21	8 64E-05
7/15/2013	Dup	25160	8039	160	160	5 29E-04	1 2 U	0 00E+00	20	4 91E-05	1 2 U	0 00E+00	3 2	7 70E-06	3 5	8 42E-06	1 2 U	0 00E+00	17	6 99E-05
Pulse -off period July 15 2013 to September 9 2013																				
9/9/2013		25162	8040	160	380	1 26E-03	2 0 U	0 00E+00	110	2 70E-04	2 0 U	0 00E+00	3 4	8 18E-06	7	1 68E-05	2 0 U	0 00E+00	49	2 02E-04
11/18/2013		26825	8372	160	44	1 46E-04	1 1 U	0 00E+00	11	2 70E-05	1 1 U	0 00E+00	1 3	3 13E-06	2 3	5 53E-06	1 1 U	0 00E+00	14	5 76E-05
Pulse -off period November 18, 2013 to January 15, 2014																				
1/15/2014		28218	8851	160	160	5 29E-04	1 2 U	0 00E+00	55	1 35E-04	1 2 U	0 00E+00	3 3	7 94E-06	2 9	6 97E-06	1 2 U	0 00E+00	7 2	2 96E-05
3/14/2014		29432	8894	160	16	5 29E-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	1 9	4 57E-06	1 2 U	0 00E+00	1 2 U	0 00E+00
3/14/2014	Dup	29432	8894	160	19	6 29E-05	1 2 U	0 00E+00	1 6	3 93E-06	1 2 U	0 00E+00	1 2 U	0 00E+00	1 8	4 33E-06	1 2 U	0 00E+00	1 7	6 99E-06
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		29914	8990	160	240	7 94E-04	1 1 U	0 00E+00	99	2 43E-04	1 1 U	0 00E+00	4 8	1 15E-05	7 8	1 88E-05	1 1 U	0 00E+00	14	5 76E-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
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 - June 2014
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	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	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																				
2/26/2013		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
4/11/2013		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 Aprd 11, 2013 to May 10, 2013																				
5/10/2013		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
7/15/2013		25160	8039	160	24	7 82E-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 6 U	0 00E+00	1 1 U	0 00E+00	1 1 U	0 00E+00
7/15/2013	Dup	25160	8039	160	24	7 82E-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 July 15, 2013 to September 9, 2013																				
9/9/2013		25162	8040	160	31	1 01E-04	2 0 U	0 00E+00	20 U	0 00E+00	2 0 U	0 00E+00	2 0 U	0 00E+00	8 0 U	0 00E+00	2 0 U	0 00E+00	2 0 U	0 00E+00
11/18/2013		26825	8372	160	8 4	2 74E-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 6 U	0 00E+00	1 1 U	0 00E+00	1 1 U	0 00E+00
Pulse -off period November 18, 2013 to January 15, 2014																				
1/15/2014		28218	8651	160	7 2	2 35E-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	4 9	1 12E-05
3/14/2014		29432	8894	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	4 9 U	0 00E+00	1 2 U	0 00E+00	1 2 U	0 00E+00
3/14/2014	Dup	29432	8894	160	1 5	4 89E-06	1 2 U	0 00E+00	12 U	0 00E+00	1 2 U	0 00E+00	1 2 U	0 00E+00	5 0 U	0 00E+00	1 2 U	0 00E+00	1 2 U	0 00E+00
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		29914	8990	160	6 6	2 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	18	2 56E-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
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 - June 2014
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	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		20746	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	118 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																
2/26/2013		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
4/11/2013		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																
5/10/2013		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
7/15/2013		25160	8039	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 6 U	0 00E+00	7 61E-04	117 21
7/15/2013	Dup	25160	8039	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 43E-04	-
Pulse -off period July 15 2013 to September 9 2013																
9/9/2013		25162	8040	160	2 0 U	0 00E+00	2 0 U	0 00E+00	2 0 U	0 00E+00	20 U	0 00E+00	8 0 U	0 00E+00	1 86E-03	117 21
11/18/2013		26825	8372	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 6 U	0 00E+00	2 66E-04	117 30
Pulse -off period November 18, 2013 to January 15 2014																
1/15/2014		28218	8651	160	1 2 U	0 00E+00	1 2 U	0 00E+00	1 2 U	0 00E+00	12 U	0 00E+00	12 U	0 00E+00	7 44E-04	117 51
3/14/2014		29432	8894	160	1 2 U	0 00E+00	1 2 U	0 00E+00	1 2 U	0 00E+00	12 U	0 00E+00	12 U	0 00E+00	5 75E-05	117 52
3/14/2014	Dup	29432	8894	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 0 U	0 00E+00	8 30E-05	-
Pulse -off period March 14, 2014 to May 15 2014																-
5/15/2014		29914	8990	160	1 1 U	0 00E+00	1 1 U	0 00E+00	1 1 U	0 00E+00	25	3 60E-05	11 U	0 00E+00	1 21E-03	117 64

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
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 - June 2014
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																				
2/26/2013		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
4/11/2013		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																				
5/10/2013		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
7/15/2013		25160	9082	160	64	2 12E-04	1 2 U	0 00E+00	3 6	8 84E-06	1 2 U	0 00E+00	1 2 U	0 00E+00	1 9	4 57E-06	1 2 U	0 00E+00	14	5 76E-05
Pulse -off period July 15, 2013 to September 9, 2013																				
9/9/2013		25162	9083	160	390	1 29E-03	1 7 U	0 00E+00	5 6	1 37E-05	1 7 U	0 00E+00	3	9 93E-06	2	4 81E-06	1 7 U	0 00E+00	21	8 64E-05
11/18/2013		26825	10081	160	350	1 16E-03	1 2 U	0 00E+00	8 2	2 01E-05	1 2 U	0 00E+00	6 6	2 18E-05	45	1 08E 04	1 2 U	0 00E+00	5 7	2 34E-05
Pulse -off period November 18 2013 to January 15, 2014																				
1/15/2014		28218	10916	160	240	7 94E-04	1 2 U	0 00E+00	5	1 23E-05	1 2 U	0 00E+00	4 1	1 36E-05	16	3 85E-05	1 2 U	0 00E+00	18	7 40E-05
3/14/2014		29432	11645	160	72	2 38E-04	1 2 U	0 00E+00	8 7	2 14E-05	1 2 U	0 00E+00	2 4	7 94E-06	6 4	1 54E-05	1 2 U	0 00E+00	9 5	3 91E-05
Pulse -off period March 14, 2014 to May 15 2014																				
5/15/2014		29914	11934	160	770	2 55E-03	2 3 U	0 00E+00	15	3 68E-05	2 3 U	0 00E+00	12	3 97E-05	86	2 07E-04	2 3 U	0 00E+00	6 9	2 84E-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 - June 2014
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 60E-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																				
2/26/2013		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
4/11/2013		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																				
5/10/2013		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
7/15/2013		25160	9082	160	10	3 26E-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 July 15, 2013 to September 9, 2013																				
9/9/2013		25162	9083	160	12	3 91E-05	1 7 U	0 00E+00	17 U	0 00E+00	1 7 U	0 00E+00	1 7 U	0 00E+00	6 8 U	0 00E+00	1 7 U	0 00E+00	1 7 U	0 00E+00
11/18/2013		26825	10081	160	14	4 56E-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 November 18, 2013 to January 15, 2014																				
1/15/2014		28218	10916	160	7 6	2 48E-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 2 U	0 00E+00
3/14/2014		29432	11645	160	8 1	2 64E-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 9 U	0 00E+00	1 2 U	0 00E+00	1 2 U	0 00E+00
Pulse -off period March 14 2014 to May 15, 2014																				
5/15/2014		29914	11934	160	20	6 52E-05	2 3 U	0 00E+00	23 U	0 00E+00	2 3 U	0 00E+00	2 3 U	0 00E+00	9 3 U	0 00E+00	2 3 U	0 00E+00	2 3 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 - June 2014
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	-
Pulse -off period December 14, 2012 to February 26 2013																
2/26/2013		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	133 94
4/11/2013		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	134 40
Pulse -off period April 11 2013 to May 10 2013																
5/10/2013		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	134 40
7/15/2013		25160	9082	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	3 15E-04	134 70
Pulse -off period July 15, 2013 to September 9, 2013																
9/9/2013		25162	9083	160	1 7 U	0 00E+00	1 7 U	0 00E+00	1 7 U	0 00E+00	17 U	0 00E+00	6 8 U	0 00E+00	1 44E-03	134 70
11/18/2013		26825	10081	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	1 38E-03	136 08
Pulse -off period November 18, 2013 to January 15, 2014																
1/15/2014		28218	10916	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	9 57E-04	136 88
3/14/2014		29432	11645	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 9 U	0 00E+00	3 48E-04	137 13
Pulse -off period March 14 2014 to May 15 2014																
5/15/2014		29914	11934	160	2 3 U	0 00E+00	2 3 U	0 00E+00	2 3 U	0 00E+00	23 U	0 00E+00	9 3 U	0 00E+00	2 92E-03	137 98

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 - June 2014
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																		
2/26/2013		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
4/11/2013		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																		
5/10/2013		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
7/15/2013		10907	10907	340	100	7 03E-04	1 1 U	0 00E+00	13	6 78E-05	1 1 U	0 00E+00	1 7	8 69E-06	14	7 15E-05	1 1 U	0 00E+00
Pulse -off period July 15, 2013 to September 9, 2013																		
9/9/2013		10914	10914	340	170	1 20E-03	1 2 U	0 00E+00	17	8 87E-05	1 2 U	0 00E+00	2 2	1 12E-05	27	1 38E-04	1 2	6 13E-06
11/18/2013		11992	11992	260	330	1 77E-03	1 1 U	0 00E+00	7 9	3 15E-05	1 1 U	0 00E+00	5 2	2 03E-05	14	5 47E-05	1 1 U	0 00E+00
Pulse -off period November 18, 2013 to March 14, 2014																		
1/15/2014		11997	11997	320	200	1 32E-03	1 2 U	0 00E+00	5 5	2 70E-05	1 2 U	0 00E+00	3 3	1 59E-05	9 6	4 62E-05	1 2 U	0 00E+00
3/14/2014		12980	12980	180	430	1 60E-03	2 6 U	0 00E+00	6 2	1 71E-05	2 6 U	0 00E+00	8 2	2 22E-05	18	4 87E-05	2 6 U	0 00E+00
Pulse -off period March 14, 2014 to May 15, 2014																		
5/15/2014		12986	12986	180	470	1 75E-03	1 1 U	0 00E+00	10	2 76E-05	1 1 U	0 00E+00	6 9	1 87E-05	22	5 95E-05	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 - June 2014
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 penod 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 penod 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 penod December 14, 2012 to February 26, 2013																				
2/26/2013		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
4/11/2013		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 penod Apnl 11, 2013 to May 10, 2013																				
5/10/2013		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
7/15/2013		10907	10907	340	180	1 57E-03	30	2 08E-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 6 U	0 00E+00	1 1 U	0 00E+00
Pulse -off penod July 15, 2013 to September 9, 2013																				
9/9/2013		10914	10914	340	350	3 06E-03	50	3 46E-04	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
11/18/2013		11992	11992	260	50	3 34E-04	13	6 89E-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 4 U	0 00E+00	1 1 U	0 00E+00
Pulse -off penod November 18, 2013 to March 14, 2014																				
1/15/2014		11997	11997	320	51	4 20E-04	11	7 17E-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	1 2 U	0 00E+00
3/14/2014		12980	12980	180	7 8	3 61E-05	14	5 13E-05	2 6 U	0 00E+00	26 U	0 00E+00	2 6 U	0 00E+00	2 6 U	0 00E+00	10 U	0 00E+00	2 6 U	0 00E+00
Pulse -off penod March 14, 2014 to May 15, 2014																				
5/15/2014		12986	12986	180	38	1 76E-04	17	6 23E-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 6 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 - June 2014
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																		
2/26/2013		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
4/11/2013		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																		
5/10/2013		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
7/15/2013		10907	10907	340	19	9 23E-05	1 2	6 72E-06	2 2	1 23E-05	1 1 U	0 00E+00	24	7 35E-05	4 9	1 86E-05	2 84E-03	1108 40
Pulse -off period July 15 2013 to September 9, 2013																		
9/9/2013		10914	10914	340	1 2 U	0 00E+00	1 2 U	0 00E+00	1 2 U	0 00E+00	1 2 U	0 00E+00	14	4 29E-05	4 6 U	0 00E+00	4 89E-03	1108 44
11/18/2013		11992	11992	260	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 4 U	0 00E+00	2 28E-03	1110 90
Pulse -off period November 18 2013 to March 14, 2014																		
1/15/2014		11997	11997	320	1 2 U	0 00E+00	1 2 U	0 00E+00	1 2 U	0 00E+00	1 2 U	0 00E+00	12 U	0 00E+00	4 8 U	0 00E+00	1 90E-03	1110 91
3/14/2014		12980	12980	180	2 6 U	0 00E+00	2 6 U	0 00E+00	2 6 U	0 00E+00	2 6 U	0 00E+00	26 U	0 00E+00	10 U	0 00E+00	1 78E-03	1112 65
Pulse -off period March 14, 2014 to May 15, 2014																		
5/15/2014		12986	12986	180	3 9	1 00E-05	1 1 U	0 00E+00	1 1 U	0 00E+00	1 1 U	0 00E+00	11 U	0 00E+00	4 6 U	0 00E+00	2 10E-03	1112 67

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 - June 2014
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 08E-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	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																				
2/26/2013		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
4/11/2013		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																				
5/10/2013		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
7/15/2013		10984	10984	360	1600	1 19E-02	12	8 93E-05	100	5 52E-04	4 7 U	0 00E+00	25	1 35E-04	38	2 06E-04	4 7 U	0 00E+00	310	2 87E-03
Pulse -off period July 15, 2013 to September 9, 2013																				
9/9/2013		10991	10991	380	810	6 37E-03	4 U	0 00E+00	30	1 75E-04	4 U	0 00E+00	6 3	3 60E-05	16	9 14E-05	4 U	0 00E+00	170	1 66E-03
11/18/2013		12069	12069	380	1600	1 26E-02	7 6 U	0 00E+00	87	5 07E-04	7 6 U	0 00E+00	23	1 31E-04	50	2 86E-04	7 6 U	0 00E+00	180	1 76E-03
Pulse -off period November 18, 2013 to January 15, 2014																				
1/15/2014		12074	12074	380	950	7 47E-03	3 5 U	0 00E+00	24	1 40E-04	3 5 U	0 00E+00	10	5 71E-05	23	1 31E-04	3 5 U	0 00E+00	82	8 01E-04
3/14/2014		13057	13057	380	1400	1 10E-02	7 8 U	0 00E+00	32	1 87E-04	7 8 U	0 00E+00	24	1 37E-04	88	5 03E-04	7 8 U	0 00E+00	30	2 93E-04
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		13063	13063	300	1000	6 20E-03	3 0 U	0 00E+00	20	9 21E-05	3 0 U	0 00E+00	14	6 31E-05	65	2 93E-04	3 0 U	0 00E+00	71	5 48E-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
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 - June 2014
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	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																				
2/26/2013		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
4/11/2013		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																				
5/10/2013		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
7/15/2013		10984	10984	360	100	7 33E-04	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
Pulse -off period July 15, 2013 to September 9, 2013																				
9/9/2013		10991	10991	380	62	4 80E-04	4 U	0 00E+00	40 U	0 00E+00	4 U	0 00E+00	4 U	0 00E+00	16 U	0 00E+00	4 U	0 00E+00	4 U	0 00E+00
11/18/2013		12069	12069	380	71	5 50E-04	7 6 U	0 00E+00	76 U	0 00E+00	7 6 U	0 00E+00	7 6 U	0 00E+00	31 U	0 00E+00	7 6 U	0 00E+00	7 6 U	0 00E+00
Pulse -off period November 18, 2013 to January 15, 2014																				
1/15/2014		12074	12074	380	37	2 86E-04	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
3/14/2014		13057	13057	380	41	3 17E-04	7 8 U	0 00E+00	78 U	0 00E+00	7 8 U	0 00E+00	7 8 U	0 00E+00	31 U	0 00E+00	7 8 U	0 00E+00	7 8 U	0 00E+00
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		13063	13063	300	33	2 02E-04	3 0 U	0 00E+00	30 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

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 - June 2014
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																
2/26/2013		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
4/11/2013		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																
5/10/2013		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
7/15/2013		10984	10984	360	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	1 65E-02	339 59
Pulse -off period July 15, 2013 to September 9, 2013																
9/9/2013		10991	10991	380	4 U	0 00E+00	4 U	0 00E+00	4 U	0 00E+00	40 U	0 00E+00	40 U	0 00E+00	8 81E-03	339 65
11/18/2013		12069	12069	380	7 6 U	0 00E+00	7 6 U	0 00E+00	7 6 U	0 00E+00	76 U	0 00E+00	31 U	0 00E+00	1 58E-02	356 69
Pulse -off period November 18, 2013 to January 15, 2014																
1/15/2014		12074	12074	380	3 5 U	0 00E+00	3 5 U	0 00E+00	3 5 U	0 00E+00	35 U	0 00E+00	14 U	0 00E+00	8 88E-03	356 73
3/14/2014		13057	13057	380	7 8 U	0 00E+00	7 8 U	0 00E+00	7 8 U	0 00E+00	78 U	0 00E+00	31 U	0 00E+00	1 24E-02	368 96
Pulse -off period March 14, 2014 to May 15, 2014																
5/15/2014		13063	13063	300	3 0 U	0 00E+00	3 0 U	0 00E+00	3 0 U	0 00E+00	30 U	0 00E+00	12 U	0 00E+00	7 40E-03	369 01

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

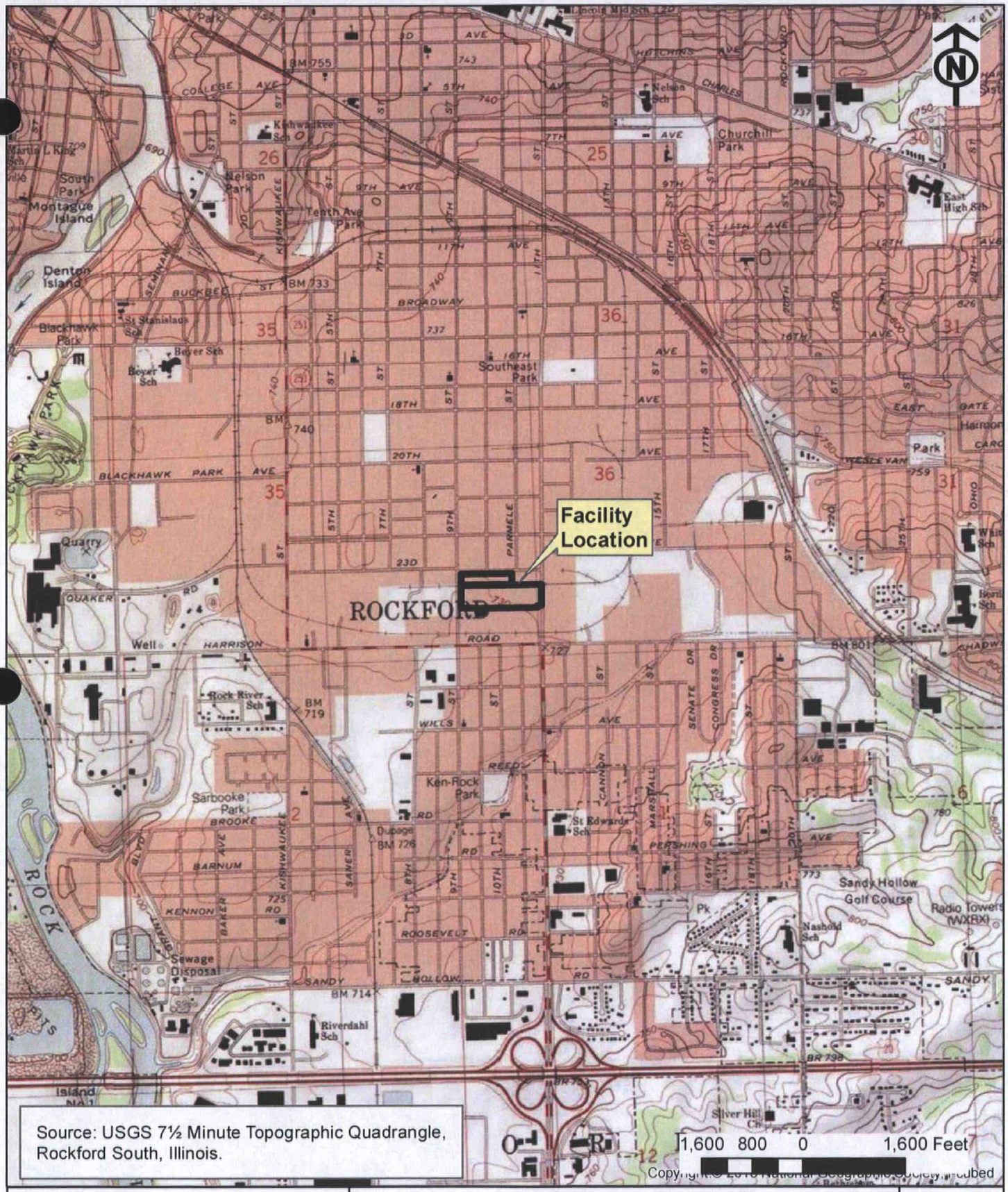
Table 4.6
VOC Mass Removal - Phase 1 and Phase 2 AS/SVE Systems
December 2009 - June 2014
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

Date	Cell 1			Cell 2			Cell 3			Cell 4			Cell 5			Total Cumulative Mass Removal (lb)
	Total 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)	
12/3/2009	0						SYSTEM STARTUP									0 00
12/10/2009	53	0 22	11 91													11 91
12/11/2009				59	0 25	15 05										26 97
12/14/2009							60	0 31	18 51							45 48
12/15/2009				68	0 16	16 48										46 91
12/16/2009							76	0 17	21 16							49 55
12/22/2009	124	0 05	15 23													52 86
12/29/2009				180	0 12	29 76										66 15
1/5/2010							236	0 13	41 78							86 77
1/13/2010				301	0 05	35 75										92 75
1/21/2010							361	0 05	48 37							99 35
1/27/2010				408	0 06	42 68										106 27
2/24/2010	631	0 01	20 06	631	0 04	51 44	631	0 04	58 76							130 26
3/15/2010	782	0 01	22 02	782	0 09	64 40	782	0 07	68 60							155 02
4/14/2010	935	0 02	25 22	935	0 04	70 89	935	0 11	84 81							180 92
5/13/2010	1165	0 01	27 75	1165	0 04	79 74	1165	0 03	91 21							198 69
6/21/2010	1477	0 01	30 20	1477	0 02	86 90	1477	0 02	96 92							214 02
7/21/2010	1686	0 01	32 52	1686	0 02	91 24	1686	0 02	101 05							224 81
8/23/2010	1928	0 00	32 52	1928	0 00	91 24	1928	0 00	101 05							224 81
9/23/2010	2174	0 01	34 49	2174	0 02	96 27	2174	0 02	106 49							237 25
10/22/2010	2406	0 01	35 86	2406	0 01	98 85	2406	0 01	109 27							243 98
11/15/2010	2598	0 01	36 96	2598	0 01	101 41	2598	0 01	112 05							250 42
12/22/2010	2777	0 01	38 22	2955	0 02	107 99	2777	0 02	115 44							261 65
1/24/2011	2975	0 01	39 47	3352	0 01	110 39	2975	0 01	117 20							267 06
2/25/2011	3167	0 01	40 53	3737	0 01	114 08	3167	0 00	118 15							272 76
3/11/2011										222	1 72	381 87	218	0 35	75 54	730 17
3/18/2011	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
3/25/2011										463	0 29	482 07	459	0 14	118 53	874 78
3/30/2011										558	0 32	512 25	553	0 08	126 48	912 92
4/8/2011										784	0 29	572 27	759	0 10	147 32	993 77
4/15/2011	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
5/19/2011	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
6/16/2011	3830	0 00	43 39	5082	0 00	115 55	3830	0 00	118 81	2191	0 11	753 86	2187	0 03	251 58	1283 20
7/15/2011	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
8/22/2011	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
9/15/2011	4968	0 00	45 93	4968	0 00	115 51	4968	0 00	121 91	3630	0 08	906 88	3628	0 01	287 36	1477 64
10/14/2011	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
11/21/2011	5503	0 00	46 43	5503	0 00	115 62	5503	0 00	123 00	5019	0 04	968 50	5015	0 01	298 43	1549 98
12/14/2011	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
1/19/2012	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
2/15/2012	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
3/15/2012	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
4/19/2012	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
5/16/2012	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																
8/14/2012	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
9/17/2012	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																
11/15/2012	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
12/14/2012	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
7/15/2013	8039	0 00	48 86	8039	0 00	117 21	9082	0 00	134 70	10907	0 00	1108 40	10984	0 02	339 59	1748 76
Pulse -off period July 15, 2013 to September 9, 2013																
9/9/2013	8040	0 00	48 86	8040	0 00	117 21	9083	0 00	134 70	10914	0 00	1108 44	10991	0 01	339 65	1748 86
11/18/2013	8372	0 00	49 15	8372	0 00	117 30	10081	0 00	136 08	11992	0 00	1110 90	12069	0 02	356 69	1770 12
Pulse -off period November 18, 2013 to January 15, 2014																
1/15/2014	8651	0 00	49 36	8651	0 00	117 51	10916	0 00	136 88	11997	0 00	1110 91	12074	0 01	356 73	1771 39
3/14/2014	8894	0 00	49 48	8894	0 00	117 52	11645	0 00	137 13	12980	0 00	1112 65	13057	0 01	368 96	1785 75
Pulse -off period March 14, 2014 to May 15, 2014																
5/15/2014	8990	0 00	49 54	8990	0 00	117 64	11934	0 00	137 98	12986	0 00	1112 67	13063	0 01	369 01	1786 83

