Appendix B

Field Forms
and
Boring Logs

Well Development Logs

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2027.0003 Omaha Corps
Installation: Peterson AFB
Date: 10/28/16
Sample Technician: Jeremy Klein, Kaleb Brumbaugh
Well ID No.: PETER01-001

Initial Measurements

Well Total Depth: 92 ft below TOC
Water Level: 86.1 ft below TOC
Calculated Well Volume: 0.9617 Gallons
Well Diameter: 2.0" inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon
Flow rate (incl. units): 500 mL/min

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
0950	500mL/min	average	15.8	232.9	9.62	N/A	4.61	158.9	1	
1000	500mL/min		16.5	416.0	8.71		3.66	57.9	2	
1012	520mL/min		16.0	418.6	8.22		3.71	-31.2	5	
1023	520mL/min	197	16.3	478.7	8.17		4.51	-3.1	7	
1028	520mL/min	232	16.4	423.9	8.15		4.39	4.2	8	
1100	520mL/min	226	16.3	517	8.38		5.14	32.1	15	
1110	520mL/min	49.7	16.5	534	8.22		5.12	56.9	16	
1115	520mL/min	116	16.5	534	8.20		5.18	58.0	17	
1130	520mL/min	69.4	16.7	535	8.11		5.32	66.5	19	
1135	520mL/min	67.8	16.7	535	8.07		5.47	68.0	20	
1140	520mL/min	37.2	16.9	537	8.04		5.30	69.6	21	
1145	520mL/min	73.1	16.9	537	8.01		5.42	70.1	22	
1150	520mL/min	40.9	17.0	539	7.98		5.47	71.8	23	
1155	520mL/min	36.2	16.7	539	7.95		5.58	72.9	24	
1200	520mL/min	47.6	16.7	[illegible]	7.91		5.62	73.0	25	
Results At End Of Purging:		47.6	16.7	540	7.91		5.62	73.0	25	

COMMENTS:

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2027.0003
Installation: Peterson AFB
Date: 10/29/16
Sample Technician: J. Klein, T. Lewis
Well ID No.: Pater01-002

Initial Measurements

Well Total Depth: 100 ft below TOC Water Level: 94.19 ft below TOC

Calculated Well Volume: 0.9470 Gallons Well Diameter: 2" Inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon Flow rate (incl. units): 300mL/min

	Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
10/29	1125	300mL/min					N/A				
10/29	1230	300mL/min								5	well Dry
11/2	1000	900mL/min	over range	14.4	292.8	7.57		2.84	122.0	6	1010 stopped pump
11/2	1120	750mL/min	over range	14.8	332.6	7.87		3.86	43.5	8	1130 stopped pump
11/2	1145	750mL/min	over range	15.6	353.1	8.20		4.65	35.0	9	
11/2	1150	750mL/min	over range	15.7	348.2	8.13		4.86	27.2	9.	
11/5	1050	500mL/min	over range	15.4	82.1	7.95		6.36	239.7	10	
11/3	1115	500mL/min	over range	15.8	144.3	8.02		4.10	77.7	13	1130 stopped pump
11/5	1150	600mL/min	over range	15.4	122.8	8.35		6.40	-42.0	15	1200 pump off
11/5	1215	600mL/min	over range	15.8	327.8	8.34		6.18	-76.0	17	
11/5	1220	600mL/min	786	15.9	328.1	8.33		6.30	-77.2	18	
	1225	600mL/min	over range	15.7	324.5	8.28		6.34	-76.7	18	
Results At End Of Purging:			over range	15.7	324.5	8.28		6.34	-76.7	18	

COMMENTS: ~~1010~~ @ ~~1010~~ 1010 stopped pump to allow recharge
@ 1130 stopped pump to allow recharge

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2027.0003
Installation: Peterson AFB
Date: 10/29/16
Sample Technician: J. Klein, T. Lewis
Well ID No.: PETER01-003

Initial Measurements

Well Total Depth: 87 ft below TOC
Water Level: 76.46 ft below TOC
Calculated Well Volume: 1.718 Gallons
Well Diameter: 2 inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon
Flow rate (incl. units): 500 mL/min

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
0950	500mL/min	over range	16.1	459.9	7.47	N/A	4.84	156.6	2	
1000	500mL/min	72.8	14.6	355.8	7.65		7.89	89.1	7	
1010	500mL/min	93.1	14.4	353.3	7.58		8.00	78.7	9	
1020	500mL/min	39.8	14.4	353.2	7.62		8.17	62.3	11	
1030	500mL/min	28.8	14.3	351.2	7.63		8.44	55.9	13	
Results At End Of Purging:		28.8	14.3	351.1	7.63		8.44	55.9	13	

COMMENTS:

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2027.0001
Installation: Peterson AFB
Date: 11/8/16
Sample Technician: Jeremy Klein, Taylor Lewis
Well ID No.: PETER02-001

Initial Measurements

Well Total Depth: 60.5 ft below TOC
Water Level: 51.15 ft below TOC
Calculated Well Volume: 1.524 Gallons
Well Diameter: 2" inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon
Flow rate (incl. units): 2000 ml/min

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
1350	1000ml/min	overrange	17.2	634	11.44	N/A	3.92	18.4	2	
1420	2600ml/min	overrange	14.6	672	9.38		5.28	-46.1	13	
1422	2000ml/min	417	14.6	674	9.17		5.27	-31.8	16	
1430	2000ml/min	74.9	14.6	670	8.96		5.01	-18.6	19	
1435	2000ml/min	64.1	14.6	671	8.90		5.21	-12.2	21	
1437	2000ml/min	43.3	14.6	671	8.87		5.25	-10.7	22	
Results At End Of Purging:		43.3	14.6	671	8.87		5.25	-10.7	22	

COMMENTS:

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2027.0003
Installation: Peterson AFB
Date: 11/8/16
Sample Technician: Jeremy Klein, Taylor Lewis
Well ID No.: PETER02-002

Initial Measurements

Well Total Depth: 40 ft below TOC
Water Level: 38.2 ft below TOC
Calculated Well Volume: 0.2934 Gallons
Well Diameter: 2" inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon
Flow rate (incl. units): 500 mL/min

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
11/8 1055	500mL/min	over range	15.9	571	8.78	N/A	2.62	-202.5	1	1100 Pumped well dry
11/9 1205		overrange	15.4	548	6.98		1.73	88.1	1	Bailing
										1215 well dry
Results At End Of Purging:		overrange	15.4	548	6.98		1.73	88.1	1	

COMMENTS:
11/9 @ 1200 WL: 39.63'

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2027.0003
Installation: Peterson AFB
Date: 11/8/16
Sample Technician: Jeremy Klein, Taylor Lewis
Well ID No.: PETERO2-003

Initial Measurements

Well Total Depth: 50 ft below TOC
Water Level: 45.23 ft below TOC
Calculated Well Volume: 0.77751 Gallons
Well Diameter: 2" inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon/Bailer
Flow rate (incl. units): 600mL/min

	Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
11/8	1230	600mL/min	overrange	17.0	616	8.01	N/A	3.58	-38.1	1	
11/8	1235	900mL/min	overrange	15.9	594	7.73		3.34	-113.9	2	1240 well dry/pump off
11/8	1300	900mL/min	overrange	15.6	573	7.85		3.14	-187.3	3	1305 pump off well dry
11/9	1230		overrange	14.2	577	7.22		4.64	146.7	3	Bailing
11/9	1245		overrange	14.3	575	6.97		4.78	91.6	5	well dry
Results At End Of Purging:			overrange	14.3	575	6.97		4.78	91.6	5	

COMMENTS: 11/9 @ 1225 WL: 46.69'

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2027.0003
Installation: Peterson AFB
Date: 11/3/16
Sample Technician: Jeremy Klein, Taylor Lewis
Well ID No.: PETER03-001

Initial Measurements

Well Total Depth: 70 ft below TOC Water Level: 65.98 ft below TOC

Calculated Well Volume: 0.6352 Gallons Well Diameter: 2 Inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Bailer / MonSoon Flow rate (incl. units): 750mL/min

	Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
11/3	1725		Over range	13.3	462.3	8.15	N/A	5.47	98.4	1	Bailing
11/3	1735		Over range	13.0	471.6	7.86		5.60	53.7	1	
11/3	1745		Over range	12.6	485.5	7.84		5.58	48.8	2	
11/4	0840		over range	12.5	551	8.53		5.75	174.0	2	
11/4	0900	750 mL/min	over range	13.9	593	7.77		4.97	90.3	3	Pumping
	0925	700mL/min	79.8	14.5	628	7.69		6.09	-55.7	8	
	0935	700mL/min	39.7	14.5	634	7.65		6.93	-41.6	9	
	0940	750mL/min	35.1	14.4	631	7.67		6.33	-32.7	10	
	0955	750mL/min	73.8	14.6	639	7.66		7.36	-28.3	13	
	1020	700mL/min	46.0	14.8	642	7.68		6.71	-21.0	18	
	Results At End Of Purging:		46.0	14.8	642	7.68		6.71	-21.0	18	

COMMENTS:

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2077.0003
Installation: Peterson AFB
Date: 11/6/16
Sample Technician: Jeremy Kein, Taylor Lewis
Well ID No.: PETER03-002

Initial Measurements

Well Total Depth: 76 ft below TOC Water Level: 66.99 ft below TOC

Calculated Well Volume: 1.468 Gallons Well Diameter: 2 inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon Flow rate (incl. units): 1400mL/min

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
1045	1400mL/min	overrange	15.3	563	8.88	N/A	7.53	-203.1	1	
1130	750mL/min	overrange	14.5	447.3	8.03		2.83	-354.4	11	
1145	750mL/min	503	15.3	468.0	7.90		3.37	-294.5	13	
1150	750mL/min	81.5	15.1	471.1	7.83		3.88	-271.4	14	
1152	750mL/min	49.9	15.0	468.9	7.83		3.82	-269.8	14	
1155	750mL/min	44.8	14.9	465.5	7.82		3.90	-269.2	15	
1157	750mL/min	37.2	14.8	465.3	7.81		3.92	-269.7	16	
1200	750mL/min	35.7	14.8	458.2	7.79		3.75	-274.4	17	
Results At End Of Purging:		35.7	14.8	458.2	7.79		3.75	-274.4	17	

COMMENTS:

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFEE Site Investigation
ASL Project No: M2027.0003
Installation: Peterson AFB
Date: 11/3/16
Sample Technician: Jeremy Klein, Taylor Lewis
Well ID No.: PETER03-003

Initial Measurements

Well Total Depth: 75 ft below TOC
Water Level: 68.94 ft below TOC
Calculated Well Volume: 0.987 Gallons
Well Diameter: 2 Inches
Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Bailer/Monsoon
Flow rate (incl. units): 1200 mL/min

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
1553		over range	15.8	302.3	8.68	N/A	5.76	21.3	.1	Bailing
1610	1000 mL/min	over range	15.8	302.8	8.97		5.46	-0.3	1	Pumping
1630	1200 mL/min	798	15.4	428.9	8.15		5.71	-22.5	7	
1635	1200 mL/min	64.3	15.1	469.0	7.83		5.90	-11.1	8	
1640	1200 mL/min	32.9	14.9	486.8	7.80		5.68	-7.0	11	
1642	1200 mL/min	27.6	14.9	489.1	7.78		6.08	-5.4	12	
1645	1200 mL/min	20.3	14.9	491.6	7.79		6.01	-6.2	13	
Results At End Of Purging:		20.3	14.9	491.6	7.79		6.01	-6.2	13	

COMMENTS:

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2022.0003
Installation: Peterson AFB
Date: 11/3/16
Sample Technician: Jeremy Klein, Taylor Lewis
Well ID No.: PETER04-001

Initial Measurements

Well Total Depth: ~~67~~ 64 ft below TOC
Water Level: 45.56 ft below TOC ~~46.55~~ ~~46.7~~
Calculated Well Volume: 3.001 Gallons
Well Diameter: 2 inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Bailer / Monsoon
Flow rate (incl. units):

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
1025		Over range	13.7	327.4	8.08	N/A	1.32	-136.2	1	Bailer
1045		over range	14.0	325.2	8.01		0.92	-248.3	2	
1055		over range	14.2	321.9	8.02		0.92	-261.7	2	
1120		over range	14.3	325.6	8.05		1.31	-245.0	3	
1200		over range	14.8	340.7	8.12		0.57	-296.7	3	Began pumping
1215	700 mL/min	over range	15.0	334.9	7.87		0.65	-311.0	6	
1230	4000 mL/min	over range	15.0	347.2	8.17		0.23	-340.7	9	
1255	2500 mL/min	over range	14.6	333.1	7.66		2.79	-231.7	18	
1315	600 mL/min	750	15.1	343.1	7.68		2.32	-244.2	22	
1320	600 mL/min	559	15.0	327.2	7.64		3.15	-210.9	23	
1330	600 mL/min	218	14.9	323.2	7.61		2.94	-192.3	24	
1345	600 mL/min	112	14.9	328.9	7.61		2.49	-194.5	27	
1355	600 mL/min	49.8	14.9	329.7	7.59		2.82	-185.2	28	
Results At End Of Purging:		49.8	14.9	329.7	7.59		2.82	-185.2	28	

COMMENTS:

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2027.0003
Installation: Peterson AFB
Date: 11/3/16
Sample Technician: Jeremy Klein, Taylor Lewis
Well ID No.: PETER04-002

Initial Measurements

Well Total Depth: 50 ft below TOC
Water Level: ~~48.65~~ 47.65 ft below TOC
Calculated Well Volume: 0.383 Gallons
Well Diameter: 2 inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Bailer / Monsoon
Flow rate (incl. units):

	Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
11/3	0925		Over range	12.4	453.3	8.17	N/A	1.59	91.0	1	Bailing
11/3	0945		overrange	12.3	458.6	8.08		2.18	-172.1	1	Bailing (redacted) JC
11/3	1145		over range	13.0	420.3	8.21		3.72	-187.	1	Well dry
11/7	0935	700mL/min	over range	13.4	940	8.54		2.42	139.4	2	Pumping
											0940 well dry
Results At End Of Purging:			Overrange	13.4	940	8.54	—	2.42	-139.4	2	

COMMENTS: @945 stopped bailing to allow for recharge

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2027-0003
Installation: Peterson AFB
Date: 11/1/16
Sample Technician: Jeremy Klein
Well ID No.: PETER04-003

Initial Measurements

Well Total Depth: 65.0 ft below TOC
Water Level: 53.63 ft below TOC
Calculated Well Volume: 1.853 Gallons
Well Diameter: 2 inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon
Flow rate (Incl. units): ~~450 mL~~ 900 mL/min

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
1405	900mL/min	overrange	14.8	222.0	9.46	n/a	4.71	28.7	5	1415 stopped pump
1505	750mL/min	overrange	14.8	316.9	9.15		5.93	-82.9	7	1510 stopped pump
1550	900mL/min	overrange	14.8	266.9	9.28		3.91	-119.9	8	
1605	750mL/min	overrange	15.0	331.7	8.97		5.29	-78.1	9	1645 Pump Stopped
1620	900mL/min	overrange	15.1	322.3	9.01		4.26	-114.3	11	
1720	750mL/min	overrange	14.8	321.6	8.88		4.53	-111.0	13	
1730	900mL/min	934	14.9	340.1	8.82		5.45	-85.9	14	
1735	900mL/min	777	14.8	339.0	8.82		5.15	-81.3	14	
Results At End Of Purging:		777	14.8	339.0	8.82		5.15	-81.3	14	

COMMENTS: @ 1415 Stopped pump to allow for recharge
@ 1510 stopped pump to allow recharge
@ 1645 stopped pump to allow recharge

AerostarSES, LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation.
ASL Project No: M027.0003 (Omaha)
Installation: Peterson AFB
Date: 10/31/16
Sample Technician: Jeremy Klein, Kaleb Brumbaugh
Well ID No.: PETER04-004

Initial Measurements

Well Total Depth: 90' ft below TOC
Water Level: 58.67 ft below TOC
Calculated Well Volume: 5.11 Gallons
Well Diameter: 2 Inches
Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon
Flow rate (incl. units): 1500mL/min

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
1505	1500 mL/min	outrange	14.8	569.3	7.52	N/A	.15	-244.7	2.5 gal	
1515	900 mL/min	outrange	15.8	566	7.74	N/A	.33	-342.8	4 gal	
1525	1500 mL/min	over range	16.2	468.7	7.73		3.19	-186.9	6	
1535	1000 mL/min	over range	16.1	467.0	7.80		3.54	-184.2	8	
1545	1000 mL/min	over range	16.4	467.3	7.81		3.37	-187.0	12	
1615	1500 mL/min	over range	16.9	457.9	7.71		4.77	-189.8	14	Pump off 1625
Results At End Of Purging:		over range	16.9	457.9	7.71		4.77	-189.8	14	

COMMENTS: @ 1625 cut off pump off and had to clean. Will revisit well on 11/1 or ASAP

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2027.0003
Installation: Peterson AFB
Date: ~~10/1~~ 11/1/16
Sample Technician: Jeremy Klein
Well ID No.: PETERD4-005

Initial Measurements

Well Total Depth: 71.6 ft below TOC
Water Level: 54.35 ft below TOC
Calculated Well Volume: 2.8 gal Gallons
Well Diameter: 2 inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Bailer / Monsoon
Flow rate (incl. units):

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
1105		over range	13.1	210.0	8.64	N/A	2.31	175.8	1	Bailing b/c sediment well
1115		over range	13.2	167.6	8.10		1.16	140.9	2	
1145	1800 ml/min	over range	14.2	164.6	7.45		0.75	7.8	6	
1200	~~1800~~ 1800 ml/min	548	14.2	166.2	7.22		1.03	-68.4	13	
1210	1800 mL/min	188	14.4	164.9	7.23		1.06	-65.5	16	
1220	1800 mL/min	86.2	14.6	164.3	7.19		0.95	-66.7	18	
1225	1500 mL/min	60.4	14.8	162.0	7.18		0.74	-122.4	19	
1230	1500 mL/min	43.4	14.8	162.5	7.17		0.76	-128.7	20	
1235	1500 mL/min	34.6	14.8	161.2	7.16		0.78	-132.3	21	
Results At End Of Purging:		34.6	14.8	161.2	7.16	—	0.78	-132.3	21	

COMMENTS:

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: SIAFEE OMAHA
ASL Project No: M2027.0003
Installation: PETERSON AFB
Date: NOVEMBER 10, 2016
Sample Technician: TANNER LEWIS
Well ID No.: PETER04-008

Initial Measurements

Well Total Depth: 101.44 ft below TOC Water Level: 91.85 ft below TOC

Calculated Well Volume: 1.6 Gallons Well Diameter: 2 Inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon Flow rate (incl. units): 1500

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
1610	1400	>1000	15.6	0.840	7.02	–	3.95	-53.0	2.5	91.97'
1620	1500	>1000	15.1	0.839	6.95	–	4.25	-29.6	8	92.14'
1630	1500	>1000	15.3	0.835	7.01	–	4.84	-10.4	15	92.26'
1640	1500	>1000	15.1	0.835	7.01	–	5.07	12.1	18	92.10'
1650	1500	>1000	14.9	0.835	6.97	–	5.55	24.9	25	92.07'
1655	1500	481	15.0	0.837	6.95	–	7.42	9.5	28	92.12
1700	1500	62.0	14.9	0.836	6.96	–	5.00	7.5	30	92.15
1703	1500	22.9	14.8	0.836	6.96	–	5.09	8.1	32	92.15
1706	1500	15.8	14.8	0.836	6.97	–	4.87	9.7	34	92.15
1709	1500	14.0	14.7	0.835	6.98	–	5.05	12.9	35	92.15
Results At End Of Purging:		14.0	14.7	0.835	6.98	–	5.05	12.9	35	

COMMENTS:

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: SIAFFF OMAHA
ASL Project No: M2027.0003
Installation: PETERSON AFB
Date: 2016-11-10
Sample Technician: TAYLOR LEWIS
Well ID No.: PETER04-009

Initial Measurements

Well Total Depth: 100 ft below TOC Water Level: 82.75 ft below TOC

Calculated Well Volume: 2.8 Gallons Well Diameter: 2 Inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon Flow rate (incl. units): 1000 mL/min

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
1200	2000	>1000	16.8	570	7.46	–	2.97	124.9	1	82.78'
1215	1000	>1000	16.7	0.624	7.28	–	3.62	98.9	4	82.76'
1225	1000	842	16.3	0.649	7.22	–	3.99	86.9	2.5	82.75'
1235	1000	>1000	16.2	0.657	7.18	–	3.84	83.0	2.5	82.75'
1245	1000	373	15.8	0.665	7.16	–	4.33	81.1	2.5	82.75'
1255	1000	510	16.1	.672	7.18	–	4.12	76.5	2.5	82.75'
1305	1000	476	16.2	.674	7.17	–	3.79	75.9	2.5	82.75'
1315	1000	307	15.6	0.679	7.15	–	4.43	75.8	2.5	82.75'
1325	1000	277	15.8	0.680	7.15	–	4.66	75.7	2.5	82.75'
1335	1000	170	15.3	0.682	7.11	–	4.34	79.0	2.5	82.75'
1340	1000	128	15.3	0.683	7.09	–	4.59	79.8	1.25	82.75'
1345	1000	155	15.3	0.684	7.10	–	4.54	79.98	1.25	82.75'
1350	1000	136	15.4	0.687	7.10	–	4.51	80.0	1.25	82.75'
Results At End Of Purging:		136	15.4	0.687	7.10	–	4.51	80.0	28.75	

