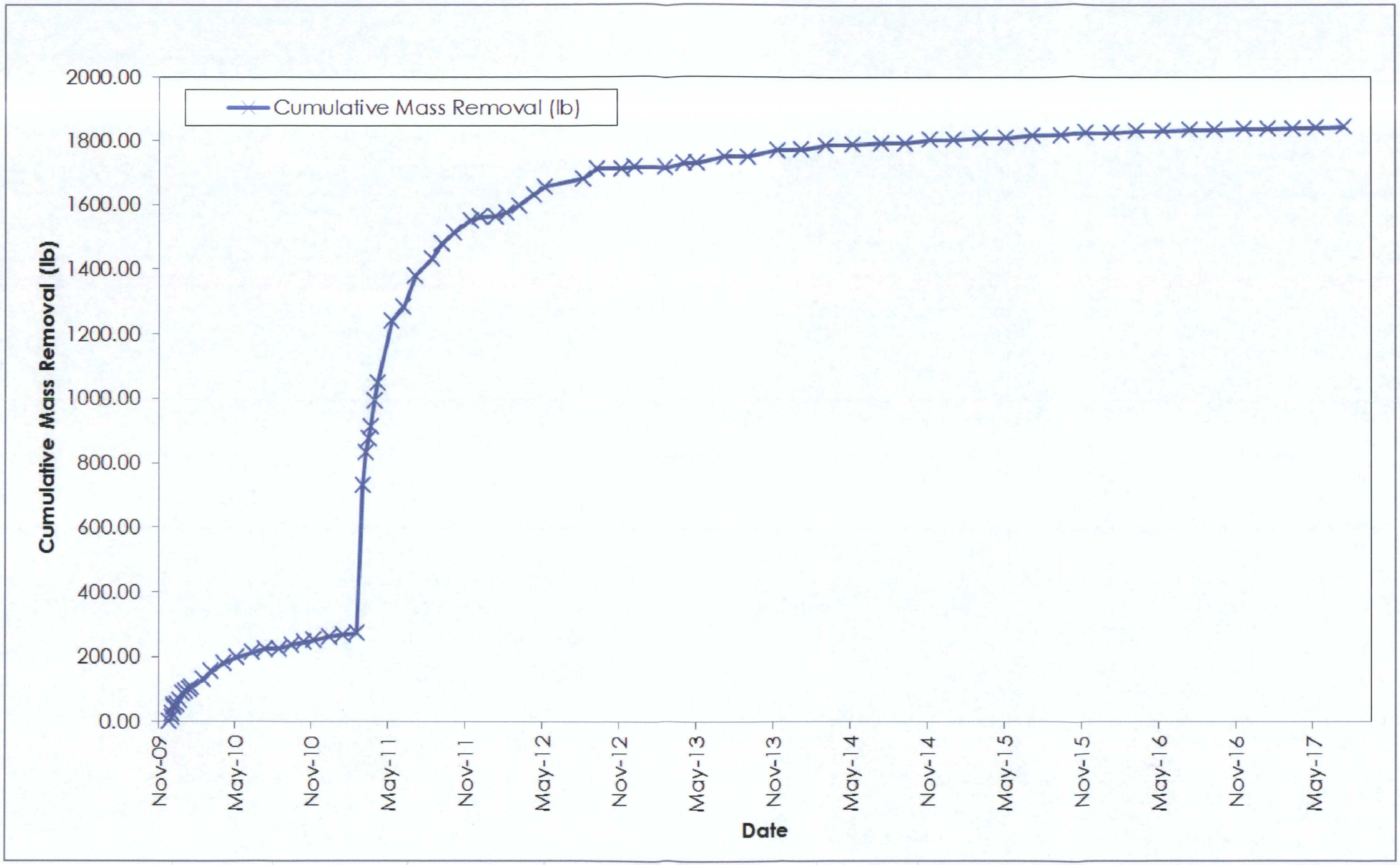

AECOM

AREA 9/10 REMEDIAL ACTION ROCKFORD, ILLINOIS PROJECT NO. 60480278.4214	CUMULATIVE MASS REMOVAL PHASE 1/ PHASE 2 AS/SVE SYSTEM
DATE: 08/01/17 DRWN: BKR	FIGURE 9

File: U:\Cad_Drive_New\UTC\60288803 UTC Rockford SER 9-10\Q2 2017\Figure 9 - 2nd Quarter 2017 Cum Mass Removal.dwg Layout: ANSI_B(-LJ User: Brian.Ransfeod Plotted: Aug 03, 2017 - 1:30pm

Appendix A

Third Quarter 2017 GMZ and Performance Monitoring Well Analytical Data

SGS ACCUTEST
New Jersey

Reissue #1
10/31/17

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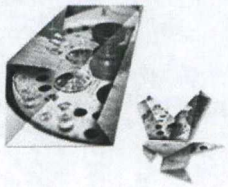

Technical Report for

United Technologies Corporation

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

60480278

SGS Accutest Job Number: JC48812

Sampling Dates: 08/07/17 - 08/09/17

Report to:

AECOM, INC.
4320 Winfield Road
Warrenville, IL 60555
peter.hollatz@aecom.com

ATTN: Peter Hollatz

Total number of pages in report: 312

NELAP ACCREDITED TNI LABORATORY

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.

Nancy L. Cole
Nancy Cole
Laboratory Director

Client Service contact: Diane Komar 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (L-A-B L2248)

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SGS ACCUTEST

October 30, 2017

Mr. Peter Hollatz
AECOM, INC.
4320 Winfield Road
Warrenville, IL 60555

RE: SGS Accutest – Dayton, Job # JC48812 – Reissues

Dear Mr. Hollatz,

The final report for SGS Accutest jobs number JC48812 has been edited to reflect corrections to the final results. These edits have been incorporated into the revised report which is attached.

Specifically, this report has been upgraded to Full deliverable and remove RCP form as samples are from IL. The attached revised report incorporates these revisions.

Please contact me if I can be of further assistance in this matter.

Sincerely,

Report Department

SGS Accutest

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

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Sample Summary

United Technologies Corporation

Job No: JC48812

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60480278

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JC48812-1	08/07/17	10:40 NP	08/11/17	AQ	Field Blank Water	HSSER-FBLK01-080717
JC48812-2	08/07/17	11:45 NP	08/11/17	AQ	Ground Water	HSSER-SMW08-080717
JC48812-3	08/07/17	13:10 NP	08/11/17	AQ	Ground Water	HSSER-MW07FGA-080717
JC48812-4	08/07/17	13:50 NP	08/11/17	AQ	Ground Water	HSSER-GMZ01-080717
JC48812-5	08/07/17	14:40 NP	08/11/17	AQ	Ground Water	HSSER-SMW02-080717
JC48812-6	08/07/17	15:05 NP	08/11/17	AQ	Ground Water	HSSER-SMW01-080717
JC48812-7	08/08/17	08:45 NP	08/11/17	AQ	Ground Water	HSSER-MW203-080817
JC48812-8	08/08/17	10:00 NP	08/11/17	AQ	Ground Water	HSSER-SMW19-080817
JC48812-9	08/08/17	11:15 NP	08/11/17	AQ	Ground Water	HSSER-SMW21-080817
JC48812-10	08/08/17	12:00 NP	08/11/17	AQ	Ground Water	HSSER-GMZ04-080817
JC48812-11	08/08/17	13:10 NP	08/11/17	AQ	Ground Water	HSSER-SMW20-080817
JC48812-12	08/09/17	08:50 NP	08/11/17	AQ	Ground Water	HSSER-GMZ02-080917
JC48812-12D	08/09/17	08:50 NP	08/11/17	AQ	Water Dup/MSD	HSSER-GMZ02-080917

Sample Summary
(continued)

United Technologies Corporation

Job No: JC48812

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60480278

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JC48812-12S	08/09/17	08:50 NP	08/11/17	AQ	Water Matrix Spike	HSSER-GMZ02-080917
JC48812-13	08/09/17	09:50 NP	08/11/17	AQ	Ground Water	HSSER-GMZ03-080917
JC48812-14	08/09/17	10:55 NP	08/11/17	AQ	Ground Water	HSSER-PMW01-080917
JC48812-15	08/09/17	11:20 NP	08/11/17	AQ	Equipment Blank	HSSER-EBLK01-080917
JC48812-16	08/09/17	12:05 NP	08/11/17	AQ	Ground Water	HSSER-PMW02-080917
JC48812-17	08/09/17	12:10 NP	08/11/17	AQ	Ground Water	HSSER-SMW04-080917
JC48812-18	08/09/17	00:00 NP	08/11/17	AQ	Ground Water	HSSER-DUP01-080917
JC48812-19	08/09/17	12:10 NP	08/11/17	AQ	Trip Blank Water	HSSER-TRIP01-080917

CASE NARRATIVE / CONFORMANCE SUMMARY

2

Client:	United Technologies Corporation	**Job No**	JC48812
Site:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL	**Report Date**	10/31/2017 10:22:22 A

On 08/11/2017, 17 Sample(s), 1 Trip Blank(s) and 1 Field Blank(s) were received at SGS Accutest at a maximum corrected temperature of 1.3 C. Samples were intact and chemically preserved, unless noted below. A SGS Accutest Job Number of JC48812 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 8260C

Matrix: AQ **Batch ID:** V2D7100

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC49064-1MS, JC49064-2DUP were used as the QC samples indicated.