FIGURES

FIGURES

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	04/21/14	60312350.4212	1 of 1

Path: U:\Cad_Drive_New\UTC\60288803 UTC Rockford SER 9-10\Q1 2014\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

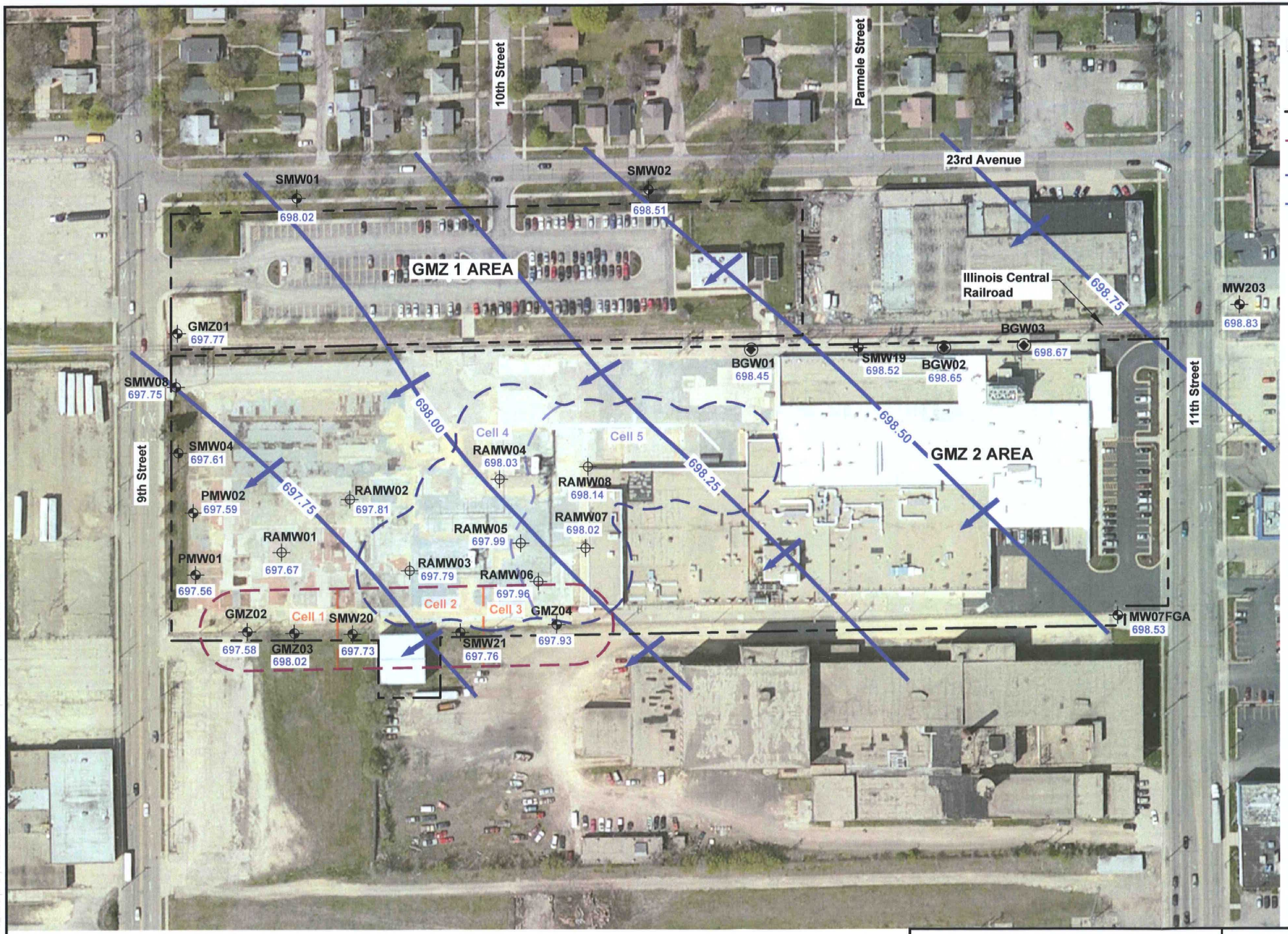
AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS

PROJECT NO. 60312350.4213

DATE: 07/22/14 | DRWN: JG

GMZ / PERFORMANCE WELL NETWORK

FIGURE 2



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
- Potentiometric Surface Contour
- 698.45 Groundwater Elevation (Feet)
- Groundwater Flow Direction

NOTES:

GMZ03 omitted from contouring due to anomalous reading recorded in the field.

N

60 0 120

1"=120'

AECOM

AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS

PROJECT NO. 60312350.4213

DATE: 06/10/14 | DRWN: JG

SECOND QUARTER 2014
POTENTIOMETRIC SURFACE MAP

FIGURE 3

GMZ01		
Date	TCE	PCE
6-Aug-13	0.0063	0.0330
2-Dec-13	<PRG	0.0230
25-Feb-14	0.0052	0.0360
6-May-14	<PRG	0.0254

SMW08			
Date	TCE	cis-1,2-DCE	PCE
6-Aug-13	<PRG	<PRG	0.0420
2-Dec-13	0.0054	0.3000	0.0690
25-Feb-14	<PRG	<PRG	0.0450
6-May-14	<PRG	<PRG	0.0670

SMW04				
Date	TCE	cis-1,2-DCE	PCE	Vinlyl Chloride
7-Aug-13	<PRG	<PRG	0.0110	0.0068
5-Dec-13	<PRG	<PRG	0.0260	0.0051
28-Feb-14	0.0070	<PRG	0.0160	0.0190
6-May-14	0.0051	0.0828	0.0115	0.0151

PMW02	
Date	PCE
7-Aug-13	0.0200
5-Dec-13	0.0280
28-Feb-14	0.0350
7-May-14	0.0199

PMW01	
Date	PCE
7-Aug-13	0.0260
4-Dec-13	0.0210
28-Feb-14	0.0170
7-May-14	0.0233

SMW19	
Date	TCE
7-Aug-13	<PRG
5-Dec-13	0.0170
28-Feb-14	0.0230
7-May-14	0.0154

MW203	
Date	PCE
6-Aug-13	0.0130
3-Dec-13	0.0064
25-Feb-14	0.0060
6-May-14	<PRG

LEGEND:

GMZ Monitoring Well

Site and GMZ Boundary

NOTES:

1. Values are listed only for those wells in which a Volatile Organic Compound (VOC) was identified above the Preliminary Remediation Goal (PRG) for the previous four events.

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.

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

Trichloroethene (TCE)
Methylene Chloride (Dichloromethane)
1,1-Dichloroethene
1,1-Dichloroethane
1,2-Dichloroethane
cis-1,2-Dichloroethene
trans-1,2-Dichloroethene
1,2-Dichloroethene (Total)
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Ethylbenzene
Tetrachloroethene (PCE)
Toluene
Vinyl chloride

Preliminary Remediation Goals (PRG) [A]
Results are in mg/L

N

65 0 130

1"=130'

AECOM

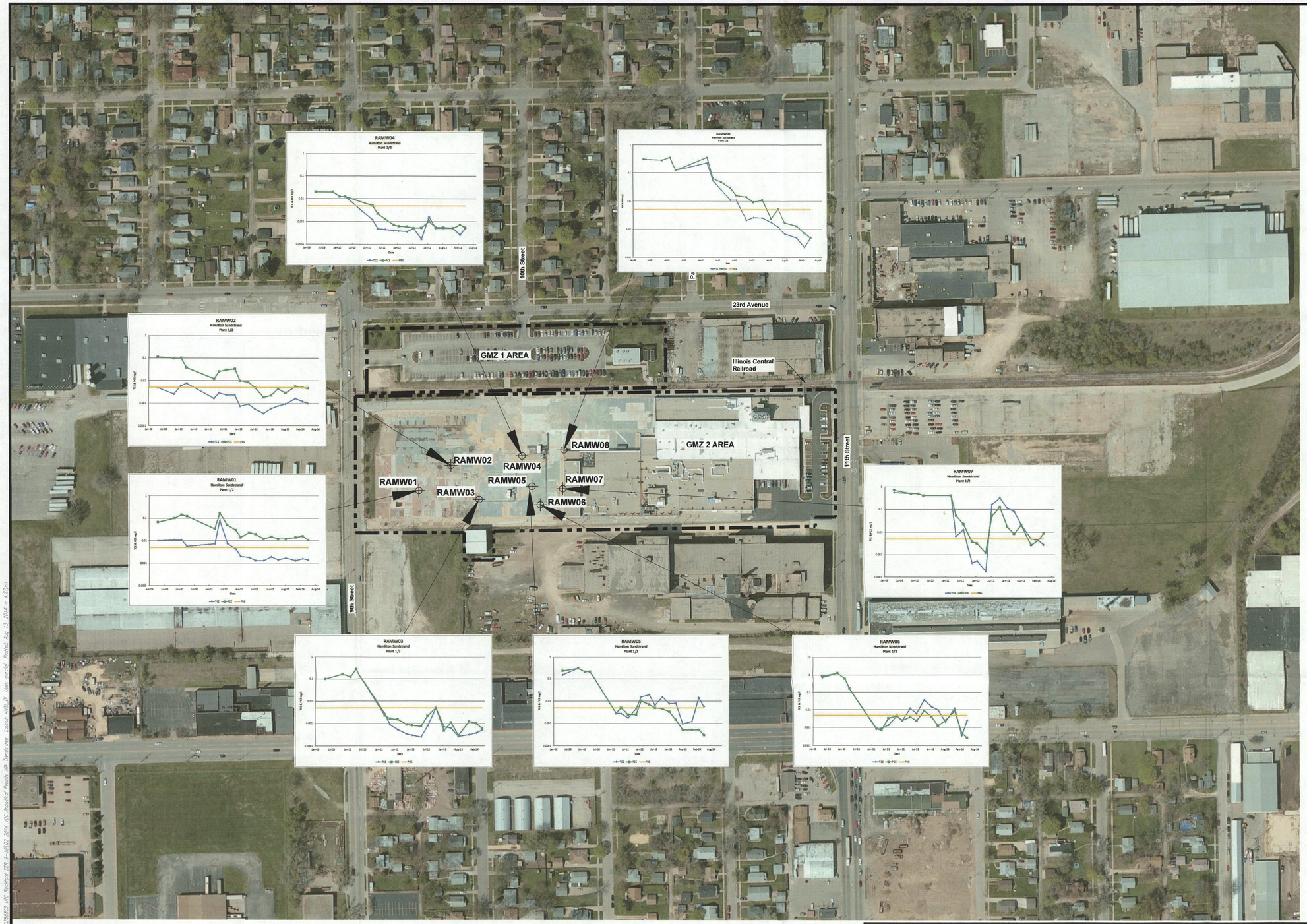
AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS

PROJECT NO. 60312350.4213

DATE: 07/22/14 DRWN: JG

VOC ANALYTICAL RESULTS EXCEEDING THE PRG SECOND QUARTER 2014

FIGURE 4



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.

2. Groundwater monitoring wells located within the influence of active treatment systems yield groundwater sample data that is potentially biased by the treatment activities. This potential bias should be considered during evaluation of this data.

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

N

62.5 0 125

1"=125'

AECOM

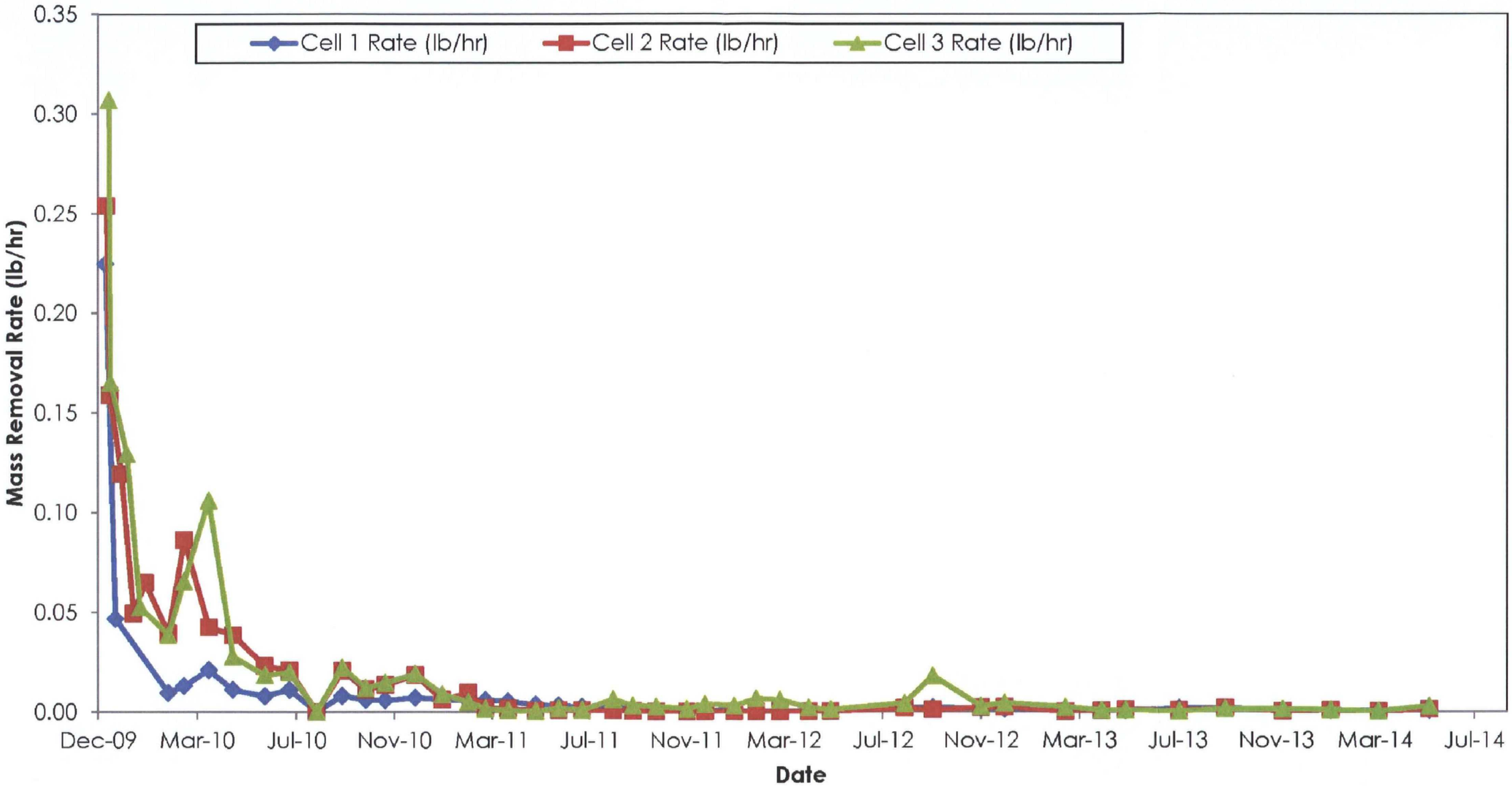
AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS

PROJECT NO. 60312350.4213

DATE: 07/22/14 | DRWN: JG

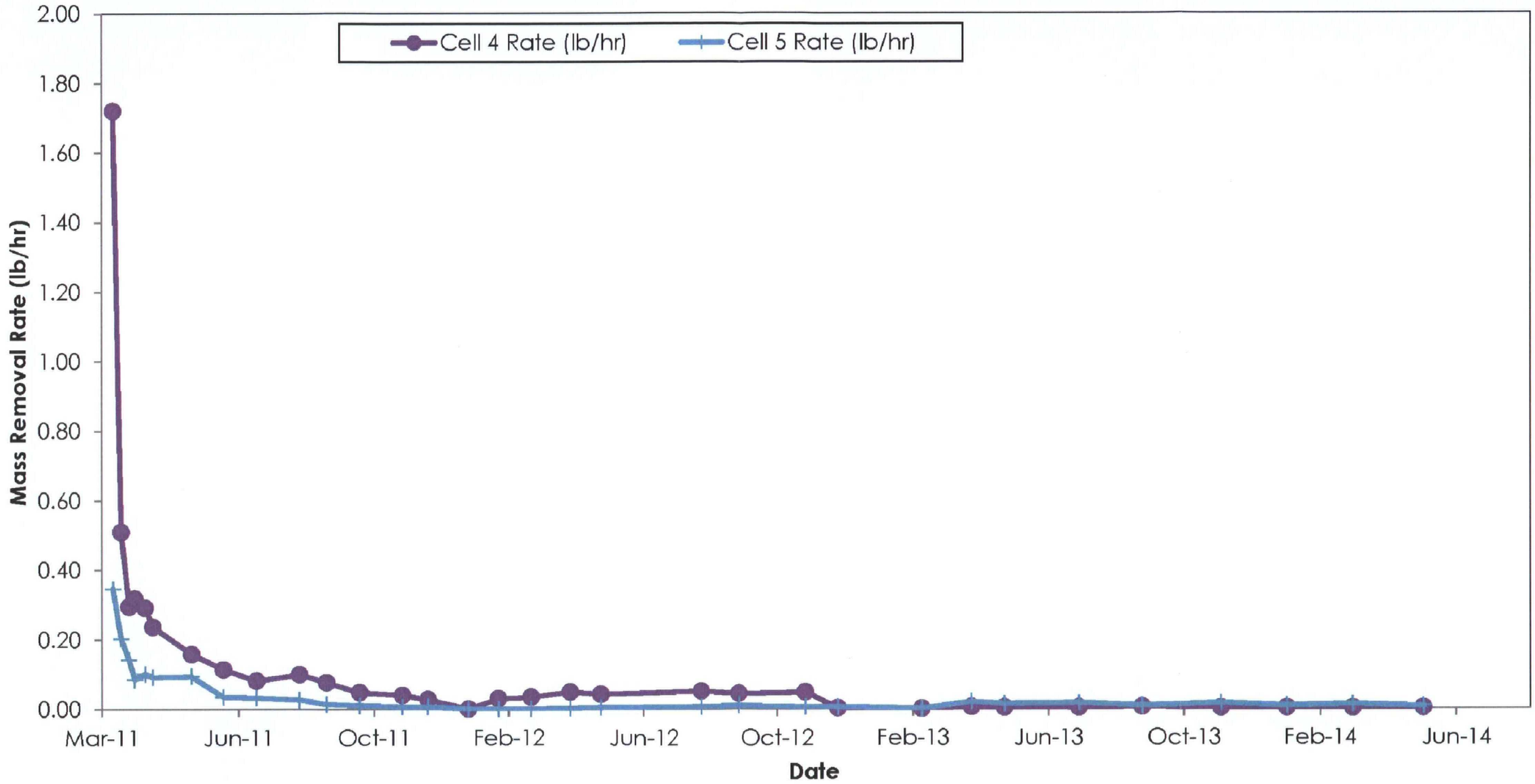
QUATERLY PERFORMANCE MONITORING WELL VOC ANALYTICAL RESULTS TRENDS

FIGURE 6



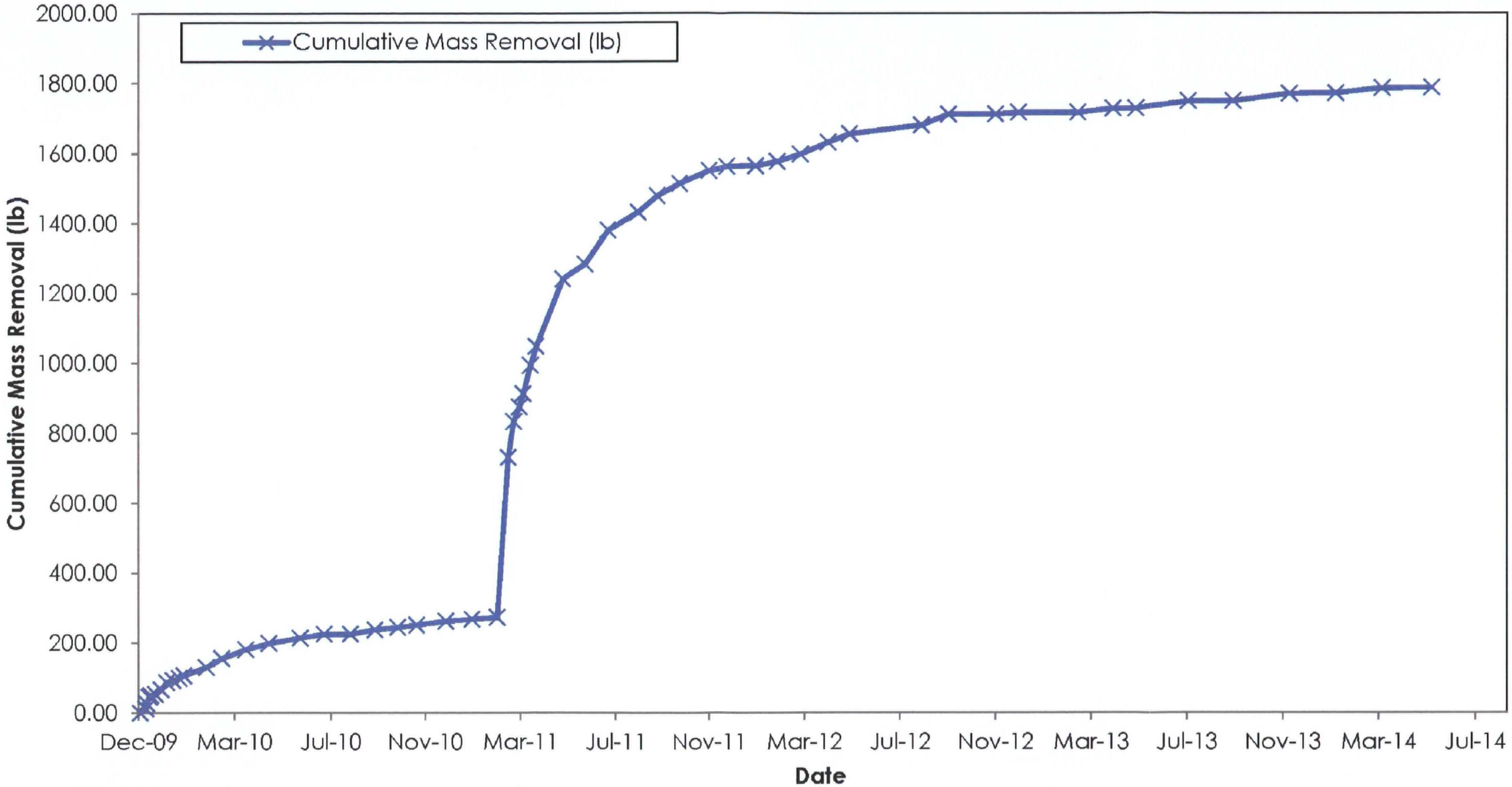
AECOM

AREA 9/10 REMEDIAL ACTION ROCKFORD, ILLINOIS PROJECT NO. 60288803.4213	AVERAGE VOC MASS REMOVAL RATE VS TIME PHASE 1 AS/SVE SYSTEM
DATE: 08/08/14 DRWN: JG	FIGURE 7



AECOM

AREA 9/10 REMEDIAL ACTION ROCKFORD, ILLINOIS PROJECT NO. 60288803.4213	AVERAGE VOC MASS REMOVAL RATE VS TIME PHASE 2 AS/SVE SYSTEM
DATE: 08/08/14 DRWN: JG	FIGURE 8



AECOM

AREA 9/10 REMEDIAL ACTION ROCKFORD, ILLINOIS PROJECT NO. 60288803.4213	CUMULATIVE MASS REMOVAL PHASE 1/ PHASE 2 AS/SVE SYSTEM
DATE: 08/08/14 DRWN: JG	FIGURE 9

APPENDIX

A

A

Appendix A

Second Quarter 2014 GMZ and Performance Monitoring Well Analytical Data

New Jersey
ACCUTEST
LABORATORIES

Reissue #1
08/13/14

Technical Report for

United Technologies Corporation

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

60312350

Accutest Job Number: JB66485

Sampling Dates: 05/06/14 - 05/07/14

Report to:

AECOM
27755 Diehl Road Suite 100
Warrenville, IL 60555
peter.hollatz@aecom.com

ATTN: Peter Hollatz

Total number of pages in report: **250**

NELAP ACCREDITED TNI LABORATORY

Nancy T. Cole
Nancy Cole
Laboratory Director

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Client Service contact: Marie Meidhof 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), PA, RI, SC, TN, VA, WV, DoD ELAP (L-A-B L2248)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories. Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

ACCUTEST
LABORATORIES

August 13, 2014

Mr. Peter Hollatz
AECOM
27755 Diehl Road, Suite 100
Warrenville, IL 60555

RE: Accutest jobs JB66485 - Reissue

Dear Mr. Hollatz,

The final report for Accutest job number JB66485 has been edited to reflect changes to your data package. These edits have been incorporated into the revised report which is attached.