COMMENTS:

AerostarSES, LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2027.0003
Installation: Peterson AFB
Date: 10/20/16
Sample Technician: Jeremy Klein, Taylor Lewis
Well ID No.: MW2-1

Initial Measurements

Well Total Depth: 62.86 ft below TOC
Water Level: 46.75 ft below TOC
Calculated Well Volume: 10.781 Gallons
Well Diameter: 4 inches
Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon
Flow rate (incl. units): 3000 mL

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
1430	3000 mL/min	over range	13.4	404.6	8.00	N/A	6.98	219.0	1	
1440	3000 mL/min	105.0	17.2	352.8	7.34		7.61	203.9	6	
1450	1000 mL/min	59.8	13.7	346.8	7.45		6.4	183.0	9	
1455	1000 mL/min	32.5	13.6	355.7	7.43		7.08	178.2	11	
1500	1000 mL/min	19.3	13.5	354.9	7.42		7.44	167.8	13	
Results At End Of Purging:		19.3	13.5	354.9	7.42		7.44	167.8	13	

COMMENTS:

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigatio
ASL Project No: M2027.0003
Installation: Peterson AFB
Date: 10/30/16
Sample Technician: Jeremy Klein, Taylor Lewis
Well ID No.: MW2-2

Initial Measurements

Well Total Depth: ~~[illegible]~~ 54.79 10/30 ft below TOC
Water Level: 42.93 ft below TOC
Calculated Well Volume: 11.86 Gallons
Well Diameter: 4 Inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon
Flow rate (incl. units): 2000 mL/min

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
1710	2000 mL/min	over range	12.8	1138	7.84	N/A	4.85	257.	1	
1720	2000 mL/min	over range	13.1	1068	7.78		6.62	198.8	6	
1735	2000 ML/min	287	13.1	1087	7.71		5.96	204.4	13	
1745	1500 mL/min	207	14.2	1119	7.71		5.72	207.3	14	
1755	1500 mL/min	124	13.9	1098	7.71		6.86	213.5	17	
1800	1500 mL/min	84.9	13.7	1087	7.70		7.23	218.4	19	
1801	1500 mL/min	9.1	13.5	1074	7.70		6.51	220.7	20	
Results At End Of Purging:		9.1	13.5	1074	7.70		6.51	220.7	20	

COMMENTS:

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2027.0003
Installation: Peterson AFB
Date: 10/20/16
Sample Technician: Jeremy Klein, Taylor Lewis
Well ID No.: MW2-3

Initial Measurements

Well Total Depth: 54.56 ft below TOC
Water Level: 42.49 ft below TOC
Calculated Well Volume: 7.881 Gallons
Well Diameter: 4 Inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon
Flow rate (incl. units): 1000mL/min

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
1325	1000mL/min	over range	14.0	3783	7.26	N/A	6.34	211.7	2	
1335	1000mL/min	208	13.9	371.5	7.26		6.57	195.1	4	
1337	1000mL/min	57.0	13.9	374.0	7.34		6.00	188.0	4	
1340	1000mL/min	24.6	13.9	375.3	7.37		6.38	181.4	5	
1343	1000mL/min	16.4	14.0	375.5	7.39		6.41	177.5	6	
Results At End Of Purging:		16.4	14.0	375.5	7.39	✓	6.41	177.5	6	

COMMENTS:

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2027.0003
Installation: Peterson AFB
Date: 10/30/16
Sample Technician: Jeremy Klein, Taylor Lewis
Well ID No.: MW2-4

Initial Measurements

Well Total Depth: ~~62.86~~ 57.00 ft below TOC — Water Level: 41.57 ft below TOC

Calculated Well Volume: ~~13.902~~ 10.075 Gallons — Well Diameter: 4 inches

Calculations: 1" diameter = 0.041 gal/ft — 2" diameter = 0.163 gal/ft — 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon — Flow rate (incl. units): 3500 mL/min

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
1215	3500 mL/min	31.2	13.5	372	7.08	N/A	6.41	183.2	6	
1217	600 mL/min	71.7	13.7	373.9	7.13	N/A	6.85	184.4	7	
1220	600 mL/min	32.8	13.8	375.0	7.17		7.18	180.4	8	
1222	600 mL/min	11.2	13.7	374.3	7.26		6.99	174.1	8	
1225	600 mL/min	5.29	13.6	373.1	7.28		6.92	173.4	9	
Results At End Of Purging:		5.29	13.6	373.1	7.28		6.92	173.4	9	

COMMENTS:

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2027.0003
Installation: Peterson AFB
Date: ~~10/10/2016~~ 10/10/16
Sample Technician: Jeremy Klein, Taylor Lewis
Well ID No.: MW2-S

Initial Measurements

Well Total Depth: 72.80 ft below TOC
Water Level: 53.05 ft below TOC
Calculated Well Volume: 12.896 Gallons
Well Diameter: 4 inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Mblown
Flow rate (incl. units): 1000 mL/min

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
1555	1000mL/min	Over range	13.7	409.4	7.81	N/A	7.00	228.5	2	
1600	1000mL	481	13.9	408.4	7.47		7.00	198.8	6	
1615	1500mL/min	32.5	13.6	406.7	7.40		6.67	197.9	16	
1620	1500mL/min	18.5	13.7	406.8	7.39		6.95	198.4	19	
1625	1500mL/min	14.7	13.6	406.5	7.40		6.90	198.7	21	
Results At End Of Purging:		14.7	13.6	406.5	7.40		6.90	198.7	21	

COMMENTS:

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2027.0603
Installation: PETERSON AFB
Date: 10/30/16
Sample Technician: Jeremy Klein, Taylor Lewis
Well ID No.: MW4-1

Initial Measurements

Well Total Depth: 78.04 ft below TOC
Water Level: 59.77 ft below TOC
Calculated Well Volume: 11.930 Gallons
Well Diameter: 4 inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon
Flow rate (incl. units): 600 mL/min (initial)

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
0940	600mL/min	Overrange	13.2	397	6.95	N/A	7.61	239.3	2	
0942	2500mL	409	13.0	393.1	7.03		7.68	225.7	4	
0945	2250mL	516	13.0	392.9	7.06		7.80	222.1	6	
1010	3000mL	Overrange	14.1	404.6	7.54		7.58	223.7	10	0950 pump off
1020	2000mL/min	688	13.8	400	7.34		7.50	191.5	12	
1025	2500mL/min	51.6	13.6	399.4	7.33		7.83	165.3	15	
1030	1500mL/min	20.5	13.8	401.2	7.33		7.47	156.6	20	
Results At End Of Purging:		20.5	13.8	401.2	7.33		7.47	156.6	20	

COMMENTS: @ 0950 stopped pumped to fix kink in poly and clean pump

@ 1015 pump stopped again, had to surge pump

AerostarSES LLC

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2027.0003
Installation: Peterson AFB
Date: 10/29/16
Sample Technician: J. Klein, T. Lewis
Well ID No.: PETER05-001

Initial Measurements

Well Total Depth: 50 ft below TOC
Water Level: 39.25 ft below TOC
Calculated Well Volume: 1.752 Gallons
Well Diameter: 2 Inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon
Flow rate (incl. units): 1000 mL/min

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
1450	1000mL/min	overrange	14.7	785	7.13	N/A	1.10	117.4	1	
1500	1000mL/min	↑	14.7	984	6.76		0.34	89.4	3	
1502	1000mL/min	257	14.8	974	6.74		0.35	94.0	3	
1510	1000mL/min	231	15.1	987	6.72		0.41	91.7	5	
1520	1000mL/min	168	15.4	992	6.70		0.42	93.3	7	
1530	400mL/min	37.5	14.9	954	6.67		0.66	94.2	9	
1532	400mL/min	34.0	14.7	906	6.67		0.65	90.8	9	
1535	400mL/min	85.1	14.7	900	6.67		0.64	90.1	10	
1540	400mL/min	65.5	14.7	933	6.65		0.47	90.1	11	
1545	400mL/min	43.9	14.5	939	6.65		0.37	92.5	12	
1550	400mL/min	209	14.5	937	6.65		0.44	91.5	13	
1600	400mL/min	115	14.7	961	6.67		0.39	88.7	15	
1605	400mL/min	34.2	14.6	950	6.67		0.51	90.4	16	
Results At End Of Purging:		34.2	14.6	950	6.67		0.51	90.4	16	

COMMENTS:

AerostarSES

WELL DEVELOPMENT LOG

Project Name: AFFF Site Investigation
ASL Project No: M2027.0003 Omaha
Installation: Peterson AFB
Date: 10/26/16
Sample Technician: Jeremy Klein
Well ID No.: MW1-2

Initial Measurements

Well Total Depth: ~~56.3~~ 58.6 ft below TOC
Water Level: 37.58 ft below TOC
Calculated Well Volume: 13.726 Gallons
Well Diameter: 4 inches

Calculations: 1" diameter = 0.041 gal/ft 2" diameter = 0.163 gal/ft 4" diameter = 0.653 gal/ft

Well Purging Activites

Purging Method (pump type): Monsoon
Flow rate (incl. units): 1500 mL/min

Time	Flow Rate (ml/min)	Turbidity (NTUs)	Temp (°C)	Cond. (mS/Cm)	pH	Salinity (%)	DO (mg/l)	ORP	Total Gal Pumped	Comments
1320	1500mL/min	overrange	13.6	1326	6.60		0.16	163.0	2	
1330	1500mL/min	overrange	13.7	1327	6.62		0.07	155.7	3	
1340	1500mL/min	584	13.5	1318	6.69		0.08	155.4	6	
1350	1500mL/min	166	13.7	1310	6.65		0.33	139.9	8	
1355	1500mL/min	72.0	13.6	1311	6.62		0.26	139.2	9	Pumping Stopped
1510	1500mL/min	219	13.2	1299	6.65		0.14	154.5	13	
1515	1500mL/min	27.1	13.0	1295	6.62		0.12	146.3	15	
1517	1500mL/min	22.6	13.0	1292	6.62		0.14	144.7	16	
1520	1500mL/min	17.6	13.0	1285	6.63		0.25	141.3	19	
1522	1500mL/	13.9	13.0	1283	6.63		0.19	142.3	19	
1525	1500mL	13.3	13.0	1279	6.63		0.17	140.9	20	
Results At End Of Purging:		13.3	13.0	1279	6.63		0.17	140.9	20	

COMMENTS:

@ 1400 ran out of bucket space for development water had to stop pump ~~Brought to 1~~

JK 10/26

Groundwater Sampling Logs

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB
WELL NO: PETER01-001	SAMPLE ID: PETER01-001-GW-087
	DATE: 11/6/16

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 92 feet to 82 feet	STATIC DEPTH TO WATER (feet): 87.05	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (92 feet – 87.05 feet) X 0.16 gallons/foot = 0.792 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 87 feet) + 0.25 gallons = 1.12 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 87	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 87	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1535	TOTAL VOLUME PURGED (gallons): 7500mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1510	0	0	300mL/min	87.65	8.20	15.6	397.0	1.94	595	-7.2	Cloudy No odor
1525	4500mL	4500mL	300mL/min	87.73	8.00	15.5	403.9	3.08	115	-157.7	clear no odor
1530	1500mL	6000mL	300mL/min	87.95	7.86	15.5	407.6	4.03	39.3	-164.0	clear no odor
1532	600mL	6600mL	300mL/min	87.96	7.85	15.5	407.6	4.12	33.3	-164.3	clear no odor
1535	900mL	7500mL	300mL/min	87.98	7.85	15.5	407.4	4.10	45.1	-164.5	clear no odor

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein, Taylor Lewis/ASL	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1535	SAMPLING ENDED AT: 1540
PUMP OR TUBING DEPTH IN WELL (feet): 87	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: (Y) N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER01-001-GW-087	1	PE	250mL	N/A	N/A	N/A	537M	ESP	300mL/min
PETER01-001-GW-987	1	PE	250mL	N/A	N/A	N/A	537M	ESP	300mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2018

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB
WELL NO: PETER01-002	SAMPLE ID: PETER01-002-GW-095 / DATE: 11/6/16

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 90 feet to 100 feet	STATIC DEPTH TO WATER (feet): 94.81	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (100 feet – 94.81 feet) X 0.16 gallons/foot = 0.8304 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 95 feet) + 0.25 gallons = 1.2 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 95	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 95	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1650	TOTAL VOLUME PURGED (gallons): 2000mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1640	0	~~800~~ 0	200mL/min	95.78	8.04	14.4	317	5.88	641	53.6	cloudy no odor
1642	400mL	400mL	200mL/min	95.79	7.98	14.2	313.1	6.06	648	53.9	cloudy no odor
1645	600mL	1000mL	200mL/min	96.11	7.95	14.0	311.4	5.87	736	53.8	cloudy no odor
1647	400mL	1400mL	200mL/min	96.4	7.93	14.1	313.0	5.66	382	53.9	cloudy no odor
1650	600mL	2000mL	200mL/min	96.71	7.92	14.1	314.7	5.71	252	53.8	cloudy no odor

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein / Taylor Lewis / ASL	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1650	SAMPLING ENDED AT: 1655
PUMP OR TUBING DEPTH IN WELL (feet): 95	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER01-002-GW-095	1	PE	250mL	N/A	N/A	N/A	537m	ESP	200mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2016

AerostarSES, LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB
WELL NO: PETER01-003	SAMPLE ID: PETER01-003-GW-082 DATE: 11/6/16

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 77 feet to 87 feet	STATIC DEPTH TO WATER (feet): 77.84	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (87 feet – 77.84 feet) X 0.16 gallons/foot = 1.465 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 82 feet) + 0.25 gallons = 1.07 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 82	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 82	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1415	TOTAL VOLUME PURGED (gallons): 17,100 mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1337	0	0	450mL/min	77.96	~~14.6~~ 8.18	14.6	129.9	5.79	overrange	-84.3	cloudy no odor
1345	3600mL	3600mL	450mL/min	77.96	8.26	14.7	194.7	5.60	overrange	-95.7	Turbid overrange
1350	2250mL	5850mL	450mL/min	77.97	8.37	15.1	255.1	5.63	874	-105.4	cloudy no odor
1352	900mL	6750mL	450mL/min	77.97	8.40	15.1	241.3	5.78	576	-105.8	cloudy no odor
1355	1350mL	8100mL	450mL/min	77.97	8.39	15.1	252.0	5.69	360	-106.5	cloudy no odor
1410	6750mL	14,850mL	450mL/min	77.98	8.51	15.0	290.2	5.77	30.4	-87.1	clear no odor
1412	900mL	15750mL	450mL/min	77.98	8.54	15.0	276.7	5.51	27.4	-86.6	clear no odor
1415	1350mL	17,100mL	450mL/min	77.98	8.56	15.0	287.1	5.63	27.0	-85.8	clear no odor

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein, Taylor Lewis/ASC	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1415	SAMPLING ENDED AT: 1420
PUMP OR TUBING DEPTH IN WELL (feet): 82	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER01-GW-082-003	1	PE	250mL	N/A	N/A	N/A	537M	ESP	450mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2016

AerostarSES, LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB	
WELL NO: PETER02-001	SAMPLE ID: PETER02-001 - GW-056	DATE: 11/9/16

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 60.5 feet to 50.5 feet	STATIC DEPTH TO WATER (feet): 51.35	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (60.5 feet – 51.35 feet) X 0.16 gallons/foot = 1.464 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 55.5 feet) + 0.25 gallons = 0.865 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 55.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 55.5	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1525	TOTAL VOLUME PURGED (gallons): 14,000m

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1455	0	0	500mL/min	51.39	8.72	15.4	689	5.57	over range	194.7	Turbid no odor
1505	5000mL	5000mL	500mL/min	51.37	7.55	15.7	705	4.56	787	188.3	Cloudy no odor
1510	2500mL	7500mL	500mL/min	51.37	7.41	15.7	707	4.43	352	185.7	Cloudy no odor
1520	5000mL	12,500mL	500mL/min	51.38	7.27	16.3	714	4.60	107	184.3	Clear no odor
1522	1000mL	13,500mL	500mL/min	51.39	7.23	16.2	716	4.76	74.0	185.6	Clear no odor
1525	1500mL	14000mL	500mL/min	51.39	7.21	16.2	716	4.83	43.3	185.8	Clear no odor

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein / ASC	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1525	SAMPLING ENDED AT: 1530
PUMP OR TUBING DEPTH IN WELL (feet): 55.5'	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL. ADDED IN FIELD (mL)	FINAL pH			
PETER02-001-GW-056	1	PE	250mL	N/A	N/A	N/A	537m	ESP	500mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2018

AerostarSES LLC

GROUNDWATER SAMPLING LOG

Grab Sample

PROJECT: M2027.0003	INSTALLATION: Peterson AFB
WELL NO: PETER02-003	SAMPLE ID: PETER02-003-GW-043 / DATE: 11/10/16

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): N/A	WELL SCREEN INTERVAL DEPTH: 35 feet to 50 feet	STATIC DEPTH TO WATER (feet): 46.34	PURGE PUMP TYPE OR BAILER: Bailer

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (50 feet – 46.34 feet) X 0.16 gallons/foot = 0.5856 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0 gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	FINAL PUMP OR TUBING DEPTH IN WELL (feet): N/A	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: N/A	TOTAL VOLUME PURGED (gallons): N/A

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1415	SAMPLING ENDED AT: 1420
PUMP OR TUBING DEPTH IN WELL (feet): N/A	TUBING MATERIAL CODE: N/A	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER02-003-GW-043	1	PE	250mL	N/A	N/A	N/A	537m	B	N/A

REMARKS: *Grab Sample* Due to lack of recharge

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings:

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2016

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB
WELL NO: PETER03-001	SAMPLE ID: PETER03-001-GW-064 DATE: 11/8/16

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 69 feet to 59 feet	STATIC DEPTH TO WATER (feet): 66.08	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (69 feet – 66.08 feet) X 0.16 gallons/foot = 0.4672 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 64 feet) + 0.25 gallons = 0.89 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 64	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 64	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1640	TOTAL VOLUME PURGED (gallons): 6000 mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1620	0	0	300mL/min	66.25	8.11	13.9	646	6.12	over range	144.3	cloudy no odor
1622	600mL	600mL	300mL/min	66.30	8.09	14.0	647	5.85	over range	143.8	cloudy no odor
1625	900mL	1500mL	300mL/min	66.33	8.02	14.3	653	6.03	over range	141.1	Turbid no odor
1627	600mL	2100mL	300mL/min	66.33	7.98	14.6	658	6.24	691	139.4	cloudy no odor
1630	900mL	3000mL	300mL/min	66.22	7.95	14.7	661	6.22	280	136.3	cloudy no odor
1635	1500mL	4500mL	300mL/min	66.46	7.96	15.1	669	6.75	62.3	131.7	clear no odor
1637	600mL	5100mL	300mL/min	66.45	7.89	15.0	666	6.84	55.6	131.0	clear no odor
1640	900mL	6000mL	300mL/min	66.48	7.88	14.9	665	6.78	55.9	130.5	clear no odor

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein, Taylor Lead / AFL	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1640	SAMPLING ENDED AT: 1645
PUMP OR TUBING DEPTH IN WELL (feet): 64	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER03-001-GW-064	1	PE	250mL	N/A	N/A	N/A	537m	ESP	300mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2018

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB
WELL NO: PETER03-002	SAMPLE ID: PETER03-002-GW-071 DATE: 11/8/16

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 66 feet to 76 feet	STATIC DEPTH TO WATER (feet): 67.15	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (76 feet – 67.15 feet) X 0.16 gallons/foot = 1.416 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 71 feet) + 0.25 gallons = 0.96 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 71	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 71	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1735	TOTAL VOLUME PURGED (gallons): 10,000mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1710	0	0	100mL/min	67.98	8.02	12.7	465.0	5.55	overrange	73.5	cloudy no odor
1722	4800mL	4800mL	400mL/min	68.62	7.88	14.7	483.7	5.07	309	5.5	cloudy no odor
1730	3200	8000mL	400mL/min	68.62	7.84	14.5	489.8	5.11	133	-19.0	clear no odor
1732	800mL	8800mL	400mL/min	68.67	7.83	14.5	488.9	5.13	74.7	-20.9	clear no odor
1735	1200mL	10,000mL	400mL/min	68.67	7.83	14.6	490.5	5.24	46.2	-23.4	clear no odor

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein, Taylor Lewis / ASL	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1735	SAMPLING ENDED AT: 1740
PUMP OR TUBING DEPTH IN WELL (feet): 71	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER03-002-GW-071	1	PE	250mL	N/A	N/A	N/A	537m	ESP	100mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2018

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB	
WELL NO: PETE03-003	SAMPLE ID: PETE03-003-GW-070	DATE: 11/8/16

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 75 feet to 65 feet	STATIC DEPTH TO WATER (feet): 69.05	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (75 feet – 69.05 feet) X 0.16 gallons/foot = 0.952 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 70 feet) + 0.25 gallons = 0.95 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 70	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 70	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1550	TOTAL VOLUME PURGED (gallons): 4500mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1540	0	0	450mL/min	69.16	8.27	14.5	643	6.98	673	111.6	cloudy no odor
1542	900mL	900mL	450mL/min	69.14	8.25	14.4	633	6.42	overrange	95.8	Turbid no odor
1545	1350mL	2250mL	450mL/min	69.18	8.18	14.2	634	6.37	498	92.9	cloudy no odor
1547	900mL	3150mL	450mL/min	69.23	8.16	14.0	633	6.70	284	91.2	cloudy no odor
1550	1350mL	4500mL	450mL/min	69.20	8.15	14.1	634	6.61	182	89.3	clear no odor