Matrix: AQ **Batch ID:** VL8249

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC48812-12MS, JC48812-12MSD were used as the QC samples indicated.

SGS Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the 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.

SGS Accutest 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 SGS Accutest indicated via signature on the report cover

Summary of Hits

Job Number: JC48812
Account: United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Collected: 08/07/17 thru 08/09/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC48812-1	**HSSER-FBLK01-080717**					
No hits reported in this sample.						
JC48812-2	**HSSER-SMW08-080717**					
1,1-Dichloroethane		0.0047	0.0010	0.00021	mg/l	SW846 8260C
1,1-Dichloroethene		0.00061 J	0.0010	0.00047	mg/l	SW846 8260C
cis-1,2-Dichloroethene		0.0018	0.0010	0.00050	mg/l	SW846 8260C
Tetrachloroethene		0.0464	0.0010	0.00050	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.0132	0.0010	0.00025	mg/l	SW846 8260C
Trichloroethene		0.0036	0.0010	0.00027	mg/l	SW846 8260C
JC48812-3	**HSSER-MW07FGA-080717**					
1,1-Dichloroethane		0.00026 J	0.0010	0.00021	mg/l	SW846 8260C
Tetrachloroethene		0.00078 J	0.0010	0.00050	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.0013	0.0010	0.00025	mg/l	SW846 8260C
JC48812-4	**HSSER-GMZ01-080717**					
1,1-Dichloroethane		0.0071	0.0010	0.00021	mg/l	SW846 8260C
1,1-Dichloroethene		0.0011	0.0010	0.00047	mg/l	SW846 8260C
cis-1,2-Dichloroethene		0.0028	0.0010	0.00050	mg/l	SW846 8260C
Tetrachloroethene		0.0137	0.0010	0.00050	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.0059	0.0010	0.00025	mg/l	SW846 8260C
Trichloroethene		0.0018	0.0010	0.00027	mg/l	SW846 8260C
JC48812-5	**HSSER-SMW02-080717**					
Tetrachloroethene		0.00063 J	0.0010	0.00050	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.00063 J	0.0010	0.00025	mg/l	SW846 8260C
JC48812-6	**HSSER-SMW01-080717**					
Tetrachloroethene		0.0021	0.0010	0.00050	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.0010	0.0010	0.00025	mg/l	SW846 8260C
JC48812-7	**HSSER-MW203-080817**					
Tetrachloroethene		0.0024	0.0010	0.00050	mg/l	SW846 8260C
JC48812-8	**HSSER-SMW19-080817**					
Tetrachloroethene		0.00080 J	0.0010	0.00050	mg/l	SW846 8260C

Summary of Hits

Job Number: JC48812
Account: United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Collected: 08/07/17 thru 08/09/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Trichloroethene		0.0163	0.0010	0.00027	mg/l	SW846 8260C
JC48812-9	**HSSER-SMW21-080817**					
1,1,1-Trichloroethane		0.0014	0.0010	0.00025	mg/l	SW846 8260C
JC48812-10	**HSSER-GMZ04-080817**					
No hits reported in this sample.						
JC48812-11	**HSSER-SMW20-080817**					
No hits reported in this sample.						
JC48812-12	**HSSER-GMZ02-080917**					
1,1-Dichloroethane		0.00074 J	0.0010	0.00021	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.0010	0.0010	0.00025	mg/l	SW846 8260C
JC48812-13	**HSSER-GMZ03-080917**					
No hits reported in this sample.						
JC48812-14	**HSSER-PMW01-080917**					
1,1-Dichloroethane		0.00086 J	0.0010	0.00021	mg/l	SW846 8260C
Tetrachloroethene		0.0024	0.0010	0.00050	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.0016	0.0010	0.00025	mg/l	SW846 8260C
Trichloroethene		0.00054 J	0.0010	0.00027	mg/l	SW846 8260C
JC48812-15	**HSSER-EBLK01-080917**					
No hits reported in this sample.						
JC48812-16	**HSSER-PMW02-080917**					
1,1-Dichloroethane		0.0039	0.0010	0.00021	mg/l	SW846 8260C
cis-1,2-Dichloroethene		0.0190	0.0010	0.00050	mg/l	SW846 8260C
Tetrachloroethene		0.0145	0.0010	0.00050	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.0038	0.0010	0.00025	mg/l	SW846 8260C
Trichloroethene		0.0011	0.0010	0.00027	mg/l	SW846 8260C
Vinyl chloride		0.0124	0.0010	0.00062	mg/l	SW846 8260C

Summary of Hits

Job Number: JC48812
Account: United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Collected: 08/07/17 thru 08/09/17

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC48812-17	**HSSER-SMW04-080917**					
1,1-Dichloroethane		0.0109	0.0010	0.00021	mg/l	SW846 8260C
1,1-Dichloroethene		0.0011	0.0010	0.00047	mg/l	SW846 8260C
cis-1,2-Dichloroethene		0.0535	0.0010	0.00050	mg/l	SW846 8260C
trans-1,2-Dichloroethene		0.00040 J	0.0010	0.00040	mg/l	SW846 8260C
Tetrachloroethene		0.0097	0.0010	0.00050	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.0011	0.0010	0.00025	mg/l	SW846 8260C
Trichloroethene		0.0056	0.0010	0.00027	mg/l	SW846 8260C
Vinyl chloride		0.0145	0.0010	0.00062	mg/l	SW846 8260C
JC48812-18	**HSSER-DUP01-080917**					
1,1,1-Trichloroethane		0.00034 J	0.0010	0.00025	mg/l	SW846 8260C
JC48812-19	**HSSER-TRIP01-080917**					

No hits reported in this sample.