The field ID's for JB66485-3, -13, -14, and -18 have been revised from "GM2" to "GMZ". This report incorporates these revisions.

Our apologies for any inconvenience the above issue may have caused you. Please contact me at 732-355-4552 if I may be of further assistance in this matter, or if you have any further questions regarding this data report.

Sincerely,

Accutest Laboratories

Marie Meidhof
Project Manager

Sections: 1 2 3 4 5 6 7

Table of Contents

-1-

Section 1: Sample Summary **5**
Section 2: Case Narrative/Conformance Summary **7**
Section 3: Summary of Hits 8
Section 4: Sample Results **11**
4.1: JB66485-1: HSSER-FBLK01-050614 12
4.2: JB66485-2: HSSER-SMW08-050614 13
4.3: JB66485-3: HSSER-GMZ01-050614 14
4.4: JB66485-4: HSSER-SMW01-050614 15
4.5: JB66485-5: HSSER-SMW02-050614 16
4.6: JB66485-6: HSSER-MW07FGA-050614 17
4.7: JB66485-7: HSSER-MW203-050614 18
4.8: JB66485-8: HSSER-SMW04-050614 19
4.9: JB66485-9: HSSER-TRIP02-050614 20
4.10: JB66485-10: HSSER-EBLK01-050714 21
4.11: JB66485-11: HSSER-PMW02-050714 22
4.12: JB66485-12: HSSER-PMW01-050714 23
4.13: JB66485-13: HSSER-GMZ04-050714 24
4.14: JB66485-14: HSSER-GMZ02-050714 25
4.15: JB66485-15: HSSER-SMW21-050714 26
4.16: JB66485-16: HSSER-SMW20-050714 27
4.17: JB66485-17: HSSER-SMW19-050714 28
4.18: JB66485-18: HSSER-GMZ03-050714 29
4.19: JB66485-19: HSSER-DUP01-050714 30
Section 5: Misc. Forms **31**
5.1: Chain of Custody 32
5.2: Sample Tracking Chronicle 36
5.3: Internal Chain of Custody 39
Section 6: GC/MS Volatiles - QC Data Summaries **42**
6.1: Method Blank Summary 43
6.2: Blank Spike Summary 45
6.3: Matrix Spike/Matrix Spike Duplicate Summary 47
6.4: Instrument Performance Checks (BFB) 49
6.5: Internal Standard Area Summaries 53
6.6: Surrogate Recovery Summaries 55
6.7: Initial and Continuing Calibration Summaries 56
Section 7: GC/MS Volatiles - Raw Data **70**
7.1: Samples 71
7.2: Method Blanks 161
7.3: Blank Spikes 165
7.4: Matrix Spike/Matrix Spike Duplicates 173
7.5: Instrument Performance Checks (BFB) 189
7.6: Initial and Continuing Calibarations 197

Table of Contents

7.7: Instrument Run Logs 245

Sample Summary

United Technologies Corporation

Job No: JB66485

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60312350

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JB66485-1	05/06/14	07:05	NP	05/08/14	AQ	Field Blank Water	HSSER-FBLK01-050614
JB66485-2	05/06/14	08:10	NP	05/08/14	AQ	Ground Water	HSSER-SMW08-050614
JB66485-3	05/06/14	09:15	NP	05/08/14	AQ	Ground Water	HSSER-GMZ01-050614
JB66485-4	05/06/14	10:20	NP	05/08/14	AQ	Ground Water	HSSER-SMW01-050614
JB66485-5	05/06/14	11:20	NP	05/08/14	AQ	Ground Water	HSSER-SMW02-050614
JB66485-6	05/06/14	12:40	NP	05/08/14	AQ	Ground Water	HSSER-MW07FGA-050614
JB66485-7	05/06/14	13:40	NP	05/08/14	AQ	Ground Water	HSSER-MW203-050614
JB66485-8	05/06/14	15:30	NP	05/08/14	AQ	Ground Water	HSSER-SMW04-050614
JB66485-9	05/07/14	13:00	NP	05/08/14	AQ	Trip Blank Water	HSSER-TRIP02-050614
JB66485-10	05/07/14	07:35	NP	05/08/14	AQ	Equipment Blank	HSSER-EBLK01-050714
JB66485-11	05/07/14	08:25	NP	05/08/14	AQ	Ground Water	HSSER-PMW02-050714
JB66485-12	05/07/14	09:35	NP	05/08/14	AQ	Ground Water	HSSER-PMW01-050714
JB66485-13	05/07/14	09:35	NP	05/08/14	AQ	Ground Water	HSSER-GMZ04-050714

Sample Summary
(continued)

United Technologies Corporation

Job No: JB66485

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60312350

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JB66485-14	05/07/14	10:35	NP	05/08/14	AQ	Ground Water	HSSER-GMZ02-050714
JB66485-14D	05/07/14	10:35	NP	05/08/14	AQ	Water Dup/MSD	HSSER-MSD01-050714
JB66485-14S	05/07/14	10:35	NP	05/08/14	AQ	Water Matrix Spike	HSSER-MS01-050714
JB66485-15	05/07/14	10:40	NP	05/08/14	AQ	Ground Water	HSSER-SMW21-050714
JB66485-16	05/07/14	11:40	NP	05/08/14	AQ	Ground Water	HSSER-SMW20-050714
JB66485-17	05/07/14	11:45	NP	05/08/14	AQ	Ground Water	HSSER-SMW19-050714
JB66485-18	05/07/14	13:00	NP	05/08/14	AQ	Ground Water	HSSER-GMZ03-050714
JB66485-19	05/07/14	00:00	NP	05/08/14	AQ	Ground Water	HSSER-DUP01-050714

ACCUTEST LABORATORIES

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: United Technologies Corporation **Job No** JB66485

Site: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL **Report Date** 5/14/2014 4:08:30 PM

On 05/08/2014, 17 Sample(s), 1 Trip Blank(s) and 1 Field Blank(s) were received at Accutest Laboratories at a temperature of 0.6 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB66485 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ **Batch ID:** V2A6257

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB66485-14MS, JB66485-14MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** V2A6260

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB66485-4MS, JB66485-4MSD were used as the QC samples indicated.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: JB66485
Account: United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Collected: 05/06/14 thru 05/07/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB66485-1	**HSSER-FBLK01-050614**					
No hits reported in this sample.						
JB66485-2	**HSSER-SMW08-050614**					
1,1-Dichloroethane		0.0120	0.0010	0.00026	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.0528	0.0010	0.00024	mg/l	SW846 8260B
trans-1,2-Dichloroethene		0.00070 J	0.0010	0.00038	mg/l	SW846 8260B
Tetrachloroethene		0.0670	0.0010	0.00025	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.0106	0.0010	0.00025	mg/l	SW846 8260B
Trichloroethene		0.0025	0.0010	0.00050	mg/l	SW846 8260B
JB66485-3	**HSSER-GMZ01-050614**					
1,1-Dichloroethane		0.0034	0.0010	0.00026	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.00078 J	0.0010	0.00024	mg/l	SW846 8260B
Tetrachloroethene		0.0254	0.0010	0.00025	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.0062	0.0010	0.00025	mg/l	SW846 8260B
Trichloroethene		0.0022	0.0010	0.00050	mg/l	SW846 8260B
JB66485-4	**HSSER-SMW01-050614**					
Tetrachloroethene		0.0020	0.0010	0.00025	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.0015	0.0010	0.00025	mg/l	SW846 8260B
JB66485-5	**HSSER-SMW02-050614**					
1,1-Dichloroethane		0.00066 J	0.0010	0.00026	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.00042 J	0.0010	0.00024	mg/l	SW846 8260B
Tetrachloroethene		0.00040 J	0.0010	0.00025	mg/l	SW846 8260B
JB66485-6	**HSSER-MW07FGA-050614**					
Tetrachloroethene		0.0011	0.0010	0.00025	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.00043 J	0.0010	0.00025	mg/l	SW846 8260B
JB66485-7	**HSSER-MW203-050614**					
Tetrachloroethene		0.0047	0.0010	0.00025	mg/l	SW846 8260B
JB66485-8	**HSSER-SMW04-050614**					
1,1-Dichloroethane		0.0103	0.0010	0.00026	mg/l	SW846 8260B
1,1-Dichloroethene		0.0013	0.0010	0.00034	mg/l	SW846 8260B

Summary of Hits

Job Number: JB66485
Account: United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Collected: 05/06/14 thru 05/07/14

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
cis-1,2-Dichloroethene	0.0828	0.0010	0.00024	mg/l	SW846 8260B
trans-1,2-Dichloroethene	0.00066 J	0.0010	0.00038	mg/l	SW846 8260B
Tetrachloroethene	0.0115	0.0010	0.00025	mg/l	SW846 8260B
1,1,1-Trichloroethane	0.0016	0.0010	0.00025	mg/l	SW846 8260B
Trichloroethene	0.0051	0.0010	0.00050	mg/l	SW846 8260B
Vinyl chloride	0.0151	0.0010	0.00041	mg/l	SW846 8260B
JB66485-9 HSSER-TRIP02-050614					
Methylene chloride	0.0013 J	0.0020	0.00086	mg/l	SW846 8260B
JB66485-10 HSSER-EBLK01-050714					
No hits reported in this sample.					
JB66485-11 HSSER-PMW02-050714					
1,1-Dichloroethane	0.0086	0.0010	0.00026	mg/l	SW846 8260B
cis-1,2-Dichloroethene	0.0035	0.0010	0.00024	mg/l	SW846 8260B
Tetrachloroethene	0.0199	0.0010	0.00025	mg/l	SW846 8260B
1,1,1-Trichloroethane	0.0059	0.0010	0.00025	mg/l	SW846 8260B
Trichloroethene	0.0023	0.0010	0.00050	mg/l	SW846 8260B
Vinyl chloride	0.00091 J	0.0010	0.00041	mg/l	SW846 8260B
JB66485-12 HSSER-PMW01-050714					
1,1-Dichloroethane	0.0118	0.0010	0.00026	mg/l	SW846 8260B
1,1-Dichloroethene	0.0026	0.0010	0.00034	mg/l	SW846 8260B
cis-1,2-Dichloroethene	0.0027	0.0010	0.00024	mg/l	SW846 8260B
Tetrachloroethene	0.0233	0.0010	0.00025	mg/l	SW846 8260B
1,1,1-Trichloroethane	0.0503	0.0010	0.00025	mg/l	SW846 8260B
Trichloroethene	0.0016	0.0010	0.00050	mg/l	SW846 8260B
JB66485-13 HSSER-GMZ04-050714					
1,1-Dichloroethane	0.0016	0.0010	0.00026	mg/l	SW846 8260B
1,1-Dichloroethene	0.00048 J	0.0010	0.00034	mg/l	SW846 8260B
cis-1,2-Dichloroethene	0.0098	0.0010	0.00024	mg/l	SW846 8260B
1,1,1-Trichloroethane	0.0176	0.0010	0.00025	mg/l	SW846 8260B
JB66485-14 HSSER-GMZ02-050714					
1,1-Dichloroethane	0.0020	0.0010	0.00026	mg/l	SW846 8260B
cis-1,2-Dichloroethene	0.00034 J	0.0010	0.00024	mg/l	SW846 8260B
Tetrachloroethene	0.00061 J	0.0010	0.00025	mg/l	SW846 8260B

Summary of Hits

Job Number: JB66485
Account: United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Collected: 05/06/14 thru 05/07/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
1,1,1-Trichloroethane		0.0027	0.0010	0.00025	mg/l	SW846 8260B
JB66485-15	**HSSER-SMW21-050714**					
1,1-Dichloroethane		0.0017	0.0010	0.00026	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.00080 J	0.0010	0.00024	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.0061	0.0010	0.00025	mg/l	SW846 8260B
JB66485-16	**HSSER-SMW20-050714**					
1,1-Dichloroethane		0.00035 J	0.0010	0.00026	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.00059 J	0.0010	0.00024	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.00050 J	0.0010	0.00025	mg/l	SW846 8260B
JB66485-17	**HSSER-SMW19-050714**					
1,1-Dichloroethane		0.0017	0.0010	0.00026	mg/l	SW846 8260B
1,1-Dichloroethene		0.00038 J	0.0010	0.00034	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.0011	0.0010	0.00024	mg/l	SW846 8260B
Tetrachloroethene		0.0010	0.0010	0.00025	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.00036 J	0.0010	0.00025	mg/l	SW846 8260B
Trichloroethene		0.0154	0.0010	0.00050	mg/l	SW846 8260B
JB66485-18	**HSSER-GMZ03-050714**					
1,1-Dichloroethane		0.0013	0.0010	0.00026	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.00057 J	0.0010	0.00024	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.0010	0.0010	0.00025	mg/l	SW846 8260B
JB66485-19	**HSSER-DUP01-050714**					
1,1-Dichloroethane		0.0012	0.0010	0.00026	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.00062 J	0.0010	0.00024	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.0010	0.0010	0.00025	mg/l	SW846 8260B

New Jersey
ACCUTEST
LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-FBLK01-050614		
Lab Sample ID:	JB66485-1	**Date Sampled:**	05/06/14
Matrix:	AQ - Field Blank Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146851.D	1	05/13/14	TS	n/a	n/a	V2A6260
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00034	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00024	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00038	mg/l	
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		79-120%
17060-07-0	1,2-Dichloroethane-D4	99%		72-123%
2037-26-5	Toluene-D8	104%		78-119%
460-00-4	4-Bromofluorobenzene	92%		74-119%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-SMW08-050614		
Lab Sample ID:	JB66485-2	**Date Sampled:**	05/06/14
Matrix:	AQ - Ground Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146852.D	1	05/13/14	TS	n/a	n/a	V2A6260
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0120	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00034	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0528	0.0010	0.00024	mg/l	
156-60-5	trans-1,2-Dichloroethene	0.00070	0.0010	0.00038	mg/l	J
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	0.0670	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0106	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	0.0025	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		79-120%
17060-07-0	1,2-Dichloroethane-D4	100%		72-123%
2037-26-5	Toluene-D8	105%		78-119%
460-00-4	4-Bromofluorobenzene	91%		74-119%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-GMZ01-050614		
Lab Sample ID:	JB66485-3	**Date Sampled:**	05/06/14
Matrix:	AQ - Ground Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146853.D	1	05/13/14	TS	n/a	n/a	V2A6260
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0034	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00034	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.00078	0.0010	0.00024	mg/l	J
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00038	mg/l	
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	0.0254	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0062	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	0.0022	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		79-120%
17060-07-0	1,2-Dichloroethane-D4	99%		72-123%
2037-26-5	Toluene-D8	104%		78-119%
460-00-4	4-Bromofluorobenzene	91%		74-119%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-SMW01-050614		
Lab Sample ID:	JB66485-4	**Date Sampled:**	05/06/14
Matrix:	AQ - Ground Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146854.D	1	05/13/14	TS	n/a	n/a	V2A6260
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00034	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00024	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00038	mg/l	
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	0.0020	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0015	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		79-120%
17060-07-0	1,2-Dichloroethane-D4	100%		72-123%
2037-26-5	Toluene-D8	105%		78-119%
460-00-4	4-Bromofluorobenzene	91%		74-119%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-SMW02-050614		
Lab Sample ID:	JB66485-5	**Date Sampled:**	05/06/14
Matrix:	AQ - Ground Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146855.D	1	05/13/14	TS	n/a	n/a	V2A6260
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.00066	0.0010	0.00026	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00034	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.00042	0.0010	0.00024	mg/l	J
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00038	mg/l	
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	0.00040	0.0010	0.00025	mg/l	J
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		79-120%
17060-07-0	1,2-Dichloroethane-D4	99%		72-123%
2037-26-5	Toluene-D8	105%		78-119%
460-00-4	4-Bromofluorobenzene	91%		74-119%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-MW07FGA-050614		
Lab Sample ID:	JB66485-6	**Date Sampled:**	05/06/14
Matrix:	AQ - Ground Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146856.D	1	05/13/14	TS	n/a	n/a	V2A6260
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00034	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00024	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00038	mg/l	
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	0.0011	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00043	0.0010	0.00025	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-120%
17060-07-0	1,2-Dichloroethane-D4	101%		72-123%
2037-26-5	Toluene-D8	104%		78-119%
460-00-4	4-Bromofluorobenzene	92%		74-119%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-MW203-050614		
Lab Sample ID:	JB66485-7	**Date Sampled:**	05/06/14
Matrix:	AQ - Ground Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146857.D	1	05/13/14	TS	n/a	n/a	V2A6260
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00034	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00024	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00038	mg/l	
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	0.0047	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		79-120%
17060-07-0	1,2-Dichloroethane-D4	101%		72-123%
2037-26-5	Toluene-D8	106%		78-119%
460-00-4	4-Bromofluorobenzene	92%		74-119%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-SMW04-050614		
Lab Sample ID:	JB66485-8	**Date Sampled:**	05/06/14
Matrix:	AQ - Ground Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146858.D	1	05/13/14	TS	n/a	n/a	V2A6260
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0103	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	0.0013	0.0010	0.00034	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0828	0.0010	0.00024	mg/l	
156-60-5	trans-1,2-Dichloroethene	0.00066	0.0010	0.00038	mg/l	J
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	0.0115	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0016	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	0.0051	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	0.0151	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		79-120%
17060-07-0	1,2-Dichloroethane-D4	100%		72-123%
2037-26-5	Toluene-D8	106%		78-119%
460-00-4	4-Bromofluorobenzene	91%		74-119%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-TRIP02-050614		
Lab Sample ID:	JB66485-9	**Date Sampled:**	05/07/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146850.D	1	05/13/14	TS	n/a	n/a	V2A6260
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00034	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00024	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00038	mg/l	
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	0.0013	0.0020	0.00086	mg/l	J
127-18-4	Tetrachloroethene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		79-120%
17060-07-0	1,2-Dichloroethane-D4	99%		72-123%
2037-26-5	Toluene-D8	106%		78-119%
460-00-4	4-Bromofluorobenzene	92%		74-119%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-EBLK01-050714		
Lab Sample ID:	JB66485-10	**Date Sampled:**	05/07/14
Matrix:	AQ - Equipment Blank	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146775.D	1	05/09/14	TS	n/a	n/a	V2A6257
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00034	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00024	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00038	mg/l	
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		79-120%
17060-07-0	1,2-Dichloroethane-D4	97%		72-123%
2037-26-5	Toluene-D8	105%		78-119%
460-00-4	4-Bromofluorobenzene	94%		74-119%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-PMW02-050714		
Lab Sample ID:	JB66485-11	**Date Sampled:**	05/07/14
Matrix:	AQ - Ground Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146776.D	1	05/09/14	TS	n/a	n/a	V2A6257
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0086	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00034	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0035	0.0010	0.00024	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00038	mg/l	
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	0.0199	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0059	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	0.0023	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	0.00091	0.0010	0.00041	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		79-120%
17060-07-0	1,2-Dichloroethane-D4	98%		72-123%
2037-26-5	Toluene-D8	106%		78-119%
460-00-4	4-Bromofluorobenzene	93%		74-119%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-PMW01-050714		
Lab Sample ID:	JB66485-12	**Date Sampled:**	05/07/14
Matrix:	AQ - Ground Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146777.D	1	05/09/14	TS	n/a	n/a	V2A6257
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0118	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	0.0026	0.0010	0.00034	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0027	0.0010	0.00024	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00038	mg/l	
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	0.0233	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0503	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	0.0016	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		79-120%
17060-07-0	1,2-Dichloroethane-D4	99%		72-123%
2037-26-5	Toluene-D8	106%		78-119%
460-00-4	4-Bromofluorobenzene	94%		74-119%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-GMZ04-050714		
Lab Sample ID:	JB66485-13	**Date Sampled:**	05/07/14
Matrix:	AQ - Ground Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146778.D	1	05/09/14	TS	n/a	n/a	V2A6257
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0016	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	0.00048	0.0010	0.00034	mg/l	J
156-59-2	cis-1,2-Dichloroethene	0.0098	0.0010	0.00024	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00038	mg/l	
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0176	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		79-120%
17060-07-0	1,2-Dichloroethane-D4	100%		72-123%
2037-26-5	Toluene-D8	105%		78-119%
460-00-4	4-Bromofluorobenzene	93%		74-119%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-GMZ02-050714		
Lab Sample ID:	JB66485-14	**Date Sampled:**	05/07/14
Matrix:	AQ - Ground Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146762.D	1	05/09/14	TS	n/a	n/a	V2A6257
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0020	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00034	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.00034	0.0010	0.00024	mg/l	J
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00038	mg/l	
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	0.00061	0.0010	0.00025	mg/l	J
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0027	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		79-120%
17060-07-0	1,2-Dichloroethane-D4	97%		72-123%
2037-26-5	Toluene-D8	104%		78-119%
460-00-4	4-Bromofluorobenzene	91%		74-119%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-SMW21-050714		
Lab Sample ID:	JB66485-15	**Date Sampled:**	05/07/14
Matrix:	AQ - Ground Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146770.D	1	05/09/14	TS	n/a	n/a	V2A6257
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0017	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00034	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.00080	0.0010	0.00024	mg/l	J
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00038	mg/l	
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0061	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		79-120%
17060-07-0	1,2-Dichloroethane-D4	94%		72-123%
2037-26-5	Toluene-D8	103%		78-119%
460-00-4	4-Bromofluorobenzene	91%		74-119%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-SMW20-050714		
Lab Sample ID:	JB66485-16	**Date Sampled:**	05/07/14
Matrix:	AQ - Ground Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146771.D	1	05/09/14	TS	n/a	n/a	V2A6257
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.00035	0.0010	0.00026	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00034	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.00059	0.0010	0.00024	mg/l	J
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00038	mg/l	
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00050	0.0010	0.00025	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		79-120%
17060-07-0	1,2-Dichloroethane-D4	93%		72-123%
2037-26-5	Toluene-D8	105%		78-119%
460-00-4	4-Bromofluorobenzene	93%		74-119%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-SMW19-050714		
Lab Sample ID:	JB66485-17	**Date Sampled:**	05/07/14
Matrix:	AQ - Ground Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146772.D	1	05/09/14	TS	n/a	n/a	V2A6257
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0017	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	0.00038	0.0010	0.00034	mg/l	J
156-59-2	cis-1,2-Dichloroethene	0.0011	0.0010	0.00024	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00038	mg/l	
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	0.0010	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00036	0.0010	0.00025	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	0.0154	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		79-120%
17060-07-0	1,2-Dichloroethane-D4	95%		72-123%
2037-26-5	Toluene-D8	103%		78-119%
460-00-4	4-Bromofluorobenzene	92%		74-119%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-GMZ03-050714		
Lab Sample ID:	JB66485-18	**Date Sampled:**	05/07/14
Matrix:	AQ - Ground Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146773.D	1	05/09/14	TS	n/a	n/a	V2A6257
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0013	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00034	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.00057	0.0010	0.00024	mg/l	J
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00038	mg/l	
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0010	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		79-120%
17060-07-0	1,2-Dichloroethane-D4	97%		72-123%
2037-26-5	Toluene-D8	104%		78-119%
460-00-4	4-Bromofluorobenzene	93%		74-119%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-DUP01-050714		
Lab Sample ID:	JB66485-19	**Date Sampled:**	05/07/14
Matrix:	AQ - Ground Water	**Date Received:**	05/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A146774.D	1	05/09/14	TS	n/a	n/a	V2A6257
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0012	0.0010	0.00026	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00022	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00034	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.00062	0.0010	0.00024	mg/l	J
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00038	mg/l	
100-41-4	Ethylbenzene	ND	0.00050	0.00021	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00086	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00044	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0010	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00021	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00050	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00041	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		79-120%
17060-07-0	1,2-Dichloroethane-D4	96%		72-123%
2037-26-5	Toluene-D8	106%		78-119%
460-00-4	4-Bromofluorobenzene	95%		74-119%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New Jersey
ACCUTEST
LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

FED-EX Tracking # 6020 0491 3499 | Bottle Order Control # | Accutest Quote # | Accutest Job # JB66485

Client / Reporting Information

Company Name: AECOM
Street Address: 27755 DIEHL RD SUITE 100
City / State / Zip: WARRENVILLE IL 60555
Project Contact / E-mail: PETER HOLLATZ / peter.hollatz@aecom.com
Phone # / Fax #: 630-839.5386 630.836.1711
Sampler(s) Name(s) / Phone #: N. PINS / A. HOLLATZ

Project Information

Project Name: WTAS PLANTS 1/2 FACILITY
Street:
City / State:
Project #: 60312350
Client Purchase Order #:
Project Manager: PETER HOLLATZ

Billing Information (if different from Report to)
Company Name:
Street Address:
City / State / Zip:
Attention:

Requested Analysis (see TEST CODE sheet): * 8260B VOCs

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	8260B VOCs	LAB USE ONLY
1	HSSER-FBLK01-050614		5/6/14	0705	NP	GW	3	3								X	V229
2	HSSER-SMW08-050614		↓	0810	NP	GW	3	3								X	
3	HSSER-GMW01-050614			0915	NP	GW	3	3								X	
4	HSSER-SMW01-050614			1020	NP	GW	3	3								X	
5	HSSER-SMW02-050614			1120	NP	GW	3	3								X	
6	HSSER-MW07FGA-050614			1240	NP	GW	3	3								X	
7	HSSER-MW203-050614			1340	NP	GW	3	3								X	
8	HSSER-SMW04-050614			1530	NP	GW	3	3								X	
9	HSSER-TRIP02-050614		↓	–	–	GW	3	3								X	
10	HSSER-EBLK01-050714		5/7/14	0735	NP	GW	3	3								X	
11	HSSER-PMW02-050714		↓	0825	NP	GW	3	3								X	
12	HSSER-PMW01-050714		↓	0935	NP	GW	3	3								X	

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] other

Approved By (Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

* LIST OF 13 VOCs
LEVEL IV DATA

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler	Date/Time	Received By	Relinquished By	Date/Time	Received By
1 Nick T. (AECOM)	5/7/14 1800	1 Fed EX	2 Fed EX	5/8/14 9:50	2 [signature]
3		3	4		4
5		5			

Custody Seal # 302 [x] Intact [ ] Not intact | Preserved where applicable [ ] | On Ice [x] | Cooler Temp. 0.6 °C IP

IB TP

5.1 5

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: JB66485

Client / Reporting Information

Company Name: AECOM
Street Address: 27755 Diehl Rd Suite 100
City State Zip: Warrenville IL 60555
Project Contact: Peter Hollatz
E-mail: peter.hollatz@aecom.com
Phone #: 630.839.5386
Fax #: 630.836.1700
Sampler(s) Name(s): N. Pins / A. Hollatz
Phone #:

Project Information

Project Name: UTAS Plants 1/2 Facility
Street:
City State: Rockford, IL
Project #: 60312350
Client Purchase Order #:
Project Manager: Peter Hollatz

Billing Information (if different from Report to)
Company Name:
Street Address:
City State Zip:
Attention:

Requested Analysis (see TEST CODE sheet): VOCs 8260B *

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	VOCs 8260B *	LAB USE ONLY
13	HSSER-GMZ04-050714		5/7/14	0935	AH	GW	3	3								X	
	HSSER-GMZ02-050714			1035	NP	GW	3	3								X	
14	HSSER-MS01-050714			1035	NP	GW	3	3								X	
	HSSER-MSD01-050714			1035	NP	GW	3	3								X	
15	HSSER-SMW21-050714			1040	AH	GW	3	3								X	
16	HSSER-SMW20-050714			1140	AH	GW	3	3								X	
17	HSSER-SMW-19-050714			1145	NP	GW	3	3								X	
18	HSSER-GMZ03-050714			1300	AH	GW	3	3								X	
19	HSSER-DUP01-050714			0000	AH	GW	3	3								X	

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] other _____

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format _____
- [ ] Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Nick T - AECOM	5/7/14 1800	1 FY	2 FY	5/8/14 950	2 [signature]
3		3	4		4
5		5			

Custody Seal #: [ ] Intact [ ] Not intact
Preserved where applicable: [ ]
On Ice: [ ]
Cooler Temp.:

5.1 5

JB66485: Chain of Custody
Page 2 of 4

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB66485 **Client:** **Project:**

Date / Time Received: 5/8/2014 **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (0.6/0.6); 0

Cooler Security	Y	or N		Y	or N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	or N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	IR Gun	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	1	

Quality Control Preservatio	Y	or N	N/A
1. Trip Blank present / cooler:	☐	☑	☐
2. Trip Blank listed on COC:	☐	☑	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y	or N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	or N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	or N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

5.1

5

JB66485: Chain of Custody
Page 3 of 4

ACCUTEST LABORATORIES

Job Change Order: JB66485

Requested Date:	7/23/2014	**Received Date:**	5/8/2014
Account Name:	United Technologies Corporation	**Due Date:**	5/22/2014
Project Description:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL	**Deliverable:**	COMMBN
CSR:	mariem	**TAT (Days):**	2

Sample #: JB66485-all

Dept:

Change:
Please upgrade to FULT1. Report needed by Friday 7/25.

Above Changes Per: G. Malzone

Date/Time: 7/23/2014 12:26:05 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service Representative.

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JB66485

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60312350

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB66485-1 Collected: 06-MAY-14 07:05 By: NP Received: 08-MAY-14 By: AL HSSER-FBLK01-050614						
JB66485-1	SW846 8260B	13-MAY-14 12:39	TS			V8260SL
JB66485-2 Collected: 06-MAY-14 08:10 By: NP Received: 08-MAY-14 By: AL HSSER-SMW08-050614						
JB66485-2	SW846 8260B	13-MAY-14 13:08	TS			V8260SL
JB66485-3 Collected: 06-MAY-14 09:15 By: NP Received: 08-MAY-14 By: AL HSSER-GMZ01-050614						
JB66485-3	SW846 8260B	13-MAY-14 13:38	TS			V8260SL
JB66485-4 Collected: 06-MAY-14 10:20 By: NP Received: 08-MAY-14 By: AL HSSER-SMW01-050614						
JB66485-4	SW846 8260B	13-MAY-14 14:08	TS			V8260SL
JB66485-5 Collected: 06-MAY-14 11:20 By: NP Received: 08-MAY-14 By: AL HSSER-SMW02-050614						
JB66485-5	SW846 8260B	13-MAY-14 14:38	TS			V8260SL
JB66485-6 Collected: 06-MAY-14 12:40 By: NP Received: 08-MAY-14 By: AL HSSER-MW07FGA-050614						
JB66485-6	SW846 8260B	13-MAY-14 15:07	TS			V8260SL
JB66485-7 Collected: 06-MAY-14 13:40 By: NP Received: 08-MAY-14 By: AL HSSER-MW203-050614						
JB66485-7	SW846 8260B	13-MAY-14 15:37	TS			V8260SL
JB66485-8 Collected: 06-MAY-14 15:30 By: NP Received: 08-MAY-14 By: AL HSSER-SMW04-050614						
JB66485-8	SW846 8260B	13-MAY-14 16:07	TS			V8260SL

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JB66485

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60312350

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB66485-9 Collected: 07-MAY-14 13:00 By: NP HSSER-TRIP02-050614				Received: 08-MAY-14	By: AL	
JB66485-9	SW846 8260B	13-MAY-14 12:09	TS			V8260SL
JB66485-10 Collected: 07-MAY-14 07:35 By: NP HSSER-EBLK01-050714				Received: 08-MAY-14	By: AL	
JB66485-10	SW846 8260B	09-MAY-14 18:46	TS			V8260SL
JB66485-11 Collected: 07-MAY-14 08:25 By: NP HSSER-PMW02-050714				Received: 08-MAY-14	By: AL	
JB66485-11	SW846 8260B	09-MAY-14 19:16	TS			V8260SL
JB66485-12 Collected: 07-MAY-14 09:35 By: NP HSSER-PMW01-050714				Received: 08-MAY-14	By: AL	
JB66485-12	SW846 8260B	09-MAY-14 19:46	TS			V8260SL
JB66485-13 Collected: 07-MAY-14 09:35 By: NP HSSER-GMZ04-050714				Received: 08-MAY-14	By: AL	
JB66485-13	SW846 8260B	09-MAY-14 20:16	TS			V8260SL
JB66485-14 Collected: 07-MAY-14 10:35 By: NP HSSER-GMZ02-050714				Received: 08-MAY-14	By: AL	
JB66485-14	SW846 8260B	09-MAY-14 12:19	TS			V8260SL
JB66485-15 Collected: 07-MAY-14 10:40 By: NP HSSER-SMW21-050714				Received: 08-MAY-14	By: AL	
JB66485-15	SW846 8260B	09-MAY-14 16:17	TS			V8260SL
JB66485-16 Collected: 07-MAY-14 11:40 By: NP HSSER-SMW20-050714				Received: 08-MAY-14	By: AL	
JB66485-16	SW846 8260B	09-MAY-14 16:47	TS			V8260SL

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JB66485

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60312350

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB66485-17 Collected: 07-MAY-14 11:45 By: NP Received: 08-MAY-14 By: AL HSSER-SMW19-050714						
JB66485-17	SW846 8260B	09-MAY-14 17:17	TS			V8260SL
JB66485-18 Collected: 07-MAY-14 13:00 By: NP Received: 08-MAY-14 By: AL HSSER-GMZ03-050714						
JB66485-18	SW846 8260B	09-MAY-14 17:47	TS			V8260SL
JB66485-19 Collected: 07-MAY-14 00:00 By: NP Received: 08-MAY-14 By: AL HSSER-DUP01-050714						
JB66485-19	SW846 8260B	09-MAY-14 18:17	TS			V8260SL

Accutest Internal Chain of Custody

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 05/08/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB66485-1.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-1.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-1.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-1.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-2.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-2.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-2.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-2.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-3.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-3.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-3.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-3.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-4.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-4.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-4.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-4.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-5.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-5.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-5.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-5.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-6.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-6.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-6.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-6.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-7.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-7.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-7.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-7.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-8.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-8.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-8.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-8.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-9.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-9.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-9.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-9.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage

Accutest Internal Chain of Custody

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 05/08/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB66485-10.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-10.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-10.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-10.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-11.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-11.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-11.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-11.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-12.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-12.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-12.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-12.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-13.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-13.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-13.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-13.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-14.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-14.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-14.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-14.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-14.4	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-14.4	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-14.4	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-14.4	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-14.5	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-14.5	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-14.5	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-14.5	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-15.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-15.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-15.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-15.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-16.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-16.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-16.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument

Accutest Internal Chain of Custody

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 05/08/14

Sample. Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB66485-16.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-17.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-17.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-17.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-17.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-18.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-18.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-18.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-18.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage
JB66485-19.1	Secured Storage	Cathleen Castello	05/09/14 11:27	Retrieve from Storage
JB66485-19.1	Cathleen Castello	GCMS2A	05/09/14 11:27	Load on Instrument
JB66485-19.1	GCMS2A	Cathleen Castello	05/12/14 14:31	Unload from Instrument
JB66485-19.1	Cathleen Castello	Secured Storage	05/12/14 14:31	Return to Storage

New Jersey
ACCUTEST
LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A6257-MB	2A146759.D	1	05/09/14	TS	n/a	n/a	V2A6257

The QC reported here applies to the following samples: **Method:** SW846 8260B

JB66485-10, JB66485-11, JB66485-12, JB66485-13, JB66485-14, JB66485-15, JB66485-16, JB66485-17, JB66485-18, JB66485-19

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.34	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.24	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.38	ug/l	
100-41-4	Ethylbenzene	ND	0.50	0.21	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.86	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.44	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	95%	79-120%
17060-07-0	1,2-Dichloroethane-D4	94%	72-123%
2037-26-5	Toluene-D8	105%	78-119%
460-00-4	4-Bromofluorobenzene	93%	74-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.1

6

Method Blank Summary

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A6260-MB	2A146847.D	1	05/13/14	TS	n/a	n/a	V2A6260

The QC reported here applies to the following samples: **Method:** SW846 8260B

JB66485-1, JB66485-2, JB66485-3, JB66485-4, JB66485-5, JB66485-6, JB66485-7, JB66485-8, JB66485-9

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.22	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.34	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.24	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.38	ug/l	
100-41-4	Ethylbenzene	ND	0.50	0.21	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.86	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.44	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	98%	79-120%
17060-07-0	1,2-Dichloroethane-D4	99%	72-123%
2037-26-5	Toluene-D8	106%	78-119%
460-00-4	4-Bromofluorobenzene	92%	74-119%

Blank Spike Summary

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A6257-BS	2A146760.D	1	05/09/14	TS	n/a	n/a	V2A6257

The QC reported here applies to the following samples: **Method:** SW846 8260B

JB66485-10, JB66485-11, JB66485-12, JB66485-13, JB66485-14, JB66485-15, JB66485-16, JB66485-17, JB66485-18, JB66485-19

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	50.8	102	78-129
107-06-2	1,2-Dichloroethane	50	55.6	111	75-133
75-35-4	1,1-Dichloroethene	50	51.8	104	74-128
156-59-2	cis-1,2-Dichloroethene	50	49.6	99	78-123
156-60-5	trans-1,2-Dichloroethene	50	49.6	99	75-122
100-41-4	Ethylbenzene	50	51.4	103	82-120
75-09-2	Methylene chloride	50	48.4	97	75-121
127-18-4	Tetrachloroethene	50	59.0	118	69-141
108-88-3	Toluene	50	51.8	104	80-122
71-55-6	1,1,1-Trichloroethane	50	53.7	107	80-132
79-00-5	1,1,2-Trichloroethane	50	52.6	105	80-127
79-01-6	Trichloroethene	50	53.0	106	82-126
75-01-4	Vinyl chloride	50	47.9	96	53-135

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	79-120%
17060-07-0	1,2-Dichloroethane-D4	96%	72-123%
2037-26-5	Toluene-D8	105%	78-119%
460-00-4	4-Bromofluorobenzene	90%	74-119%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A6260-BS	2A146848.D	1	05/13/14	TS	n/a	n/a	V2A6260

The QC reported here applies to the following samples: **Method:** SW846 8260B

JB66485-1, JB66485-2, JB66485-3, JB66485-4, JB66485-5, JB66485-6, JB66485-7, JB66485-8, JB66485-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	47.0	94	78-129
107-06-2	1,2-Dichloroethane	50	55.2	110	75-133
75-35-4	1,1-Dichloroethene	50	46.5	93	74-128
156-59-2	cis-1,2-Dichloroethene	50	45.7	91	78-123
156-60-5	trans-1,2-Dichloroethene	50	45.0	90	75-122
100-41-4	Ethylbenzene	50	47.4	95	82-120
75-09-2	Methylene chloride	50	44.4	89	75-121
127-18-4	Tetrachloroethene	50	52.6	105	69-141
108-88-3	Toluene	50	48.0	96	80-122
71-55-6	1,1,1-Trichloroethane	50	50.0	100	80-132
79-00-5	1,1,2-Trichloroethane	50	49.1	98	80-127
79-01-6	Trichloroethene	50	49.7	99	82-126
75-01-4	Vinyl chloride	50	43.2	86	53-135

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	79-120%
17060-07-0	1,2-Dichloroethane-D4	100%	72-123%
2037-26-5	Toluene-D8	106%	78-119%
460-00-4	4-Bromofluorobenzene	88%	74-119%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB66485-14MS	2A146767.D	1	05/09/14	TS	n/a	n/a	V2A6257
JB66485-14MSD	2A146768.D	1	05/09/14	TS	n/a	n/a	V2A6257
JB66485-14	2A146762.D	1	05/09/14	TS	n/a	n/a	V2A6257

The QC reported here applies to the following samples: **Method:** SW846 8260B

JB66485-10, JB66485-11, JB66485-12, JB66485-13, JB66485-14, JB66485-15, JB66485-16, JB66485-17, JB66485-18, JB66485-19

CAS No.	Compound	JB66485-14 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-34-3	1,1-Dichloroethane	2.0		50	46.1	88	50	46.6	89	1	61-134/12
107-06-2	1,2-Dichloroethane	ND		50	52.9	106	50	52.9	106	0	68-137/11
75-35-4	1,1-Dichloroethene	ND		50	42.7	85	50	41.6	83	3	40-143/17
156-59-2	cis-1,2-Dichloroethene	0.34	J	50	45.6	91	50	46.9	93	3	59-133/12
156-60-5	trans-1,2-Dichloroethene	ND		50	43.4	87	50	43.2	86	0	55-132/14
100-41-4	Ethylbenzene	ND		50	46.0	92	50	45.7	91	1	49-137/13
75-09-2	Methylene chloride	ND		50	45.7	91	50	46.2	92	1	64-128/11
127-18-4	Tetrachloroethene	0.61	J	50	49.3	97	50	48.0	95	3	48-143/15
108-88-3	Toluene	ND		50	46.6	93	50	46.0	92	1	54-137/13
71-55-6	1,1,1-Trichloroethane	2.7		50	46.6	88	50	45.6	86	2	52-145/16
79-00-5	1,1,2-Trichloroethane	ND		50	51.9	104	50	51.0	102	2	73-130/10
79-01-6	Trichloroethene	ND		50	45.9	92	50	46.1	92	0	54-141/13
75-01-4	Vinyl chloride	ND		50	42.1	84	50	40.7	81	3	36-149/19

CAS No.	Surrogate Recoveries	MS	MSD	JB66485-14	Limits
1868-53-7	Dibromofluoromethane	95%	96%	97%	79-120%
17060-07-0	1,2-Dichloroethane-D4	93%	92%	97%	72-123%
2037-26-5	Toluene-D8	106%	103%	104%	78-119%
460-00-4	4-Bromofluorobenzene	90%	91%	91%	74-119%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB66485-4MS	2A146859.D	1	05/13/14	TS	n/a	n/a	V2A6260
JB66485-4MSD	2A146860.D	1	05/13/14	TS	n/a	n/a	V2A6260
JB66485-4	2A146854.D	1	05/13/14	TS	n/a	n/a	V2A6260

The QC reported here applies to the following samples: **Method:** SW846 8260B

JB66485-1, JB66485-2, JB66485-3, JB66485-4, JB66485-5, JB66485-6, JB66485-7, JB66485-8, JB66485-9

CAS No.	Compound	JB66485-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-34-3	1,1-Dichloroethane	ND		50	44.0	88	50	44.6	89	1	61-134/12
107-06-2	1,2-Dichloroethane	ND		50	54.9	110	50	55.1	110	0	68-137/11
75-35-4	1,1-Dichloroethene	ND		50	40.3	81	50	41.5	83	3	40-143/17
156-59-2	cis-1,2-Dichloroethene	ND		50	44.3	89	50	45.0	90	2	59-133/12
156-60-5	trans-1,2-Dichloroethene	ND		50	42.0	84	50	43.0	86	2	55-132/14
100-41-4	Ethylbenzene	ND		50	45.3	91	50	45.8	92	1	49-137/13
75-09-2	Methylene chloride	ND		50	43.7	87	50	44.5	89	2	64-128/11
127-18-4	Tetrachloroethene	2.0		50	48.9	94	50	50.3	97	3	48-143/15
108-88-3	Toluene	ND		50	45.8	92	50	45.6	91	0	54-137/13
71-55-6	1,1,1-Trichloroethane	1.5		50	46.5	90	50	47.5	92	2	52-145/16
79-00-5	1,1,2-Trichloroethane	ND		50	50.1	100	50	50.2	100	0	73-130/10
79-01-6	Trichloroethene	ND		50	46.2	92	50	46.1	92	0	54-141/13
75-01-4	Vinyl chloride	ND		50	40.5	81	50	44.2	88	9	36-149/19

CAS No.	Surrogate Recoveries	MS	MSD	JB66485-4	Limits
1868-53-7	Dibromofluoromethane	100%	99%	99%	79-120%
17060-07-0	1,2-Dichloroethane-D4	101%	99%	100%	72-123%
2037-26-5	Toluene-D8	106%	105%	105%	78-119%
460-00-4	4-Bromofluorobenzene	89%	87%	91%	74-119%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V2A6216-BFB
Lab File ID: 2A145746.D
Instrument ID: GCMS2A
Injection Date: 04/02/14
Injection Time: 12:21

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	12664	16.9		Pass
75	30.0 - 60.0% of mass 95	34186	45.6		Pass
95	Base peak, 100% relative abundance	74917	100.0		Pass
96	5.0 - 9.0% of mass 95	5021	6.70		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	65504	87.4		Pass
175	5.0 - 9.0% of mass 174	4980	6.65	(7.60) [a]	Pass
176	95.0 - 101.0% of mass 174	63816	85.2	(97.4) [a]	Pass
177	5.0 - 9.0% of mass 176	4270	5.70	(6.69) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2A6216-IC6216	2A145749.D	04/02/14	14:00	01:39	Initial cal 1
V2A6216-IC6216	2A145750.D	04/02/14	14:30	02:09	Initial cal 2
V2A6216-IC6216	2A145752.D	04/02/14	15:29	03:08	Initial cal 10
V2A6216-IC6216	2A145753.D	04/02/14	15:59	03:38	Initial cal 20
V2A6216-ICC6216	2A145754.D	04/02/14	16:29	04:08	Initial cal 50
V2A6216-IC6216	2A145755.D	04/02/14	16:58	04:37	Initial cal 100
V2A6216-IC6216	2A145756.D	04/02/14	17:28	05:07	Initial cal 200
V2A6216-IC6216	2A145761.D	04/02/14	19:57	07:36	Initial cal 0.5
V2A6216-IC6216	2A145762.D	04/02/14	20:26	08:05	Initial cal 5

Instrument Performance Check (BFB)

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	V2A6216-BFB2	**Injection Date:**	04/03/14
Lab File ID:	2A145764.D	**Injection Time:**	10:01
Instrument ID:	GCMS2A		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	14067	16.8		Pass
75	30.0 - 60.0% of mass 95	37450	44.9		Pass
95	Base peak, 100% relative abundance	83493	100.0		Pass
96	5.0 - 9.0% of mass 95	5462	6.54		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	77146	92.4		Pass
175	5.0 - 9.0% of mass 174	5758	6.90	(7.46) [a]	Pass
176	95.0 - 101.0% of mass 174	75605	90.6	(98.0) [a]	Pass
177	5.0 - 9.0% of mass 176	4939	5.92	(6.53) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2A6216-ICV6216	2A145765.D	04/03/14	10:56	00:55	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	V2A6257-BFB	**Injection Date:**	05/09/14
Lab File ID:	2A146756.D	**Injection Time:**	08:52
Instrument ID:	GCMS2A		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	12608	18.4		Pass
75	30.0 - 60.0% of mass 95	31701	46.4		Pass
95	Base peak, 100% relative abundance	68344	100.0		Pass
96	5.0 - 9.0% of mass 95	4567	6.68		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	66893	97.9		Pass
175	5.0 - 9.0% of mass 174	5093	7.45	(7.61) [a]	Pass
176	95.0 - 101.0% of mass 174	64826	94.9	(96.9) [a]	Pass
177	5.0 - 9.0% of mass 176	4166	6.10	(6.43) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2A6257-CC6216	2A146757.D	05/09/14	09:25	00:33	Continuing cal 20
V2A6257-MB	2A146759.D	05/09/14	10:50	01:58	Method Blank
V2A6257-BS	2A146760.D	05/09/14	11:19	02:27	Blank Spike
JB66485-14	2A146762.D	05/09/14	12:19	03:27	HSSER-GMZ02-050714
ZZZZZZ	2A146763.D	05/09/14	12:48	03:56	(unrelated sample)
ZZZZZZ	2A146764.D	05/09/14	13:18	04:26	(unrelated sample)
ZZZZZZ	2A146765.D	05/09/14	13:48	04:56	(unrelated sample)
ZZZZZZ	2A146766.D	05/09/14	14:18	05:26	(unrelated sample)
JB66485-14MS	2A146767.D	05/09/14	14:48	05:56	Matrix Spike
JB66485-14MSD	2A146768.D	05/09/14	15:17	06:25	Matrix Spike Duplicate
JB66485-15	2A146770.D	05/09/14	16:17	07:25	HSSER-SMW21-050714
JB66485-16	2A146771.D	05/09/14	16:47	07:55	HSSER-SMW20-050714
JB66485-17	2A146772.D	05/09/14	17:17	08:25	HSSER-SMW19-050714
JB66485-18	2A146773.D	05/09/14	17:47	08:55	HSSER-GMZ03-050714
JB66485-19	2A146774.D	05/09/14	18:17	09:25	HSSER-DUP01-050714
JB66485-10	2A146775.D	05/09/14	18:46	09:54	HSSER-EBLK01-050714
JB66485-11	2A146776.D	05/09/14	19:16	10:24	HSSER-PMW02-050714
JB66485-12	2A146777.D	05/09/14	19:46	10:54	HSSER-PMW01-050714
JB66485-13	2A146778.D	05/09/14	20:16	11:24	HSSER-GMZ04-050714
ZZZZZZ	2A146779.D	05/09/14	20:45	11:53	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V2A6260-BFB
Lab File ID: 2A146844.D
Instrument ID: GCMS2A
Injection Date: 05/13/14
Injection Time: 08:37