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein, Tay Lor Lewis/AS	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1550	SAMPLING ENDED AT: 1555
PUMP OR TUBING DEPTH IN WELL (feet): 70	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETE03-003-GW-070	1	PE	250mL	N/A	N/A	N/A	537m	ESP	450mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2016

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB	
WELL NO: PETER04-001	SAMPLE ID: PETER04-001-GW-059	DATE: 11/7/16

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 64 feet to 54 feet	STATIC DEPTH TO WATER (feet): 45.65	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (67 feet – 45.65 feet) X 0.16 gallons/foot = 3.416 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 59 feet) + 0.25 gallons = 0.84 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 59	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 59	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1105	TOTAL VOLUME PURGED (gallons): 20,000mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1015	0	0	80 ml/min	47.17	8.15	13.7	294.7	2.77	overrange	111.8	cloudy no odor
1025	4000mL	4000mL	400mL/min	48.75	7.95	14.6	299.3	2.43	overrange	100.6	cloudy no odor
1035	4000mL	8000mL	400mL/min	48.92	8.01	14.8	302.5	2.13	636	72.0	↓
1045	4000mL	12,000mL	400mL/min	48.93	7.91	14.9	307.0	2.27	235	42.1	↓
1055	4000mL	16,000mL	400mL/min	49.04	7.89	15.1	304.3	2.13	76	-2.6	↓
1100	2000mL	18000mL	400mL/min	49.20	7.89	15.1	304.6	2.07	64.0	-3.7	clear no odor
1105	2000mL	20,000mL	400mL/min	49.13	7.95	15.1	305.1	2.07	45.9	-23.5	↓

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein, Tay for Lewis / ASL	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1105	SAMPLING ENDED AT: 1110
PUMP OR TUBING DEPTH IN WELL (feet): 59	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER04-001-GW-059	1	PE	250ml	N/A	N/A	N/A	537m	ESP	400mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2016

AerostarSES LLC

GROUNDWATER SAMPLING LOG

Grab Sample

PROJECT: M2027.0003	INSTALLATION: Peterson AFB	
WELL NO: PETER04-002	SAMPLE ID: PETER04-002-GW-045	DATE: 11/8/16

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/4"	WELL SCREEN INTERVAL DEPTH: 40 feet to 50 feet	STATIC DEPTH TO WATER (feet): 48.30	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (50 feet – 48.30 feet) X 0.16 gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.016 gallons/foot X 45 feet) + 0.25 gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 45	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 45	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: N/A	TOTAL VOLUME PURGED (gallons): N/A

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)

Grab Sample

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein, Taylor Lewis / ASL	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 0845	SAMPLING ENDED AT: 0850
PUMP OR TUBING DEPTH IN WELL (feet): 45	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: (Y) N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER04-002-GW	1	PE	250mL	N/A	N/A	N/A	537 m	ESP	N/A (grab)
~~PETER04-002~~	~~1~~	~~PE~~	~~250mL~~	~~N/A~~	~~N/A~~	~~N/A~~	~~537 m~~	~~ESP~~	~~N/A (grab)~~
PETER04-002-GW-045	1	PE	250mL	N/A	N/A	N/A	537 m	ESP	N/A (grab)

REMARKS: Took grab sample due to lack of recharge

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2016

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB
WELL NO: PETER04 003	SAMPLE ID: PETER04-003-GW-056 / DATE: 11/7/16

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/2	WELL SCREEN INTERVAL DEPTH: 64 feet to 49 feet	STATIC DEPTH TO WATER (feet): 53.75	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (64 feet – 53.75 feet) X 0.16 gallons/foot = 1.64 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 56.5 feet) + 0.25 gallons = 0.815 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 56.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 56.5	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1240	TOTAL VOLUME PURGED (gallons): 12,000mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1210	0	0	400mL/min	55.72	8.61	14.0	296.3	4.60	657	-71.0	cloudy no odor
1213	1200mL	1200mL	400mL/min	55.9	8.62	14.3	286.7	3.47	860	-118.0	
1215	800mL	2000mL	400mL/min	56.12	8.59	14.4	286.4	3.43	810	-132.0	
1217	800mL	2800mL	400mL/min	55.95	8.60	14.4	285.7	3.42	540	-139.6	
1220	1200mL	4000mL	400mL/min	56.14	8.58	14.6	284.8	3.46	330	-145.4	
1230	4000mL	8000mL	400mL/min	56.29	8.56	14.8	289.7	3.20	179	-144.0	
1235	2000mL	10000mL	400mL/min	56.35	8.50	14.9	300.2	3.21	96.2	-130.3	
1240	2000mL	12,000mL	400mL/min	56.50	8.46	15.1	311.1	3.98	115	-113.2	

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein, Taylor Lewis / ASL	SAMPLER(S) SIGNATURE(S): Jeremy Klein	SAMPLING INITIATED AT: 1240	SAMPLING ENDED AT: 1245
PUMP OR TUBING DEPTH IN WELL (feet): 56.5	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER04-003-GW-056	1	PE	250mL	N/A	N/A	N/A	537m	ESP	400mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2016

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB
WELL NO: PETER04-004	SAMPLE ID: PETER04-004-GW-085 DATE: 11/7/16

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 90 feet to 80 feet	STATIC DEPTH TO WATER (feet): 58.18	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (90 feet – 58.18 feet) X 0.16 gallons/foot = 5.0912 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 85 feet) + 0.25 gallons = 1.1 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 85	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 85	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1615	TOTAL VOLUME PURGED (gallons): 10,000mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1555	0	0	500ml/min	62.92	7.70	13.3	413.3	2.26	overrange	-325.1	Turbid no odor
1610	7500mL	7500mL	500mL/min	63.28	7.68	13.9	416.9	2.47	586	-323.1	cloudy no odor
1612	100mL	8500mL	500mL/min	63.41	7.64	14.0	416.3	3.09	191	-300.0	cloudy no odor
1615	1500mL	10000mL	500mL/min	63.50	7.62	14.0	415.7	3.13	91.6	-279.9	1

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein, Taylor Lewis / ASL	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1615	SAMPLING ENDED AT: 1620
PUMP OR TUBING DEPTH IN WELL (feet): 85	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm

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

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER04-004-GW-085	1	PE	250mL	N/A	N/A	N/A	537 m	ESP	500ml/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2016

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB	
WELL NO: PETER04-005	SAMPLE ID: PETER04-005-GW-065	DATE: 11/7/16

PURGING DATA

WELL DIAMETER (Inches): 2"	TUBING DIAMETER (Inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 70 feet to 60 feet	STATIC DEPTH TO WATER (feet): 54.74	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (70 feet – 54.74 feet) X 0.16 gallons/foot = 2.4416 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 65 feet) + 0.25 gallons = 0.9 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 65	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 65	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1505	TOTAL VOLUME PURGED (gallons): 16,500 mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1470	0	0	500mL/min	54.79	8.88	13.1	159.4	1.24	over range	-32.2	turbid no odor
1437	3500mL	3500 mL	500mL/min	55.24	8.35	14.4	151.0	0.58	over range	-205.9	↓
1440	1500mL	5000mL	500mL/min	55.33	8.18	14.3	153.8	0.45	745	-191.9	cloudy no odor
1445	1500mL	6500mL	500mL/min	55.46	8.04	14.2	154.9	0.40	388	-190.9	cloudy no odor
1455	5000mL	11500mL	500mL/min	55.38	7.65	14.2	154.7	0.56	136	-175.3	↓
1500	2500mL	14,000mL	500mL/min	55.41	7.61	14.2	152.7	0.59	81.3	-170.3	clear no odor
1502	1000mL	15,000mL	500mL/min	55.30	7.60	14.1	152.0	0.58	60.9	-168.7	↓
1505	1500mL	16,500mL	500mL/min	55.5	7.59	14.5	151.8	0.62	48.7	-167.4	↓

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein, Taylor Lab/ASL	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1505	SAMPLING ENDED AT: 1510
PUMP OR TUBING DEPTH IN WELL (feet): 65	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER04-005-GW-065	1	PE	250mL	N/A	N/A	N/A	537m	ESP	500mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2016

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB
WELL NO: PETER04-008	SAMPLE ID: PETER04-008-GW-096 DATE: 11/14/16

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 91 feet to 101 feet	STATIC DEPTH TO WATER (feet): 91.82	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (101 feet – 91.82 feet) X 0.16 gallons/foot = 1.4688 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 96 feet) + 0.25 gallons = 1.21 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 96	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 96	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1015	TOTAL VOLUME PURGED (gallons): 12,000 mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
0945	0	0	400mL/min	91.85	7.16	14.8	990	4.24	overrange	153.9	Turbid no odor
1005	8000 mL	8000mL	400mL/min	91.88	7.28	16.9	1028	3.28	686	55.6	Cloudy no odor
1007	800mL	8800mL	400mL/min	91.88	7.29	17.0	1033	3.37	304	52.5	Cloudy no odor
1010	1200mL	10000mL	400mL/min	91.88	7.29	17.1	1035	3.51	155	52.9	Cloudy no odor
1012	800mL	10800mL	400mL/min	91.88	7.29	17.1	1035	3.54	94.4	54.9	Slightly cloudy no odor
1015	1200mL	12000mL	400mL/min	91.88	7.29	17.2	1034	3.39	65.4	56.2	Clear no odor

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein / ASL	SAMPLER(S) SIGNATURE(S): Jeremy Klein	SAMPLING INITIATED AT: 1015	SAMPLING ENDED AT: 1020
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ___ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER04-008-GW-096	1	PE	250mL	N/A	N/A	N/A	537m	ESP	400mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria (or range of variation of last three consecutive readings)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2016

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB
WELL NO: PETER04-009	SAMPLE ID: PETER04-009-GW-090 DATE: 11/11/16

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 80 feet to 100 feet	STATIC DEPTH TO WATER (feet): 82.64	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (100 feet – 82.64 feet) X 0.16 gallons/foot = 2.7776 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 90 feet) + 0.25 gallons = 1.15 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 90	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 90	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1270	TOTAL VOLUME PURGED (gallons): 24500 mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1120	0	0	350mL/min	82.67	7.82	15.2	779	4.00	overrange	107.4	turbid no odor
1205	15,750mL	15,750mL	350mL/min	82.68	7.23	16.2	819	4.17	363	68.6	cloudy no odor
1208	1050mL	16800mL	350mL/min	82.68	7.24	16.1	817	4.13	305	70.0	cloudy no odor
1215	2450mL	19250mL	350mL/min	82.68	7.23	16.0	815	4.28	192	73.0	clear no odor
1218	1050mL	20300mL	350mL/min	82.68	7.23	16.0	816	4.37	135	74.6	clear no odor
1225	2450mL	22750mL	350mL/min	82.68	7.23	15.9	814	4.47	87.0	76.8	clear no odor
1227	700mL	23450mL	350mL/min	82.68	7.24	15.9	815	4.34	65.6	76.2	clear no odor
1230	1050mL	24500mL	350mL/min	82.68	7.26	15.9	817	4.18	57.2	76.2	clear no odor

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein / ASL	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1230	SAMPLING ENDED AT: 1235
PUMP OR TUBING DEPTH IN WELL (feet): 90	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER04-009-GW-090	1	PE	250mL	N/A	N/A	N/A	537M	ESP	350mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2016

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB	
WELL NO: MW2-1	SAMPLE ID: PETER04-MW2-1-GW-059	DATE: 11/4/16

PURGING DATA

WELL DIAMETER (inches): 4"	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 49.2 feet to 59.2 feet	STATIC DEPTH TO WATER (feet): 46.39	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (62.86 feet – 46.39 feet) X 0.65 gallons/foot = 10.705 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (0.010 gallons/foot X 54.2 feet) + 0.25 gallons 0.792 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 54.2	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 54.2	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1625	TOTAL VOLUME PURGED (gallons): 6000 mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1610	0	0	400mL/min	46.39	8.04	13.4	381.4	7.41	21.9	307.8	clear no odor
1615	2000mL	2000mL	400mL/min	46.39	7.82	13.2	377.4	6.81	15.0	310.9	clear no odor
1617	800mL	2800mL	400mL/min	46.39	7.76	13.2	376.7	7.12	14.1	311.1	clear no odor
1620	1200mL	4000mL	400mL/min	46.39	7.68	13.3	376.7	7.22	13.7	310.9	clear no odor
1622	800mL	4800mL	400mL/min	46.39	7.63	13.3	377.0	6.89	11.1	310.8	clear no odor
1625	1200mL	6000mL	400mL/min	46.39	7.58	13.3	377.1	6.92	11.2	310.9	clear no odor

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Kelly Taylor Lewis / ASL	SAMPLER(S) SIGNATURE(S): Jeremy Klex	SAMPLING INITIATED AT: 1625	SAMPLING ENDED AT: 1630
PUMP OR TUBING DEPTH IN WELL (feet): 54.2	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER04-MW2-1-GW-059	1	PE	250mL	N/A	N/A	N/A	537 m	ESP	400mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2016

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB	
WELL NO: MW2-2	SAMPLE ID: PETERO4-MW2-2-GW-050	DATE: 11/5/16

PURGING DATA

WELL DIAMETER (inches): 4"	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 40.6 feet to 50.6 feet	STATIC DEPTH TO WATER (feet): 42.98	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (54.79 feet – 42.98 feet) X 0.65 gallons/foot = 7.676 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 45.6 feet) + 0.25 gallons = 0.706 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 45.6	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 45.6	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1640	TOTAL VOLUME PURGED (gallons): 2400mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1632	0	0	300mL/min	43.01	7.87	12.8	979	7.51	6.59	278.3	No odor clear
1635	900mL	900mL	300mL/min	43.00	7.82	12.8	1006	7.28	5.36	281.4	↓
1637	600mL	1500mL	300mL/min	43.0	7.82	12.9	1017	7.08	4.32	282.3	↓
1640	900mL	2400mL	300mL/min	43.01	7.81	12.9	1019	7.24	4.97	282.6	↓

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein, Taylor Lewis / AGL	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1640	SAMPLING ENDED AT: 1645
PUMP OR TUBING DEPTH IN WELL (feet): 45.6	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETERO4-MW2-2-GW-050	1	PE	250mL	N/A	N/A	N/A	537 m	ESP	300mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2016

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB
WELL NO: MW2-3	SAMPLE ID: PETER04-MW2-3-GW-050 — DATE: 11/4/16

PURGING DATA

WELL DIAMETER (inches): 4"	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 40.7 feet to 50.7 feet	STATIC DEPTH TO WATER (feet): 42.53	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (54.56 feet – 42.53 feet) X 0.65 gallons/foot = 7.8195 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 45.7 feet) + 0.25 gallons = 0.707 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 45.7	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 45.7	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1505	TOTAL VOLUME PURGED (gallons): 7500mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) (mg/l) or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1450	0	0	500mL/min	42.55	7.61	14.1	396.5	6.90	18.7	276.8	clear no odor
1455	2500mL	2500mL	500mL/min	~~42.56~~ 42.56	7.57	13.8	372.7	6.67	19.2	278.7	clear no odor
1500	2500mL	5000mL	500mL/min	42.56	7.52	13.8	392.5	6.88	13.1	280.2	clear no odor
1502	1000mL	6000mL	500mL/min	42.56	7.51	13.8	392.2	6.55	9.41	281.8	clear no odor
1505	1500mL	7500mL	500mL/min	42.57	7.49	13.7	392.0	5.77	8.53	284.0	clear no odor

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein, Taylor Lewis / ASL	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1505	SAMPLING ENDED AT: 1510
PUMP OR TUBING DEPTH IN WELL (feet): 45.7	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER04-MW2-3-GW-050	1	PE	250mL	N/A	N/A	N/A	537 m	ESP	500mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2018

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB
WELL NO: MW2-4	SAMPLE ID: PETER04-MW2-4-GW-053 DATE: 11/4/16

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 43.9 feet to 53.9 feet	STATIC DEPTH TO WATER (feet): 42.6	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (57 feet – 42.6 feet) X 0.56 gallons/foot = 8.064 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (~~0.00~~ 0.010 gallons/foot X 48.9 feet) + 0.25 gallons = 0.739 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 48.9	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 48.9	PID RESULT AT WELLHEAD (PPM): 0.7	PURGING ENDED AT: 1350	TOTAL VOLUME PURGED (gallons): 6750mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1335	0	0	450mL/min	42.8	7.91	13.3	394.1	7.07	7.26	193.9	clear no odor
1340	2250mL	2250mL	450mL/min	42.63	7.74	13.9	401.5	3.80	3.74	196.6	clear no odor
1343	1350mL	3600mL	450mL/min	42.65	7.69	14.1	403.0	6.53	2.61	198.0	clear no odor
1345	900mL	4500mL	450mL/min	42.65	7.65	14.0	402.5	6.57	2.26	199.4	clear no odor
1347	900mL	5400mL	450mL/min	42.65	7.61	14.0	400.9	6.68	2.07	201.0	clear no odor
1350	1350mL	6750mL	450mL/min	42.65	7.61	13.9	400.6	6.53	1.53	201.6	clear no odor

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein, Taylor Lewis / ASL	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1350	SAMPLING ENDED AT: 1355
PUMP OR TUBING DEPTH IN WELL (feet): ESP	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER04-MW2-4-GW-053	1	~~250mL~~ PE	250mL	N/A	N/A	N/A	537m	ESP	450mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria (or range of variation of last three consecutive readings)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2018

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB	
WELL NO: MW2-5	SAMPLE ID: PETER04-MW2-5-GW-069	DATE: 11/5/16

PURGING DATA

WELL DIAMETER (inches): 4"	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 49.6 feet to 69.6 feet	STATIC DEPTH TO WATER (feet): 53.05	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (72.80 feet – 53.05 feet) X 0.65 gallons/foot = 12.837 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 59.6 feet) + 0.25 gallons = 0.846 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 59.6'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 59.6'	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1550	TOTAL VOLUME PURGED (gallons): 5000mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1540	0	0	500mL/min	53.09	8.46	13.8	401.8	7.56	5.44	208.7	clear No odor
1542	1000mL	1000mL	500mL/min	53.09	8.08	13.4	408.9	8.00	1.47	222.4	
1545	1500mL	2500mL	500mL/min	53.09	7.75	13.3	404.5	7.50	2.04	224.7	
1547	1000mL	3500mL	500mL/min	53.10	7.88	13.3	393.6	7.12	1.23	227.5	
1550	1500mL	5000mL	500mL/min	53.10	7.85	13.3	395.5	7.09	0.96	228.4	

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein, Taylor Lewis/ASL	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1550	SAMPLING ENDED AT: 1555
PUMP OR TUBING DEPTH IN WELL (feet): 59.6'	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER04-MW2-5-GW-069	1	PE	250mL	N/A	N/A	N/A	537.1M	ESP	500mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2016

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB
WELL NO: MW4-1	SAMPLE ID: PETER04-MW4-1-GW-074 DATE: 11/5/16

PURGING DATA

WELL DIAMETER (inches): 4"	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 54.8 feet to 74.8 feet	STATIC DEPTH TO WATER (feet): 59.72	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (78.04 feet – 59.72 feet) X 0.65 gallons/foot = 11.908 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.015 gallons/foot X 64.8 feet) + 0.25 gallons = 0.898 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 64.8	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 64.8	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1735	TOTAL VOLUME PURGED (gallons): 3000 ML

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1725	0	0	300 mL/min	59.75	8.07	13.1	401.5	8.01	19.2	290.6	clear no odor
1727	600 mL	600 mL	300 mL/min	59.77	7.99	13.0	402.9	8.14	20.2	290.6	
1730	900 mL	1500 mL	300 mL/min	59.77	7.87	13.2	402.8	8.20	15.4	289.9	
1732	600 mL	2100 mL	300 mL/min	59.77	7.85	13.2	403.2	8.09	10.8	289.4	
1735	900 mL	3000 mL	300 mL/min	59.73	7.83	13.3	402.8	7.89	9.47	289.0	

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jeremy Klein, Taylor Lowis/ASL	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1735	SAMPLING ENDED AT: 1740
PUMP OR TUBING DEPTH IN WELL (feet): 64.8	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N replaced)	DUPLICATE: (Y) N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER04-MW4-1-GW-074	1	~~250 mL~~ PE	250 mL	N/A	N/A	N/A	537m	ESP	300 mL/min
PETER04-MW4-1-GW-074	1	PE	250 mL	N/A	N/A	N/A	537m	ESP	300 mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2016

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB	
WELL NO: PETEROS-001	SAMPLE ID: PETEROS-001-GW-045	DATE: 11/9/16