Sample Results

Report of Analysis

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-FBLK01-080717		
Lab Sample ID:	JC48812-1	**Date Sampled:**	08/07/17
Matrix:	AQ - Field Blank Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	L293626.D	1	08/16/17 02:55	JC	n/a	n/a	VL8249
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	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	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	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	112%		81-124%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-SMW08-080717		
Lab Sample ID:	JC48812-2	**Date Sampled:**	08/07/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	L293627.D	1	08/16/17 03:22	JC	n/a	n/a	VL8249
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	0.0047	0.0010	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	0.00061	0.0010	0.00047	mg/l	J
156-59-2	cis-1,2-Dichloroethene	0.0018	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0464	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0132	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	0.0036	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	110%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	100%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-MW07FGA-080717		
Lab Sample ID:	JC48812-3	**Date Sampled:**	08/07/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	L293628.D	1	08/16/17 03:48	JC	n/a	n/a	VL8249
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	0.00026	0.0010	0.00021	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.00078	0.0010	0.00050	mg/l	J
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0013	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	112%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-GMZ01-080717		
Lab Sample ID:	JC48812-4	**Date Sampled:**	08/07/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	L293629.D	1	08/16/17 04:15	JC	n/a	n/a	VL8249
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	0.0071	0.0010	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	0.0011	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0028	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0137	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	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	0.00024	mg/l	
79-01-6	Trichloroethene	0.0018	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	112%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-SMW02-080717		
Lab Sample ID:	JC48812-5	**Date Sampled:**	08/07/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	L293630.D	1	08/16/17 04:41	JC	n/a	n/a	VL8249
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	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.00063	0.0010	0.00050	mg/l	J
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00063	0.0010	0.00025	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	114%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-SMW01-080717		
Lab Sample ID:	JC48812-6	**Date Sampled:**	08/07/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	L293631.D	1	08/16/17 05:08	JC	n/a	n/a	VL8249
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	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0021	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	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	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	114%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-MW203-080817		
Lab Sample ID:	JC48812-7	**Date Sampled:**	08/08/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	L293632.D	1	08/16/17 05:35	JC	n/a	n/a	VL8249
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	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0024	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	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	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	115%		81-124%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-SMW19-080817		
Lab Sample ID:	JC48812-8	**Date Sampled:**	08/08/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	L293633.D	1	08/16/17 06:01	JC	n/a	n/a	VL8249
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	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.00080	0.0010	0.00050	mg/l	J
108-88-3	Toluene	ND	0.0010	0.00025	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	0.00024	mg/l	
79-01-6	Trichloroethene	0.0163	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	115%		81-124%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-SMW21-080817		
Lab Sample ID:	JC48812-9	**Date Sampled:**	08/08/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	L293634.D	1	08/16/17 06:28	JC	n/a	n/a	VL8249
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	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0014	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	117%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-GMZ04-080817		
Lab Sample ID:	JC48812-10	**Date Sampled:**	08/08/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	L293635.D	1	08/16/17 06:55	JC	n/a	n/a	VL8249
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	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	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	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	117%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-SMW20-080817		
Lab Sample ID:	JC48812-11	**Date Sampled:**	08/08/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	L293636.D	1	08/16/17 07:21	JC	n/a	n/a	VL8249
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	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	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	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	114%		81-124%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-GMZ02-080917		
Lab Sample ID:	JC48812-12	**Date Sampled:**	08/09/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	L293625.D	1	08/16/17 02:28	JC	n/a	n/a	VL8249
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	0.00074	0.0010	0.00021	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	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	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	111%		81-124%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-GMZ03-080917		
Lab Sample ID:	JC48812-13	**Date Sampled:**	08/09/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	L293637.D	1	08/16/17 07:48	JC	n/a	n/a	VL8249
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	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	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	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	119%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-PMW01-080917		
Lab Sample ID:	JC48812-14	**Date Sampled:**	08/09/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	L293638.D	1	08/16/17 08:14	JC	n/a	n/a	VL8249
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	0.00086	0.0010	0.00021	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0024	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	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	0.00024	mg/l	
79-01-6	Trichloroethene	0.00054	0.0010	0.00027	mg/l	J
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	116%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	95%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-EBLK01-080917		
Lab Sample ID:	JC48812-15	**Date Sampled:**	08/09/17
Matrix:	AQ - Equipment Blank	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	L293639.D	1	08/16/17 08:41	JC	n/a	n/a	VL8249
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	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	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	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	119%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-PMW02-080917		
Lab Sample ID:	JC48812-16	**Date Sampled:**	08/09/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	2D169279.D	1	08/17/17 19:16	JC	n/a	n/a	V2D7100
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	0.0039	0.0010	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0190	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0145	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0038	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	0.0011	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	0.0124	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	118%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-SMW04-080917		
Lab Sample ID:	JC48812-17	**Date Sampled:**	08/09/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	2D169280.D	1	08/17/17 19:46	JC	n/a	n/a	V2D7100
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	0.0109	0.0010	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	0.0011	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0535	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	0.00040	0.0010	0.00040	mg/l	J
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0097	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0011	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	0.0056	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	0.0145	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	119%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-DUP01-080917		
Lab Sample ID:	JC48812-18	**Date Sampled:**	08/09/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	2D169281.D	1	08/17/17 20:17	JC	n/a	n/a	V2D7100
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	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00034	0.0010	0.00025	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		80-120%
17060-07-0	1,2-Dichloroethane-D4	116%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-TRIP01-080917		
Lab Sample ID:	JC48812-19	**Date Sampled:**	08/09/17
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**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	L293624.D	1	08/16/17 02:02	JC	n/a	n/a	VL8249
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	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	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	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	110%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

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

SGS ACCUTEST GW DUP WTB

CHAIN OF CUSTODY

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

PAGE 1 OF 2

FED-EX Tracking # 7250 6932 7824
Bottle Order Control #
SGS Accutest Quote #
SGS Accutest Job # JC48812

Client / Reporting Information	Project Information	Requested Analysis (see TEST CODE sheet)
Company Name: AECOM	Project Name: UTAS PLANTS 1/2 FACILITY	
Street Address: 4320 WINFIELD RD	Street:	Billing Information (if different from Report to)
City / State / Zip: WARRENVILLE IL 60555	City / State: ROCKFORD IL	Company Name:
Project Contact / E-mail: PETER HOLLATZ/peter.hollatz@aecom.com	Project #: 60532451	Street Address:
Phone #: 630.918.9648 / Fax #:	Client Purchase Order #:	City / State / Zip:
Sampler(s) Name(s): N. PINS / A. HOLLATZ / Phone #:	Project Manager: PETER HOLLATZ	Attention:

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

SGS 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 *	LAB USE ONLY
1	HSSER-FBLK01-080717		8/7/17	1040	NP	GW	3	3								X	
2	HSSER-SMW08-080717		8/7/17	1145	NP	GW	3	3								X	
3	HSSER-MW07FGA-080717	●	8/7/17	1310	AH	GW	3	3								X	
4	HSSER-GMZ01-080717	●	8/7/17	1350	NP	GW	3	3								X	V532
5	HSSER-SMW02-080717		8/7/17	1440	AH	GW	3	3								X	
6	HSSER-SMW01-080717		8/7/17	1505	NP	GW	3	3								X	
7	HSSER-MW203-080817		8/8/17	0845	NP	GW	3	3								X	
8	HSSER-SMW19-080817		8/8/17	1000	NP	GW	3	3								X	
9	HSSER-SMW21-080817		8/8/17	1115	NP	GW	3	3								X	
10	HSSER-GMZ04-080817		8/8/17	1200	NP	GW	3	3								X	
11	HSSER-SMW20-080817	[illegible]	8/8/17	1310	NP	GW	3	3								X	

INITIAL ASESSMENT IB/DS
LABEL VERIFICATION DS

Turnaround Time (Business days)

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

Approved By (SGS 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"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] 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 QC
● QC Voa Vial

Sample inventory is verified upon receipt in the Laboratory

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 P. (AECOM)	8/10/17 1500	1 FedEX	2 FedEX	920 8-11-17	2 [signature]
3		3	4		4
5		5	Custody Seal # ☐ Intact ☐ Not Intact	Preserved where applicable ☐	On Ice ☑ Cooler Temp. 2.1°C Ig

Form:SM088-01CRev.Date:9/13/16

JC48812: Chain of Custody
Page 1 of 4

SGS ACCUTEST

CHAIN OF CUSTODY

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

FED-EX Tracking # 7250 6932 7824
Bottle Order Control #
SGS Accutest Quote #
SGS Accutest Job # JC48812

Client / Reporting Information

Company Name: AECOM
Street Address: 4320 WINFIELD RD
City / State / Zip: WARRENVILLE IL 60555
Project Contact / E-mail: PETER HOLLATZ / peter.hollatz@aecom.com
Phone # / Fax #: 630.918.9648
Sampler(s) Name(s) / Phone #: N. PINS / A. HOLLATZ

Project Information

Project Name: UTAS PLANTS 1/2 FACILITY
Street:
City / State: ROCKFORD IL
Project # : 60532451
Client Purchase Order #:

Billing Information (if different from Report to)

Company Name:
Street Address:
City / State / Zip:
Attention:

Project Manager: PETER HOLLATZ

Requested Analysis (see TEST CODE sheet): * 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

SGS 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	LAB USE ONLY
~~12~~	HSSER - GMZ02 - 080917		8/9/17	0850	NP	GW	3	3								X	
12 ~~13~~	HSSER - MS01 - 080917		8/9/17	0850	NP	GW	3	3								X	
~~14~~	HSSER - MSD01 - 080917		8/9/17	0850	NP	GW	3	3								X	
13 ~~15~~	HSSER - GMZ03 - 080917		8/9/17	0950	NP	GW	3	3								X	
14	HSSER - PMW01 - 080917		8/9/17	1055	NP	GW	3	3								X	
15	HSSER - EBLK01 - 080917		8/9/17	1120	NP	GW	3	3								X	
16	HSSER - PMW02 - 080917		8/9/17	1205	NP	GW	3	3								X	
17	HSSER - SMW04 - 080917		8/9/17	1210	AH	GW	3	3								X	
18	HSSER - DUP01 - 080917		8/9/17	0000	NP	GW	3	3								X	
19	HSSER - TRIP01 - 080717		8/7/17	—	—	GW	2	2								X	

Turnaround Time (Business days)

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

Approved By (SGS 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"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] 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 QC