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	12141	20.2		Pass
75	30.0 - 60.0% of mass 95	29365	48.9		Pass
95	Base peak, 100% relative abundance	60080	100.0		Pass
96	5.0 - 9.0% of mass 95	4131	6.88		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	58082	96.7		Pass
175	5.0 - 9.0% of mass 174	4702	7.83	(8.10) [a]	Pass
176	95.0 - 101.0% of mass 174	55776	92.8	(96.0) [a]	Pass
177	5.0 - 9.0% of mass 176	3854	6.41	(6.91) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2A6260-CC6216	2A146845.D	05/13/14	09:07	00:30	Continuing cal 20
V2A6260-MB	2A146847.D	05/13/14	10:40	02:03	Method Blank
V2A6260-BS	2A146848.D	05/13/14	11:09	02:32	Blank Spike
JB66485-9	2A146850.D	05/13/14	12:09	03:32	HSSER-TRIP02-050614
JB66485-1	2A146851.D	05/13/14	12:39	04:02	HSSER-FBLK01-050614
JB66485-2	2A146852.D	05/13/14	13:08	04:31	HSSER-SMW08-050614
JB66485-3	2A146853.D	05/13/14	13:38	05:01	HSSER-GMZ01-050614
JB66485-4	2A146854.D	05/13/14	14:08	05:31	HSSER-SMW01-050614
JB66485-5	2A146855.D	05/13/14	14:38	06:01	HSSER-SMW02-050614
JB66485-6	2A146856.D	05/13/14	15:07	06:30	HSSER-MW07FGA-050614
JB66485-7	2A146857.D	05/13/14	15:37	07:00	HSSER-MW203-050614
JB66485-8	2A146858.D	05/13/14	16:07	07:30	HSSER-SMW04-050614
JB66485-4MS	2A146859.D	05/13/14	16:37	08:00	Matrix Spike
JB66485-4MSD	2A146860.D	05/13/14	17:06	08:29	Matrix Spike Duplicate
ZZZZZZ	2A146861.D	05/13/14	17:36	08:59	(unrelated sample)
ZZZZZZ	2A146862.D	05/13/14	18:05	09:28	(unrelated sample)
ZZZZZZ	2A146863.D	05/13/14	18:35	09:58	(unrelated sample)
ZZZZZZ	2A146864.D	05/13/14	19:05	10:28	(unrelated sample)
ZZZZZZ	2A146865.D	05/13/14	19:34	10:57	(unrelated sample)
ZZZZZZ	2A146866.D	05/13/14	20:04	11:27	(unrelated sample)
ZZZZZZ	2A146867.D	05/13/14	20:34	11:57	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Check Std:	V2A6257-CC6216	**Injection Date:**	05/09/14
Lab File ID:	2A146757.D	**Injection Time:**	09:25
Instrument ID:	GCMS2A	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	88302	7.95	210358	10.39	291586	11.33	249643	14.36	135646	16.52
Upper Limit [a]	176604	8.45	420716	10.89	583172	11.83	499286	14.86	271292	17.02
Lower Limit [b]	44151	7.45	105179	9.89	145793	10.83	124822	13.86	67823	16.02

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2A6257-MB	90048	7.94	208017	10.39	286058	11.33	253745	14.36	134347	16.52
V2A6257-BS	89617	7.95	207672	10.39	287811	11.33	252607	14.36	139486	16.52
JB66485-14	89158	7.95	203362	10.39	280324	11.33	242874	14.36	131014	16.52
ZZZZZZ	81781	7.95	200167	10.39	276932	11.33	239153	14.36	126738	16.52
ZZZZZZ	83073	7.94	199664	10.39	274919	11.33	242353	14.36	127835	16.52
ZZZZZZ	78124	7.94	191724	10.39	263592	11.33	231719	14.36	121485	16.52
ZZZZZZ	88964	7.94	188090	10.39	259967	11.33	227605	14.36	127807	16.52
JB66485-14MS	101309	7.95	212209	10.39	293956	11.33	258338	14.36	140804	16.52
JB66485-14MSD	100748	7.95	213167	10.39	296696	11.33	257227	14.36	139168	16.52
JB66485-15	91168	7.94	215807	10.39	299214	11.33	261707	14.36	141538	16.52
JB66485-16	87449	7.95	208400	10.40	286426	11.33	252090	14.36	132899	16.52
JB66485-17	85292	7.95	209862	10.39	290531	11.33	251210	14.36	134341	16.52
JB66485-18	86165	7.94	204216	10.39	281563	11.33	246439	14.36	129895	16.52
JB66485-19	84522	7.94	199781	10.39	275680	11.33	245881	14.36	127502	16.52
JB66485-10	78470	7.94	199048	10.40	275174	11.33	245443	14.36	127035	16.52
JB66485-11	79749	7.94	192743	10.40	266620	11.33	232748	14.36	121833	16.52
JB66485-12	79097	7.95	191563	10.39	262383	11.33	236346	14.36	122257	16.52
JB66485-13	76517	7.94	188336	10.39	261548	11.33	230996	14.36	120926	16.52
ZZZZZZ	162428	7.93	200258	10.39	281036	11.33	248151	14.36	140832	16.52

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Check Std:	V2A6260-CC6216	**Injection Date:**	05/13/14
Lab File ID:	2A146845.D	**Injection Time:**	09:07
Instrument ID:	GCMS2A	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	74518	7.95	186109	10.39	254592	11.33	223453	14.36	124784	16.52
Upper Limit [a]	149036	8.45	372218	10.89	509184	11.83	446906	14.86	249568	17.02
Lower Limit [b]	37259	7.45	93055	9.89	127296	10.83	111727	13.86	62392	16.02

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2A6260-MB	74900	7.94	183836	10.39	249206	11.33	220759	14.36	117516	16.52
V2A6260-BS	75391	7.94	183977	10.39	251591	11.33	223234	14.36	127559	16.52
JB66485-9	76814	7.94	184731	10.39	253066	11.33	221324	14.36	117715	16.52
JB66485-1	76357	7.95	181246	10.39	246868	11.33	217598	14.36	116105	16.52
JB66485-2	71497	7.95	185311	10.39	252535	11.33	223956	14.36	120384	16.52
JB66485-3	69508	7.94	175066	10.39	238209	11.33	207826	14.36	112095	16.52
JB66485-4	72436	7.95	176650	10.39	241516	11.33	213423	14.36	115934	16.52
JB66485-5	72079	7.95	179122	10.39	245837	11.33	216915	14.36	117136	16.52
JB66485-6	72587	7.94	178715	10.39	247497	11.33	215405	14.36	115718	16.52
JB66485-7	70034	7.95	177735	10.39	244105	11.33	216096	14.36	114883	16.52
JB66485-8	69432	7.94	175574	10.39	239688	11.33	213249	14.36	115244	16.52
JB66485-4MS	72410	7.94	180106	10.39	247516	11.33	221740	14.36	127425	16.52
JB66485-4MSD	74392	7.95	183722	10.39	253269	11.33	220800	14.36	126716	16.52
ZZZZZZ	77562	7.94	190836	10.39	257670	11.33	228435	14.36	121691	16.52
ZZZZZZ	77401	7.95	185878	10.39	256712	11.33	225140	14.36	122742	16.52
ZZZZZZ	73638	7.94	186020	10.39	252661	11.33	224645	14.36	118935	16.52
ZZZZZZ	70715	7.94	182343	10.39	247454	11.33	218900	14.36	114268	16.52
ZZZZZZ	71186	7.94	179370	10.39	245324	11.33	215374	14.36	116465	16.52
ZZZZZZ	73288	7.94	181206	10.39	249060	11.33	222135	14.36	117571	16.52
ZZZZZZ	72981	7.94	181992	10.39	248317	11.33	218730	14.36	116075	16.52

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JB66485-1	2A146851.D	99	99	104	92
JB66485-2	2A146852.D	98	100	105	91
JB66485-3	2A146853.D	99	99	104	91
JB66485-4	2A146854.D	99	100	105	91
JB66485-5	2A146855.D	99	99	105	91
JB66485-6	2A146856.D	100	101	104	92
JB66485-7	2A146857.D	98	101	106	92
JB66485-8	2A146858.D	98	100	106	91
JB66485-9	2A146850.D	98	99	106	92
JB66485-10	2A146775.D	97	97	105	94
JB66485-11	2A146776.D	97	98	106	93
JB66485-12	2A146777.D	98	99	106	94
JB66485-13	2A146778.D	98	100	105	93
JB66485-14	2A146762.D	97	97	104	91
JB66485-15	2A146770.D	97	94	103	91
JB66485-16	2A146771.D	96	93	105	93
JB66485-17	2A146772.D	97	95	103	92
JB66485-18	2A146773.D	96	97	104	93
JB66485-19	2A146774.D	96	96	106	95
JB66485-14MS	2A146767.D	95	93	106	90
JB66485-14MSD	2A146768.D	96	92	103	91
JB66485-4MS	2A146859.D	100	101	106	89
JB66485-4MSD	2A146860.D	99	99	105	87
V2A6257-BS	2A146760.D	97	96	105	90
V2A6257-MB	2A146759.D	95	94	105	93
V2A6260-BS	2A146848.D	100	100	106	88
V2A6260-MB	2A146847.D	98	99	106	92

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	79-120%
S2 = 1,2-Dichloroethane-D4	72-123%
S3 = Toluene-D8	78-119%
S4 = 4-Bromofluorobenzene	74-119%

Initial Calibration Summary

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: V2A6216-ICC6216
Lab FileID: 2A145754.D

Response Factor Report Instrumen

Method : C:\MSDCHEM\1\METHODS\M2A6216.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Calibration Files
1 =2A145749.D 2 =2A145750.D 100 =2A145755.D 50 =2A145754.D
20 =2A145753.D 200 =2A145756.D 5 =2A145762.D 0.5 =2A145761.D
10 =2A145752.D 0.2 =2A145747.D = =

Compound	1	2	100	50	20	200	5	0.5	10	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 ----------ISTD----------												
2) tertiary butyl alcohol	0.918	1.232	1.385	1.204	1.143	1.181		0.980			1.149	13.69
3) Ethanol	0.008	0.052	0.087	0.099	0.080	0.076	0.088	0.053	0.087		0.070	40.21
4) 1,4-dioxane			0.101	0.113	0.099	0.092	0.084		0.081		0.095	12.41
5) I pentafluorobenzene ----------ISTD----------												
6) FREON 143A											0.000#	-1.00
7) chlorodifluoromethane	0.370	0.452	0.518	0.424	0.454	0.450		0.341			0.430	13.70
8) dichlorodifluoromethane	0.482	0.543	0.665	0.759	0.649	0.653	0.649		0.623		0.628	13.26
9) FREON 142B											0.000#	-1.00
10) chloromethane	0.691	0.710	0.732	0.830	0.718	0.739	0.771	0.750	0.703		0.738	5.74
11) vinyl chloride	0.609	0.666	0.705	0.807	0.682	0.704	0.746	0.604	0.680		0.689	9.18
12) bromomethane	0.460	0.447	0.445	0.515	0.442	0.420	0.481	0.420	0.444		0.453	6.60
13) chloroethane	0.280	0.276	0.333	0.369	0.316	0.336	0.327		0.309		0.318	9.60
14) trichlorofluoromethane	0.539	0.618	0.763	0.855	0.730	0.768	0.751		0.686		0.714	13.78
15) PENTANE											0.000#	-1.00
16) ethyl ether	0.208	0.253	0.291	0.323	0.273	0.291	0.285		0.262		0.273	12.40
17) FREON 141B											0.000#	-1.00
18) acrolein	0.110	0.107		0.116	0.086		0.094		0.091		0.101	11.70
19) 1,1-dichloroethene	0.518	0.460	0.483	0.544	0.463	0.486	0.508	0.376	0.446		0.476	10.21
20) acetone			0.135	0.157	0.132	0.134	0.121		0.121		0.133	9.87
21) allyl chloride	0.241	0.252	0.299	0.325	0.276	0.296	0.296		0.263		0.281	9.98
22) acetonitrile	0.036	0.042	0.040	0.045	0.039	0.040	0.043		0.034		0.040	9.02
23) iodomethane												

6.7.1

6

Initial Calibration Summary

Job Number: JB66485 **Sample:** V2A6216-ICC6216
Account: UTC United Technologies Corporation **Lab FileID:** 2A145754.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
      0.940 0.812 0.898 1.015 0.857 0.900 0.930 0.801 0.844        0.889    7.66
24)   iso-butyl alcohol
                  0.018 0.020 0.011 0.018 0.017       0.015        0.016   18.80
            ----- Linear regression -----  Coefficient =  0.9973
              Response Ratio = -0.00607 + 0.01816 *A

25)   carbon disulfide
      1.752 1.542 1.630 1.843 1.552 1.637 1.696 1.742 1.530        1.658    6.54
26)   methylene chloride
      0.606 0.514 0.552 0.619 0.531 0.557 0.570 0.522 0.521        0.555    6.84
27)   methyl acetate
                  0.092 0.102 0.079 0.093 0.055       0.060        0.080   23.58
            ----- Linear regression -----  Coefficient =  0.9986
              Response Ratio = -0.00291 + 0.09389 *A

28)   methyl tert butyl ether
      1.558 1.425 1.527 1.729 1.454 1.539 1.559 1.550 1.438        1.531    5.97
29)   trans-1,2-dichloroethene
      0.570 0.508 0.537 0.599 0.511 0.542 0.551 0.437 0.495        0.528    8.89
30)   di-isopropyl ether
      1.236 1.468 1.676 1.909 1.576 1.690 1.737 1.627 1.317        1.582   13.34
31)   2-butanone
                  0.058 0.064 0.051 0.058             0.046        0.055   13.04
32)   1,1-dichloroethane
      0.955 0.866 0.933 1.053 0.892 0.942 0.962 0.888 0.858        0.928    6.54
33)   chloroprene
            0.631 0.758 0.862 0.719 0.760 0.787       0.592        0.730   12.68
34)   acrylonitrile
      0.172 0.161 0.190 0.209 0.177 0.192 0.180 0.119 0.168        0.174   14.50
35)   vinyl acetate
                  0.095 0.105 0.083 0.098             0.063        0.089   18.67
            ----- Linear regression -----  Coefficient =  0.9986
              Response Ratio = -0.00390 + 0.09921 *A

36)   ethyl tert-butyl ether
      1.264 1.510 1.719 1.954 1.618 1.722 1.737 1.720 1.348        1.621   13.24
37)   ethyl acetate
                  0.067 0.075 0.062 0.068 0.054       0.048        0.062   15.90
            ----- Linear regression -----  Coefficient =  0.9964
              Response Ratio = -0.00215 + 0.06938 *A

38)   2,2-dichloropropane
      0.760 0.695 0.703 0.797 0.686 0.695 0.777 0.685 0.665        0.718    6.54
39)   cis-1,2-dichloroethene
      0.589 0.539 0.593 0.659 0.559 0.600 0.602 0.493 0.542        0.575    8.30
40)   methylacrylate
                  0.081 0.086 0.072 0.082 0.049       0.060        0.072   20.47
            ----- Linear regression -----  Coefficient =  0.9994
              Response Ratio = -0.00248 + 0.08266 *A

41)   propionitrile
      0.057 0.060 0.070 0.078 0.067 0.071 0.066       0.065        0.067    9.64
42)   bromochloromethane
      0.276 0.258 0.295 0.328 0.281 0.295 0.295       0.266        0.287    7.60
43)   tetrahydrofuran
      0.145 0.155 0.164 0.181 0.158 0.163 0.162       0.153        0.160    6.54
44)   chloroform
      0.691 0.569 0.605 0.677 0.580 0.612 0.620 0.635 0.559        0.616    7.43
45)   t-butyl formate
            0.376 0.478 0.540 0.443 0.484 0.450       0.361        0.447   13.96
```

6.7.1

6

Initial Calibration Summary

Job Number: JB66485 **Sample:** V2A6216-ICC6216
Account: UTC United Technologies Corporation **Lab FileID:** 2A145754.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
46)  dibromofluoromethane (s)
          0.381 0.464 0.525 0.428 0.468 0.541       0.366        0.453   14.71
47)  1,2-dichloroethane-d4 (s)
                0.508 0.579 0.472 0.509 0.592       0.404        0.511   13.60
48)  freon 113
                0.371 0.423 0.346 0.370 0.372       0.294        0.362   11.60
49)  methacrylonitrile
      0.238 0.239 0.301 0.329 0.286 0.298 0.294     0.278        0.283   11.02
50)  1,1,1-trichloroethane
      0.791 0.704 0.798 0.894 0.751 0.799 0.807 0.711 0.737      0.777    7.57
51)  Cyclohexane
      0.722 0.666 0.741 0.834 0.710 0.758 0.730 0.701 0.687      0.728    6.69

52) I   1,4-difluorobenzene   ----------------ISTD---------------------
53)  epichlorohydrin
          0.023 0.032 0.036 0.030 0.032 0.031       0.025        0.030   14.04
54)  n-butyl alcohol
                0.009 0.010 0.008 0.008 0.008       0.007        0.008#  12.06
55)  carbon tetrachloride
      0.472 0.444 0.496 0.559 0.477 0.501 0.518 0.452 0.462      0.487    7.42
56)  1,1-dichloropropene
      0.477 0.425 0.477 0.529 0.456 0.483 0.486 0.463 0.431      0.470    6.64
57)  hexane
          0.338 0.395 0.434 0.378 0.391 0.406       0.313        0.379   10.87
58)  TERT AMYL ALCOHOL
                                                                 0.000#  -1.00
59)  2,2,4-TRIMETHYLPENTANE
      0.867 0.946 1.092 1.209 1.026 1.131 1.130     0.838        1.030   13.05
60)  benzene
      1.502 1.330 1.419 1.583 1.352 1.442 1.439 1.394 1.314      1.420    6.04
61)  tert-amyl methyl ether
          0.225 0.266 0.300 0.255 0.264 0.268       0.210        0.255   11.55
62)  heptane
          0.168 0.211 0.235 0.198 0.208 0.210       0.164        0.199   12.69
63)  isopropyl acetate
      0.429 0.581 0.618 0.703 0.580 0.623 0.639 0.680 0.498      0.595   14.52
64)  1,2-dichloroethane
      0.449 0.415 0.460 0.516 0.443 0.460 0.469 0.366 0.424      0.445    9.28
65)  Ethyl Acrylate
                                                                 0.000#  -1.00
66)  trichloroethene
      0.365 0.332 0.361 0.404 0.345 0.366 0.379 0.332 0.328      0.357    7.12
67)  TERT-AMYL ETHYL ETHER
                                                                 0.000#  -1.00
68)  methyl methacrylate
      0.496 0.482 0.520 0.567 0.498 0.515 0.521 0.436 0.467      0.500    7.42
69)  2-nitropropane
          0.101 0.116 0.130 0.112 0.115 0.118       0.103        0.113    8.58
70)  2-chloroethyl vinyl ether
          0.137 0.171 0.190 0.156 0.179 0.165       0.129        0.161   13.64
71)  1,2-dichloropropane
      0.344 0.324 0.358 0.401 0.336 0.365 0.355 0.260 0.320      0.340   11.35
72)  dibromomethane
      0.210 0.200 0.224 0.251 0.210 0.224 0.226 0.166 0.206      0.213   10.83
73)  methylcyclohexane
          0.457 0.542 0.602 0.509 0.546 0.536       0.424        0.517   11.57
74)  bromodichloromethane
      0.459 0.444 0.488 0.547 0.465 0.493 0.491 0.469 0.447      0.478    6.59
75)  cis-1,3-dichloropropene
      0.580 0.529 0.584 0.655 0.554 0.592 0.589 0.567 0.531      0.576    6.60
```

6.7.1

6

Initial Calibration Summary

Job Number: JB66485 **Sample:** V2A6216-ICC6216
Account: UTC United Technologies Corporation **Lab FileID:** 2A145754.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
 76)  toluene-d8 (s)
            0.901 1.089 1.224 1.012 1.107 1.270       0.864        1.067   14.31
 77)  4-methyl-2-pentanone
            0.102 0.130 0.143 0.123 0.131 0.119       0.115        0.123   10.75
 78)  toluene
      0.906 0.779 0.853 0.954 0.813 0.859 0.884 0.847 0.780        0.853    6.75
 79)  3-methyl-1-butanol
            0.012 0.014 0.016 0.013 0.013 0.013       0.011        0.013   11.75
 80)  trans-1,3-dichloropropene
      0.517 0.488 0.540 0.608 0.514 0.548 0.542 0.478 0.491        0.525    7.61
 81)  ethyl methacrylate
      0.413 0.378 0.447 0.498 0.418 0.455 0.424 0.359 0.397        0.421    9.95
 82)  1,1,2-trichloroethane
      0.250 0.240 0.262 0.294 0.252 0.265 0.263 0.213 0.242        0.253    8.72
 83)  2-hexanone
            0.086 0.121 0.131 0.111 0.121 0.110       0.108        0.112   12.67

 84) I   chlorobenzene-d5       ----------------ISTD---------------------
 85)  tetrachloroethene
      0.356 0.306 0.347 0.385 0.333 0.347 0.365 0.276 0.325        0.338    9.65
 86)  1,3-dichloropropane
      0.613 0.551 0.603 0.668 0.570 0.606 0.606 0.524 0.554        0.588    7.31
 87)  butyl acetate
            0.207 0.243 0.275 0.235 0.243 0.238       0.199        0.234   10.72
 88)  3,3-dimethyl-1-butanol
            0.033 0.039 0.044 0.037 0.037 0.038       0.031        0.037   11.45
 89)  dibromochloromethane
      0.426 0.410 0.457 0.502 0.427 0.453 0.450 0.384 0.414        0.436    7.82
 90)  1,2-dibromoethane
      0.379 0.344 0.386 0.433 0.371 0.386 0.383 0.348 0.355        0.376    7.14
 91)  chlorobenzene
      1.151 1.009 1.085 1.213 1.031 1.092 1.109 1.179 1.015        1.098    6.59
 92)  1,1,1,2-tetrachloroethane
      0.411 0.388 0.422 0.470 0.405 0.424 0.423 0.380 0.394        0.413    6.43
 93)  ethylbenzene
      1.961 1.732 1.878 2.084 1.786 1.892 1.903 1.850 1.737        1.869    5.98
 94)  m,p-xylene
      0.750 0.661 0.705 0.785 0.670 0.703 0.715 0.699 0.646        0.704    6.18
 95)  o-xylene
      0.711 0.643 0.701 0.784 0.672 0.700 0.717 0.645 0.641        0.690    6.71
 96)  styrene
      1.168 1.044 1.216 1.359 1.138 1.220 1.181 1.133 1.093        1.173    7.66
 97)  bromoform
      0.279 0.270 0.326 0.353 0.301 0.329 0.300 0.281 0.283        0.302    9.25

 98) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
 99)  isopropylbenzene
      3.741 3.292 3.456 3.840 3.306 3.483 3.624 3.477 3.206        3.492    6.06
100)  4-bromofluorobenzene (s)
            0.798 0.961 1.094 0.911 0.978 1.132       0.785        0.951   14.01
101)  cyclohexanone
                  0.013 0.014 0.011 0.011 0.017       0.012        0.013   16.48
            ----- Linear regression -----  Coefficient =  0.9913
              Response Ratio = 0.01127 + 0.01129 *A

102)  bromobenzene
      0.971 0.943 0.981 1.085 0.945 0.983 1.011 1.011 0.915        0.983    5.07
103)  1,1,2,2-tetrachloroethane
      1.060 0.911 0.968 1.071 0.944 0.968 0.988 1.102 0.917        0.992    7.01
104)  trans-1,4-dichloro-2-butene
```

6.7.1

6

Initial Calibration Summary

Job Number: JB66485 **Sample:** V2A6216-ICC6216
Account: UTC United Technologies Corporation **Lab FileID:** 2A145754.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
      0.169 0.176 0.231 0.254 0.210 0.232 0.213       0.201        0.211   13.63
105)  1,2,3-trichloropropane
      0.227 0.215 0.241 0.267 0.234 0.238 0.249       0.230        0.238    6.56
106)  n-propylbenzene
      0.864 0.786 0.859 0.960 0.831 0.874 0.897 0.821 0.794        0.854    6.33
107)  2-chlorotoluene
      0.912 0.796 0.852 0.950 0.815 0.858 0.892 0.807 0.786        0.852    6.67
108)  4-chlorotoluene
      0.844 0.812 0.880 0.979 0.835 0.891 0.936 0.870 0.810        0.873    6.47
109)  1,3,5-trimethylbenzene
      2.980 2.696 2.912 3.241 2.760 2.953 2.954 2.883 2.667        2.894    6.03
110)  tert-butylbenzene
      2.506 2.267 2.395 2.668 2.285 2.459 2.457 2.502 2.213        2.417    5.91
111)  pentachloroethane
      0.611 0.532 0.625 0.696 0.585 0.629 0.626 0.432 0.566        0.589   12.69
112)  1,2,4-trimethylbenzene
      2.977 2.614 2.871 3.208 2.728 2.894 2.967 2.992 2.639        2.877    6.61
113)  sec-butylbenzene
      3.889 3.368 3.651 4.068 3.469 3.692 3.774 4.262 3.359        3.726    8.32
114)  1,3-dichlorobenzene
      1.876 1.690 1.769 1.977 1.703 1.782 1.867 1.843 1.653        1.795    5.83
115)  p-isopropyltoluene
      3.219 2.758 3.063 3.402 2.891 3.083 3.172 3.468 2.802        3.095    8.04
116)  1,4-dichlorobenzene
      1.974 1.716 1.802 2.009 1.726 1.808 1.898 1.993 1.661        1.843    7.07
117)  1,2-dichlorobenzene
      1.837 1.599 1.720 1.920 1.644 1.706 1.764 1.900 1.590        1.742    7.07
118)  benzyl chloride
            1.515 1.783 2.017 1.679 1.781 1.860       1.412        1.721   11.96
119)  n-butylbenzene
      1.608 1.389 1.559 1.746 1.469 1.583 1.604 1.905 1.416        1.587   10.22
120)  1,2-dibromo-3-chloropropane
            0.135 0.158 0.174 0.150 0.156 0.158       0.138        0.153    8.76
121)  1,3,5-TRICHLOROBENZENE
      1.466 1.236 1.379 1.547 1.311 1.379 1.404 1.875 1.251        1.428   13.62
122)  1,2,4-trichlorobenzene
      1.237 1.051 1.236 1.398 1.157 1.240 1.208       1.082        1.201    8.98
123)  hexachlorobutadiene
      0.786 0.637 0.601 0.680 0.581 0.601 0.685       0.558        0.641   11.54
124)  naphthalene
      2.601 2.324 2.658 2.998 2.510 2.577 2.550       2.387        2.575    7.90
125)  1,2,3-trichlorobenzene
      1.136 0.954 1.067 1.240 1.040 1.037 1.105       0.982        1.070    8.48
126)  hexachloroethane
      0.507 0.509 0.583 0.647 0.541 0.593 0.558 0.433 0.511        0.543   11.46
 ------------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M2A6216.M          Mon Apr 07 10:10:41 2014   MS2A
```