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/2"	WELL SCREEN INTERVAL DEPTH: 18 feet to 50 feet	STATIC DEPTH TO WATER (feet): 40.91	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (50 feet – 40.91 feet) X 0.16 gallons/foot = 1.454 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 45 feet) + 0.25 gallons = 0.7 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 45	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 45	PID RESULT AT WELLHEAD (PPM): 0	PURGING ENDED AT: 1400	TOTAL VOLUME PURGED (gallons): 9100mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1330	0	0	300mL/min	41.25	6.80	15.3	745	3.23	overrange	167.7	Cloudy no odor
1345 ~~1340~~	4500mL	4500mL	300mL/min	41.31	6.49	15.3	723	1.18	454	160.0	Cloudy no odor
1350	1500mL	6000mL	300mL/min	41.78	6.47	15.2	795	0.73	355	152.8	Cloudy no odor
1352	600mL	6600mL	300mL/min	41.92	6.47	15.0	788	0.41	95.5	150.2	Cloudy no odor
1355	900mL	7500mL	300mL/min	41.99	6.47	14.9	788	0.34	49.1	149.1	Clear no odor
1357	600mL	8100mL	300mL/min	42.01	6.47	14.8	790	0.29	54.4	147.7	Clear no odor
~~1359~~ 1400	900mL	9000mL	300mL/min	42.05	6.46	14.8	786	0.29	56.3	147.3	Clear no odor

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

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

SAMPLING DATA

SAMPLED BY (PRINT) AFFILIATION: Jeremy Klein / ASL	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1400	SAMPLING ENDED AT: 1405
PUMP OR TUBING DEPTH IN WELL (feet): 45	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETEROS-001-GW-045	1	PE	250mL	N/A	N/A	N/A	537m	ESP	300mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2018

AerostarSES LLC

GROUNDWATER SAMPLING LOG

PROJECT: M2027.0003	INSTALLATION: Peterson AFB
WELL NO: MW1-2	SAMPLE ID: PETER05-MW1-2-GW-0516 DATE: 11/4/16

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
4	1/2"	36.3 feet to 54.3 feet	37.86	ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (57 feet – 37.86 feet) X 0.65 gallons/foot = 12.44 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.010 gallons/foot X 46.3 feet) + ~~0.41~~ 0.25 gallons = 0.713 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PID RESULT AT WELLHEAD (PPM):	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
~~37.86~~ 46.3	46.3	0	1145	4000mL

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	ODOR/ COLOR (describe)
1135	0	0	400mL/min	38.02	6.92	12.7	1243	0.56	8.55	143.7	clear no odor
1140	2000mL	2000mL	400mL/min	37.96	6.81	13.1	1248	0.56	7.28	142.6	clear no odor
1142	800mL	2800mL	400mL/min	37.96	6.79	13.3	1254	0.48	5.95	141.8	clear no odor
1145	1200mL	4000mL	400mL/min	37.96	6.78	13.3	1258	0.48	9.8	141.4	clear no odor

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

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Jeremy Klein, Taylor Lewis / ASL	Jeremy Klein	1145	1150

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
46.3	PE		

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

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
PETER05-MW1-2-GW-0516	1	PE	~~50~~ 250mL	N/A	N/A	N/A	537M	ESP	400mL/min

REMARKS:

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

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

NOTES:

Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation; optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: March 14, 2016

Sample Collection Logs

AerostarSES, LLC

SAMPLE COLLECTION LOG
SEDIMENT, SURFACE AND GROUND WATER

Project Name: AFFF Site Investigation
ASL Project No: M2027-0003 Omaha
Installation: Peterson AFB
Date: 11/6/16
Sample Technician(s): Jeremy Klein, Taylor Lewis
Station ID:

Type(s) of Sample (circle all that apply): Sediment Surface Water Ground Water

SEDIMENT SAMPLE

Sample ID: PETER04-006-SD-001 Sample Collection Time: 0845
Sample Depth: 0.5 Sediment Description: Organic Loam
Collection Method: Spoon Analysis/Method:
Sample Container: 250 mL PE Preservative: N/A

SURFACE WATER SAMPLE

Sample ID: PETER04-006-SW-001 Sample Collection Time: 0845
Sample Depth: 0.5 Collection Method: Surface Grab
Analysis/Method: Sample Container: 250mL PE
Preservative: N/A Water Quality (circle one): Clear Cloudy Turbid Other

GROUND WATER SAMPLE

Sample ID: Sample Collection Time:
Sample Depth: Collection Method:
Analysis/Method: Sample Container:
Preservative: Water Quality (circle one): Clear Cloudy Turbid Other

COMMENTS:

AerostarSES, LLC

SAMPLE COLLECTION LOG
SEDIMENT, SURFACE AND GROUND WATER

Project Name: AFFF Site Investigation
ASL Project No: M2077.0003
Installation: Peterson AFB
Date: 11/8/16
Sample Technician(s): Jeremy Klein, Taylor Lewis
Station ID: PETER04-007

Type(s) of Sample (circle all that apply): Sediment Surface Water Ground Water

~~SEDIMENT SAMPLE~~ Surface Soil

Sample ID: PETER04-007-SS-001 Sample Collection Time: 1015
Sample Depth: 0.5' Sediment Description: Silty Sand w/ small rocks
Collection Method: Spoon Analysis/Method:
Sample Container: 250 mL PE Preservative: N/A

SURFACE WATER SAMPLE

Sample ID: Sample Collection Time:
Sample Depth: Collection Method:
Analysis/Method: Sample Container:
Preservative: Water Quality (circle one): Clear Cloudy Turbid Other

GROUND WATER SAMPLE

Sample ID: Sample Collection Time:
Sample Depth: Collection Method:
Analysis/Method: Sample Container:
Preservative: Water Quality (circle one): Clear Cloudy Turbid Other

COMMENTS: Outfall Dry; only collected SS
Changed to a surface soil sample

AerostarSES, LLC

SAMPLE COLLECTION LOG
SEDIMENT, SURFACE AND GROUND WATER

Project Name: AFFF Site Investigation
ASL Project No: M2027.0003
Installation: Peterson AFB
Date: 11/6/16
Sample Technician(s): Jeremy Klein, Taylor Lewis
Station ID:

Type(s) of Sample (circle all that apply): Sediment Surface Water Ground Water

SEDIMENT SAMPLE

Sample ID: PETER04-0017-SD-001
Sample Collection Time: 0920
Sample Depth: 0.5'
Sediment Description: Organic Silt
Collection Method: Spoon
Analysis/Method:
Sample Container: 250 mL PE
Preservative: N/A

SURFACE WATER SAMPLE

Sample ID: PETER04-0013-SW-001
Sample Collection Time: 0920
Sample Depth: 0.5'
Collection Method: Grab, surface
Analysis/Method:
Sample Container: 250 mL PE
Preservative: N/A
Water Quality (circle one): Clear Cloudy Turbid Other

GROUND WATER SAMPLE

Sample ID:
Sample Collection Time:
Sample Depth:
Collection Method:
Analysis/Method:
Sample Container:
Preservative:
Water Quality (circle one): Clear Cloudy Turbid Other

COMMENTS:

Boring Logs

Aerostar SES LLC

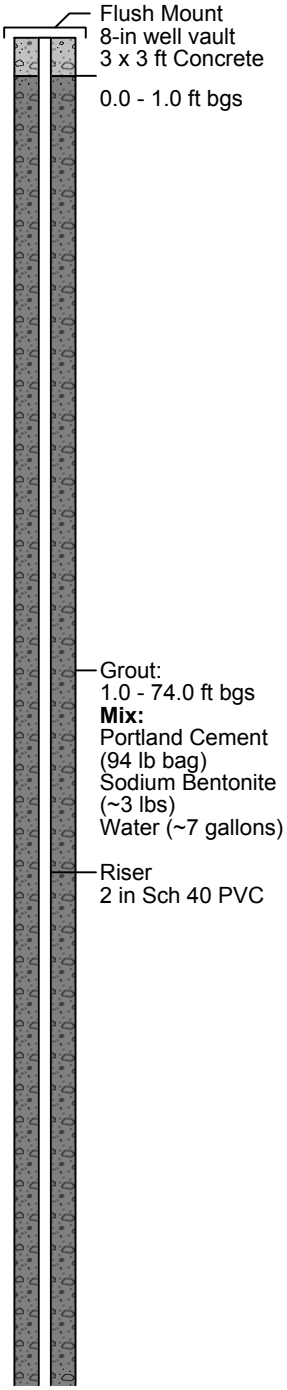
Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER01-001

Northing	: 1352961.32	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 1
Easting	: 3229817.20	Driller	: Brigham Bradford	Start Date	: 10/27/16
Surf Elev.(ft), NAVD88	: 6137.95	Drilling Method	: Roto-sonic	End Date	: 10/27/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: K.Brumbaugh/T.Lewis
Depth to Water (ft)	: 84.00	Total Depth	: 92.0	Signature	: _____

Well: PETER01-001-092
Elev (TOC): 6137.81

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
0	1	100	(0.0 - 5.0) SANDY SILT, fine grained, 10YR 6/4, light yellowish brown, loose, dry, trace roots @ 0-0.5 ft bgs	0	ML		SS	PETER01-001-SS-001 PETER01-001-SS-901
5	2	80	(5.0 - 10.0) SANDY SILT, fine grained, 10YR 6/4 to 5/4, light yellowish brown to yellowish brown, loose, dry, trace gravel	0	ML			
10	3	80	(10.0 - 15.0) SILTY SAND, medium to fine grained, poorly graded, 10YR 5/4, yellowish brown, loose, slightly damp, trace iron and Mg deposits scattered from 10-12', sub-rounded	0	SM			
15	4	80	(15.0 - 20.0) SANDY SILT, predominantly fine grained to trace coarse grained, well graded, 10YR 3/1 to 5/3, very dark gray to brown, loose, slightly damp, sub-rounded, to sub-angular	0	ML			
20	5	100	(20.0 - 24.0) SANDY SILT, predominantly fine grained to trace coarse grained, well graded, 10YR 3/1 to 5/3, very dark gray to brown, loose, slightly damp, sub-round to sub-angular	0	ML			
25			(24.0 - 31.0) SANDY SILT, fine grained to trace coarse grained, well graded, 10YR 5/4, yellowish brown, trace argillaceous matrix, loose to soft, sub-rounded to sub-angular	0	ML			
30	6	84	(31.0 - 39.0) SANDY CLAY, 10YR 5/3, brown, loose, trace Mg and weathered limestone, slightly damp to moist, loose to slightly firm	0	CL			
35				0				

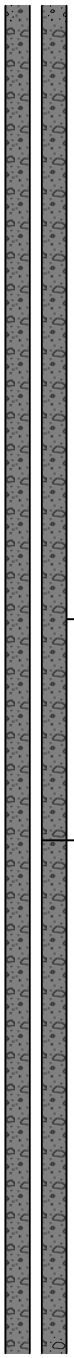


Aerostar SES LLC	Peterson Air Force Base AFFF Site Inspection Project # M2027.0003	Boring Log: PETER01-001 (Page 2 of 3)

Northing	: 1352961.32	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 1
Easting	: 3229817.20	Driller	: Brigham Bradford	Start Date	: 10/27/16
Surf Elev.(ft), NAVD88	: 6137.95	Drilling Method	: Roto-sonic	End Date	: 10/27/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: K.Brumbaugh/T.Lewis
Depth to Water (ft)	: 84.00	Total Depth	: 92.0	Signature	: _____

Well: PETER01-001-092
Elev (TOC): 6137.81

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
35	7	84		0	CL			
40			(39.0 - 40.0) SAND, fine to medium grained, well graded, 10YR 5/4, yellowish brown, trace silt, loose, damp, sub-angular to sub-rounded	0	SW			
			(40.0 - 52.0) SAND, fine to coarse grained, well graded, 10YR 6/4, light yellowish brown, loose, sub-angular to sub-rounded, slightly damp					
45	8	100		0	SW			
50				0				
	9	100	(52.0 - 52.5) SANDY CLAY, 10YR 5/2, grayish brown, slightly firm to soft, dry to slightly damp,		CL			
55			(52.5 - 74.0) SAND, fine to coarse grained, well graded, 10YR 8/2, pale brown, loose, slightly damp to damp, sub-round to sub-angular	0				
	10	90	55 - 60 feet bgs - moist grading wet then moist at depth (74 ft bgs)					
60				0	SW			
	11	100						
65				0				
	12	100						
70				0				



Aerostar SES LLC

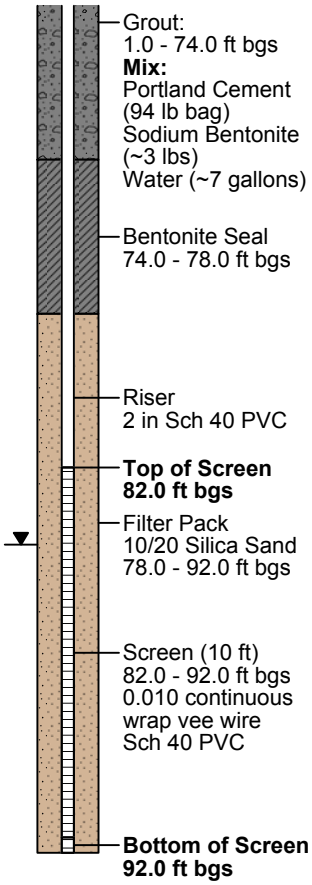
Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER01-001

Northing	: 1352961.32	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 1
Easting	: 3229817.20	Driller	: Brigham Bradford	Start Date	: 10/27/16
Surf Elev.(ft), NAVD88	: 6137.95	Drilling Method	: Roto-sonic	End Date	: 10/27/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: K.Brumbaugh/T.Lewis
Depth to Water (ft)	: 84.00	Total Depth	: 92.0	Signature	: _____

Well: PETER01-001-092
Elev (TOC): 6137.81

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
70	13	100		0	SW			
75	14	90	(74.0 - 74.4) SANDY CLAY, 10YR 6/4, light yellowish, loose, firm, slightly damp to dry, low plasticity, moderately firm to dense (74.4 - 75.5) SAND, fine to coarse grained, well graded, 10YR 8/2, pale brown, loose, sub-rounded to sub-angular, trace gravel, moist	0	CL SW CL			
80			(75.5 - 77.0) SANDY CLAY, low plasticity, 10YR 4/4, dark yellowish brown, stiff, dense, damp	0	SW			
85	15	94	(77.0 - 81.0) SAND, fine to very coarse grained, well graded, 10YR 6/4, light yellowish brown, loose, sub-round to sub-angular, damp (81.0 - 82.0) GRAVEL with SAND, fine grained to gravel size, well graded, 10YR 4/3, brown, loose, sub-round to angular, damp	0	GW CL SW SW		SO	PETER01-001-S0-083 PETER01-001-S0-983
			(82.0 - 82.5) SANDY CLAY, low plasticity, 10YR 4/4, dark yellowish brown, stiff, dense, damp				GW	PETER01-001-GW-087 PETER01-001-GW-987
90	16	102	(82.5 - 84.0) SAND, fine to very coarse grained, well graded, 10YR 6/4, light yellowish brown, loose, sub-round to sub-angular, damp to wet	0	CL SW SH			
			(84.0 - 87.5) SAND, fine to very coarse, well graded, 10YR 6/4, light yellowish brown, sub-round to sub-angular, saturated					
95			(87.5 - 88.5) SANDY CLAY, low plasticity, 10YR 4/4, dark yellowish brown, stiff, dense, damp					
			(88.5 - 89.0) SAND, fine to very coarse grained, well graded, 10YR 6/4, light yellowish brown, loose, sub-round to sub-angular, damp to wet					
100			(89.0 - 92.0) SILT, Gley 4/N, dark gray, dense, stiff, dry, no plasticity, platy, some weathering visible (weathered shale)					
105			End of Borehole 92.0 ft BGS					



Aerostar SES LLC

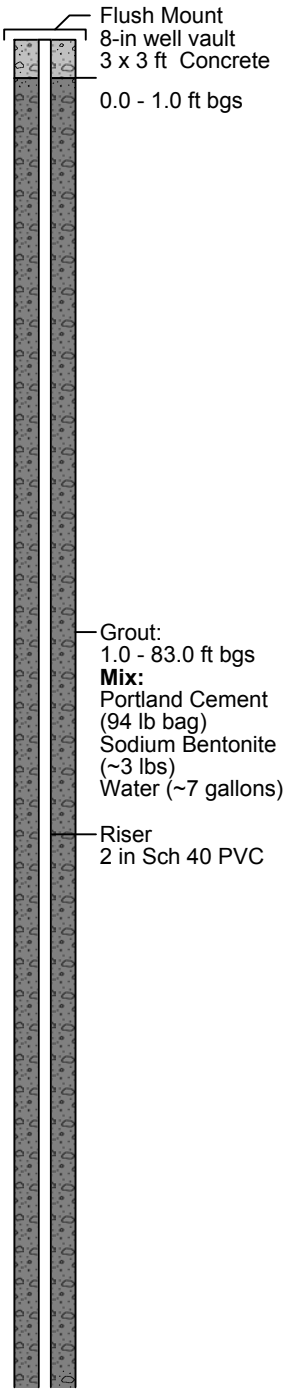
Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER01-002

Northing	: 1352687.56	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 1
Easting	: 3229163.57	Driller	: Brigham Bradford	Start Date	: 10/28/16
Surf Elev.(ft), NAVD88	: 6140.49	Drilling Method	: Roto-sonic	End Date	: 10/28/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: K.Brumbaugh
Depth to Water (ft)	: 89.0	Total Depth	: 100.0	Signature	: _____

Well: PETER01-002-100
Elev (TOC): 6140.43

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
0	1	100	(0.0 - 5.0) SILT, fine grained, poorly graded, 10YR 6/4, light yellowish brown, loose, soft, trace sand, fine to medium grained, sub-angular to sub-rounded, damp to moist	0	ML		SS	PETER01-002-SS-001
5	2	70	(5.0 - 10.0) SANDY SILT, fine to medium grained, well graded, 10YR 6/4, light yellowish brown, loose, soft, sub-round to sub-angular, slightly damp	0	ML			
10	3	74	(10.0 - 15.0) SILTY SAND, fine to coarse grained, well graded, 10YR 6/4 to 7/3, light yellowish brown, loose, soft, trace gravel, damp	0	SM			
15	4	74	(15.0 - 40.0) SILTY SAND, fine to coarse grained, well graded, 10YR 6/4 to 7/3, light yellowish brown, loose, soft, trace gravel, damp to moist	0				
20	5	80		0				
25	6	40		0	SM			
30	7	70		0				
35				0				

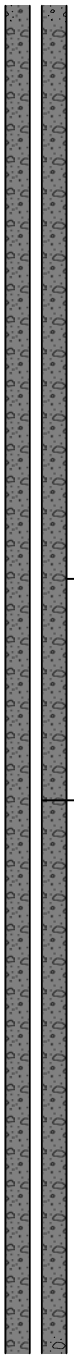


Aerostar SES LLC	Peterson Air Force Base AFFF Site Inspection Project # M2027.0003	Boring Log: PETER01-002 (Page 2 of 3)

Northing	: 1352687.56	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 1
Easting	: 3229163.57	Driller	: Brigham Bradford	Start Date	: 10/28/16
Surf Elev.(ft), NAVD88	: 6140.49	Drilling Method	: Roto-sonic	End Date	: 10/28/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: K.Brumbaugh
Depth to Water (ft)	: 89.0	Total Depth	: 100.0	Signature	: _____

Well: PETER01-002-100
Elev (TOC): 6140.43

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
35	8	70		0	SM			
40	9	80	(40.0 - 45.0) SANDY CLAY, low plasticity, 10YR 5/3 to 5/4, brown to yellowish brown, soft to trace firmness, low density, damp to most	0	CL			
45	10	90	(45.0 - 55.0) SANDY CLAY, firm to medium density, 10YR 4/2 to 4/3, brown to dark grayish brown, dry to slightly damp	0	CL			
50	11	94		0				
55	12	80	(55.0 - 65.0) SAND, fine to trace coarse grained, well graded, 10YR 6/3 to 6/4, pale brown to light yellowish brown, loose, soft, damp to moist, trace Mg deposits, grading moist to wet with depth	0	SW			
60	13	100		0				
65	14	100	(65.0 - 89.0) SAND, fine to trace coarse grained, well graded, 10YR 6/3 to 6/4, pale brown to light yellow brown, loose, soft, damp to moist, trace Mg deposits, grading to very moist to trace wet, then wet with depth	0	SW			
70				0				



Aerostar SES LLC

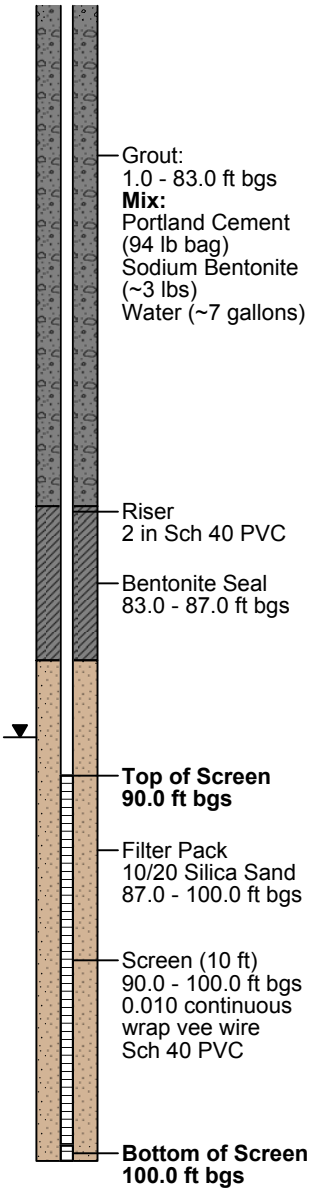
Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER01-002