Sample inventory is verified upon receipt in the Laboratory

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 P. (AECOM)	8/10/17 1500	1 FedEx	2 FedEx	8/11/17 920	2
3		3	4		4
5		5			

Custody Seal # ☐ Intact ☐ Not intact — Preserved where applicable ☐ — On Ice ☑ — Cooler Temp. 2.1°C Ig

Form:SM088-01CRev.Date:9/13/16

JC48812: Chain of Custody
Page 2 of 4

SGS Accutest Sample Receipt Summary

Job Number: JC48812 **Client:** **Project:**

Date / Time Received: 8/11/2017 9:20:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.1);

Cooler Temps (Corrected) °C: Cooler 1: (1.3);

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

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

Quality Control Preservation	Y	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	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

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

Sample Integrity - Instructions	Y	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

SM089-02
Rev. Date 12/1/16

5.1

5

JC48812: Chain of Custody
Page 3 of 4

Job Change Order: JC48812

Requested Date:	10/26/2017	**Received Date:**	8/11/2017
Account Name:	United Technologies Corporation	**Due Date:**	8/18/2017
Project Description:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL	**Deliverable:**	CTRCP
C/O Initiated By:	dianek **PM:** DK	**TAT (Days):**	1

==========

Sample #: JC48812-all

Dept:

TAT: 1

Change:
Revise report format to FULLT1 from CTRCP, samples are from IN.

==========

Above Changes Per: Greg Malzone **Date/Time:** 10/26/2017 3:57:12 PM

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

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JC48812

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60480278

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC48812-1 Collected: 07-AUG-17 10:40 By: NP HSSER-FBLK01-080717			Received: 11-AUG-17 By: DDH			
JC48812-1	SW846 8260C	16-AUG-17 02:55	JC			V8260SL
JC48812-2 Collected: 07-AUG-17 11:45 By: NP HSSER-SMW08-080717			Received: 11-AUG-17 By: DDH			
JC48812-2	SW846 8260C	16-AUG-17 03:22	JC			V8260SL
JC48812-3 Collected: 07-AUG-17 13:10 By: NP HSSER-MW07FGA-080717			Received: 11-AUG-17 By: DDH			
JC48812-3	SW846 8260C	16-AUG-17 03:48	JC			V8260SL
JC48812-4 Collected: 07-AUG-17 13:50 By: NP HSSER-GMZ01-080717			Received: 11-AUG-17 By: DDH			
JC48812-4	SW846 8260C	16-AUG-17 04:15	JC			V8260SL
JC48812-5 Collected: 07-AUG-17 14:40 By: NP HSSER-SMW02-080717			Received: 11-AUG-17 By: DDH			
JC48812-5	SW846 8260C	16-AUG-17 04:41	JC			V8260SL
JC48812-6 Collected: 07-AUG-17 15:05 By: NP HSSER-SMW01-080717			Received: 11-AUG-17 By: DDH			
JC48812-6	SW846 8260C	16-AUG-17 05:08	JC			V8260SL
JC48812-7 Collected: 08-AUG-17 08:45 By: NP HSSER-MW203-080817			Received: 11-AUG-17 By: DDH			
JC48812-7	SW846 8260C	16-AUG-17 05:35	JC			V8260SL
JC48812-8 Collected: 08-AUG-17 10:00 By: NP HSSER-SMW19-080817			Received: 11-AUG-17 By: DDH			
JC48812-8	SW846 8260C	16-AUG-17 06:01	JC			V8260SL

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JC48812

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60480278

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC48812-9	Collected: 08-AUG-17 11:15 By: NP		Received: 11-AUG-17 By: DDH			
HSSER-SMW21-080817						
JC48812-9	SW846 8260C	16-AUG-17 06:28	JC			V8260SL
JC48812-10	Collected: 08-AUG-17 12:00 By: NP		Received: 11-AUG-17 By: DDH			
HSSER-GMZ04-080817						
JC48812-10	SW846 8260C	16-AUG-17 06:55	JC			V8260SL
JC48812-11	Collected: 08-AUG-17 13:10 By: NP		Received: 11-AUG-17 By: DDH			
HSSER-SMW20-080817						
JC48812-11	SW846 8260C	16-AUG-17 07:21	JC			V8260SL
JC48812-12	Collected: 09-AUG-17 08:50 By: NP		Received: 11-AUG-17 By: DDH			
HSSER-GMZ02-080917						
JC48812-12	SW846 8260C	16-AUG-17 02:28	JC			V8260SL
JC48812-13	Collected: 09-AUG-17 09:50 By: NP		Received: 11-AUG-17 By: DDH			
HSSER-GMZ03-080917						
JC48812-13	SW846 8260C	16-AUG-17 07:48	JC			V8260SL
JC48812-14	Collected: 09-AUG-17 10:55 By: NP		Received: 11-AUG-17 By: DDH			
HSSER-PMW01-080917						
JC48812-14	SW846 8260C	16-AUG-17 08:14	JC			V8260SL
JC48812-15	Collected: 09-AUG-17 11:20 By: NP		Received: 11-AUG-17 By: DDH			
HSSER-EBLK01-080917						
JC48812-15	SW846 8260C	16-AUG-17 08:41	JC			V8260SL
JC48812-16	Collected: 09-AUG-17 12:05 By: NP		Received: 11-AUG-17 By: DDH			
HSSER-PMW02-080917						
JC48812-16	SW846 8260C	17-AUG-17 19:16	JC			V8260SL

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JC48812

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60480278

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC48812-17 Collected: 09-AUG-17 12:10 By: NP HSSER-SMW04-080917				Received: 11-AUG-17 By: DDH		
JC48812-17	SW846 8260C	17-AUG-17 19:46	JC			V8260SL
JC48812-18 Collected: 09-AUG-17 00:00 By: NP HSSER-DUP01-080917				Received: 11-AUG-17 By: DDH		
JC48812-18	SW846 8260C	17-AUG-17 20:17	JC			V8260SL
JC48812-19 Collected: 09-AUG-17 12:10 By: NP HSSER-TRIP01-080917				Received: 11-AUG-17 By: DDH		
JC48812-19	SW846 8260C	16-AUG-17 02:02	JC			V8260SL

SGS Accutest Internal Chain of Custody

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 08/11/17

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC48812-1.1	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-1.1	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-1.1	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-1.1	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-2.1	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-2.1	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-2.1	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-2.1	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-3.1	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-3.1	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-3.1	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-3.1	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-4.1	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-4.1	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-4.1	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-4.1	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-5.1	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-5.1	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-5.1	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-5.1	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-6.2	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-6.2	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-6.2	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-6.2	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-7.1	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-7.1	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-7.1	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-7.1	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-8.2	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-8.2	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-8.2	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-8.2	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-9.1	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-9.1	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-9.1	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-9.1	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage

SGS Accutest Internal Chain of Custody

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 08/11/17

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC48812-10.1	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-10.1	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-10.1	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-10.1	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-11.1	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-11.1	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-11.1	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-11.1	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-12.5	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-12.5	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-12.5	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-12.5	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-12.7	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-12.7	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-12.7	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-12.7	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-12.8	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-12.8	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-12.8	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-12.8	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-13.1	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-13.1	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-13.1	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-13.1	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-14.2	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-14.2	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-14.2	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-14.2	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-15.2	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-15.2	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-15.2	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-15.2	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-16.1	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-16.1	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-16.1	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument

SGS Accutest Internal Chain of Custody

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 08/11/17

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC48812-16.1	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-16.2	Secured Storage	Jia-Min Chu	08/17/17 16:20	Retrieve from Storage
JC48812-16.2	Jia-Min Chu	GCMS2D	08/17/17 16:20	Load on Instrument
JC48812-16.2	GCMS2D	Jia-Min Chu	08/18/17 12:09	Unload from Instrument
JC48812-16.2	Jia-Min Chu	Secured Storage	08/18/17 12:09	Return to Storage
JC48812-17.1	Secured Storage	Jia-Min Chu	08/17/17 16:20	Retrieve from Storage
JC48812-17.1	Jia-Min Chu	GCMS2D	08/17/17 16:20	Load on Instrument
JC48812-17.1	GCMS2D	Jia-Min Chu	08/18/17 12:09	Unload from Instrument
JC48812-17.1	Jia-Min Chu	Secured Storage	08/18/17 12:09	Return to Storage
JC48812-17.2	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-17.2	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-17.2	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-17.2	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage
JC48812-18.2	Secured Storage	Jia-Min Chu	08/17/17 16:20	Retrieve from Storage
JC48812-18.2	Jia-Min Chu	GCMS2D	08/17/17 16:20	Load on Instrument
JC48812-18.2	GCMS2D	Jia-Min Chu	08/18/17 12:09	Unload from Instrument
JC48812-18.2	Jia-Min Chu	Secured Storage	08/18/17 12:09	Return to Storage
JC48812-19.1	Secured Storage	Jia-Min Chu	08/15/17 15:04	Retrieve from Storage
JC48812-19.1	Jia-Min Chu	GCMSL	08/15/17 15:04	Load on Instrument
JC48812-19.1	GCMSL	Jia-Min Chu	08/17/17 10:40	Unload from Instrument
JC48812-19.1	Jia-Min Chu	Secured Storage	08/17/17 10:40	Return to Storage