6.7.1

6

Initial Calibration Verification

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: V2A6216-ICV6216
Lab FileID: 2A145765.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\2A145765.D Vial: 2
Acq On : 3 Apr 2014 10:56 am Operator: thomass1
Sample : ICV6216-50 Inst : Instrumen
Misc : MS65187,V2A6216,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M2A6216.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Mon Apr 07 10:04:29 2014
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	117	0.00	7.95
2	M	tertiary butyl alcohol	1.149	1.248	-8.6	106	0.00	8.09
3	m	Ethanol	0.070	0.104	-48.6#	124	-0.01	6.55
4	M	1,4-dioxane	0.095	0.109	-14.7	113	0.00	12.04
5	I	pentafluorobenzene	1.000	1.000	0.0	111	0.00	10.40
6		FREON 143A		----------NA----------				
7	M	chlorodifluoromethane	0.430	0.457	-6.3	98	0.00	4.22
8	M	dichlorodifluoromethane	0.628	0.645	-2.7	95	0.00	4.20
9		FREON 142B		----------NA----------				
10	M	chloromethane	0.738	0.765	-3.7	103	0.01	4.56
11	M	vinyl chloride	0.689	0.732	-6.2	101	0.00	4.83
12	M	bromomethane	0.453	0.477	-5.3	103	0.00	5.53
13	M	chloroethane	0.318	0.419	-31.8#	126	0.00	5.73
14	M	trichlorofluoromethane	0.714	0.803	-12.5	104	0.00	6.26
15		PENTANE		----------NA----------				
16	M	ethyl ether	0.273	0.306	-12.1	105	0.00	6.70
17		FREON 141B		----------NA----------				
18	M	acrolein	0.101	0.110	-8.9	105	0.00	6.98
19	M	1,1-dichloroethene	0.476	0.484	-1.7	99	0.00	7.17
20	M	acetone	0.133	0.153	-15.0	108	0.00	7.23
21	M	allyl chloride	0.281	0.319	-13.5	109	0.00	7.76
22	M	acetonitrile	0.040	0.043	-7.5	107	-0.01	7.72
23	M	iodomethane	0.889	0.898	-1.0	99	0.00	7.48
		----------	True	Calc.	% Drift	----------		
24	M	iso-butyl alcohol	500.000	497.787	0.4	99	0.00	10.95
		----------	AvgRF	CCRF	% Dev	----------		
25	M	carbon disulfide	1.492	1.656	-11.0	100	-0.01	7.61
26	M	methylene chloride	0.555	0.554	0.2	100	0.00	7.98
		----------	True	Calc.	% Drift	----------		
27	M	methyl acetate	50.000	45.244	9.5	90	0.00	7.75
		----------	AvgRF	CCRF	% Dev	----------		
28	M	methyl tert butyl ether	1.378	1.554	-12.7	100	0.00	8.35
29	M	trans-1,2-dichloroethene	0.528	0.525	0.6	98	0.00	8.39
30	M	di-isopropyl ether	1.423	1.685	-18.4	98	0.00	9.01
31	M	2-butanone	0.055	0.062	-12.7	109	0.00	9.80
32	M	1,1-dichloroethane	0.928	0.951	-2.5	101	0.00	9.03
33	M	chloroprene	0.730	0.694	4.9	90	0.00	9.14

Initial Calibration Verification

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V2A6216-ICV6216
Lab FileID: 2A145765.D

34	M	acrylonitrile	0.174	0.199	-14.4	106	0.00	8.34
		----------	True	Calc.	% Drift	----------		
35	M	vinyl acetate	50.000	54.847	-9.7	111	-0.01	9.02
		----------	AvgRF	CCRF	% Dev	----------		
36	M	ethyl tert-butyl ether	1.459	1.671	-14.5	95	0.00	9.52
		----------	True	Calc.	% Drift	----------		
37	M	ethyl acetate	50.000	51.663	-3.3	103	0.00	9.82
		----------	AvgRF	CCRF	% Dev	----------		
38	M	2,2-dichloropropane	0.718	0.777	-8.2	109	0.00	9.83
39	M	cis-1,2-dichloroethene	0.575	0.591	-2.8	100	0.00	9.83
		----------	True	Calc.	% Drift	----------		
40		methylacrylate	50.000	50.554	-1.1	104	0.00	9.90
		----------	AvgRF	CCRF	% Dev	----------		
41	M	propionitrile	0.067	0.075	-11.9	108	0.00	9.89
42	M	bromochloromethane	0.287	0.292	-1.7	99	0.00	10.16
43	M	tetrahydrofuran	0.160	0.171	-6.9	106	0.00	10.21
44	M	chloroform	0.616	0.611	0.8	100	0.00	10.23
45		t-butyl formate	0.447	0.500	-11.9	103	0.00	10.26
46	S	dibromofluoromethane (s)	0.453	0.524	-15.7	111	0.00	10.44
47	S	1,2-dichloroethane-d4 (s)	0.511	0.581	-13.7	112	0.00	10.87
48	M	freon 113	0.362	0.366	-1.1	96	0.00	7.14
49	M	methacrylonitrile	0.283	0.308	-8.8	104	0.00	10.09
50	M	1,1,1-trichloroethane	0.777	0.803	-3.3	100	0.00	10.49
51	M	Cyclohexane	0.728	0.731	-0.4	98	0.00	10.56
52	I	1,4-difluorobenzene	1.000	1.000	0.0	110	0.00	11.33
53	M	epichlorohydrin	0.026	0.029	-11.5	89	0.00	12.57
54	M	n-butyl alcohol	0.007	0.010#	-42.9#	106	0.00	11.47
55	M	carbon tetrachloride	0.487	0.508	-4.3	100	0.00	10.70
56	M	1,1-dichloropropene	0.470	0.462	1.7	96	0.00	10.67
57	M	hexane	0.379	0.433	-14.2	110	0.00	8.73
58		TERT AMYL ALCOHOL		----------NA----------				
59		2,2,4-TRIMETHYLPENTANE	1.030	1.089	-5.7	99	0.00	10.96
60	M	benzene	1.278	1.440	-12.7	100	0.00	10.95
61	M	tert-amyl methyl ether	0.224	0.262	-17.0	96	0.00	10.99
62	M	heptane	0.199	0.217	-9.0	101	0.00	11.13
63	M	isopropyl acetate	0.595	0.685	-15.1	107	0.00	10.88
64	M	1,2-dichloroethane	0.445	0.472	-6.1	101	0.00	10.97
65	M	Ethyl Acrylate		----------NA----------				
66	M	trichloroethene	0.357	0.361	-1.1	98	0.00	11.67
67		TERT-AMYL ETHYL ETHER		----------NA----------				
68	M	methyl methacrylate	0.500	0.536	-7.2	104	0.00	11.93
69	M	2-nitropropane	0.113	0.121	-7.1	103	0.00	12.43
70	M	2-chloroethyl vinyl ether	0.161	0.174	-8.1	101	0.00	12.45
71	M	1,2-dichloropropane	0.340	0.366	-7.6	100	0.00	11.93
72	M	dibromomethane	0.213	0.226	-6.1	99	0.00	12.09
73	M	methylcyclohexane	0.517	0.544	-5.2	99	0.00	11.88
74	M	bromodichloromethane	0.478	0.505	-5.6	102	0.00	12.22
75	M	cis-1,3-dichloropropene	0.576	0.590	-2.4	99	0.00	12.66
76	S	toluene-d8 (s)	1.067	1.250	-17.2	112	0.00	12.93
77	M	4-methyl-2-pentanone	0.123	0.136	-10.6	105	0.00	12.75
78	M	toluene	0.768	0.858	-11.7	99	0.00	13.00
79	M	3-methyl-1-butanol	0.013	0.015	-15.4	107	0.00	12.78
80	M	trans-1,3-dichloropropene	0.525	0.532	-1.3	96	0.00	13.19

Initial Calibration Verification

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V2A6216-ICV6216
Lab FileID: 2A145765.D

81	M	ethyl methacrylate	0.421	0.450	-6.9	99	0.00	13.18
82	M	1,1,2-trichloroethane	0.253	0.267	-5.5	100	0.00	13.40
83	M	2-hexanone	0.112	0.126	-12.5	106	0.00	13.56
84	I	chlorobenzene-d5	1.000	1.000	0.0	108	0.00	14.36
85	M	tetrachloroethene	0.338	0.353	-4.4	99	0.00	13.56
86	M	1,3-dichloropropane	0.588	0.609	-3.6	99	0.00	13.57
87	M	butyl acetate	0.234	0.257	-9.8	101	0.00	13.63
88		3,3-dimethyl-1-butanol	0.037	0.043	-16.2	105	0.00	13.72
89	M	dibromochloromethane	0.436	0.463	-6.2	100	0.00	13.82
90	M	1,2-dibromoethane	0.376	0.396	-5.3	99	0.00	13.96
91	M	chlorobenzene	0.988	1.103	-11.6	98	0.00	14.39
92	M	1,1,1,2-tetrachloroethane	0.413	0.426	-3.1	98	0.00	14.45
93	M	ethylbenzene	1.682	1.894	-12.6	98	0.00	14.44
94	M	m,p-xylene	0.633	0.714	-12.8	99	0.00	14.54
95	M	o-xylene	0.621	0.705	-13.5	97	0.00	14.93
96	M	styrene	1.173	1.237	-5.5	98	0.00	14.94
97	M	bromoform	0.302	0.334	-10.6	102	0.00	15.19
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	16.53
99	M	isopropylbenzene	3.143	3.491	-11.1	100	0.00	15.25
100	S	4-bromofluorobenzene (s)	0.951	1.064	-11.9	106	0.00	15.44
		----------	True	Calc.	% Drift	----------		
101		cyclohexanone	500.000	647.034	-29.4#	120	0.00	15.41
		----------	AvgRF	CCRF	% Dev	----------		
102	M	bromobenzene	0.885	0.988	-11.6	100	0.00	15.62
103	M	1,1,2,2-tetrachloroethane	0.992	0.954	3.8	98	0.00	15.54
104	M	trans-1,4-dichloro-2-bute	0.211	0.247	-17.1	107	0.00	15.57
105	M	1,2,3-trichloropropane	0.238	0.243	-2.1	100	0.00	15.61
106	M	n-propylbenzene	0.769	0.924	-20.2#	105	0.00	15.63
107	M	2-chlorotoluene	0.767	0.859	-12.0	99	0.00	15.77
108	M	4-chlorotoluene	0.786	0.878	-11.7	98	0.00	15.86
109	M	1,3,5-trimethylbenzene	2.605	2.905	-11.5	98	0.00	15.77
110	M	tert-butylbenzene	2.175	2.413	-10.9	99	0.00	16.09
111	M	pentachloroethane	0.530	0.633	-19.4	100	0.00	16.18
112	M	1,2,4-trimethylbenzene	2.589	3.010	-16.3	103	0.00	16.13
113	M	sec-butylbenzene	3.353	3.637	-8.5	98	0.00	16.29
114	M	1,3-dichlorobenzene	1.616	1.775	-9.8	98	0.00	16.47
115	M	p-isopropyltoluene	2.786	3.088	-10.8	99	0.00	16.40
116	M	1,4-dichlorobenzene	1.659	1.816	-9.5	99	0.00	16.55
117	M	1,2-dichlorobenzene	1.568	1.723	-9.9	98	0.00	16.92
118	M	benzyl chloride	1.506	2.223	-47.6#	121	0.00	16.65
119	M	n-butylbenzene	1.428	1.615	-13.1	101	0.00	16.79
120	M	1,2-dibromo-3-chloropropa	0.153	0.162	-5.9	101	0.00	17.67
121		1,3,5-TRICHLOROBENZENE	1.285	1.438	-11.9	102	0.00	17.86
122	M	1,2,4-trichlorobenzene	1.067	1.260	-18.1	99	0.00	18.49
123	M	hexachlorobutadiene	0.570	0.640	-12.3	103	0.00	18.61
124	M	naphthalene	2.289	2.692	-17.6	98	0.00	18.78
125	M	1,2,3-trichlorobenzene	0.951	1.123	-18.1	99	0.00	19.02
126	M	hexachloroethane	0.488	0.594	-21.7#	100	0.00	17.17

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2A145754.D M2A6216.M Mon Apr 07 13:54:52 2014 MS2A

6.7.2

6

Continuing Calibration Summary

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V2A6257-CC6216
Lab FileID: 2A146757.D

Evaluate Continuing Calibration Report

Data File : C:\MSDChem\1\DATA\2A146757.D Vial: 2
Acq On : 9 May 2014 9:25 am Operator: thomass1
Sample : cc6216-20 Inst : Instrumen
Misc : MS67229,V2A6257,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M2A6216.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Mon Apr 07 10:04:29 2014
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	120	0.00	7.95
2	M	tertiary butyl alcohol	1.149	1.088	5.3	109	-0.01	8.08
3	m	Ethanol		----------NA----------				
4	M	1,4-dioxane	0.095	0.103	-8.4	126	0.00	12.04
5	I	pentafluorobenzene	1.000	1.000	0.0	117	0.00	10.39
6		FREON 143A		----------NA----------				
7	M	chlorodifluoromethane	0.430	0.398	7.4	110	0.00	4.21
8	M	dichlorodifluoromethane	0.628	0.675	-7.5	122	0.00	4.19
9		FREON 142B		----------NA----------				
10	M	chloromethane	0.738	0.733	0.7	120	0.00	4.55
11	M	vinyl chloride	0.689	0.689	0.0	119	0.00	4.83
12	M	bromomethane	0.453	0.447	1.3	119	0.00	5.53
13	M	chloroethane	0.318	0.312	1.9	116	0.00	5.73
14	M	trichlorofluoromethane	0.714	0.805	-12.7	129	0.00	6.26
15		PENTANE		----------NA----------				
16	M	ethyl ether	0.273	0.255	6.6	109	0.00	6.71
17		FREON 141B		----------NA----------				
18	M	acrolein	0.101	0.090	10.9	122	0.00	6.98
19	M	1,1-dichloroethene	0.476	0.439	7.8	111	0.00	7.17
20	M	acetone	0.133	0.127	4.5	112	0.00	7.24
21	M	allyl chloride	0.281	0.238	15.3	101	0.00	7.76
22	M	acetonitrile	0.040	0.039	2.5	118	0.00	7.73
23	M	iodomethane	0.889	0.866	2.6	118	-0.01	7.47
		----------	True	Calc.	% Drift	----------		
24	M	iso-butyl alcohol	200.000	189.138	5.4	166	-0.01	10.94
		----------	AvgRF	CCRF	% Dev	----------		
25	M	carbon disulfide	1.492	1.520	-1.9	115	-0.01	7.61
26	M	methylene chloride	0.555	0.503	9.4	111	-0.01	7.98
		----------	True	Calc.	% Drift	----------		
27	M	methyl acetate	20.000	15.236	23.8#	95	0.00	7.76
		----------	AvgRF	CCRF	% Dev	----------		
28	M	methyl tert butyl ether	1.378	1.403	-1.8	113	0.00	8.35
29	M	trans-1,2-dichloroethene	0.528	0.489	7.4	112	0.00	8.40
30	M	di-isopropyl ether	1.423	1.556	-9.3	116	0.00	9.01
31	M	2-butanone	0.055	0.047	14.5	108	0.00	9.80
32	M	1,1-dichloroethane	0.928	0.869	6.4	114	0.00	9.02
33	M	chloroprene	0.730	0.680	6.8	111	0.00	9.14

Continuing Calibration Summary

Job Number: JB66485 **Sample:** V2A6257-CC6216
Account: UTC United Technologies Corporation **Lab FileID:** 2A146757.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

34	M	acrylonitrile	0.174	0.155	10.9	102	0.00	8.35
		----------	True	Calc.	% Drift	----------		
35	M	vinyl acetate	20.000	15.899	20.5#	98	0.00	9.02
		----------	AvgRF	CCRF	% Dev	----------		
36	M	ethyl tert-butyl ether	1.459	1.503	-3.0	109	0.00	9.52
		----------	True	Calc.	% Drift	----------		
37	M	ethyl acetate	20.000	16.638	16.8	99	0.00	9.83
		----------	AvgRF	CCRF	% Dev	----------		
38	M	2,2-dichloropropane	0.718	0.754	-5.0	129	0.00	9.83
39	M	cis-1,2-dichloroethene	0.575	0.542	5.7	114	0.00	9.83
		----------	True	Calc.	% Drift	----------		
40		methylacrylate	20.000	15.573	22.1#	95	0.00	9.91
		----------	AvgRF	CCRF	% Dev	----------		
41	M	propionitrile	0.067	0.059	11.9	105	0.00	9.89
42	M	bromochloromethane	0.287	0.265	7.7	111	0.00	10.16
43	M	tetrahydrofuran	0.160	0.147	8.1	109	-0.01	10.20
44	M	chloroform	0.616	0.561	8.9	113	0.00	10.22
45		t-butyl formate	0.447	0.413	7.6	109	0.00	10.26
46	S	dibromofluoromethane (s)	0.453	0.440	2.9	120	0.00	10.43
47	S	1,2-dichloroethane-d4 (s)	0.511	0.478	6.5	119	0.00	10.87
48	M	freon 113	0.362	0.346	4.4	117	0.00	7.14
49	M	methacrylonitrile	0.283	0.269	4.9	110	0.00	10.09
50	M	1,1,1-trichloroethane	0.777	0.752	3.2	117	0.00	10.49
51	M	Cyclohexane	0.728	0.711	2.3	117	0.00	10.56
52	I	1,4-difluorobenzene	1.000	1.000	0.0	111	0.00	11.33
53	M	epichlorohydrin	0.026	0.029	-11.5	105	0.00	12.56
54	M	n-butyl alcohol	0.007	0.008#	-14.3	112	0.00	11.47
55	M	carbon tetrachloride	0.487	0.507	-4.1	118	0.00	10.70
56	M	1,1-dichloropropene	0.470	0.461	1.9	112	0.00	10.67
57	M	hexane	0.379	0.395	-4.2	116	0.00	8.73
58		TERT AMYL ALCOHOL		----------NA----------				
59		2,2,4-TRIMETHYLPENTANE	1.030	1.197	-16.2	130	0.00	10.95
60	M	benzene	1.278	1.354	-5.9	111	0.00	10.95
61	M	tert-amyl methyl ether	0.224	0.244	-8.9	107	0.00	10.99
62	M	heptane	0.199	0.232	-16.6	130	0.00	11.13
63	M	isopropyl acetate	0.595	0.566	4.9	108	0.00	10.88
64	M	1,2-dichloroethane	0.445	0.452	-1.6	113	0.00	10.96
65	M	Ethyl Acrylate		----------NA----------				
66	M	trichloroethene	0.357	0.344	3.6	111	0.00	11.67
67		TERT-AMYL ETHYL ETHER		----------NA----------				
68	M	methyl methacrylate	0.500	0.513	-2.6	115	0.00	11.93
69	M	2-nitropropane	0.113	0.114	-0.9	113	0.00	12.43
70	M	2-chloroethyl vinyl ether	0.161	0.165	-2.5	118	0.00	12.45
71	M	1,2-dichloropropane	0.340	0.337	0.9	112	0.00	11.92
72	M	dibromomethane	0.213	0.208	2.3	110	0.00	12.08
73	M	methylcyclohexane	0.517	0.521	-0.8	114	0.00	11.88
74	M	bromodichloromethane	0.478	0.476	0.4	114	0.00	12.22
75	M	cis-1,3-dichloropropene	0.576	0.551	4.3	111	0.00	12.66
76	S	toluene-d8 (s)	1.067	1.107	-3.7	122	0.00	12.93
77	M	4-methyl-2-pentanone	0.123	0.113	8.1	101	0.00	12.75
78	M	toluene	0.768	0.801	-4.3	109	0.00	13.00
79	M	3-methyl-1-butanol	0.013	0.013	0.0	108	0.00	12.78
80	M	trans-1,3-dichloropropene	0.525	0.498	5.1	108	0.00	13.19

Continuing Calibration Summary

Job Number: JB66485 **Sample:** V2A6257-CC6216
Account: UTC United Technologies Corporation **Lab FileID:** 2A146757.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

81	M	ethyl methacrylate	0.421	0.375	10.9	100	0.00	13.18
82	M	1,1,2-trichloroethane	0.253	0.239	5.5	106	0.00	13.39
83	M	2-hexanone	0.112	0.103	8.0	103	0.00	13.56
84	I	chlorobenzene-d5	1.000	1.000	0.0	112	0.00	14.36
85	M	tetrachloroethene	0.338	0.355	-5.0	119	0.00	13.56
86	M	1,3-dichloropropane	0.588	0.529	10.0	104	0.00	13.57
87	M	butyl acetate	0.234	0.203	13.2	97	0.00	13.63
88		3,3-dimethyl-1-butanol	0.037	0.032	13.5	96	0.00	13.72
89	M	dibromochloromethane	0.436	0.430	1.4	113	0.00	13.82
90	M	1,2-dibromoethane	0.376	0.345	8.2	104	0.00	13.95
91	M	chlorobenzene	0.988	1.031	-4.4	112	0.00	14.39
92	M	1,1,1,2-tetrachloroethane	0.413	0.412	0.2	114	0.00	14.44
93	M	ethylbenzene	1.682	1.744	-3.7	109	0.00	14.44
94	M	m,p-xylene	0.633	0.680	-7.4	114	0.00	14.54
95	M	o-xylene	0.621	0.675	-8.7	113	0.00	14.93
96	M	styrene	1.173	1.126	4.0	111	0.00	14.94
97	M	bromoform	0.302	0.299	1.0	111	0.00	15.19
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	120	0.00	16.52
99	M	isopropylbenzene	3.143	3.183	-1.3	115	0.00	15.25
100	S	4-bromofluorobenzene (s)	0.951	0.860	9.6	113	0.00	15.44
		----------	True	Calc.	% Drift	----------		
101		cyclohexanone	200.000	184.611	7.7	143	0.00	15.41
		----------	AvgRF	CCRF	% Dev	----------		
102	M	bromobenzene	0.885	0.895	-1.1	113	0.00	15.62
103	M	1,1,2,2-tetrachloroethane	0.992	0.812	18.1	103	0.00	15.53
104	M	trans-1,4-dichloro-2-bute	0.211	0.189	10.4	108	0.00	15.57
105	M	1,2,3-trichloropropane	0.238	0.197	17.2	101	0.00	15.61
106	M	n-propylbenzene	0.769	0.796	-3.5	115	0.00	15.63
107	M	2-chlorotoluene	0.767	0.773	-0.8	114	0.00	15.77
108	M	4-chlorotoluene	0.786	0.808	-2.8	116	0.00	15.86
109	M	1,3,5-trimethylbenzene	2.605	2.676	-2.7	116	0.00	15.77
110	M	tert-butylbenzene	2.175	2.231	-2.6	117	0.00	16.09
111	M	pentachloroethane	0.530	0.587	-10.8	120	0.00	16.17
112	M	1,2,4-trimethylbenzene	2.589	2.621	-1.2	115	0.00	16.13
113	M	sec-butylbenzene	3.353	3.429	-2.3	118	0.00	16.29
114	M	1,3-dichlorobenzene	1.616	1.678	-3.8	118	0.00	16.47
115	M	p-isopropyltoluene	2.786	2.847	-2.2	118	0.00	16.40
116	M	1,4-dichlorobenzene	1.659	1.690	-1.9	117	0.00	16.55
117	M	1,2-dichlorobenzene	1.568	1.627	-3.8	119	0.00	16.92
118	M	benzyl chloride	1.506	1.671	-11.0	119	0.00	16.65
119	M	n-butylbenzene	1.428	1.431	-0.2	117	0.00	16.79
120	M	1,2-dibromo-3-chloropropa	0.153	0.128	16.3	103	0.00	17.67
121		1,3,5-TRICHLOROBENZENE	1.285	1.393	-8.4	127	0.00	17.85
122	M	1,2,4-trichlorobenzene	1.067	1.230	-15.3	127	0.00	18.49
123	M	hexachlorobutadiene	0.570	0.670	-17.5	138	0.00	18.60
124	M	naphthalene	2.289	2.426	-6.0	116	0.00	18.77
125	M	1,2,3-trichlorobenzene	0.951	1.077	-13.2	124	0.00	19.02
126	M	hexachloroethane	0.488	0.556	-13.9	123	0.00	17.16

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2A145753.D M2A6216.M Fri May 09 12:10:44 2014 MS2A