Northing	: 1352687.56	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 1
Easting	: 3229163.57	Driller	: Brigham Bradford	Start Date	: 10/28/16
Surf Elev.(ft), NAVD88	: 6140.49	Drilling Method	: Roto-sonic	End Date	: 10/28/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: K.Brumbaugh
Depth to Water (ft)	: 89.0	Total Depth	: 100.0	Signature	: _____

Well: PETER01-002-100
Elev (TOC): 6140.43

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
70				0				
	15	100						
75				0				
	16	100						
80				0	SW			
	17	100						
85				0				
	18	100						
			(89.0 - 95.0) SANDY CLAY, low to slightly medium plasticity, 10YR 6/2, light brownish gray, soft, trace gravel, wet to saturated				SO	PETER01-002-SO-089
90				0				
	19	100			CL			
95				0			GW	PETER01-002-GW-095
	20	100	(95.0 - 99.5) SAND, fine to trace coarse grained, well graded, 10YR 6/2, light brownish gray, argillaceous matrix, trace Fe and Mg staining, soft, trace gravel, sub-rounded to sub-angular		SW			
100			(99.6 - 100.0) SHALE, 5Y 6/1, platy bedding, firm to hard		SH			
			End of Borehole 100.0 ft BGS					
105								



Aerostar SES LLC

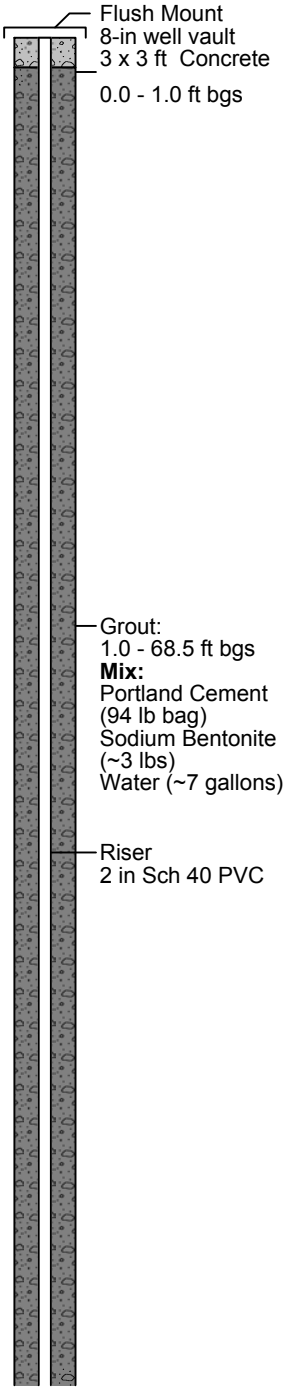
Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER01-003

Northing	: 1352904.68	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 1
Easting	: 3230073.59	Driller	: Brigham Bradford	Start Date	: 10-28-16
Surf Elev.(ft), NAVD88	: 6130.91	Drilling Method	: Roto-sonic	End Date	: 10-28-16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Taylor Lewis
Depth to Water (ft)	: 76.5	Total Depth	: 87.0	Signature	: _____

Well: PETER01-003-087
Elev (TOC): 6130.73

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
0	1	100	(0 - 8.0) SANDY SILT, fine to medium grained, 10YR 5/4, yellowish brown, loose, dry, mica particles visible	0	ML		SS	PETER01-003-SS-001
5	2	100		0				
	3	56						
10	4	90	(8.0 - 15.0) SILTY SAND, fine to coarse grained, well graded, 10YR 6/4, light yellowish brown, sub-angular to round, loose, dry, grading to damp	0	SM			
15	5	68	(15.0 - 30.0) SILTY SAND, fine to coarse grained, well graded, 10YR 5/4, yellowish brown, sub-angular to round, loose, damp	0	SM			
20	6	72		0				
25	7	82		0				
30	8	84	(30.0 - 36.0) SANDY SILT, fine to medium grained, 10YR 5/4, yellowish brown, loose, moist, some weathered limestone visible	0	ML			
35	9	90	(36.0 - 47.50) SILTY SAND, fine to coarse grained, well graded, 10YR 5/4, yellowish brown, loose, sub-round to round, moist	0	SM			
40	10	100		0				
45				0				



Aerostar SES LLC

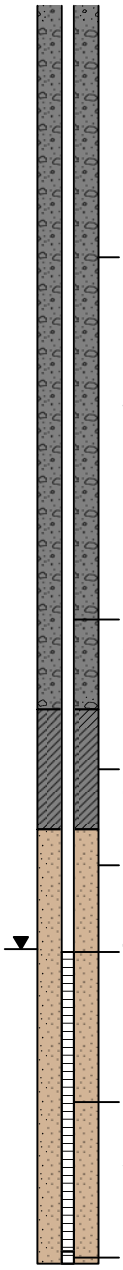
Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER01-003

Northing	: 1352904.68	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 1
Easting	: 3230073.59	Driller	: Brigham Bradford	Start Date	: 10-28-16
Surf Elev.(ft), NAVD88	: 6130.91	Drilling Method	: Roto-sonic	End Date	: 10-28-16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Taylor Lewis
Depth to Water (ft)	: 76.5	Total Depth	: 87.0	Signature	: _____

Well: PETER01-003-087
Elev (TOC): 6130.73

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	SAMPLE TYPE	Sample ID
45	11	100	(47.0 - 50.0) SAND with GRAVEL, fine to gravel size, well graded, 10YR 6/2, light brownish gray, sub-angular to round, loose, slightly damp	0	SM, SW		
50	12	65	(50.0 - 60.0) SILTY SAND, fine to very coarse, 10YR 6/2, light brownish gray, well graded, sub-angular, to sub-rounded, loose, damp	0	SM		
60	13	104	(60.0 - 68.0) SAND with GRAVEL, fine to gravel size, well graded, 10YR 6/3, pale brown, sub-round to round, loose, moist	0	SW		
65	14	94		0			
70	15	94	(68.0 - 77.0) SAND, fine to trace coarse grained, well graded, 10YR 6/3 to 6/4, pale brown to light yellow brown, loose, soft, damp to moist, grading to wet with depth	0	SW		
75	16	90		0		SO	PETER01-003-SO-075
80			(77.0 - 79.0) SANDY CLAY, low plasticity, fine to coarse grained, 10YR 5/4, yellowish brown, medium stiffness, sub-angular to sub-round, saturated	0	CL		
			(79.0 - 83.5) CLAYEY SAND, fine to very coarse, well graded, 10YR 5/4, yellowish brown, slightly dense, heavy iron oxidation		SC	GW	PETER01-003-GW-082
85	17	100	(83.5 - 84.0) SILT, 10YR 3/2, very dark grayish brown, non-plastic, damp, medium stiffness, platy structure	0	ML		
			(84.0 - 87.0) SHALE, Gley1 5/N to 3/N, gray to very dark gray, fossiliferous, weathered		SH		
90			End of Borehole 87.0 ft BGS				



Aerostar SES LLC

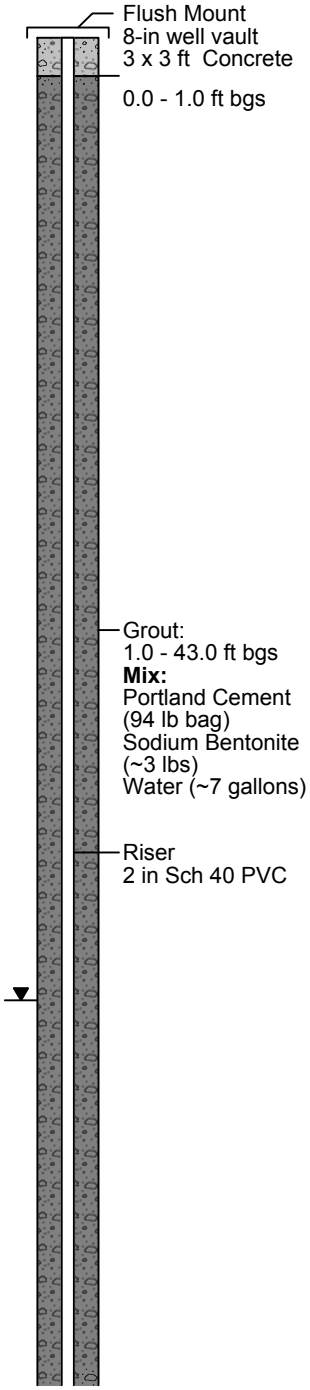
Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER02-001

Northing	: 1359930.64	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 2
Easting	: 3226776.74	Driller	: Brigham Bradford	Start Date	: 11/06/16
Surf Elev.(ft), NAVD88	: 6174.39	Drilling Method	: Roto-sonic	End Date	: 11/06/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: K.Brumbaugh
Depth to Water (ft)	: 25.0	Total Depth	: 66.0	Signature	: _____

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
0	1	100	0.0 - 0.7) Cement		GW			
	2	100	(0.7 - 9.4) SILTY SAND with GRAVEL, fine to coarse grained, well graded, 10YR 5/3 to 5/2, grayish brown, argillaceous matrix, firm, damp	0			SS	PETER02-001-SS-001
5	3	80		0	SM			
10	4	100	(9.4 - 61.0) SAND with trace gravel, fine to coarse grained, well graded, 10YR 6/4, light yellowish brown, loose, soft to slight firmness, sub-round to sub-angular, trace argillaceous matrix, damp to saturated at depth	0				
15	5	100		0				
20	6	90		0	SW			
							SO	PETER02-001-S0-024
25				0				
30	7	100		0				
35				0				

Well: PETER02-001-066
Elev (TOC): 6173.80



Aerostar SES LLC

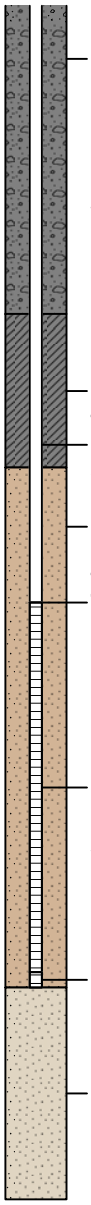
Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER02-001

Northing	: 1359930.64	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 2
Easting	: 3226776.74	Driller	: Brigham Bradford	Start Date	: 11/06/16
Surf Elev.(ft), NAVD88	: 6174.39	Drilling Method	: Roto-sonic	End Date	: 11/06/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: K.Brumbaugh
Depth to Water (ft)	: 25.0	Total Depth	: 66.0	Signature	: _____

Well: PETER02-001-066
Elev (TOC): 6173.80

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
35	8	100		0				
40				0				
45	9	70			SW			
			49 -51ft bgs, fine grained sand lens					
50				0				
55	10	88					GW	PETER02-001-GW-056
60				0				
	11	100	(61.0 - 65.0) SAND, fine grained, poorly graded, 10YR 4/6 to 5/6, light yellowish brown to yellowish brown, firm compacted, damp to dry		SP			
65			(65.0 - 66.0) SANDY SHALE, 5B 5/1, yellowish brown, brittle, soft to firm	0	SH			
70			End of Borehole 66.0 ft BGS. Note: Boring was terminated at 66.0 feet bgs due to elevated LEL readings.					



Aerostar SES LLC

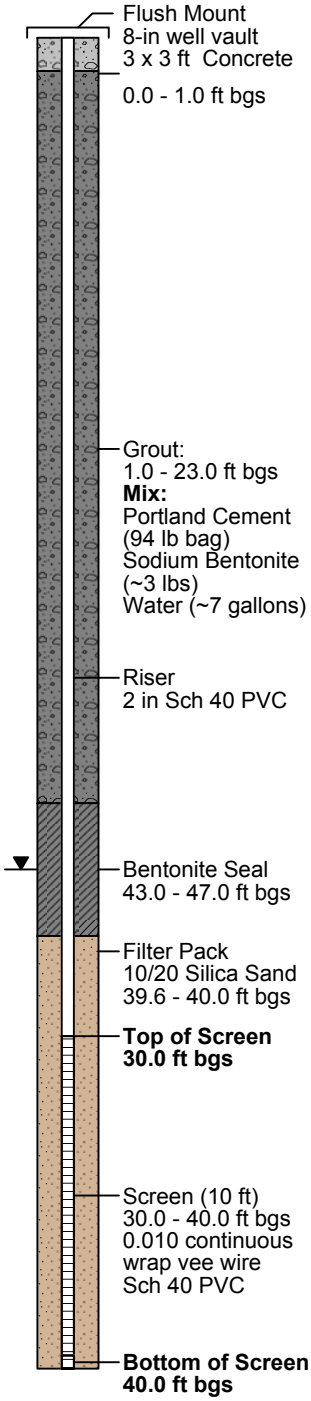
Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER02-002

Northing	: 1359949.39	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 2
Easting	: 3226666.14	Driller	: Brigham Bradford	Start Date	: 11/05/16
Surf Elev.(ft), NAVD88	: 6174.25	Drilling Method	: Roto-sonic	End Date	: 11/05/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Kaleb Brumbaugh
Depth to Water (ft)	: 25.0	Total Depth	: 40.0	Signature	: _____

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
0	1	100	(0.0 - 5.0) SANDY CLAY, low plasticity, 10YR 4/2, dark grayish brown, soft, trace organics (roots), damp	0	CL		SS	PETER02-002-SS-001
5	2	80	(5.0 - 15.0) SAND with GRAVEL, fine to coarse grained, well graded,10YR 8/2 to 6/4, very pale brown to light yellowish brown, sub-round to sub-angular, moist	0	SW			
10	3	100	12 ft bgs, moist to wet, grading to gray with depth	0				
15	4	72	(15.0 - 30.0) SAND with GRAVEL, fine to coarse grained, well graded, 10YR 8/2 to 6/4, very pale brown to light yellowish brown, moist, sub-round to sub-angular, trace argillaceous matrix	0				
20				0	SW			
25	5	68	25 ft bgs, saturated	0			SO	PETER02-002-SO-024
30	6	68	(30.0 - 32.0) SAND with trace gravel, fine to trace coarse grained, well graded, soft, argillaceous matrix, sub-round to sub-angular, saturated	0	SW			
35			(32.0 - 40.0) SAND with GRAVEL, well graded, 10YR 6/4, light yellowish brown, loose, soft to slightly firm, sub-round to sub-angular, saturated	0	SW			
40			End of Borehole 40.0 ft BGS					

Well: PETER02-002-040
Elev (TOC): 6174.12



Aerostar SES LLC

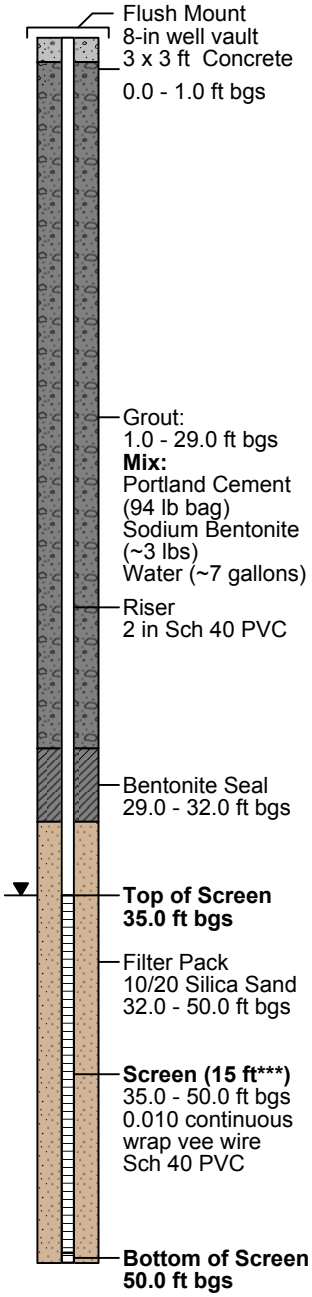
Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER02-003

Northing	: 1359855.69	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 2
Easting	: 3226755.87	Driller	: Brigham Bradford	Start Date	: 11/05/16
Surf Elev.(ft), NAVD88	: 6169.30	Drilling Method	: Roto-sonic	End Date	: 11/05/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Kaleb Brumbaugh
Depth to Water (ft)	: 35.0	Total Depth	: 50.0	Signature	: _____

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
0	1	100	(0.0 - 5.0) SANDY CLAY, low plasticity, 10YR 4/2, dark grayish brown, soft, trace organics (roots), damp	0	CL		SS	PETER02-003-SS-001
5	2	68	(5.0 - 44.0) SAND with GRAVEL, fine to coarse grained, well graded, 10YR 6/4, light yellowish brown, trace argillaceous matrix, sub-rounded to sub-angular, grading to moist to wet with depth	0				
10	3	68		0				
15	4	68		0				
20	5	88		0				
25	6	90		0	SW		SO	PETER02-003-SO-024
30	7	50		0				
35	8	60		0				
40				0				
45	9	90	(44.0 - 45.0) SAND, fine grained, poorly graded, 10YR 6/4, light yellowish brown, trace argillaceous matrix, soft, saturated		SP			
			(45.0 - 48.0) SANDY CLAY, with gravel, low plasticity, 10YR 6/4, soft to trace firm, saturated		CL		GW	PETER02-003-GW-043
50			(48.0 - 50.0) SAND with GRAVEL, fine to coarse grained, well graded, 10YR 6/4, light yellowish brown, loose, sub-rounded to sub-angular, saturated		SW			
55								

Well: PETER02-003-050
Elev (TOC): 6169.09



Aerostar SES LLC

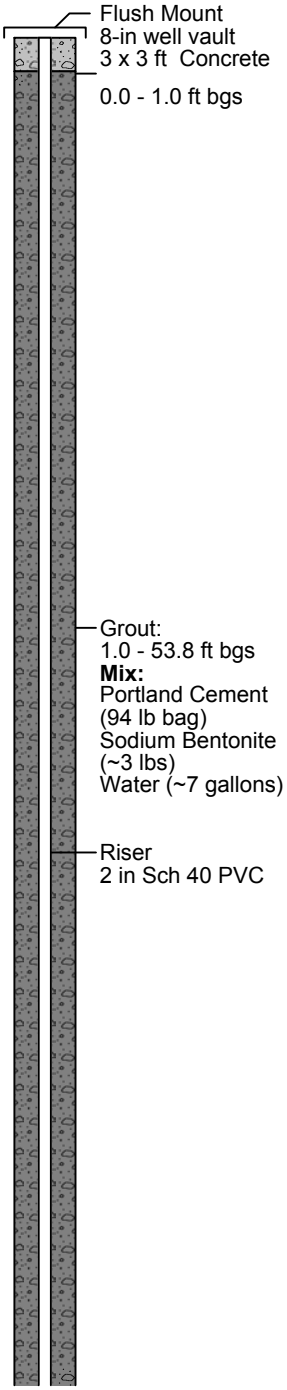
Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER03-001

Northing	: 1355805.02	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 3
Easting	: 3233285.12	Driller	: Brigham Bradford	Start Date	: 11/02/16
Surf Elev.(ft), NAVD88	: 6181.58	Drilling Method	: Roto-sonic	End Date	: 11/02/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Kaleb Brumbaugh
Depth to Water (ft)	: 65.0	Total Depth	: 75.0	Signature	: _____

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
0	1	100	(0.0 - 10.0) SILTY SAND, fine to medium grained, well graded, 10YR 6/6, brownish yellow, loose, soft, sub-round to sub-angular, slightly damp to dry	0			SS	PETER03-001-SS-001
5	2	70		0	SM			
10	3	68	(10.0 - 15.0) SANDY SILT, fine to trace medium grained, poorly graded, 10YR 5/6, yellowish brown, trace argillaceous matrix, loose, soft, slightly damp to damp	0	ML			
15	4	90	(15.0 - 20.0) SILTY SAND, fine to medium grained, poorly graded, 10YR 6/4, light yellowish brown, loose, soft, sub-angular to sub-round, slightly damp to dry	0	SM			
20	5	90	(20.0 - 35.0) SAND with trace silt, fine to coarse grained, well graded, 10YR 6/4, light yellowish brown, loose, soft, sub-rounded to sub-angular	0				
25	6	90		0	SM			
30	7	90		0				
35	8	90	(35.0 - 40.0) SAND with GRAVEL, well graded, 10YR 8/2, 6/4, very pale brown to light yellowish brown, loose, dry	0	SW			
40				0				

Well: PETER03-001-075
Elev (TOC): 6181.62



Aerostar SES LLC

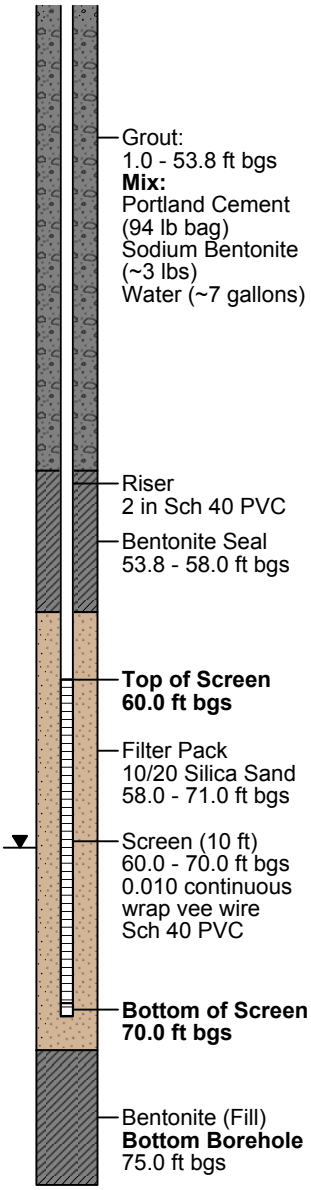
Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER03-001