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: JC48812
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
VL8249-MB	L293619A.D	1	08/15/17	JC	n/a	n/a	VL8249

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

JC48812-1, JC48812-2, JC48812-3, JC48812-4, JC48812-5, JC48812-6, JC48812-7, JC48812-8, JC48812-9, JC48812-10, JC48812-11, JC48812-12, JC48812-13, JC48812-14, JC48812-15, JC48812-19

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	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	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	110%	81-124%
2037-26-5	Toluene-D8	99%	80-120%
460-00-4	4-Bromofluorobenzene	97%	80-120%

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

Method Blank Summary

Job Number: JC48812
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
V2D7100-MB	2D169272.D	1	08/17/17	JC	n/a	n/a	V2D7100

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

JC48812-16, JC48812-17, JC48812-18

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	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	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	117%	81-124%
2037-26-5	Toluene-D8	100%	80-120%
460-00-4	4-Bromofluorobenzene	108%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	system artifact-Carbon dioxide	3.44	29	ug/l	JN
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JC48812
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
VL8249-BS	L293620.D	1	08/16/17	JC	n/a	n/a	VL8249

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

JC48812-1, JC48812-2, JC48812-3, JC48812-4, JC48812-5, JC48812-6, JC48812-7, JC48812-8, JC48812-9, JC48812-10, JC48812-11, JC48812-12, JC48812-13, JC48812-14, JC48812-15, JC48812-19

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	40.8	82	79-120
107-06-2	1,2-Dichloroethane	50	46.5	93	78-126
75-35-4	1,1-Dichloroethene	50	44.3	89	69-126
156-59-2	cis-1,2-Dichloroethene	50	42.7	85	80-120
156-60-5	trans-1,2-Dichloroethene	50	42.0	84	76-120
100-41-4	Ethylbenzene	50	42.7	85	80-120
75-09-2	Methylene chloride	50	41.7	83	77-120
127-18-4	Tetrachloroethene	50	44.0	88	70-131
108-88-3	Toluene	50	42.1	84	80-120
71-55-6	1,1,1-Trichloroethane	50	46.1	92	81-128
79-00-5	1,1,2-Trichloroethane	50	42.4	85	83-118
79-01-6	Trichloroethene	50	43.5	87	80-120
75-01-4	Vinyl chloride	50	39.5	79	51-135

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	105%	81-124%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	103%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC48812
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
V2D7100-BS	2D169273.D	1	08/17/17	JC	n/a	n/a	V2D7100

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

JC48812-16, JC48812-17, JC48812-18

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	49.4	99	79-120
107-06-2	1,2-Dichloroethane	50	57.9	116	78-126
75-35-4	1,1-Dichloroethene	50	45.0	90	69-126
156-59-2	cis-1,2-Dichloroethene	50	48.1	96	80-120
156-60-5	trans-1,2-Dichloroethene	50	48.2	96	76-120
100-41-4	Ethylbenzene	50	51.6	103	80-120
75-09-2	Methylene chloride	50	46.9	94	77-120
127-18-4	Tetrachloroethene	50	52.8	106	70-131
108-88-3	Toluene	50	49.0	98	80-120
71-55-6	1,1,1-Trichloroethane	50	56.3	113	81-128
79-00-5	1,1,2-Trichloroethane	50	51.6	103	83-118
79-01-6	Trichloroethene	50	53.2	106	80-120
75-01-4	Vinyl chloride	50	49.4	99	51-135

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	80-120%
17060-07-0	1,2-Dichloroethane-D4	113%	81-124%
2037-26-5	Toluene-D8	96%	80-120%
460-00-4	4-Bromofluorobenzene	98%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC48812
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
JC49064-1MS	2D169284.D	1	08/17/17	JC	n/a	n/a	V2D7100
JC49064-1	2D169276.D	1	08/17/17	JC	n/a	n/a	V2D7100

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

JC48812-16, JC48812-17, JC48812-18

CAS No.	Compound	JC49064-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
75-34-3	1,1-Dichloroethane	ND		50	48.4	97	73-126
107-06-2	1,2-Dichloroethane	ND		50	55.8	112	72-131
75-35-4	1,1-Dichloroethene	ND		50	50.6	101	63-136
156-59-2	cis-1,2-Dichloroethene	ND		50	48.0	96	60-136
156-60-5	trans-1,2-Dichloroethene	ND		50	48.0	96	70-126
100-41-4	Ethylbenzene	ND		50	51.7	103	51-140
75-09-2	Methylene chloride	ND		50	45.2	90	73-125
127-18-4	Tetrachloroethene	ND		50	54.4	109	61-139
108-88-3	Toluene	2.5		50	51.2	97	60-135
71-55-6	1,1,1-Trichloroethane	ND		50	57.1	114	74-138
79-00-5	1,1,2-Trichloroethane	ND		50	50.1	100	78-121
79-01-6	Trichloroethene	ND		50	53.3	107	62-141
75-01-4	Vinyl chloride	ND		50	50.1	100	43-146

CAS No.	Surrogate Recoveries	MS	JC49064-1	Limits
1868-53-7	Dibromofluoromethane	102%	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	114%	118%	81-124%
2037-26-5	Toluene-D8	98%	100%	80-120%
460-00-4	4-Bromofluorobenzene	97%	106%	80-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC48812
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
JC48812-12MS	L293621.D	1	08/16/17	JC	n/a	n/a	VL8249
JC48812-12MSD	L293622.D	1	08/16/17	JC	n/a	n/a	VL8249
JC48812-12	L293625.D	1	08/16/17	JC	n/a	n/a	VL8249

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

JC48812-1, JC48812-2, JC48812-3, JC48812-4, JC48812-5, JC48812-6, JC48812-7, JC48812-8, JC48812-9, JC48812-10, JC48812-11, JC48812-12, JC48812-13, JC48812-14, JC48812-15, JC48812-19

CAS No.	Compound	JC48812-12 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	0.74	J	50	38.6	76	50	40.0	79	4	73-126/11
107-06-2	1,2-Dichloroethane	ND		50	44.1	88	50	44.0	88	0	72-131/11
75-35-4	1,1-Dichloroethene	ND		50	39.1	78	50	39.8	80	2	63-136/14
156-59-2	cis-1,2-Dichloroethene	ND		50	39.9	80	50	40.3	81	1	60-136/11
156-60-5	trans-1,2-Dichloroethene	ND		50	38.0	76	50	39.2	78	3	70-126/11
100-41-4	Ethylbenzene	ND		50	40.8	82	50	41.2	82	1	51-140/20
75-09-2	Methylene chloride	ND		50	39.1	78	50	38.8	78	1	73-125/13
127-18-4	Tetrachloroethene	ND		50	41.7	83	50	41.8	84	0	61-139/11
108-88-3	Toluene	ND		50	41.0	82	50	40.6	81	1	60-135/10
71-55-6	1,1,1-Trichloroethane	1.0		50	43.9	86	50	44.0	86	0	74-138/12
79-00-5	1,1,2-Trichloroethane	ND		50	41.9	84	50	41.7	83	0	78-121/11
79-01-6	Trichloroethene	ND		50	40.7	81	50	40.7	81	0	62-141/10
75-01-4	Vinyl chloride	ND		50	34.6	69	50	33.8	68	2	43-146/15

CAS No.	Surrogate Recoveries	MS	MSD	JC48812-12	Limits
1868-53-7	Dibromofluoromethane	103%	103%	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	104%	104%	111%	81-124%
2037-26-5	Toluene-D8	100%	97%	97%	80-120%
460-00-4	4-Bromofluorobenzene	102%	104%	102%	80-120%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC48812
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
JC49064-2DUP	2D169286.D	1	08/17/17	JC	n/a	n/a	V2D7100
JC49064-2	2D169277.D	1	08/17/17	JC	n/a	n/a	V2D7100