6.7.3 6

Continuing Calibration Summary

Job Number: JB66485
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: V2A6260-CC6216
Lab FileID: 2A146845.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\2A146845.D Vial: 2
Acq On : 13 May 2014 9:07 am Operator: thomass1
Sample : cc6216-20 Inst : Instrumen
Misc : MS67410,V2A6260,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M2A6216.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Mon Apr 07 10:04:29 2014
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	102	0.00	7.95
2	M	tertiary butyl alcohol	1.149	1.161	-1.0	98	-0.01	8.08
3	m	Ethanol		----------NA----------				
4	M	1,4-dioxane	0.095	0.102	-7.4	105	0.00	12.04
5	I	pentafluorobenzene	1.000	1.000	0.0	104	0.00	10.39
6		FREON 143A		----------NA----------				
7	M	chlorodifluoromethane	0.430	0.424	1.4	104	0.00	4.21
8	M	dichlorodifluoromethane	0.628	0.650	-3.5	104	0.00	4.20
9		FREON 142B		----------NA----------				
10	M	chloromethane	0.738	0.660	10.6	95	0.00	4.55
11	M	vinyl chloride	0.689	0.601	12.8	91	0.00	4.83
12	M	bromomethane	0.453	0.390	13.9	92	0.00	5.54
13	M	chloroethane	0.318	0.279	12.3	92	0.00	5.73
14	M	trichlorofluoromethane	0.714	0.791	-10.8	112	0.00	6.26
15		PENTANE		----------NA----------				
16	M	ethyl ether	0.273	0.235	13.9	89	0.00	6.70
17		FREON 141B		----------NA----------				
18	M	acrolein	0.101	0.088	12.9	105	0.00	6.98
19	M	1,1-dichloroethene	0.476	0.410	13.9	92	0.00	7.17
20	M	acetone	0.133	0.114	14.3	89	0.00	7.24
21	M	allyl chloride	0.281	0.222	21.0#	83	0.00	7.77
22	M	acetonitrile	0.040	0.040	0.0	105	0.00	7.73
23	M	iodomethane	0.889	0.816	8.2	99	-0.01	7.47
		----------	True	Calc.	% Drift	----------		
24	M	iso-butyl alcohol	200.000	186.510	6.7	145	0.00	10.95
		----------	AvgRF	CCRF	% Dev	----------		
25	M	carbon disulfide	1.492	1.420	4.8	95	-0.01	7.61
26	M	methylene chloride	0.555	0.478	13.9	93	0.00	7.98
		----------	True	Calc.	% Drift	----------		
27	M	methyl acetate	20.000	15.340	23.3#	85	0.00	7.76
		----------	AvgRF	CCRF	% Dev	----------		
28	M	methyl tert butyl ether	1.378	1.340	2.8	96	0.00	8.35
29	M	trans-1,2-dichloroethene	0.528	0.464	12.1	94	0.00	8.40
30	M	di-isopropyl ether	1.423	1.617	-13.6	106	0.00	9.01
31	M	2-butanone	0.055	0.041	25.5#	85	0.00	9.81
32	M	1,1-dichloroethane	0.928	0.830	10.6	96	0.00	9.02
33	M	chloroprene	0.730	0.712	2.5	103	0.00	9.14

Continuing Calibration Summary

Job Number: JB66485 **Sample:** V2A6260-CC6216
Account: UTC United Technologies Corporation **Lab FileID:** 2A146845.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

34	M	acrylonitrile	0.174	0.146	16.1	85	0.00	8.35
		----------	True	Calc.	% Drift	----------		
35	M	vinyl acetate	20.000	16.602	17.0	91	0.00	9.03
		----------	AvgRF	CCRF	% Dev	----------		
36	M	ethyl tert-butyl ether	1.459	1.556	-6.6	100	0.00	9.52
		----------	True	Calc.	% Drift	----------		
37	M	ethyl acetate	20.000	17.654	11.7	94	0.00	9.82
		----------	AvgRF	CCRF	% Dev	----------		
38	M	2,2-dichloropropane	0.718	0.729	-1.5	110	0.00	9.83
39	M	cis-1,2-dichloroethene	0.575	0.508	11.7	94	0.00	9.83
		----------	True	Calc.	% Drift	----------		
40		methylacrylate	20.000	14.657	26.7#	79	0.00	9.90
		----------	AvgRF	CCRF	% Dev	----------		
41	M	propionitrile	0.067	0.057	14.9	88	0.00	9.89
42	M	bromochloromethane	0.287	0.256	10.8	95	0.00	10.16
43	M	tetrahydrofuran	0.160	0.145	9.4	95	0.00	10.21
44	M	chloroform	0.616	0.553	10.2	99	0.00	10.22
45		t-butyl formate	0.447	0.439	1.8	103	0.00	10.26
46	S	dibromofluoromethane (s)	0.453	0.443	2.2	107	0.00	10.44
47	S	1,2-dichloroethane-d4 (s)	0.511	0.507	0.8	112	0.00	10.87
48	M	freon 113	0.362	0.359	0.8	108	0.00	7.15
49	M	methacrylonitrile	0.283	0.258	8.8	94	0.00	10.09
50	M	1,1,1-trichloroethane	0.777	0.742	4.5	102	0.00	10.49
51	M	Cyclohexane	0.728	0.668	8.2	98	0.00	10.56
52	I	1,4-difluorobenzene	1.000	1.000	0.0	97	0.00	11.33
53	M	epichlorohydrin	0.026	0.030	-15.4	96	0.00	12.57
54	M	n-butyl alcohol	0.007	0.009#	-28.6#	99	0.00	11.47
55	M	carbon tetrachloride	0.487	0.517	-6.2	105	0.00	10.70
56	M	1,1-dichloropropene	0.470	0.456	3.0	97	0.00	10.67
57	M	hexane	0.379	0.414	-9.2	106	0.00	8.73
58		TERT AMYL ALCOHOL		----------NA----------				
59		2,2,4-TRIMETHYLPENTANE	1.030	1.229	-19.3	116	0.00	10.95
60	M	benzene	1.278	1.322	-3.4	95	0.00	10.95
61	M	tert-amyl methyl ether	0.224	0.256	-14.3	98	0.00	10.99
62	M	heptane	0.199	0.239	-20.1#	117	0.00	11.13
63	M	isopropyl acetate	0.595	0.608	-2.2	102	0.00	10.88
64	M	1,2-dichloroethane	0.445	0.473	-6.3	104	0.00	10.97
65	M	Ethyl Acrylate		----------NA----------				
66	M	trichloroethene	0.357	0.340	4.8	96	0.00	11.67
67		TERT-AMYL ETHYL ETHER		----------NA----------				
68	M	methyl methacrylate	0.500	0.533	-6.6	104	0.00	11.93
69	M	2-nitropropane	0.113	0.131	-15.9	114	0.00	12.43
70	M	2-chloroethyl vinyl ether	0.161	0.182	-13.0	113	0.00	12.45
71	M	1,2-dichloropropane	0.340	0.333	2.1	96	0.00	11.93
72	M	dibromomethane	0.213	0.211	0.9	97	0.00	12.09
73	M	methylcyclohexane	0.517	0.541	-4.6	103	0.00	11.88
74	M	bromodichloromethane	0.478	0.479	-0.2	100	0.00	12.21
75	M	cis-1,3-dichloropropene	0.576	0.546	5.2	96	0.00	12.66
76	S	toluene-d8 (s)	1.067	1.123	-5.2	108	0.00	12.93
77	M	4-methyl-2-pentanone	0.123	0.108	12.2	85	0.00	12.75
78	M	toluene	0.768	0.796	-3.6	95	0.00	13.00
79	M	3-methyl-1-butanol	0.013	0.014	-7.7	101	0.00	12.78
80	M	trans-1,3-dichloropropene	0.525	0.517	1.5	98	0.00	13.19

Continuing Calibration Summary

Job Number: JB66485 **Sample:** V2A6260-CC6216
Account: UTC United Technologies Corporation **Lab FileID:** 2A146845.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

81	M	ethyl methacrylate	0.421	0.376	10.7	87	0.00	13.18
82	M	1,1,2-trichloroethane	0.253	0.241	4.7	93	0.00	13.39
83	M	2-hexanone	0.112	0.098	12.5	86	0.00	13.56
84	I	chlorobenzene-d5	1.000	1.000	0.0	100	0.00	14.36
85	M	tetrachloroethene	0.338	0.338	0.0	102	0.00	13.56
86	M	1,3-dichloropropane	0.588	0.527	10.4	93	0.00	13.57
87	M	butyl acetate	0.234	0.216	7.7	92	0.00	13.63
88		3,3-dimethyl-1-butanol	0.037	0.033	10.8	90	0.00	13.72
89	M	dibromochloromethane	0.436	0.431	1.1	101	0.00	13.82
90	M	1,2-dibromoethane	0.376	0.339	9.8	92	0.00	13.95
91	M	chlorobenzene	0.988	1.018	-3.0	99	0.00	14.39
92	M	1,1,1,2-tetrachloroethane	0.413	0.407	1.5	101	0.00	14.45
93	M	ethylbenzene	1.682	1.735	-3.2	97	0.00	14.44
94	M	m,p-xylene	0.633	0.667	-5.4	100	0.00	14.54
95	M	o-xylene	0.621	0.662	-6.6	99	0.00	14.93
96	M	styrene	1.173	1.124	4.2	99	0.00	14.94
97	M	bromoform	0.302	0.302	0.0	101	0.00	15.19
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	16.52
99	M	isopropylbenzene	3.143	3.023	3.8	101	0.00	15.25
100	S	4-bromofluorobenzene (s)	0.951	0.855	10.1	103	0.00	15.44
		----------	True	Calc.	% Drift	----------		
101		cyclohexanone	200.000	376.253	-88.1#	240	0.00	15.40
		----------	AvgRF	CCRF	% Dev	----------		
102	M	bromobenzene	0.885	0.886	-0.1	103	0.00	15.62
103	M	1,1,2,2-tetrachloroethane	0.992	0.782	21.2#	91	0.00	15.54
104	M	trans-1,4-dichloro-2-bute	0.211	0.196	7.1	103	0.00	15.57
105	M	1,2,3-trichloropropane	0.238	0.199	16.4	94	0.00	15.60
106	M	n-propylbenzene	0.769	0.769	0.0	102	0.00	15.63
107	M	2-chlorotoluene	0.767	0.761	0.8	103	0.00	15.77
108	M	4-chlorotoluene	0.786	0.786	0.0	104	0.00	15.86
109	M	1,3,5-trimethylbenzene	2.605	2.561	1.7	102	0.00	15.76
110	M	tert-butylbenzene	2.175	2.137	1.7	103	0.00	16.09
111	M	pentachloroethane	0.530	0.569	-7.4	107	0.00	16.17
112	M	1,2,4-trimethylbenzene	2.589	2.552	1.4	103	0.00	16.13
113	M	sec-butylbenzene	3.353	3.224	3.8	102	0.00	16.29
114	M	1,3-dichlorobenzene	1.616	1.646	-1.9	107	0.00	16.47
115	M	p-isopropyltoluene	2.786	2.751	1.3	105	0.00	16.40
116	M	1,4-dichlorobenzene	1.659	1.672	-0.8	107	0.00	16.55
117	M	1,2-dichlorobenzene	1.568	1.595	-1.7	107	0.00	16.92
118	M	benzyl chloride	1.506	1.753	-16.4	115	0.00	16.65
119	M	n-butylbenzene	1.428	1.401	1.9	105	0.00	16.79
120	M	1,2-dibromo-3-chloropropa	0.153	0.128	16.3	94	0.00	17.67
121		1,3,5-TRICHLOROBENZENE	1.285	1.299	-1.1	109	0.00	17.85
122	M	1,2,4-trichlorobenzene	1.067	1.109	-3.9	106	0.00	18.49
123	M	hexachlorobutadiene	0.570	0.626	-9.8	119	0.00	18.60
124	M	naphthalene	2.289	2.200	3.9	97	0.00	18.77
125	M	1,2,3-trichlorobenzene	0.951	0.986	-3.7	105	0.00	19.02
126	M	hexachloroethane	0.488	0.527	-8.0	107	0.00	17.17

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2A145753.D M2A6216.M Tue May 13 16:04:24 2014 MS2A

6.7.4 6

New Jersey
ACCUTEST
LABORATORIES

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146851.D
Acq On : 13 May 2014 12:39 pm
Operator : thomass1
Sample : jb66485-1
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 13 16:08:22 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.95	65	76357	500.00 ug/L	0.00
5) pentafluorobenzene	10.39	168	181246	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	246868	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	217598	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	116105	50.00 ug/L	0.00

System Monitoring Compounds					
46) dibromofluoromethane (s)	10.44	113	80991	49.29 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 98.58%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	91385	49.37 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 98.74%		
76) toluene-d8 (s)	12.93	98	274212	52.06 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 104.12%		
100) 4-bromofluorobenzene (s)	15.44	95	101732	46.06 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 92.12%		

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

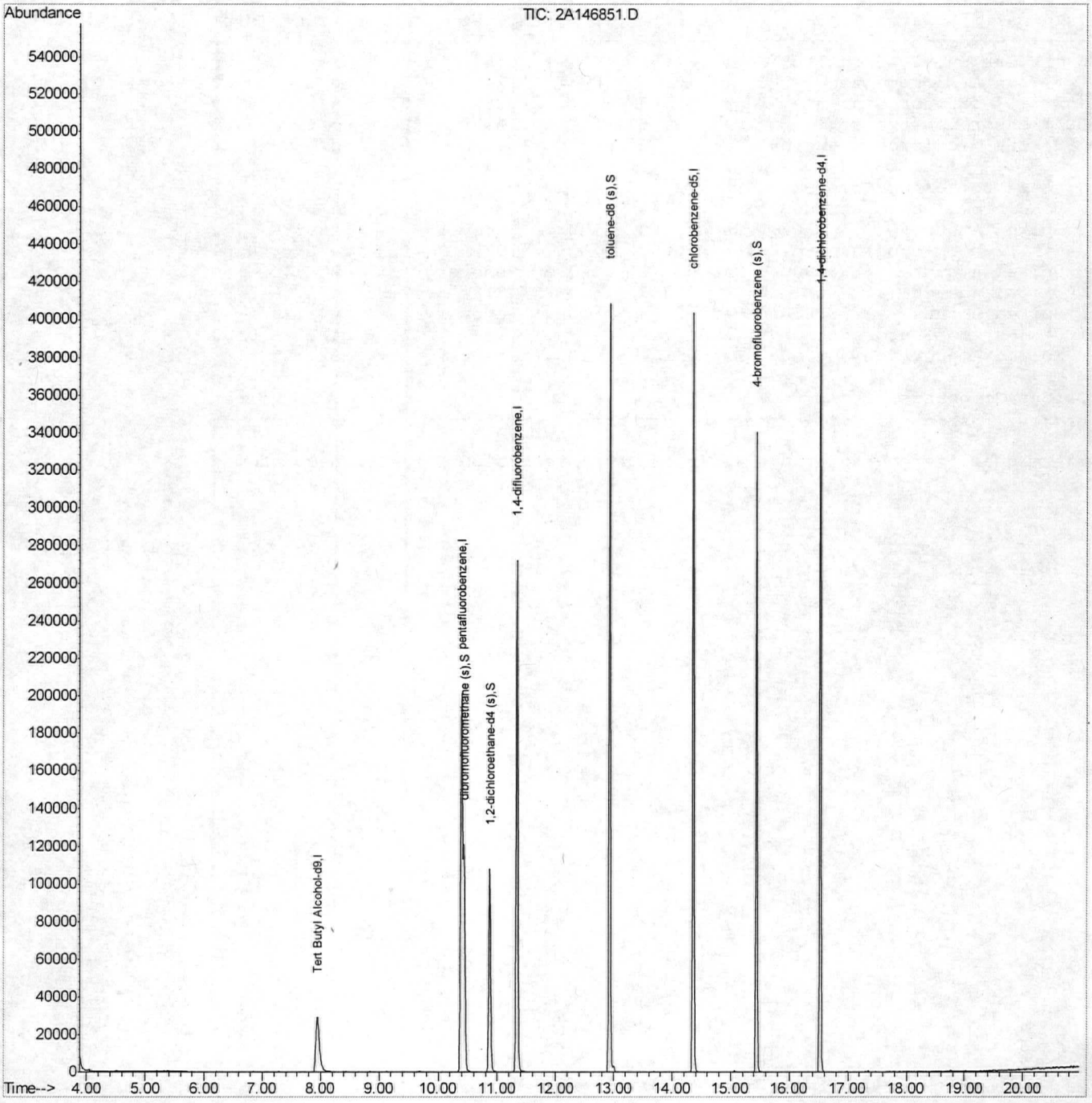
7.1.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146851.D
Acq On : 13 May 2014 12:39 pm
Operator : thomass1
Sample : jb66485-1
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 13 16:08:22 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



Manual Integrations
APPROVED
(compounds with "m" flag)
Mei Chen
05/13/14 16:57

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146852.D
Acq On : 13 May 2014 1:08 pm
Operator : thomass1
Sample : jb66485-2
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 27 11:14:22 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.95	65	71497	500.00	ug/L	0.00
5) pentafluorobenzene	10.39	168	185311	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	252535	50.00	ug/L	0.00
84) chlorobenzene-d5	14.36	117	223956	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	120384	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.44	113	82600	49.17	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 98.34%			
47) 1,2-dichloroethane-d4 (s)	10.87	65	94732	50.06	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 100.12%			
76) toluene-d8 (s)	12.93	98	283997	52.71	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 105.42%			
100) 4-bromofluorobenzene (s)	15.44	95	104351	45.57	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 91.14%			
Target Compounds						Qvalue
19) 1,1-dichloroethene	7.17	96	529	0.30	ug/L #	35
29) trans-1,2-dichloroethene	8.41	96	1360	0.70	ug/L	93
32) 1,1-dichloroethane	9.03	63	41344	12.03	ug/L	94
39) cis-1,2-dichloroethene	9.83	96	112630m	52.84	ug/L	
50) 1,1,1-trichloroethane	10.49	97	30535	10.60	ug/L	97
66) trichloroethene	11.67	95	4492	2.49	ug/L	96
85) tetrachloroethene	13.56	164	101300	66.96	ug/L	97

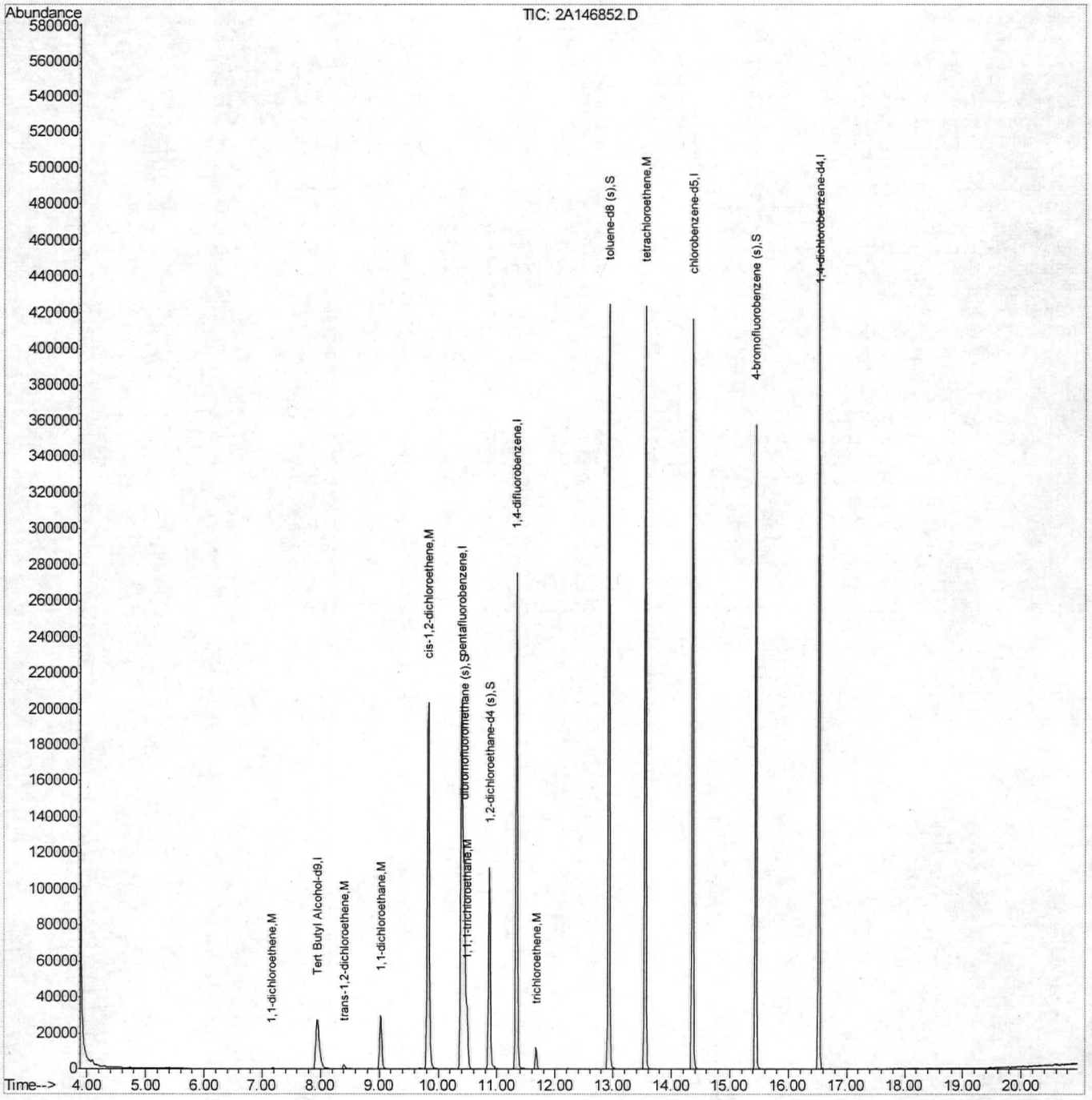
(#) = qualifier out of range (m) = manual integration (+) = signals summed

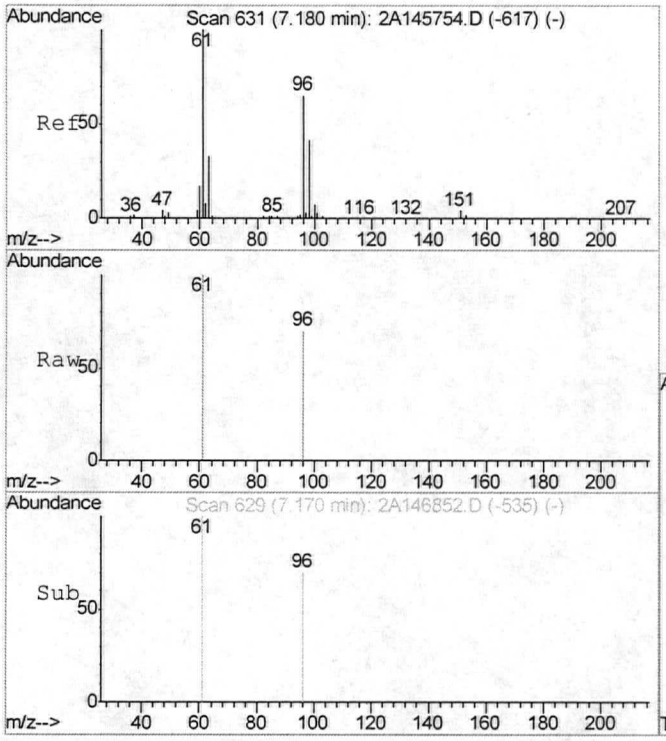
7.1.2 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146852.D
Acq On : 13 May 2014 1:08 pm
Operator : thomass1
Sample : jb66485-2
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 27 11:14:22 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

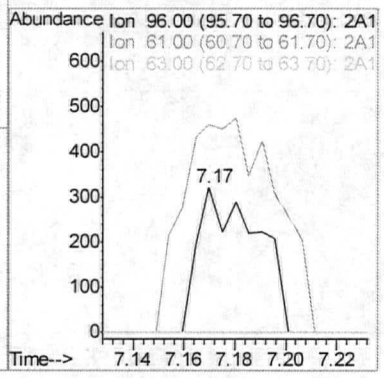


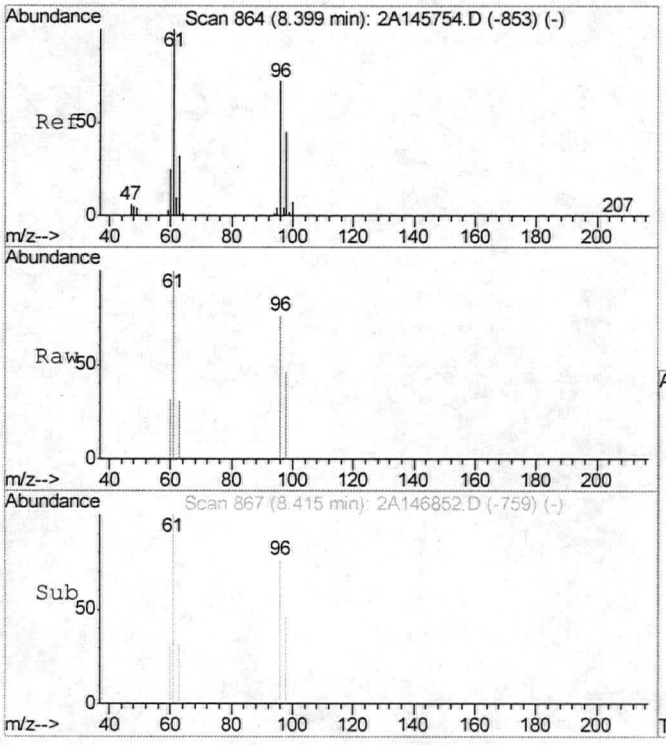


#19
1,1-dichloroethene
Concen: 0.30 ug/L
RT: 7.17 min Scan# 629
Delta R.T. -0.01 min
Lab File: 2A146852.D
Acq: 13 May 2014 1:08 pm