Northing	: 1355805.02	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 3
Easting	: 3233285.12	Driller	: Brigham Bradford	Start Date	: 11/02/16
Surf Elev.(ft), NAVD88	: 6181.58	Drilling Method	: Roto-sonic	End Date	: 11/02/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Kaleb Brumbaugh
Depth to Water (ft)	: 65.0	Total Depth	: 75.0	Signature	: _____

Well: PETER03-001-075
Elev (TOC): 6181.62

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
40	9	90	(40.0 - 65.0) SAND with frequent to abundant GRAVEL, well graded, 10YR 8/2, 6/4, very pale brown to light yellowish brown, loose, soft to firm areas, trace argillaceous matrix, sub-rounded to sub-angular, dry to slightly damp	0	SW			
45	10	96		0				
50	11	96	50 - 55 ft bgs, moist to trace wet, trace silt	0				
55	12	98	55 - 60 ft bgs, moist to wet	0				
60	13	95		0				
65	14	95	saturated, groudwater encountered	0			SO GW	PETER03-001-SO-064 PETER03-001-GW-064
			(65.0 - 68.0) SAND with frequent to abundant GRAVEL, well graded, 10YR 8/2, 6/4, loose, soft to firm areas, trace argillaceous matrix, sub-rounded to sub-angular, saturated, trace 10YR 6/1, gray		SW			
70			(68.0 - 73.9) SANDY CLAY, low plasticity, 10YR 5/3, brown, slightly firm, dry to slightly damp	0	CL			
75			(73.9 - 75.0) SHALE, silty to sandy matrix cement, 5Y 6/1 - 4/1, light olive gray to olive gray, trace embedded calcite		SH			
80			End of Borehole 75.0 ft BGS					



Aerostar SES LLC

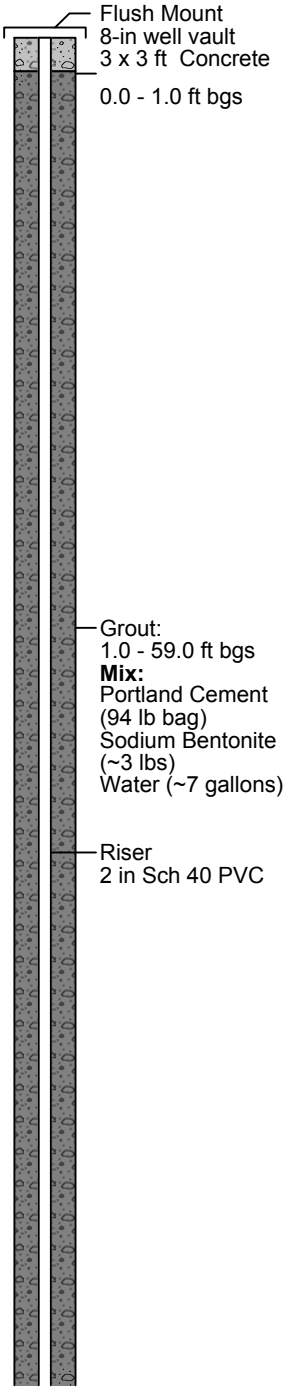
Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER03-002

Northing	: 1355554.36	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 3
Easting	: 3233452.01	Driller	: Brigham Bradford	Start Date	: 11/03/16
Surf Elev.(ft), NAVD88	: 6180.78	Drilling Method	: Roto-sonic	End Date	: 11/03/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Kaleb Brumbaugh
Depth to Water (ft)	: 65.4	Total Depth	: 75.0	Signature	: _____

Well: PETER03-002-076
Elev (TOC): 6180.59

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
0	1	100	(0.0 - 10.0) SILT, fine to medium grained, well graded, 10YR 6/4, brownish yellow, loose, soft, sub-angular to sub-round, slightly damp to dry	0			SS	PETER03-002-SS-001
5	2	70		0	ML			
10	3	68	(10.0 - 26.0) SILTY SAND, fine to medium grained, poorly graded, 10YR 6/4, brownish yellow, loose, soft, sub-angular to sub-round, slightly damp to dry	0				
15	4	68		0	SM			
20	5	68		0				
25	6	92	(26.0 - 30.0) SANDY CLAY, low plasticity, 10YR 5/4, yellowish brown, slightly damp, slightly loose to soft	0	CL			
30	7	78	(30.0 - 40.0) SAND, with trace silt, fine to trace coarse grained, poorly graded, 10YR 6/4, light yellowish brown, loose, soft, trace argillaceous matrix, sub-round to sub-angular, damp	0				
35	8	96		0	SP			
40				0				



Aerostar SES LLC

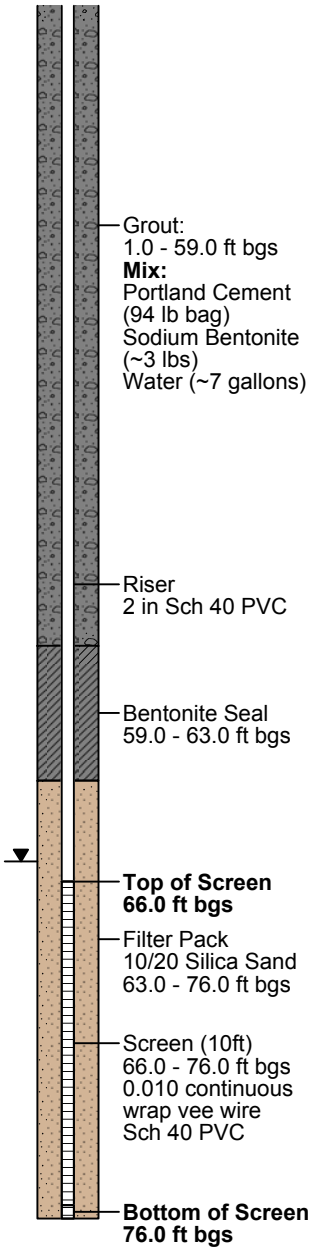
Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER03-002

Northing	: 1355554.36	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 3
Easting	: 3233452.01	Driller	: Brigham Bradford	Start Date	: 11/03/16
Surf Elev.(ft), NAVD88	: 6180.78	Drilling Method	: Roto-sonic	End Date	: 11/03/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Kaleb Brumbaugh
Depth to Water (ft)	: 65.4	Total Depth	: 75.0	Signature	: _____

Well: PETER03-002-076
Elev (TOC): 6180.59

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	SAMPLE TYPE	Sample ID
40	9	96	(40.0 - 50.0) SAND, with trace gravel, fine to coarse grained, well graded, 10YR 6/4, light yellowish brown, loose, soft to slightly firm, trace argillaceous matrix, sub-round to sub-angular, moist	0	SW		
45	10	40		0			
50	11	52	(50.0 - 65.0) SAND with trace gravel, fine to coarse grained, well graded, 10YR 8/3 to 7/4, very pale brown, loose, soft to slightly firm, sub-round to sub-angular, moist to dry	0	SW		
55	12	52		0			
60	13	76	60 - 65 ft bgs, moist to slightly damp, trace cobbles	0			
65	14	100	(65.0 - 66.5) SAND with GRAVEL, fine to coarse grained, well graded, 10YR 6/4 to 7/3, light yellowish brown to very pale brown, loose, soft to firm saturated, ground water encountered	0	SW	SO	PETER03-002-SO-065
					CL		
70			(66.5 - 67.0) SANDY CLAY, low to medium plasticity, 10YR 5/3, brown, firm to dense, moist to damp	0	CL	GW	PETER03-002-GW-071
			(67.0 - 74.5) SANDY CLAY, low plasticity, 10YR 5/6, yellowish brown, loose to soft, saturated				
75	15	100	(74.5 - 75.0) SILTY SAND, predominantly fine grained, poorly graded, 10YR 6/6, brownish yellow, with argillaceous matrix, loose to firm, sub-round to sub-angular, saturated to moist	0	SM		
					SH		
80			(75.6 to 76.0) SHALE, 5Y 4/1 - 2/1, olive gray to olive black, platy, striated, firm to hard				



Aerostar SES LLC

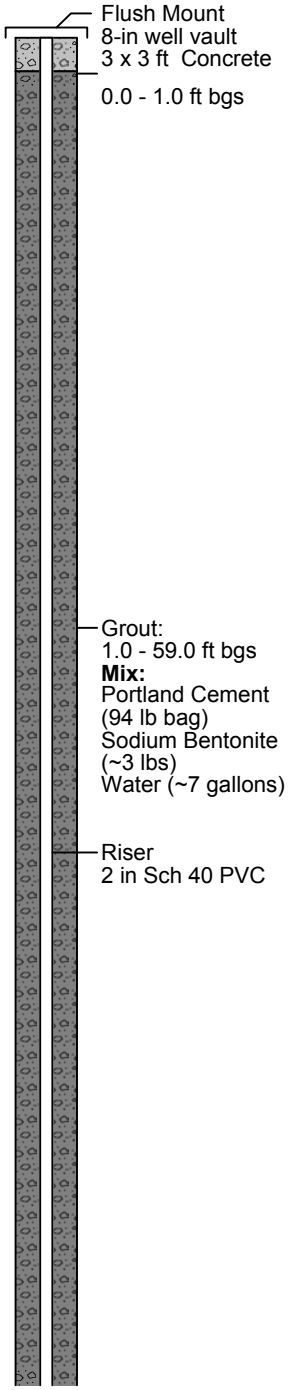
Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER03-003

Northing	: 1355616.93	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 3
Easting	: 3233185.22	Driller	: Brigham Bradford	Start Date	: 11/03/16
Surf Elev.(ft), NAVD88	: 6181.37	Drilling Method	: Roto-sonic	End Date	: 11/03/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Kaleb Brumbaugh
Depth to Water (ft)	: 69.5	Total Depth	: 75.0	Signature	: _____

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
0	1	100	(0.0 - 10.0) SANDY SILT, well graded, 10YR 6/6, brownish yellow, loose, soft, dry	0			SS	PETER03-003-SS-001
5	2	70		0	ML			
10	3	90	(10.0 - 15.0) SILTY SAND, fine to medium grained, well graded, 10YR 6/4, light yellowish brown, loose, soft, sub-round to sub-angular	0	SM			
15	4	76	(15.0 - 30.0) SILTY SAND, fine to medium grained, well graded, 10YR 6/4, brownish yellow, loose, soft, sub-angular to sub-round, slightly damp to dry	0				
20	5	90		0	SM			
25	6	78	Grading from medium to coarse grained and damp	0				
30	7	72	(30.0 - 55.0) SILTY SAND, well graded, 10YR 6/4, light yellowish brown, loose, soft, sub-round to sub-angular, trace argillaceous matrix, moist to depth	0				
35	8	88		0	SM			
40				0				

Well: PETER03-003-075
Elev (TOC): 6181.19



Aerostar SES LLC

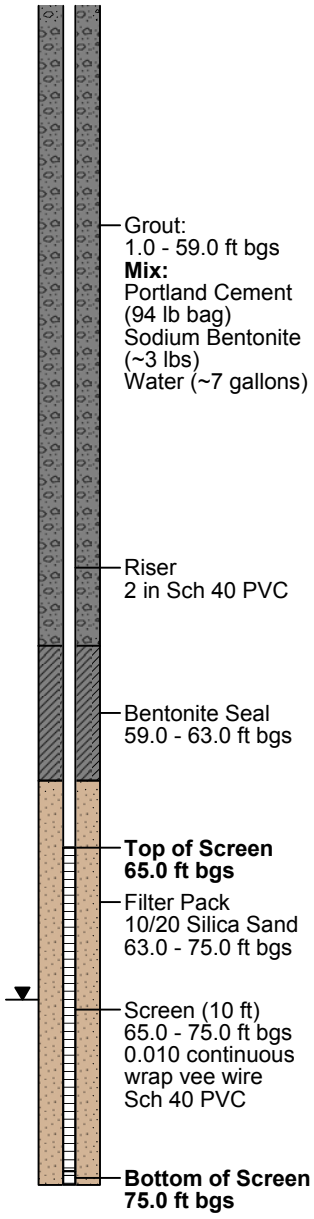
Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER03-003

Northing	: 1355616.93	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 3
Easting	: 3233185.22	Driller	: Brigham Bradford	Start Date	: 11/03/16
Surf Elev.(ft), NAVD88	: 6181.37	Drilling Method	: Roto-sonic	End Date	: 11/03/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Kaleb Brumbaugh
Depth to Water (ft)	: 69.5	Total Depth	: 75.0	Signature	: _____

Well: PETER03-003-075
Elev (TOC): 6181.19

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
40	9	88		0				
45	10	88		0	SM			
50	11	88		0				
55	12	88	(55.0 - 65.0) SAND with trace gravel, fine to coarse grained, well graded, 10YR 8/2 to 6/4, very pale brown to light yellowish brown, loose, soft, sub-angular to sub-rounded	0	SW			
60				0				
65	13	90	(65.0 - 67.0) SAND with GRAVEL, fine to coarse grained, well graded, 10YR 4/3, brown, loose, sub-rounded to sub-angular, moist	0	SW			
			(67.0 - 68.5) SAND with trace silt, fine to medium grained, poorly graded, 10YR 7/1 to 8/2, light gray to very pale brown, loose		SP			
70	14	100	(68.5 - 71.0) SAND with trace silt, well graded, 10YR 7/2, light gray, loose, saturated at 69.5 feet bgs		SW		SO GW	PETER03-003-SO-069 PETER03-003-GW-070
			(71.0 - 73.0) SAND with GRAVEL, fine to coarse grained, well graded, 10YR 5/2, grayish brown, trace argillaceous matrix, sub-rounded to sub-angular, mostly loose, soft to some firmness, trace Fe staining		SW			
75				0	CL			
					SH			
			(73.0 - 74.0) SANDY CLAY, low plasticity, 10YR 5/3, brown, soft, argillaceous matrix, trace lignite, low plasticity, trace iron staining, slightly damp					
80			(74.0 - 75.0) SHALE, 5RY 2/1 to N1, olive black to black, platy, firm, trace calcite embedded					



Aerostar SES LLC

Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

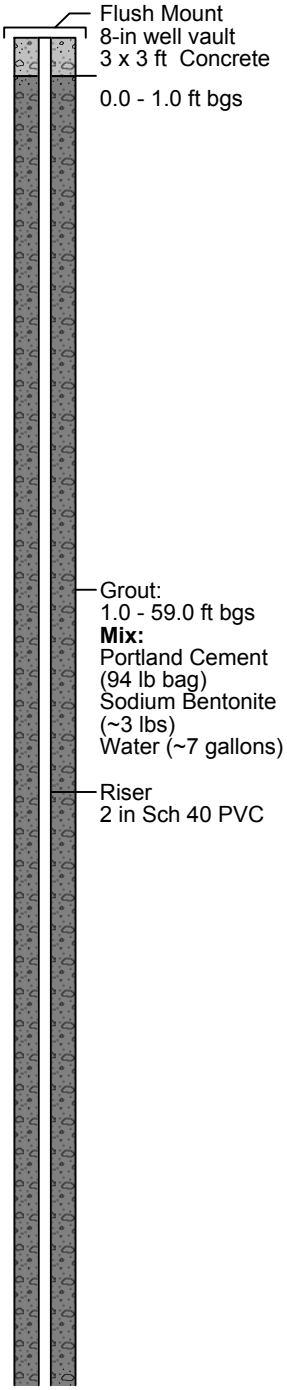
Boring Log: PETER04-001

Site Name	: AFFF Area 4
Start Date	: 11/01/16
End Date	: 11/01/16
Logged By	: Taylor Lewis
Signature	: _____

Northing	: 1356261.36	Drilling Company	: Cascade Drilling
Easting	: 3230250.21	Driller	: Brigham Bradford
Surf Elev.(ft), NAVD88	: 6139.32	Drilling Method	: Roto-sonic
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"
Depth to Water (ft)	: 50.0	Total Depth	: 67.0

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
0	1	100	(0.0 - 11.0) SANDY SILT, fine to medium grained, well graded, 10YR 6/3, pale brown, sub-angular to sub-rounded, soft, dry to slightly damp with depth	0	ML			PETER04-001-SS-001
5	2	50		0				
10	3	90	(11.0 - 20.0) SILTY SAND, fine to very coarse grained, well graded, 10YR 5/4, light olive brown, sub-round to round, loose, slightly damp	0	SM			
15	4	100		0				
20	5	76	(20.0 - 25.0) SANDY SILT, fine to medium grained, well graded, 10YR 6/4, light yellowish brown, soft, sub-angular to sub-round	0	ML			
25	6	58	(25.0 - 33.0) CLAYEY SAND, fine to coarse grained, well graded, 7.5YR 5/4, brown, sub-round to sub-angular, loose, damp	0	SC			
30	7	56	(33.0 - 35.0) SANDY CLAY, fine to coarse grained, low plasticity, well graded, 5YR 5/8, yellowish red, slightly stiff, sub-angular to round, damp	0	CL			
35				0				

Well: PETER04-001-067
Elev (TOC): 6139.21



Aerostar SES LLC

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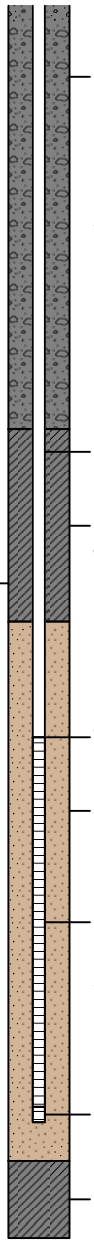
Boring Log: PETER04-001

Northing	: 1356261.36	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 4
Easting	: 3230250.21	Driller	: Brigham Bradford	Start Date	: 11/01/16
Surf Elev.(ft), NAVD88	: 6139.32	Drilling Method	: Roto-sonic	End Date	: 11/01/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Taylor Lewis
Depth to Water (ft)	: 50.0	Total Depth	: 67.0	Signature	: _____

Well: PETER04-001-067
Elev (TOC): 6139.21

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
35	8	56	(35.0 - 45.0) SANDY CLAY, very fine to fine grained, poorly graded, 5YR 5/8, yellowish red, loose, sub-round to round, damp, then, 10YR6/2, light brownish gray silt, ped inclusions, grading to moist with depth	0	SC			
40	9	96		0				
45	10	102	(45.0 - 46.5) SANDY SILT, fine grained, poorly graded, 7.5YR 4/6, strong brown to 7.5 6/1, gray, rounded, stiff, damp	0	ML			
			(46.5 - 47.5) CLAYEY SAND, fine grained, poorly graded, 2.5YR 4/6, red, rounded, loose, moist		SC			
				0	SM		SO	PETER04-001-SO-049
50	11	110	(47.5 - 50.0) SILTY SAND, fine grained, poorly graded, 5YR 5/8, yellowish red, very dense, round, dry to moist	0				
			(50.0 - 59.0) CLAYEY SAND, fine grained, poorly graded, 10YR 4/6, dark yellowish brown, rounded, slightly dense, silt inclusions, moist		SC			
55				0				
							GW	PETER04-001-GW-059
60	12	110	(59.0 - 62.0) SILTY SAND, fine grained, poorly graded, 10YR 4/2, dark grayish brown, loose, moist	0	SM			
			(62.0 - 67.0) SILT, Gley1 4/, dark gray, slightly dense, non-plastic, moist to wet (shale)					
65				0	SH			
			End of Borehole 67.0 ft BGS					
70								



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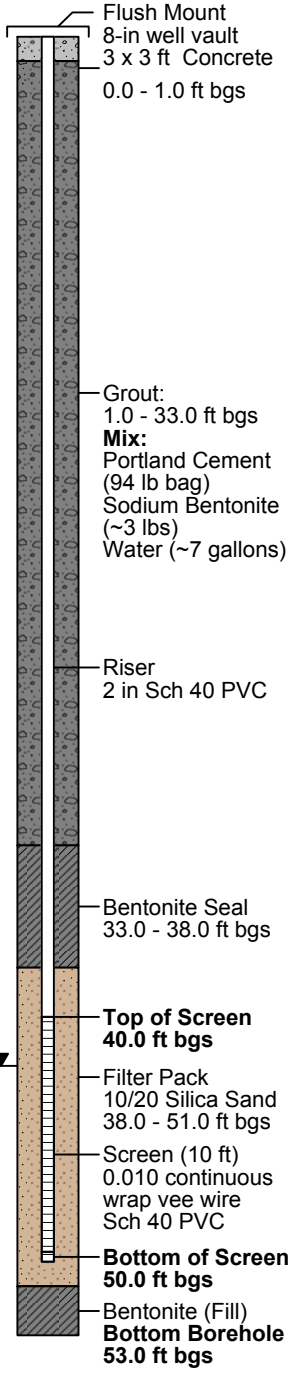
Boring Log: PETER04-002

Northing	: 1356043.81	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 4
Easting	: 3230076.07	Driller	: Brigham Bradford	Start Date	: 10/31/16
Surf Elev.(ft), NAVD88	: 6137.37	Drilling Method	: Roto-sonic	End Date	: 10/31/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Taylor Lewis
Depth to Water (ft)	: 42.0	Total Depth	: 53.0	Signature	: _____