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

JC48812-16, JC48812-17, JC48812-18

CAS No.	Compound	JC49064-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethene	ND		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
75-09-2	Methylene chloride	ND		ND		nc	20
127-18-4	Tetrachloroethene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
79-01-6	Trichloroethene	ND		ND		nc	20
75-01-4	Vinyl chloride	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JC49064-2	Limits
1868-53-7	Dibromofluoromethane	102%	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	117%	117%	81-124%
2037-26-5	Toluene-D8	99%	100%	80-120%
460-00-4	4-Bromofluorobenzene	106%	104%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	V2D7077-BFB	**Injection Date:**	07/26/17
Lab File ID:	2D168755.D	**Injection Time:**	18:44
Instrument ID:	GCMS2D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	18176	17.7		Pass
75	30.0 - 60.0% of mass 95	47738	46.5		Pass
95	Base peak, 100% relative abundance	102725	100.0		Pass
96	5.0 - 9.0% of mass 95	6969	6.78		Pass
173	Less than 2.0% of mass 174	786	0.77	(0.85) [a]	Pass
174	50.0 - 120.0% of mass 95	92418	90.0		Pass
175	5.0 - 9.0% of mass 174	6845	6.66	(7.41) [a]	Pass
176	95.0 - 101.0% of mass 174	89986	87.6	(97.4) [a]	Pass
177	5.0 - 9.0% of mass 176	5990	5.83	(6.66) [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
V2D7077-IC7077	2D168756.D	07/26/17	19:14	00:30	Initial cal 0.2
V2D7077-IC7077	2D168757.D	07/26/17	19:45	01:01	Initial cal 0.5
V2D7077-IC7077	2D168758.D	07/26/17	20:15	01:31	Initial cal 1
V2D7077-IC7077	2D168759.D	07/26/17	20:45	02:01	Initial cal 2
V2D7077-IC7077	2D168760.D	07/26/17	21:15	02:31	Initial cal 5
V2D7077-IC7077	2D168761.D	07/26/17	21:45	03:01	Initial cal 10
V2D7077-IC7077	2D168762.D	07/26/17	22:15	03:31	Initial cal 20
V2D7077-ICC7077	2D168763.D	07/26/17	22:45	04:01	Initial cal 50
V2D7077-IC7077	2D168764.D	07/26/17	23:15	04:31	Initial cal 100
V2D7077-IC7077	2D168765.D	07/26/17	23:45	05:01	Initial cal 200
V2D7077-ICV7077	2D168768.D	07/27/17	01:16	06:32	Initial cal verification 50
V2D7077-ICV7077	2D168769.D	07/27/17	01:46	07:02	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V2D7085-BFB
Lab File ID: 2D168937.D
Instrument ID: GCMS2D
Injection Date: 08/05/17
Injection Time: 12:39

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	19808	15.9		Pass
75	30.0 - 60.0% of mass 95	53933	43.2		Pass
95	Base peak, 100% relative abundance	124824	100.0		Pass
96	5.0 - 9.0% of mass 95	8324	6.67		Pass
173	Less than 2.0% of mass 174	976	0.78	(0.82) [a]	Pass
174	50.0 - 120.0% of mass 95	119418	95.7		Pass
175	5.0 - 9.0% of mass 174	8920	7.15	(7.47) [a]	Pass
176	95.0 - 101.0% of mass 174	116109	93.0	(97.2) [a]	Pass
177	5.0 - 9.0% of mass 176	7692	6.16	(6.62) [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
V2D7085-IC7077	2D168938.D	08/05/17	13:09	00:30	Initial cal 2
V2D7085-IC7077	2D168939.D	08/05/17	13:40	01:01	Initial cal 0.2
V2D7085-IC7077	2D168940.D	08/05/17	14:10	01:31	Initial cal 0.5
V2D7085-IC7077	2D168941.D	08/05/17	14:40	02:01	Initial cal 1
V2D7085-IC7077	2D168942.D	08/05/17	15:11	02:32	Initial cal 5
V2D7085-IC7077	2D168943.D	08/05/17	15:41	03:02	Initial cal 10
V2D7085-IC7077	2D168944.D	08/05/17	16:12	03:33	Initial cal 20
V2D7085-IC7077	2D168945.D	08/05/17	16:42	04:03	Initial cal 50
V2D7085-IC7077	2D168946.D	08/05/17	17:12	04:33	Initial cal 100
V2D7085-IC7077	2D168947.D	08/05/17	17:43	05:04	Initial cal 200
V2D7085-ICV7077	2D168950.D	08/05/17	19:13	06:34	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	V2D7100-BFB	**Injection Date:**	08/17/17
Lab File ID:	2D169270A.D	**Injection Time:**	14:05
Instrument ID:	GCMS2D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	14329	18.5		Pass
75	30.0 - 60.0% of mass 95	37752	48.7		Pass
95	Base peak, 100% relative abundance	77541	100.0		Pass
96	5.0 - 9.0% of mass 95	4870	6.28		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	72987	94.1		Pass
175	5.0 - 9.0% of mass 174	5622	7.25	(7.70) [a]	Pass
176	95.0 - 101.0% of mass 174	70083	90.4	(96.0) [a]	Pass
177	5.0 - 9.0% of mass 176	4337	5.59	(6.19) [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
V2D7100-CC7077	2D169270.D	08/17/17	14:05	00:00	Continuing cal 20
V2D7100-CC7077	2D169271.D	08/17/17	14:36	00:31	Continuing cal 20
V2D7100-MB	2D169272.D	08/17/17	15:17	01:12	Method Blank
V2D7100-BS	2D169273.D	08/17/17	15:58	01:53	Blank Spike
ZZZZZZ	2D169274.D	08/17/17	16:42	02:37	(unrelated sample)
JC49064-1	2D169276.D	08/17/17	17:43	03:38	(used for QC only; not part of job JC48812)
JC49064-2	2D169277.D	08/17/17	18:14	04:09	(used for QC only; not part of job JC48812)
ZZZZZZ	2D169278.D	08/17/17	18:45	04:40	(unrelated sample)
JC48812-16	2D169279.D	08/17/17	19:16	05:11	HSSER-PMW02-080917
JC48812-17	2D169280.D	08/17/17	19:46	05:41	HSSER-SMW04-080917
JC48812-18	2D169281.D	08/17/17	20:17	06:12	HSSER-DUP01-080917
ZZZZZZ	2D169282.D	08/17/17	20:48	06:43	(unrelated sample)
ZZZZZZ	2D169283.D	08/17/17	21:19	07:14	(unrelated sample)
JC49064-1MS	2D169284.D	08/17/17	21:49	07:44	Matrix Spike
JC49064-2DUP	2D169286.D	08/17/17	22:51	08:46	Duplicate
ZZZZZZ	2D169287.D	08/17/17	23:22	09:17	(unrelated sample)
ZZZZZZ	2D169288.D	08/17/17	23:52	09:47	(unrelated sample)
ZZZZZZ	2D169289.D	08/18/17	00:23	10:18	(unrelated sample)
ZZZZZZ	2D169290.D	08/18/17	00:53	10:48	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: VL8203-BFB
Lab File ID: L292475.D
Instrument ID: GCMSL
Injection Date: 07/12/17
Injection Time: 09:38

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	20093	18.2		Pass
75	30.0 - 60.0% of mass 95	53275	48.3		Pass
95	Base peak, 100% relative abundance	110365	100.0		Pass
96	5.0 - 9.0% of mass 95	7435	6.74		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	98413	89.2		Pass
175	5.0 - 9.0% of mass 174	7972	7.22	(8.10) [a]	Pass
176	95.0 - 101.0% of mass 174	96496	87.4	(98.1) [a]	Pass
177	5.0 - 9.0% of mass 176	6434	5.83	(6.67) [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
VL8203-IC8203	L292476.D	07/12/17	10:27	00:49	Initial cal 0.2
VL8203-IC8203	L292477.D	07/12/17	10:54	01:16	Initial cal 0.5
VL8203-IC8203	L292478.D	07/12/17	11:21	01:43	Initial cal 1
VL8203-IC8203	L292479.D	07/12/17	11:48	02:10	Initial cal 2
VL8203-IC8203	L292480.D	07/12/17	12:15	02:37	Initial cal 5
VL8203-IC8203	L292481.D	07/12/17	12:42	03:04	Initial cal 10
VL8203-IC8203	L292482.D	07/12/17	13:09	03:31	Initial cal 20
VL8203-ICC8203	L292483.D	07/12/17	13:36	03:58	Initial cal 50
VL8203-IC8203	L292484.D	07/12/17	14:04	04:26	Initial cal 100
VL8203-IC8203	L292485.D	07/12/17	14:31	04:53	Initial cal 200
VL8203-ICV8203	L292488.D	07/12/17	15:52	06:14	Initial cal verification 50
VL8203-ICV8203	L292489.D	07/12/17	16:19	06:41	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: VL8249-BFB
Lab File ID: L293617B.D
Instrument ID: GCMSL
Injection Date: 08/15/17
Injection Time: 22:09