Tgt Ion: 96 Resp: 529

Ion	Ratio	Lower	Upper
96	100		
61	78.9	131.6	191.6#
63	0.0	22.2	82.2#

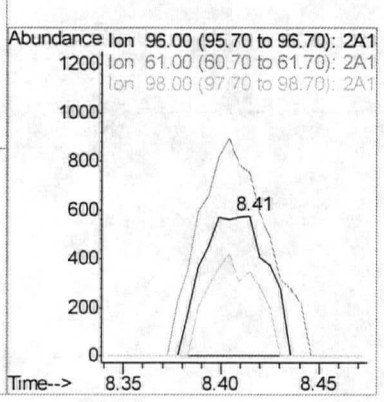




#29
trans-1,2-dichloroethene
Concen: 0.70 ug/L
RT: 8.41 min Scan# 867
Delta R.T. 0.02 min
Lab File: 2A146852.D
Acq: 13 May 2014 1:08 pm

Tgt Ion: 96 Resp: 1360

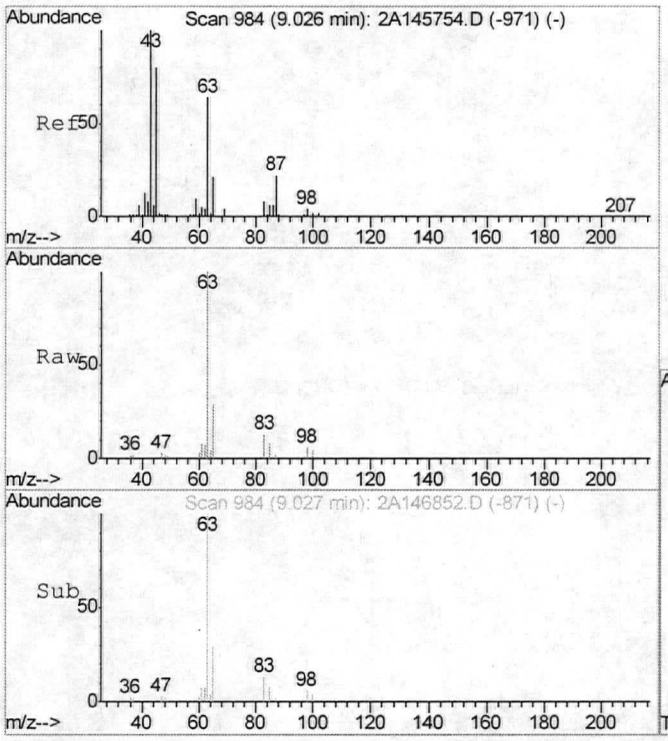
Ion	Ratio	Lower	Upper
96	100		
61	130.8	111.1	171.1
98	60.8	34.6	94.6



7.1.2

7

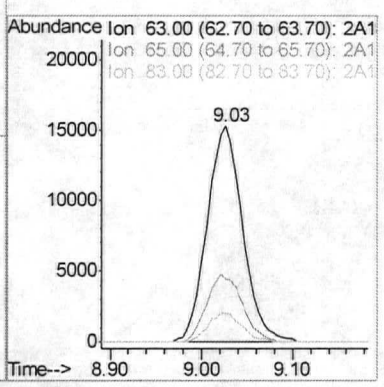
ACCUTEST LABORATORIES
JB66485

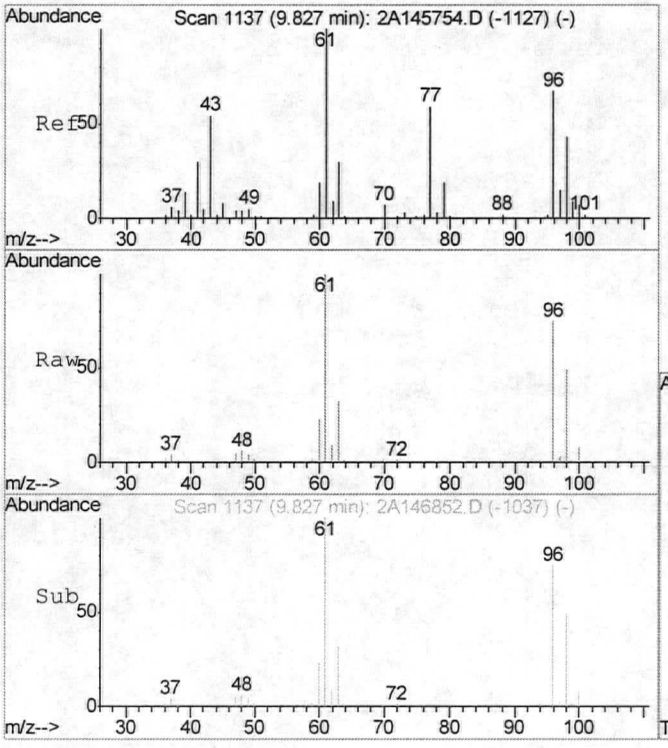


#32
1,1-dichloroethane
Concen: 12.03 ug/L
RT: 9.03 min Scan# 984
Delta R.T. 0.00 min
Lab File: 2A146852.D
Acq: 13 May 2014 1:08 pm

Tgt Ion: 63 Resp: 41344

Ion	Ratio	Lower	Upper
63	100		
65	29.1	3.4	63.4
83	13.1	0.0	42.7

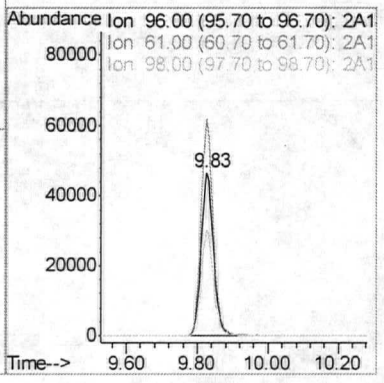




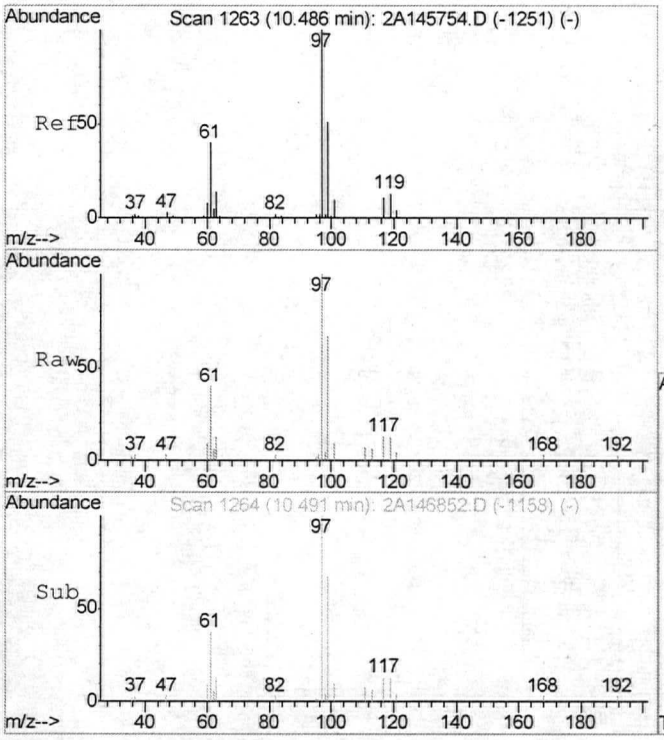
#39
cis-1,2-dichloroethene
Concen: 52.84 ug/L m
RT: 9.83 min Scan# 1137
Delta R.T. -0.01 min
Lab File: 2A146852.D
Acq: 13 May 2014 1:08 pm

Tgt Ion: 96 Resp: 112630

Ion	Ratio	Lower	Upper
96	100		
61	132.6	123.5	183.5
98	64.8	38.7	98.7



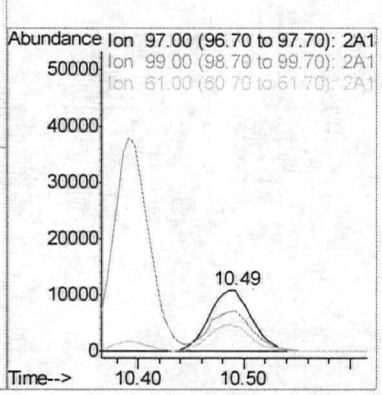
ACCUTEST LABORATORIES
JB66485

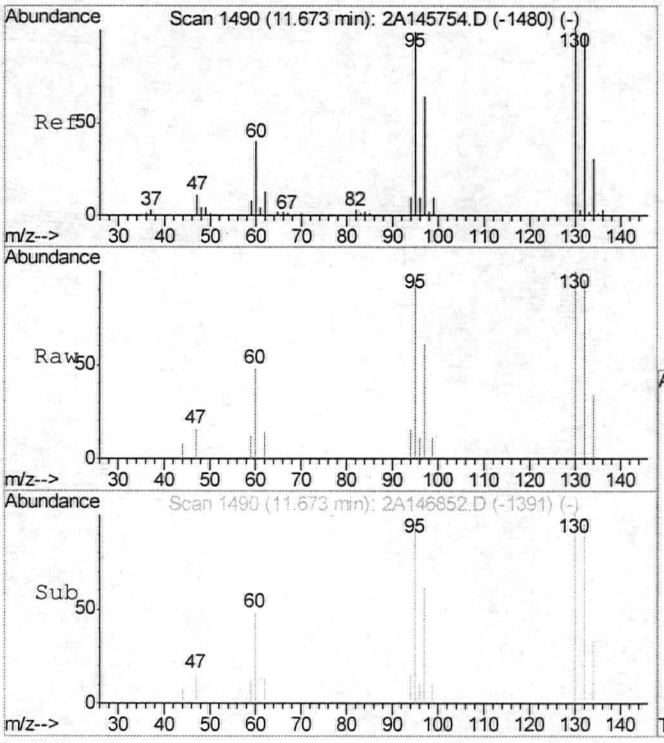


#50
1,1,1-trichloroethane
Concen: 10.60 ug/L
RT: 10.49 min Scan# 1264
Delta R.T. 0.01 min
Lab File: 2A146852.D
Acq: 13 May 2014 1:08 pm

Tgt Ion: 97 Resp: 30535

Ion	Ratio	Lower	Upper
97	100		
99	67.1	33.7	93.7
61	40.1	9.9	69.9

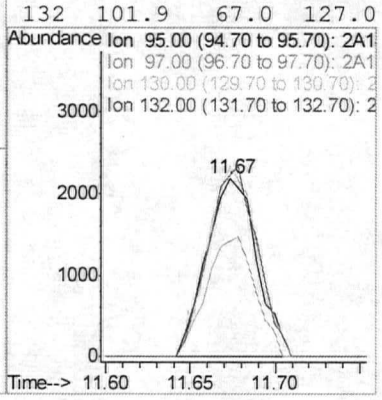




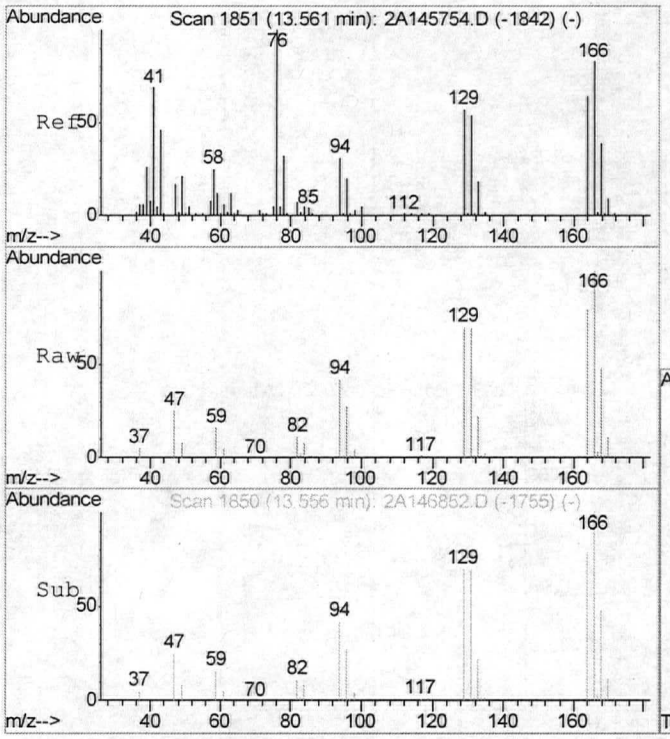
#66
trichloroethene
Concen: 2.49 ug/L
RT: 11.67 min Scan# 1490
Delta R.T. 0.00 min
Lab File: 2A146852.D
Acq: 13 May 2014 1:08 pm

Tgt Ion: 95 Resp: 4492

Ion	Ratio	Lower	Upper
95	100		
97	65.0	37.2	97.2
130	106.9	72.7	132.7
132	101.9	67.0	127.0



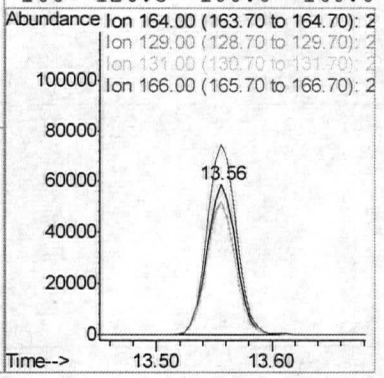
7.1.2 7



#85
tetrachloroethene
Concen: 66.96 ug/L
RT: 13.56 min Scan# 1850
Delta R.T. -0.01 min
Lab File: 2A146852.D
Acq: 13 May 2014 1:08 pm

Tgt Ion:164 Resp: 101300

Ion	Ratio	Lower	Upper
164	100		
129	88.5	57.6	117.6
131	87.8	52.6	112.6
166	126.5	100.8	160.8



7.1.2 7

ACCUTEST LABORATORIES JB66485

Manual Integration Approval Summary

Sample Number:	JB66485-2	**Method:**	SW846 8260B
Lab FileID:	2A146852.D	**Analyst approved:**	05/13/14 16:18 Cathleen Castello
Injection Time:	05/13/14 13:08	**Supervisor approved:**	05/13/14 16:57 Mei Chen

Parameter	CAS	Sig#	R.T. (min.)	Reason
cis-1,2-Dichloroethene	156-59-2		0.00	Add-on compound quantitation

7.1.2.1

7

Manual Integrations
APPROVED
(compounds with "m" flag)
Mei Chen
05/13/14 16:57

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146853.D
Acq On : 13 May 2014 1:38 pm
Operator : thomass1
Sample : jb66485-3
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 27 11:14:51 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.94	65	69508	500.00 ug/L	-0.01
5) pentafluorobenzene	10.39	168	175066	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	238209	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	207826	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	112095	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.43	113	78281	49.32 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 98.64%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	88512	49.51 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 99.02%		
76) toluene-d8 (s)	12.93	98	263131	51.77 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 103.54%		
100) 4-bromofluorobenzene (s)	15.44	95	97124	45.55 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 91.10%		
Target Compounds					Qvalue
32) 1,1-dichloroethane	9.02	63	10979	3.38 ug/L	97
39) cis-1,2-dichloroethene	9.83	96	1573m	0.78 ug/L	
50) 1,1,1-trichloroethane	10.49	97	16821	6.18 ug/L	97
66) trichloroethene	11.67	95	3658	2.15 ug/L	94
85) tetrachloroethene	13.56	164	35726	25.45 ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

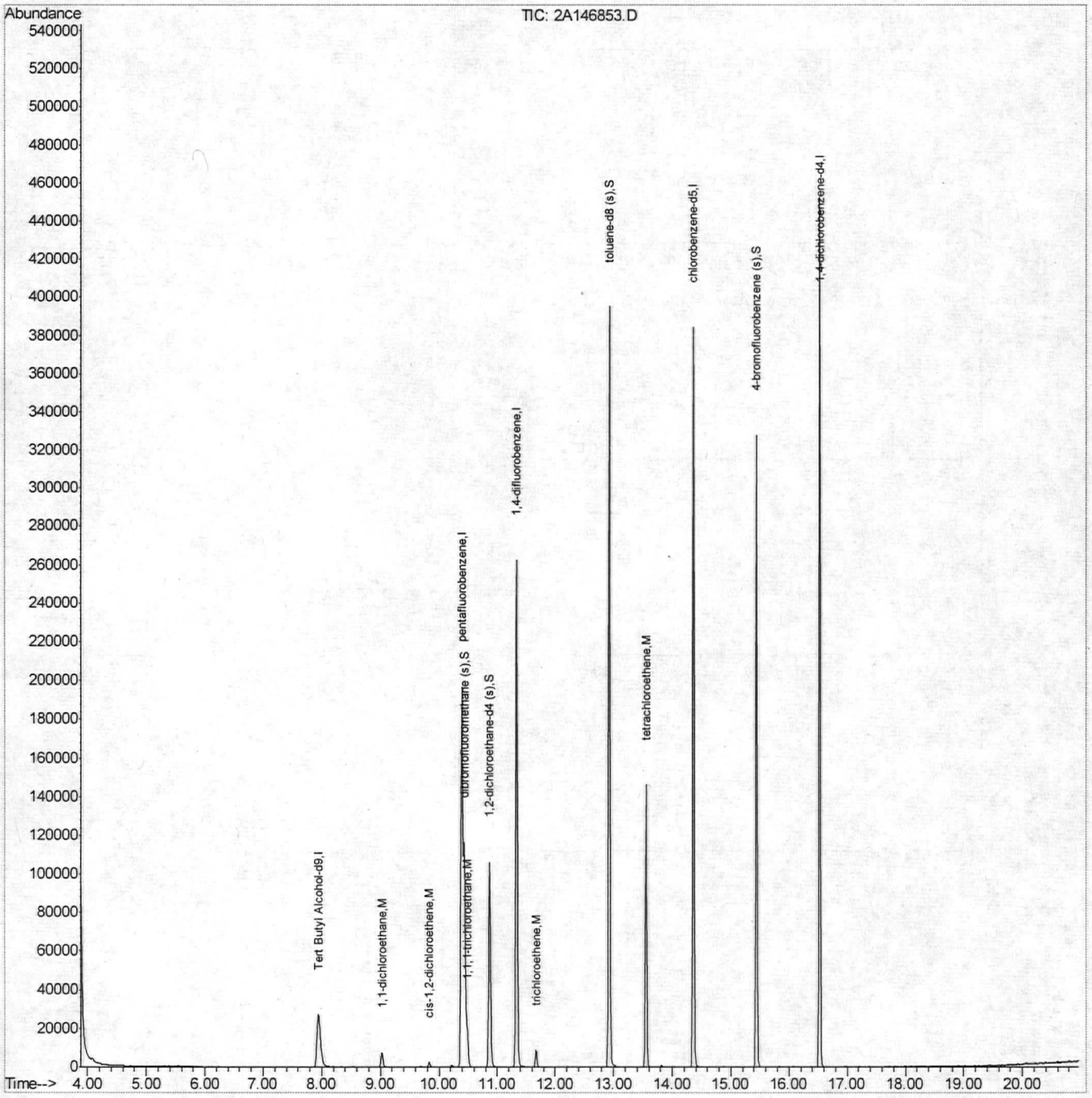
7.1.3

7

Quantitation Report (QT Reviewed)

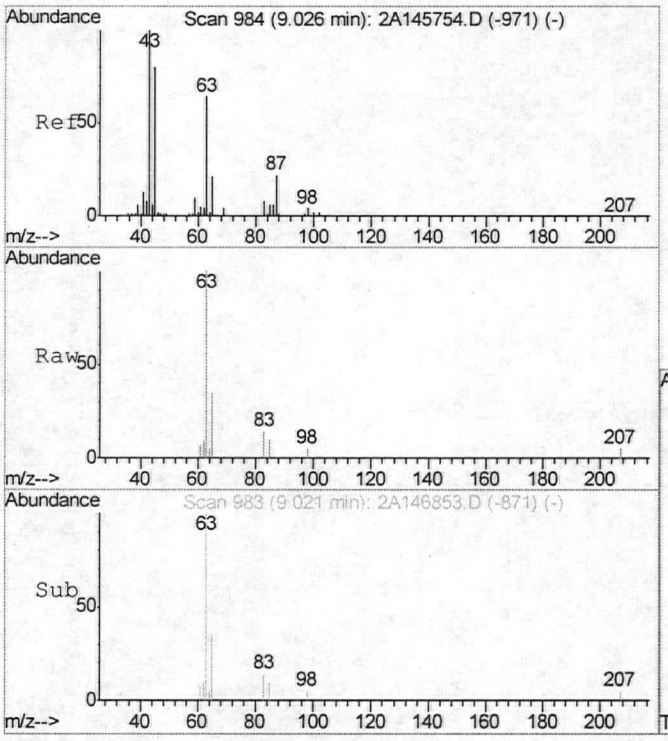
Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146853.D
Acq On : 13 May 2014 1:38 pm
Operator : thomass1
Sample : jb66485-3
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 27 11:14:51 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



M2A6216.M Tue May 27 11:21:03 2014 MS2A

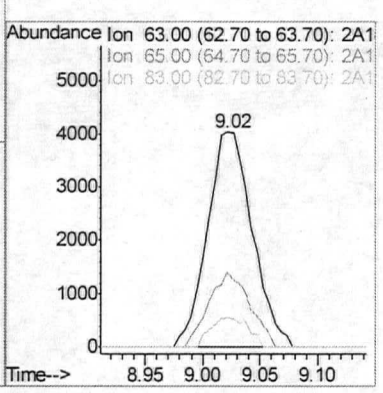
ACCUTEST LABORATORIES
JB66485

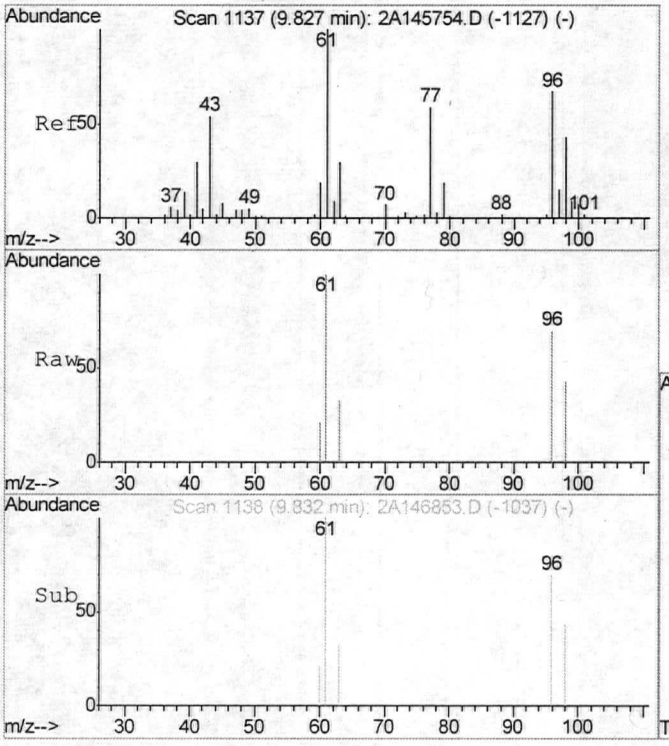


#32
1,1-dichloroethane
Concen: 3.38 ug/L
RT: 9.02 min Scan# 983
Delta R.T. -0.01 min
Lab File: 2A146853.D
Acq: 13 May 2014 1:38 pm

Tgt Ion: 63 Resp: 10979

Ion	Ratio	Lower	Upper
63	100		
65	35.0	3.4	63.4
83	14.0	0.0	42.7

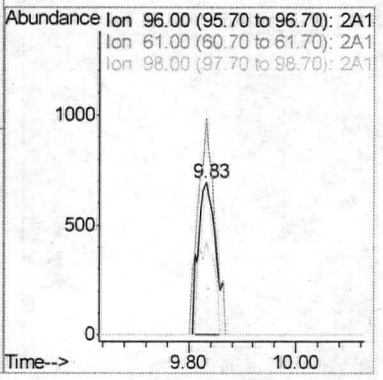




#39
cis-1,2-dichloroethene
Concen: 0.78 ug/L m
RT: 9.83 min Scan# 1138
Delta R.T. 0.00 min
Lab File: 2A146853.D
Acq: 13 May 2014 1:38 pm

Tgt Ion: 96 Resp: 1573

Ion	Ratio	Lower	Upper
96	100		
61	142.0	123.5	183.5
98	61.3	38.7	98.7



7.1.3

ACCUTEST LABORATORIES
JB66485