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
0	1	100	(0.0 - 20.0) SANDY SILT, fine to coarse grained, well graded, 10YR 5/4, yellowish brown, soft, sub-angular to sub-round, dry to damp	0				
5	2	68		0				
10	3	72		0	ML			
15	4	72		0				
20	5	76	(20.0 - 25.0) SILTY SAND, fine to very coarse grained, well graded, 10YR 5/3, brown, loose round to sub-angular, damp	0	SM			
25	6	78	(25.0 - 33.0) SAND with GRAVEL, fine to gravel sized, well graded, 10YR 6/2, light brownish gray, round to sub-round, loose, damp, Fe nodules (30-33 ft bgs)	0	SW			
30	7			0				
35	8	104	(33.0 - 41.5) CLAYEY SAND, fine to coarse grained, well graded, 10YR 5/4, yellowish brown, slightly dense, round to sub-round, damp	0	SC			
40	9	100		0			SO	PETER04-002-SO-041 PETER04-002-SO-941
45	10	118	(41.5 - 47.0) SANDY CLAY, low plasticity, well graded, 10YR 4/4, dark yellowish brown, medium stiffness, sub-round to round, moist to wet groundwater at 42 ft bgs	0	CL		GW	PETER04-002-GW-045 PETER04-002-GW-945
			(47.0 - 53.00) Shale, weathered					
50	11	102		0	SH			
55			End of Borehole 53.0 ft BGS					

Well: PETER04-002-053
Elev (TOC): 6137.16



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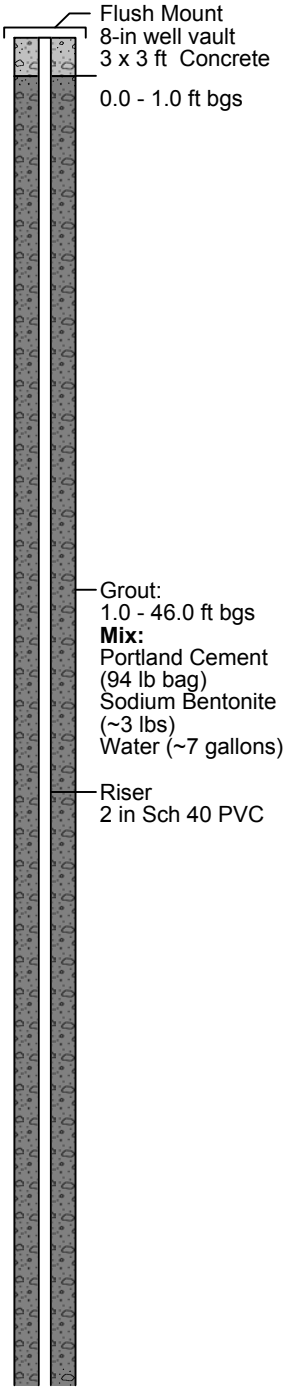
Boring Log: PETER04-003

Northing	: 1355726.15	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 4
Easting	: 3229782.77	Driller	: Brigham Bradford	Start Date	: 10/31/16
Surf Elev.(ft), NAVD88	: 6138.02	Drilling Method	: Roto-sonic	End Date	: 10/31/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Kaleb Brumbaugh
Depth to Water (ft)	: 51.0	Total Depth	: 65.0	Signature	: _____

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
0	1	100	(0.0 - 5.0) SANDY SILT, fine grained, poorly graded, 10YR 6/4, lightly yellowish brown, loose, soft, dry	0	ML			
5	2	80	(5.0 - 25.0) SANDY SILT, fine to coarse grained, well graded, 10YR 6/4, lightly yellowish brown, loose, soft, sub-round to sub-angular	0				
10	3	84		0				
15	4	88		0	ML			
20	5	94		0				
25	6	94	(25.0 - 40.0) SILTY SAND, fine to trace coarse grained, well graded, 10YR 6/4, light yellowish brown, loose, soft, slightly damp, sub-round to sub-angular, trace gravel then frequent gravel and damp with depth	0				
30	7	84		0	SM			
35				0				

Well: PETER04-003-065
Elev (TOC): 6137.85



Aerostar SES LLC

Peterson Air Force Base
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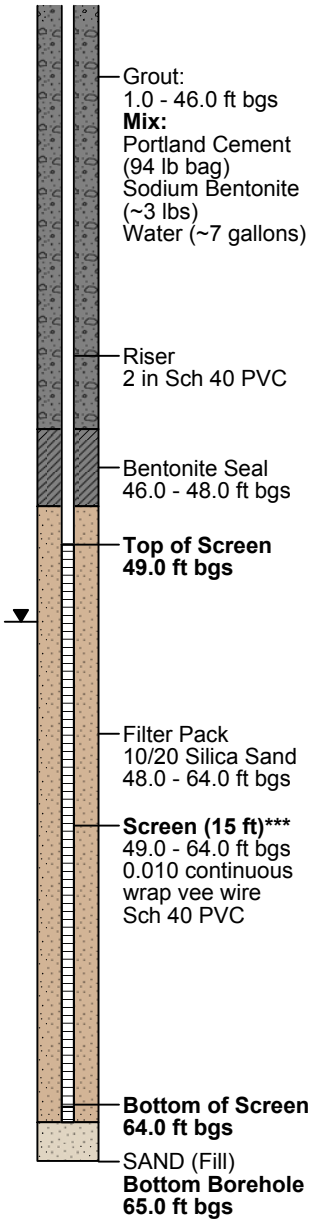
Boring Log: PETER04-003

Northing	: 1355726.15	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 4
Easting	: 3229782.77	Driller	: Brigham Bradford	Start Date	: 10/31/16
Surf Elev.(ft), NAVD88	: 6138.02	Drilling Method	: Roto-sonic	End Date	: 10/31/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Kaleb Brumbaugh
Depth to Water (ft)	: 51.0	Total Depth	: 65.0	Signature	: _____

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	SAMPLE TYPE	Sample ID
35	8	84		0	SM		
40	9	80	(40.0 - 45.0) SAND with GRAVEL, fine to medium grained, well graded, 10YR 5/3 to 6/4, brown to light yellowish brown, loose, soft, sub-round to sub-angular, damp	0	SW		
45	10	84	(45.0 - 57.0) SAND with GRAVEL, coarse to fine grained, well graded, 10YR 5/3 to 6/4, trace argillaceous matrix	0		SO	PETER04-003-SO-050
50	11	88	Saturated @51 ft bgs	0	SW		
55	12	98	(57.0 - 60.0) SANDY CLAY, low plasticity, 10YR 8/2 to 5/3, very pale brown to brown, firm, dense, dry to slightly damp	0	CL	GW	PETER04-003-GW-056
60	13	100	(60.0 - 65.0) SHALE, 5Y 6/1 to 5Y 4/1, light olive gray to olive gray shale, platy, firm, dry	0	SH		
65			End of Borehole 65.0 ft BGS				
70							

Well: PETER04-003-065
Elev (TOC): 6137.85



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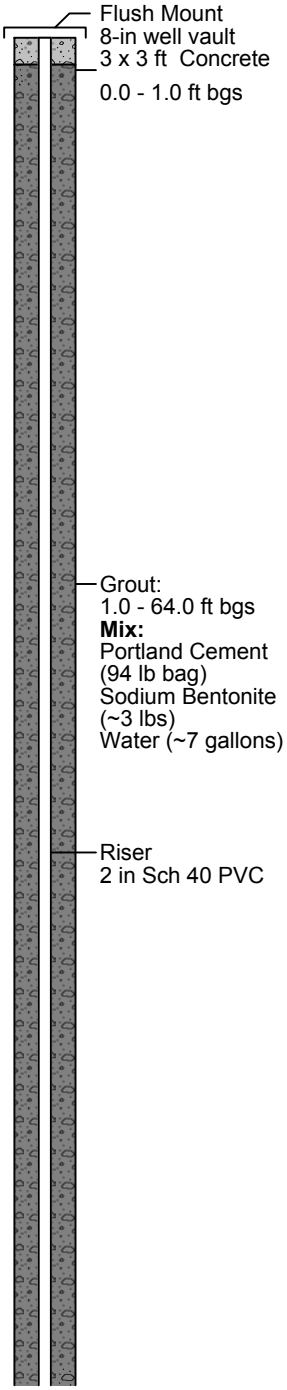
Boring Log: PETER04-004

Northing	: 1356948.89	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 4
Easting	: 3228509.26	Driller	: Brigham Bradford	Start Date	: 10/30/16
Surf Elev.(ft), NAVD88	: 6140.03	Drilling Method	: Roto-sonic	End Date	: 10/30/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Kaleb Brumbaugh
Depth to Water (ft)	: 59.0	Total Depth	: 90.0	Signature	: _____

Well: PETER04-004-090
Elev (TOC): 6139.90

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
0	1	100	(0.0 - 13.0) SANDY SILT, fine to medium grained, poorly graded, 10YR 6/6, brownish yellow, loose, soft, slighly damp	0			SS	PETER04-004-SS-001
5	2	88		0	ML			
10	3	70		0				
15	4	70	(13.0 - 15.0) SANDY SILT, fine to medium grained, well graded, 10YR 3/2 to 3/3, very dark grayish brown to dark brown, loose, trace organic (roots), soft, damp to slightly damp	0	ML CL			
			sub-angular,(15.0 - 16.0) SILTY SANDY CLAY, low plasticity, 10YR 3/3, dark brown, soft, dry		SM			
20	5	100	(16.0 - 20.0) SILTY SAND, fine to medium grained, poorly graded, 10YR 4/4, dark yellowish brown, loose, sub-round to sub-angular, dry	0	SP			
25	6	100	(20.0 - 25.0) SAND, with trace silt, fine to medium grained, poorly graded,10YR 5/3, brown, loose, soft to trace firmness, sub-rounded to sub-angular	0				
30	7	100	(25.0 - 35.0) SAND with GRAVEL, medium to coarse grained, well graded, 10YR 6/4, light yellowish brown, loose, sub-angular to scattered sub-round, trace argillaceous matrix, slightly damp to dry	0	SW			
35	8	90	(35.0 - 55.0) SAND with GRAVEL, medium to coarse grained, well graded, 10YR 6/4, light yellowish brown, loose, sub-angular to scattered sub-round, trace argillaceous matrix, damp to moist	0				
40	9	90		0	SW			
45	10	100		0				
50				0				



Aerostar SES LLC

Peterson Air Force Base
AFFF Site Inspection
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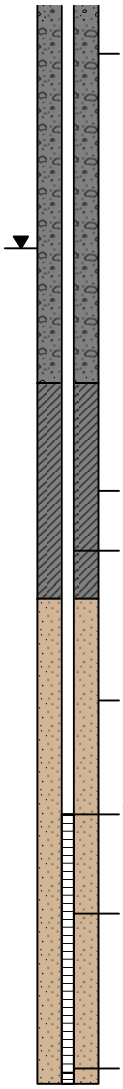
Boring Log: PETER04-004

Northing	: 1356948.89	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 4
Easting	: 3228509.26	Driller	: Brigham Bradford	Start Date	: 10/30/16
Surf Elev.(ft), NAVD88	: 6140.03	Drilling Method	: Roto-sonic	End Date	: 10/30/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Kaleb Brumbaugh
Depth to Water (ft)	: 59.0	Total Depth	: 90.0	Signature	: _____

Well: PETER04-004-090
Elev (TOC): 6139.90

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
50	11	100		0	SW			
55	12	100	(55.0 - 89.0) SAND with GRAVEL, fine to coarse grained, well graded, 10YR 6/4 to 8/3, light yellowish brown to very pale brown, trace silt, loose, sub-round to sub-angular, trace argillaceous matrix Saturated @ 59 ft bgs	0			SO	PETER04-004-SO-058
60	13	100		0				
65	14	100		0				
70	15	90		0	SW			
75								
80	16	100		0				
85	17	100		0			GW	PETER04-004-GW-085
90			(89.6 - 90.0) SHALE, 5Y 4/1, light olive gray, platy, firm to slightly soft, laminated End of Borehole 90.0 ft BGS	0	SH			
95								
100								



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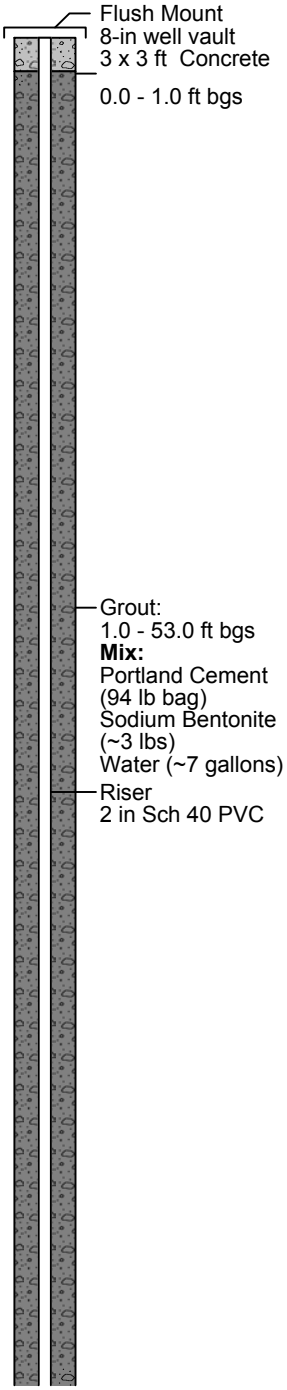
Boring Log: PETER04-005

Northing	: 1356326.53	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 4
Easting	: 3229136.11	Driller	: Brigham Bradford	Start Date	: 10/30/16
Surf Elev.(ft), NAVD88	: 6131.6	Drilling Method	: Roto-sonic	End Date	: 10/30/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Kaleb Brumbaugh
Depth to Water (ft)	: 55.0	Total Depth	: 70.0	Signature	: _____

Well: PETER04-005-070
Elev (TOC): 6131.45

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
0	1	100	(0.0 - 7.0) SANDY SILT, fine grained, poorly graded, 10YR 6/6 to 6/4, brownish yellow to light brownish yellow, loose, soft, sub-round to sub-angular, dry to damp to moist	0	ML		SS	PETER04-005-SS-001 PETER04-005-SS-901
5	2	80	(7.0 - 10.0) SANDY SILT, low plasticity, well graded, 10YR 3/3, dark brown, trace argillaceous matrix, loose to slightly firm, sub-round to sub-angular, dry to damp to moist	0	ML			
10	3	80	(10.0 - 15.0) SILTY SAND, fine to medium grained, well graded, 10YR 6/6 to 5/6, brownish yellow to yellowish brown, loose, soft, sub-round to sub-angular, some trace gravel, damp to moist with depth	0	SM			
15	4	90	(15.0 - 47.0) SILTY SAND, fine to coarse grained, well graded, 10YR 6/6 to 5/6, brownish yellow to yellowish brown, loose, soft, sub-round to sub-angular, some trace gravel, damp to moist with depth	0	SM			
20	5	100		0				
25	6	92		0				
30	7	90		0				
35	8	94		0				
40				0				



Aerostar SES LLC

Peterson Air Force Base
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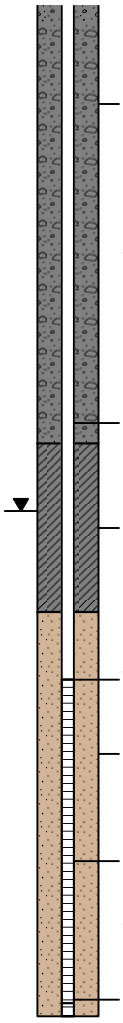
Boring Log: PETER04-005

Northing	: 1356326.53	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 4
Easting	: 3229136.11	Driller	: Brigham Bradford	Start Date	: 10/30/16
Surf Elev.(ft), NAVD88	: 6131.6	Drilling Method	: Roto-sonic	End Date	: 10/30/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Kaleb Brumbaugh
Depth to Water (ft)	: 55.0	Total Depth	: 70.0	Signature	: _____

Well: PETER04-005-070
Elev (TOC): 6131.45

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
40	9	94		0	SM			
45	10	100	(47.0 - 60.0) SAND, Well Graded, 10YR 6/4 to 6/6, light yellowish brown to yellow brown sand, trace gravel, saturated @ 55 ft bgs	0				
50	11	100		0	SW		SO	PETER04-005-SO-056
55	12	100	saturated @ 55 ft bgs	0				
60	13	67	(60.0 - 70.0) SAND with trace silt, well graded, 10YR 6/3 to 6/4, pale brown to light yellowish brown, trace argillaceous matrix, loose to slightly firm, sub-round to sub-angular	0	SW		GW	PETER04-005-GW-065 PETER04-005-GW-965
65				0				
70			End of Borehole 70.0 ft BGS					
75								
80								



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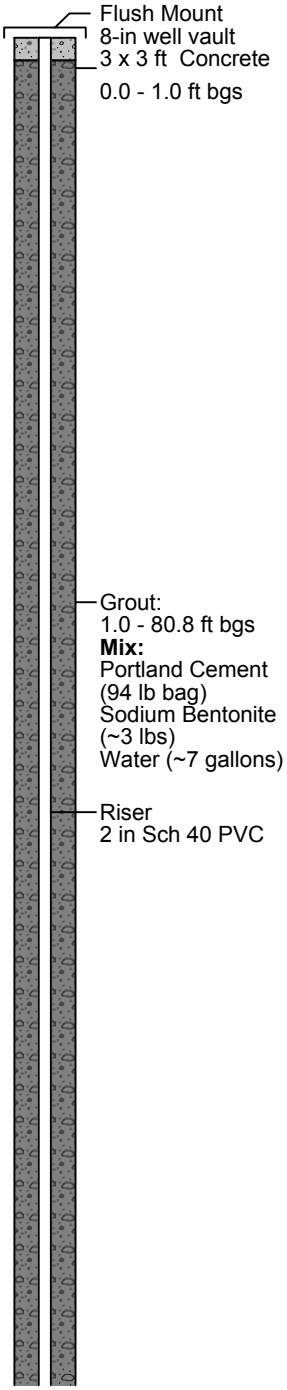
Boring Log: PETER04-008

Northing	: 1350874.08	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 4
Easting	: 3227438.41	Driller	: Brigham Bradford	Start Date	: 11/08/16
Surf Elev.(ft), NAVD88	: 6100.10	Drilling Method	: Roto-sonic	End Date	: 11/08/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Kaleb Brumbaugh
Depth to Water (ft)	: 89.0	Total Depth	: 101.0	Signature	: _____

Well: PETER04-008-101
Elev (TOC): 6099.84

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
0			(0.0 - 0.5) Cement	0	CN		SS	PETER04-008-SS-001
	1	55	(0.5 - 19.0) SANDY SILT, fine grained, predominantly poorly graded, 10YR 6/6, brownish yellow, loose, soft, trace organic (roots), trace gravel, damp					
			9 ft bgs, trace argillaceous matrix	0	ML			
10	2	70						
20	3	58	(19.0 - 59.0) SILTY SAND, fine grained, poorly graded, 10YR 6/6, brownish yellow grading to light yellowish brown with depth, loose, soft, sub-round to sub-angular, slightly damp to damp	0				
			29-39 ft bgs, trace argillaceous matrix	0				
30	4	70						
40	5	30		0	SM			
50	6	80		0				
				0				



Aerostar SES LLC

Peterson Air Force Base
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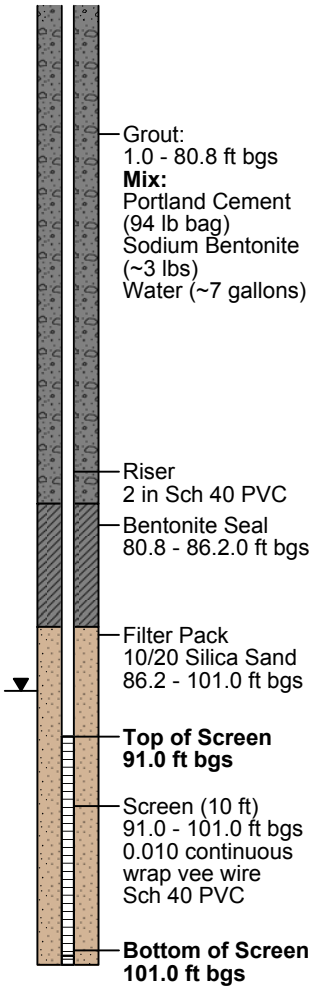
Boring Log: PETER04-008

Northing	: 1350874.08	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 4
Easting	: 3227438.41	Driller	: Brigham Bradford	Start Date	: 11/08/16
Surf Elev.(ft), NAVD88	: 6100.10	Drilling Method	: Roto-sonic	End Date	: 11/08/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Kaleb Brumbaugh
Depth to Water (ft)	: 89.0	Total Depth	: 101.0	Signature	: _____

Well: PETER04-008-101
Elev (TOC): 6099.84

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
59	7	80	(59.0 - 66.0) SAND with argillaceous matrix, predominantly fine grained, well graded, 10YR 6/4, light yellowish brown, soft, loose to moderately consolidated	0	SW			
69	8	50	(66.0 - 88.0) SAND, fine to coarse grained, well graded, 10YR 4/6, light yellowish brown, loose, soft, trace gravel, sub-round to sub-angular, damp to trace moist	0	SW			
79	9	60		0				
89	10	100	(88.0 - 89.0) SANDY CLAY, 10YR 5/3, low plasticity, damp, soft	0	CL		SO	PETER04-008-SO-088
			(89.0 - 98.0) SAND with GRAVEL, 10YR 7/4 to 6/6, very pale brown to brownish yellow, scattered argillaceous matrix		SW		GW	PETER04-008-GW-096
99	11	100	(98.0 - 99.0) FAT CLAY, 10YR 3/1, very dark gray, high to medium plasticity, hard, trace sand, trending to shale, damp to dry	0	CH			
			(99.0 - 101.0) SHALE, 5B 5/1, medium bluish gray grading to olive gray, firm, platy		SH			
109			Total Depth of Boring 101.0 ft bgs					