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	17353	18.7		Pass
75	30.0 - 60.0% of mass 95	46333	49.8		Pass
95	Base peak, 100% relative abundance	92992	100.0		Pass
96	5.0 - 9.0% of mass 95	6423	6.91		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	84011	90.3		Pass
175	5.0 - 9.0% of mass 174	6906	7.43	(8.22) [a]	Pass
176	95.0 - 101.0% of mass 174	83456	89.7	(99.3) [a]	Pass
177	5.0 - 9.0% of mass 176	5736	6.17	(6.87) [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
VL8249-CC8203	L293617A.D	08/15/17	22:09	00:00	Continuing cal 50
VL8249-MB	L293619A.D	08/15/17	23:50	01:41	Method Blank
VL8249-BS	L293620.D	08/16/17	00:16	02:07	Blank Spike
JC48812-12MS	L293621.D	08/16/17	00:43	02:34	Matrix Spike
JC48812-12MSD	L293622.D	08/16/17	01:09	03:00	Matrix Spike Duplicate
JC48812-19	L293624.D	08/16/17	02:02	03:53	HSSER-TRIP01-080917
JC48812-12	L293625.D	08/16/17	02:28	04:19	HSSER-GMZ02-080917
JC48812-1	L293626.D	08/16/17	02:55	04:46	HSSER-FBLK01-080717
JC48812-2	L293627.D	08/16/17	03:22	05:13	HSSER-SMW08-080717
JC48812-3	L293628.D	08/16/17	03:48	05:39	HSSER-MW07FGA-080717
JC48812-4	L293629.D	08/16/17	04:15	06:06	HSSER-GMZ01-080717
JC48812-5	L293630.D	08/16/17	04:41	06:32	HSSER-SMW02-080717
JC48812-6	L293631.D	08/16/17	05:08	06:59	HSSER-SMW01-080717
JC48812-7	L293632.D	08/16/17	05:35	07:26	HSSER-MW203-080817
JC48812-8	L293633.D	08/16/17	06:01	07:52	HSSER-SMW19-080817
JC48812-9	L293634.D	08/16/17	06:28	08:19	HSSER-SMW21-080817
JC48812-10	L293635.D	08/16/17	06:55	08:46	HSSER-GMZ04-080817
JC48812-11	L293636.D	08/16/17	07:21	09:12	HSSER-SMW20-080817
JC48812-13	L293637.D	08/16/17	07:48	09:39	HSSER-GMZ03-080917
JC48812-14	L293638.D	08/16/17	08:14	10:05	HSSER-PMW01-080917
JC48812-15	L293639.D	08/16/17	08:41	10:32	HSSER-EBLK01-080917

Internal Standard Area Summary

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Check Std:	V2D7100-CC7077	**Injection Date:**	08/17/17
Lab File ID:	2D169270.D	**Injection Time:**	14:05
Instrument ID:	GCMS2D	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	86538	7.39	189605	10.10	273137	11.25	270986	15.48	151651	18.27
Upper Limit [a]	173076	7.89	379210	10.60	546274	11.75	541972	15.98	303302	18.77
Lower Limit [b]	43269	6.89	94803	9.60	136569	10.75	135493	14.98	75826	17.77

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2D7100-MB	98430	7.40	189330	10.10	271639	11.26	260226	15.48	122664	18.27
V2D7100-BS	84803	7.40	188377	10.10	272743	11.26	278804	15.48	157002	18.27
ZZZZZZ	91530	7.40	195816	10.10	280068	11.26	268066	15.48	130081	18.27
JC49064-1	86649	7.40	187241	10.11	269721	11.26	263619	15.48	129989	18.27
JC49064-2	83189	7.40	191588	10.11	274113	11.26	265203	15.48	129025	18.27
ZZZZZZ	80617	7.40	187136	10.11	271770	11.26	264357	15.48	127340	18.27
ZZZZZZ	84188	7.40	186823	10.11	271117	11.26	264351	15.48	125744	18.27
ZZZZZZ	80765	7.40	186471	10.11	272237	11.26	263793	15.48	125338	18.27
JC49064-1MS	79376	7.40	187434	10.11	275204	11.26	276389	15.48	157624	18.27
JC49064-2DUP	78436	7.40	191781	10.11	276085	11.26	269565	15.48	131563	18.27
ZZZZZZ	74520	7.39	181773	10.11	261786	11.26	256668	15.48	124207	18.27
ZZZZZZ	82920	7.39	185504	10.11	270065	11.26	261210	15.48	127528	18.27
ZZZZZZ	82388	7.40	187008	10.11	269357	11.26	265643	15.48	130806	18.27
ZZZZZZ	83340	7.40	187814	10.11	271259	11.26	265298	15.48	130130	18.27

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.

Internal Standard Area Summary

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Check Std:	VL8249-CC8203	**Injection Date:**	08/15/17
Lab File ID:	L293617A.D	**Injection Time:**	22:09
Instrument ID:	GCMSL	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	154934	7.51	216779	9.77	315694	10.70	288427	13.81	173758	16.11
Upper Limit [a]	309868	8.01	433558	10.27	631388	11.20	576854	14.31	347516	16.61
Lower Limit [b]	77467	7.01	108390	9.27	157847	10.20	144214	13.31	86879	15.61

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VL8249-MB	175478	7.50	223868	9.77	316119	10.70	289950	13.81	181614	16.12
VL8249-BS	138998	7.50	207310	9.77	302740	10.70	280959	13.81	163523	16.11
JC48812-12MS	155276	7.50	208065	9.77	304504	10.70	268069	13.81	163789	16.11
JC48812-12MSD	158021	7.49	218265	9.77	317256	10.70	294748	13.81	169643	16.11
JC48812-19	182485	7.49	246275	9.77	344440	10.70	317947	13.81	195525	16.11
JC48812-12	171310	7.51	242099	9.77	338366	10.70	312514	13.81	194487	16.11
JC48812-1	195912	7.51	242719	9.77	336937	10.70	313324	13.81	195436	16.12
JC48812-2	171358	7.52	235155	9.77	331454	10.70	303806	13.81	188134	16.11
JC48812-3	186066	7.49	229338	9.77	320229	10.70	293635	13.81	187009	16.11
JC48812-4	169108	7.50	219366	9.77	310573	10.70	282848	13.81	180694	16.11
JC48812-5	155059	7.47	215990	9.76	306797	10.70	277049	13.81	180461	16.11
JC48812-6	137689	7.49	219700	9.77	311745	10.70	288136	13.81	182596	16.11
JC48812-7	158155	7.48	216663	9.77	303695	10.70	282309	13.81	179846	16.11
JC48812-8	139268	7.50	214100	9.77	295609	10.70	278067	13.81	175516	16.11
JC48812-9	161024	7.49	217081	9.77	299616	10.70	281746	13.81	173724	16.12
JC48812-10	143461	7.49	209308	9.76	289273	10.70	266692	13.81	169386	16.12
JC48812-11	139050	7.49	212348	9.77	295060	10.70	280665	13.81	174250	16.11
JC48812-13	138278	7.49	202884	9.76	283785	10.70	266877	13.81	168611	16.12
JC48812-14	139844	7.48	194701	9.77	274490	10.70	253807	13.81	164681	16.11
JC48812-15	150061	7.49	205097	9.77	287692	10.70	267332	13.81	169292	16.11

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.

Surrogate Recovery Summary

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC48812-1	L293626.D	99	112	96	97
JC48812-2	L293627.D	101	110	99	100
JC48812-3	L293628.D	99	112	98	98
JC48812-4	L293629.D	102	112	98	96
JC48812-5	L293630.D	101	114	100	98
JC48812-6	L293631.D	102	114	98	99
JC48812-7	L293632.D	103	115	97	99
JC48812-8	L293633.D	101	115	97	98
JC48812-9	L293634.D	103	117	98	97
JC48812-10	L293635.D	102	117	98	98
JC48812-11	L293636.D	99	114	96	99
JC48812-12	L293625.D	102	111	97	102
JC48812-13	L293637.D	102	119	98	98
JC48812-14	L293638.D	102	116	98	95
JC48812-15	L293639.D	102	119	98	98
JC48812-16	2D169279.D	103	118	99	105
JC48812-17	2D169280.D	101	119	99	107
JC48812-18	2D169281.D	105	116	99	107
JC48812-19	L293624.D	101	110	98	99
JC48812-12MS	L293621.D	103	104	100	102
JC48812-12MSD	L293622.D	103	104	97	104
JC49064-1MS	2D169284.D	102	114	98	97
JC49064-2DUP	2D169286.D	102	117	99	106
V2D7100-BS	2D169273.D	99	113	96	98
V2D7100-MB	2D169272.D	102	117	100	108
VL8249-BS	L293620.D	103	105	98	103
VL8249-MB	L293619A.D	101	110	99	97

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

Initial Calibration Summary

Job Number: JC48812 **Sample:** V2D7077-ICC7077
Account: UTC United Technologies Corporation **Lab FileID:** 2D168763.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Response Factor Report MS2D

Method : C:\MSDCHEM\1\METHODS\M2D7077.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Tue Aug 08 10:47:43 2017
Response via : Initial Calibration

Calibration Files
1 =2D168758.D 2 =2D168759.D 100 =2D168764.D 50 =2D168763.D
20 =2D168762.D 200 =2D168765.D 5 =2D168760.D 0.5 =2D168757.D
10 =2D168761.D 0.2 =2D168756.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	1.020	1.073	1.137	1.137	1.174	1.174	1.160		1.191		1.133	5.15
3) ethyl alcohol	0.137	0.137	0.104	0.109	0.114	0.104	0.124		0.123		0.119	11.38
4) 1,4-dioxane		0.067	0.087	0.086	0.087	0.089	0.076		0.082		0.082	9.56
5) I pentafluorobenzene ----------ISTD----------												
6) chlorodifluoromethane	0.732	0.745	0.770	0.780	0.794	0.787	0.781	0.572	0.761	0.809	0.753	8.97
7) dichlorodifluoromethane	0.719	0.788	0.807	0.829	0.798	0.844	0.792	0.684	0.796		0.784	6.50
8) chloromethane	0.779	0.806	0.869	0.854	0.868	0.886	0.819	0.847	0.827	0.939	0.850	5.34
9) vinyl chloride	0.712	0.812	0.845	0.845	0.830	0.876	0.803	0.733	0.793	0.833	0.808	6.33
10) bromomethane	0.519	0.534	0.482	0.488	0.514	0.472	0.510	0.614	0.513		0.516	8.06
11) chloroethane	0.320	0.371	0.372	0.374	0.406	0.380	0.379	0.408	0.392		0.378	6.86
12) trichlorofluoromethane	0.694	0.843	0.819	0.857	0.859	0.834	0.859	0.816	0.842		0.825	6.26
13) ethyl ether	0.229	0.250	0.230	0.240	0.250	0.235	0.251	0.201	0.252		0.238	7.00
14) acrolein		0.064	0.086	0.088	0.090	0.087	0.082		0.090		0.084	10.79
15) 1,1-dichloroethene	0.444	0.466	0.431	0.443	0.475	0.432	0.459	0.368	0.467		0.443	7.28
16) freon 113	0.450	0.418	0.418	0.441	0.445	0.421	0.444	0.292	0.450		0.420	11.82
17) 2-chloropropane	0.932	0.956	0.849	0.886	0.934	0.863	0.926	0.901	0.921	1.105	0.927	7.65
18) acetone	0.034	0.038	0.031	0.033	0.036	0.031	0.037	0.040	0.035		0.035	9.03
19) acetonitrile	0.059	0.057	0.053	0.055	0.059	0.053	0.060	0.063	0.060		0.058	6.18
20) iodomethane	0.906	0.886	0.911	0.931	0.994	0.927	0.940	0.853	0.986	0.907	0.924	4.63
21) carbon disulfide	1.858	1.795	1.663	1.730	1.844	1.664	1.792	1.688	1.813		1.761	4.33
22) methylene chloride	0.572	0.561	0.501	0.528	0.571	0.507	0.569	0.611	0.572		0.555	6.45
23) methyl acetate												

Initial Calibration Summary

Job Number: JC48812 **Sample:** V2D7077-ICC7077
Account: UTC United Technologies Corporation **Lab FileID:** 2D168763.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
          0.320 0.331 0.301 0.312 0.333 0.302 0.327 0.300 0.332        0.318    4.35
24)  methyl tert butyl ether
          1.300 1.342 1.355 1.392 1.446 1.338 1.381 1.253 1.424 1.366  1.360    4.17
25)  trans-1,2-dichloroethene
          0.547 0.506 0.453 0.480 0.505 0.456 0.507 0.542 0.513        0.501    6.62
26)  hexane
          0.703 0.659 0.693 0.730 0.709 0.726 0.714 0.563 0.696 0.613  0.681    7.95
27)  di-isopropyl ether
          1.689 1.704 1.665 1.763 1.894 1.647 1.754 1.591 1.833 1.747  1.729    5.18
28)  2-butanone
          0.034 0.041 0.043 0.043 0.045 0.043 0.040       0.042        0.041    7.68
29)  1,1-dichloroethane
          0.940 0.934 0.880 0.924 0.979 0.890 0.968 0.873 0.983 1.022  0.939    5.26
30)  chloroprene
          0.679 0.672 0.713 0.748 0.764 0.720 0.725 0.587 0.751 0.700  0.706    7.27
31)  acrylonitrile
                0.148 0.164 0.168 0.175 0.172 0.154       0.179        0.166    6.81
32)  vinyl acetate
                      0.075 0.078 0.078 0.075 0.062       0.071        0.073    8.13
33)  ethyl tert-butyl ether
          1.510 1.523 1.660 1.694 1.725 1.676 1.598 1.438 1.674 1.624  1.612    5.80
34)  ethyl acetate
                      0.054 0.057 0.051 0.054 0.050       0.063        0.055    8.50
35)  2,2-dichloropropane
          0.718 0.707 0.654 0.700 0.743 0.642 0.748 0.685 0.742 0.762  0.710    5.72
36)  cis-1,2-dichloroethene
          0.554 0.556 0.519 0.549 0.576 0.524 0.559 0.503 0.573 0.678  0.559    8.56
37)  propionitrile
          0.048 0.056 0.054 0.056 0.060 0.055 0.057 0.047 0.059        0.055    8.19
38)  tert-Butyl Formate
          0.200 0.206 0.239 0.234 0.240 0.248 0.221       0.234        0.228    7.56
39)  bromochloromethane
          0.261 0.282 0.257 0.267 0.284 0.260 0.275 0.255 0.290        0.270    4.83
40)  tetrahydrofuran
                      0.052 0.057 0.062 0.052             0.066        0.058   10.99
41)  chloroform
          1.095 0.996 0.832 0.886 0.945 0.831 0.937       0.973        0.937    9.44
42)  dibromofluoromethane (s)
          0.498 0.502 0.492 0.496 0.499 0.488 0.496 0.497 0.499 0.497  0.496    0.75
43)  methacrylonitrile
          0.123 0.150 0.179 0.179 0.179 0.185 0.166       0.177        0.167   12.65
44)  1,1,1-trichloroethane
          0.839 0.766 0.767 0.784 0.815 0.777 0.811 0.646 0.801 0.794  0.780    6.72
45)  cyclohexane
          0.706 0.684 0.723 0.748 0.763 0.750 0.754 0.754 0.750 0.683  0.732    4.15
46)  1,1-dichloropropene
          0.662 0.629 0.646 0.673 0.685 0.666 0.687 0.592 0.680 0.729  0.665    5.57
47)  isobutyl alcohol
          0.013 0.014 0.014 0.014 0.016 0.014 0.014       0.016        0.014    8.43
48)  carbon tetrachloride
          0.745 0.719 0.687 0.718 0.761 0.689 0.739 0.666 0.759 0.806  0.729    5.74
49)  tert-amyl alcohol
                0.014 0.016 0.016 0.017 0.017 0.015       0.015        0.016    8.11

50) I   1,4-difluorobenzene   ----------------ISTD---------------------
51)  1,2-dichloroethane-d4 (s)
          0.351 0.357 0.340 0.342 0.350 0.329 0.352 0.350 0.352 0.350  0.347    2.31
52)  benzene
          1.392 1.336 1.215 1.303 1.399 1.202 1.355 1.285 1.385 1.675  1.355    9.76
53)  iso-octane
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6.9.1

6