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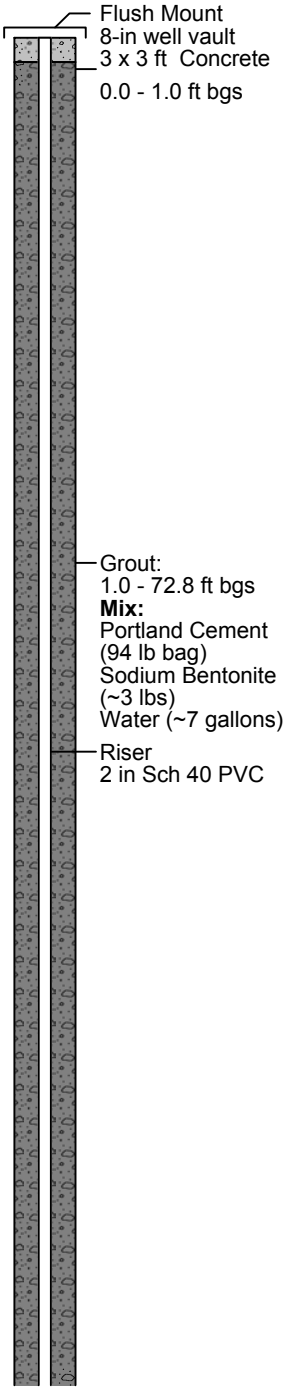
Boring Log: PETER04-009

Northing	: 1347982.75	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 4
Easting	: 3222338.36	Driller	: Brigham Bradford	Start Date	: 11/09/16
Surf Elev.(ft), NAVD88	: 6016.54	Drilling Method	: Roto-sonic	End Date	: 11/10/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Taylor Lewis
Depth to Water (ft)	: 80.0	Total Depth	: 108.0	Signature	: _____

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
0	1	55	(0.0 - 12.0) SANDY SILT, fine to coarse grained, well graded, 7.5YR 4/3, brown, very soft, sub-round to round	0	ML		SS	PETER04-009-SS-001
10	2	70	(12.0 - 49.0) SILTY SAND, fine to coarse grained, poorly graded, 10YR 6/3, pale brown grading to light yellowish brown with depth, loose, soft, sub-round to sub-angular, slightly damp to damp	0	SM			
20	3	58		0				
30	4	70		0				
40	5	30		0				
50	6		(49.0 - 56.0) SANDY SILT, fine to coarse grained, well graded, 10YR 4/3, brown, soft, sub-round to round, damp	0	ML			

Well: PETER04-009-108
Elev (TOC): 6016.45



Aerostar SES LLC

Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

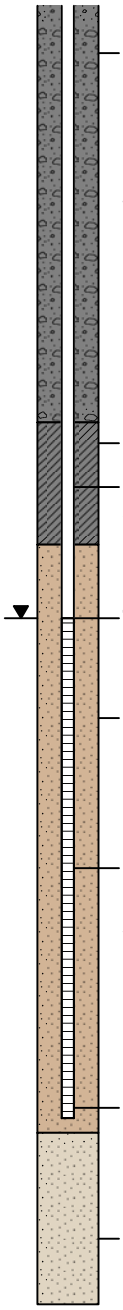
Boring Log: PETER04-009

Northing	: 1347982.75	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 4
Easting	: 3222338.36	Driller	: Brigham Bradford	Start Date	: 11/09/16
Surf Elev.(ft), NAVD88	: 6016.54	Drilling Method	: Roto-sonic	End Date	: 11/10/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Taylor Lewis
Depth to Water (ft)	: 80.0	Total Depth	: 108.0	Signature	: _____

Well: PETER04-009-108
Elev (TOC): 6016.45

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	SAMPLE TYPE	Sample ID
55	6	80	(56 - 65) SILTY SAND, fine to medium grained, poorly graded, 10YR 6/3, pale brown grading to light yellowish brown with depth, loose, soft, sub-round to sub-angular, damp	0	ML, SM		
	7	60	59.0 - 65.0) SANDY SILT, fine to coarse grained, well graded, 10YR 4/3, brown, soft, sub-round to round, damp		ML		
65			(65.0 - 66.0) SAND, very fine to very coarse grained, well graded, 10YR 6/4, light yellowish brown, loose, sub-round to round		SW, ML		
	8	50	(66.0 - 69.0) SANDY SILT, fine to coarse grained, well graded, 10YR 4/3, brown, soft, sub-round to round, damp	0			
75			(69.0 - 80.0) SANDY SILT, very fine to fine grained, poorly graded, 10YR 6/4, light yellowish brown, soft to stiff, sub-round to round, damp to moist	0	ML	SO	PETER04-009-SO-079
	9	60	(80.0 - 85.0) SILTY SAND, fine to medium grained, well graded, 10YR 5/4, yellowish brown, sub-round to round, loose, damp to moist		SM		
85			(85.0 - 87.0) SAND, very fine to very coarse grained, well graded,10YR 5/4, yellowish brown, loose, sub-round to round, saturated		SW		
	10	100	(87.0 - 99.0) SANDY CLAY, low plasticity, very fine grained, poorly graded, 10YR 6/3, pale brown, very stiff, saturated	0	CL	GW	PETER04-009-GW-090
95	11	100	(99.0 - 100.0) SAND, 10YR 5/4, yellowish brown, well graded, fine to very coarse, sub-round to round, loose, saturated	0	CH		
105	12	100	(100.0 - 108.0) SHALE, 5B 5/1, medium bluish gray, dry to moist		SH		

Total Depth of Boring 108.0 ft bgs



Aerostar SES LLC

Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER04-010

Northing	: 1357965.02	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 4
Easting	: 3229387.44	Driller	: Brigham Bradford	Start Date	: 11/09/16
Surf Elev.(ft), GPS	: 6138.33	Drilling Method	: Hand Auger	End Date	: 11/09/16
Completion	: N/A	Borehole Dia.	: 2.25"	Logged By	: Taylor Lewis
Depth to Water (ft)	: N/A	Total Depth	: 1	Signature	: _____

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID	REMARKS
0			(0.0 - 1.0) SANDY SILT, 5YR 4/6, yellowish red, very soft, non plastic, damp, sub-round to round, well graded	0	ML		SS	PETER04-010-SS-001	
1			End of Borehole 1.0 ft BGS						
2									

Aerostar SES LLC

Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER04-011

Northing	: 1357428.24	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 4
Easting	: 3228748.09	Driller	: Brigham Bradford	Start Date	: 11/09/16
Surf Elev.(ft), GPS	: 6138.59	Drilling Method	: Hand Auger	End Date	: 11/09/16
Completion	: N/A	Borehole Dia.	: 2.25"	Logged By	: Taylor Lewis
Depth to Water (ft)	: N/A	Total Depth	: 1	Signature	: _____

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID	REMARKS
0			(0.0 - 1.0) SANDY SILT, 5YR 5/6, yellowish red, very soft, very fine to fine, non plastic, moist, sub-round to round, poorly graded	0	ML		SS	PETER04-011-SS-001	
1			End of Borehole 1.0 ft BGS						
2									

Aerostar SES LLC

Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER04-012

Northing	: 1357794.77	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 4
Easting	: 3228748.12	Driller	: Brigham Bradford	Start Date	: 11/09/16
Surf Elev.(ft), GPS	: 6144.91	Drilling Method	: Hand Auger	End Date	: 11/09/16
Completion	: N/A	Borehole Dia.	: 2.25"	Logged By	: Taylor Lewis
Depth to Water (ft)	: N/A	Total Depth	: 1	Signature	: _____

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID	REMARKS
0			(0.0 - 1.0) SILT with GRAVEL and SAND, 7.5YR 5/3, brown, poorly graded, very fine to fine, round to angular, very soft, dry, non-plastic	0	ML		SS	PETER04-012-SS-001	
1			End of Borehole 1.0 ft BGS						
2									

Aerostar SES LLC

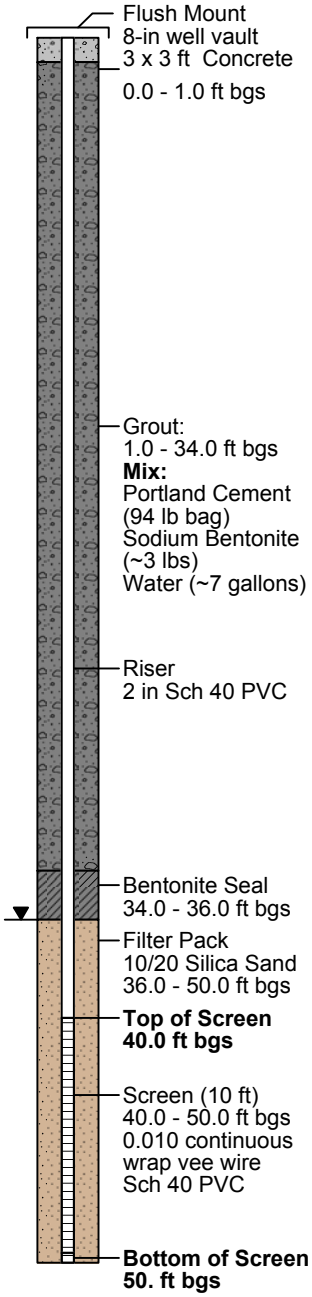
Peterson Air Force Base
AFFF Site Inspection
Project # M2027.0003

Boring Log: PETER05-001

Northing	: 1363127.57	Drilling Company	: Cascade Drilling	Site Name	: AFFF Area 5
Easting	: 3224559.37	Driller	: Brigham Bradford	Start Date	: 10/25/16
Surf Elev.(ft), NAVD88	: 6203.42	Drilling Method	: Roto-sonic	End Date	: 10/25/16
Completion	: 2" PVC Mon. Well	Borehole Dia.	: 6"	Logged By	: Kaleb Brumbaugh
Depth to Water (ft)	: 36.0	Total Depth	: 50.0	Signature	: _____

Depth in Ft BGS	INTERVAL	% RECOVERY	DESCRIPTION	PID (ppm)	USCS	GRAPHIC	SAMPLE TYPE	Sample ID
0	1	100	(0.0 - 1.5) SILT with GRAVEL, well graded, 10YR 8/2 to 4/3, very pale brown to brown, loose, soft, trace sand, dry to slightly damp	0	ML		SS	PETER05-001-SS-001
					SP			
5	2	50	(1.5 - 3.0) SAND, poorly graded with trace silt and gravel, 10YR 5/3 to 6/3, brown to pale brown, damp to moist, fine grained	0	SM			
			(3.0 - 10.0) SILTY SAND, fine grained, poorly graded, 10YR 4/1, dark gray, loose, soft, trace gravel, trace to abundant gravel with depth, trace argillaceous matrix, damp to moist					
10	3	86		0	SW			
			(10.0 - 12.0) SAND, fine to coarse grained, well graded, 10YR 5/2, grayish brown, trace argillaceous matrix, trace to abundant gravel, loose, soft, dry to slightly damp					
15	4	100	(12.0 - 20.0) SANDY CLAY, low plasticity, 10YR 5/2 to 5/3, brown to grayish brown, soft, low density, dry	0	CL			
20	5	100	(20.0 - 25.0) SAND with trace silt, poorly graded, 10YR 5/3, yellowish brown, loose, soft, trace argillaceous, slightly damp to moist	0	SP		SO	PETER05-001-SO-035
25	6	50	(25.0 - 32.0) SANDY CLAY, low plasticity, 10YR 5/2, brown, loose to soft, low density, dry to slightly damp	0	CL			
30	7	96	(32.0 - 50.0) SAND, fine grained, well graded, 10YR 6/4, light yellowish brown, trace argillaceous matrix, soft, saturated	0				
35	8	100		0				
40	9	100		0	SW			
45	10	100		0				
50			End of Borehole 50.0 ft BGS					
55								

Well: PETER05-001-050
Elev (TOC): 6203.31



Appendix C

Data Validation Report
and
Laboratory Data Sheets

DATA VALIDATION REPORT

M2027.0003 (Omaha) Peterson

SAMPLE DELIVERY GROUPS: B6N8117, B6O2957, B6O6630

Prepared for

Aerostar SES LLC

July 3, 2017

MEC^X, Inc.
8864 Interchange Drive
Houston, Texas 77054

www.mecx.net

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ACRONYMS AND ABBREVIATIONS

°C	Celsius
%	Percent
%D	percent difference
B	blank contamination
CB	calibration blank
CCAL	continuing calibration
CCB	continuing calibration blank
CCV	continuing calibration verification
COC	chain of custody
CLP	Contract Laboratory Program
EPA	US Environmental Protection Agency
ER	equipment rinsate
FB	field blank
FD	field duplicate
ICAL	initial calibration
ICB	initial calibration blank
ICL	instrument calibration limit
ICV	initial calibration verification
IS	internal standard
J	estimated value
LCS	laboratory control sample
LOD	limit of detection
LOQ	limit of quantification
MB	method blank
MDL	method detection limit
MS	matrix spike
MSD	matrix spike duplicate
ND	nondetect
PARCC	precision, accuracy, representativeness, comparability, completeness
PFC	perfluorinated compound
QAPP	Quality Assurance Program Plan
QC	quality control
QSM	Quality Systems Manual
R	Rejected
RL	reporting limit
RPD	relative percent difference
RRF	relative response factor
RSD	relative standard deviation
SDG	sample delivery group
TB	trip blank
U	not detected
UJ	not detected; associated value is an estimate

I. INTRODUCTION

Task Order Title: M2027.0003 (Omaha) Peterson

Contract: W9128F-15-D-0051

MEC^X Project No.: 1529.001H.00

Sample Delivery Groups: B6N8117, B6O2957, B6O6630

Project Manager: Jenny Vance

Matrix: Soil

QC Level: Stage 2B, Stage 4

No. of Samples: 87

Laboratory: Maxxam

TABLE 1 - SAMPLE IDENTIFICATION

Sample Name	Lab Sample Name	Matrix	Collection	Method	Validation Level
PETER01-001-SO-083	DJL078	SO	2016/10/27 15:38	E537	2B
PETER01-001-SO-983	DJL079	SO	2016/10/27 15:38	E537	2B
PETER01-001-SS-001	DJL076	SO	2016/10/27 11:25	E537	4
PETER01-001-SS-901	DJL077	SO	2016/10/27 11:25	E537	2B
PETER01-002-SO-089	DJL062	SO	2016/10/28 17:25	E537	2B
PETER01-002-SS-001	DJL061	SO	2016/10/28 13:30	E537	2B
PETER01-003-SO-075	DJL082	SO	2016/10/28 11:30	E537	2B
PETER01-003-SS-001	DJL081	SO	2016/10/28 7:50	E537	2B
PETER04-001-SO-049	DJL072	SO	2016/11/01 13:15	E537	2B
PETER04-002-SO-041	DJL070	SO	2016/10/31 16:15	E537	2B
PETER04-002-SO-941	DJL071	SO	2016/10/31 16:15	E537	2B
PETER04-003-SO-050	DJL069	SO	2016/10/31 11:30	E537	2B
PETER04-004-SO-058	DJL065	SO	2016/10/30 10:20	E537	2B
PETER04-004-SS-001	DJL064	SO	2016/10/30 8:50	E537	2B
PETER04-005-SO-054	DJL083	SO	2016/10/30 14:58	E537	2B
PETER04-005-SS-001	DJL066	SO	2016/10/30 13:50	E537	2B
PETER04-005-SS-901	DJL067	SO	2016/10/30 13:50	E537	2B
PETER05-001-SO-035	DJL060	SO	2016/10/25 17:36	E537	4

Sample Name	Lab Sample Name	Matrix	Collection	Method	Validation Level
PETER-RS-001	DJL059	WG	2016/10/25 13:00	E537	2B
PETER-RS-002	DJL075	WG	2016/10/27 11:20	E537	2B
PETER-RS-003	DJL080	WG	2016/10/28 7:45	E537	2B
PETER-RS-004	DJL063	WG	2016/10/30 8:40	E537	2B
PETER-RS-005	DJL068	WG	2016/10/31 10:35	E537	2B
PETER-RS-006	DJL073	WG	2016/11/1 13:10	E537	2B
PETER-SB-001	DJL074	WG	2016/10/25 9:50	E537	2B
PETER01-001-GW-087	DKJ764	WG	6/11/2016 15:35	E537	2B
PETER01-001-GW-987	DKJ765	WG	6/11/2016 15:35	E537	2B
PETER01-002-GW-095	DKJ766	WG	6/11/2016 16:50	E537	2B
PETER01-003-GW-082	DKJ762	WG	6/11/2016 14:15	E537	2B
PETER02-001-SO-024	DKJ763	SO	6/11/2016 12:06	E537	2B
PETER02-001-SS-001	DKJ785	SO	6/11/2016 11:44	E537	2B
PETER02-002-SO-024	DKJ784	SO	5/11/2016 12:32	E537	2B
PETER02-002-SS-001	DKJ783	SO	5/11/2016 12:20	E537	2B
PETER02-003-SO-034	DKJ782	SO	5/11/2016 10:38	E537	2B
PETER02-003-SS-001	DKJ781	SO	5/11/2016 9:55	E537	2B
PETER03-001-SO-064	DKJ774	SO	2/11/2016 17:45	E537	2B
PETER03-001-SS-001	DKJ773	SO	2/11/2016 15:30	E537	2B
PETER03-002-SO-065	DKJ779	SO	4/11/2016 10:50	E537	2B
PETER03-002-SS-001	DKJ778	SO	4/11/2016 8:35	E537	2B
PETER03-003-SO-069	DKJ777	SO	3/11/2016 12:26	E537	2B
PETER03-003-SS-001	DKJ776	SO	3/11/2016 10:26	E537	2B
PETER04-0013-SD-001	DKJ760	SO	6/11/2016 9:20	E537	2B
PETER04-0013-SW-001	DKJ761	WG	6/11/2016 9:20	E537	2B
PETER04-001-GW-059	DKJ767	WG	7/11/2016 11:05	E537	2B
PETER04-003-GW-056	DKJ769	WG	7/11/2016 12:40	E537	2B
PETER04-004-GW-085	DKJ771	WG	7/11/2016 16:15	E537	2B
PETER04-005-GW-065	DKJ770	WG	7/11/2016 15:05	E537	2B

Sample Name	Lab Sample Name	Matrix	Collection	Method	Validation Level
PETER04-006-SD-001	DKJ758	SO	6/11/2016 8:45	E537	4
PETER04-006-SW-001	DKJ759	WG	6/11/2016 8:45	E537	4
PETER04-MW2-1-GW-059	DKJ751	WG	4/11/2016 16:25	E537	2B
PETER04-MW2-2-GW-050	DKJ754	WG	5/11/2016 16:40	E537	2B
PETER04-MW2-3-GW-050	DKJ750	WG	4/11/2016 15:05	E537	2B
PETER04-MW2-4-GW-053	DKJ749	WG	4/11/2016 13:50	E537	2B
PETER04-MW2-5-GW-069	DKJ753	WG	5/11/2016 15:50	E537	2B
PETER04-MW4-1-GW-074	DKJ755	WG	5/11/2016 17:35	E537	2B
PETER04-MW4-1-GW-974	DKJ756	WG	5/11/2016 17:35	E537	2B
PETER05-MW1-2-GW-056	DKJ748	WG	4/11/2016 11:45	E537	4
PETER-RS-007	DKJ772	WG	2/11/2016 15:15	E537	2B
PETER-RS-008	DKJ775	WG	3/11/2016 8:30	E537	2B
PETER-RS-009	DKJ780	WG	4/11/2016 7:30	E537	2B
PETER-RS-010	DKJ752	WG	5/11/2016 15:15	E537	2B
PETER-RS-011	DKJ757	WG	6/11/2016 8:30	E537	2B
PETER-RS-012	DKJ768	WG	7/11/2016 11:40	E537	2B
PETER02-001-GW-056	DLC781	WG	9/11/2016 15:25	E537	2B
PETER02-003-GW-043	DLC782	WG	10/11/2016 14:15	E537	2B
PETER03-001-GW-064	DLC778	WG	8/11/2016 16:40	E537	2B
PETER03-002-GW-071	DLC779	WG	8/11/2016 17:35	E537	2B
PETER03-003-GW-070	DLC777	WG	8/11/2016 15:50	E537	4
PETER04-002-GW-045	DLC774	WG	8/11/2016 8:45	E537	2B
PETER04-002-GW-945	DLC775	WG	8/11/2016 8:45	E537	2B
PETER04-007-SS-001	DLC776	SO	8/11/2016 10:15	E537	2B
PETER04-008-GW-096	DLC785	WG	11/11/2016 10:15	E537	4
PETER04-008-SO-088	DLC790	SO	8/11/2016 14:44	E537	2B
PETER04-008-SS-001	DLC789	SO	8/11/2016 8:00	E537	2B
PETER04-009-GW-090	DLC786	WG	11/11/2016 12:30	E537	2B

Sample Name	Lab Sample Name	Matrix	Collection	Method	Validation Level
PETER04-009-SO-079	DLC773	SO	9/11/2016 15:05	E537	4
PETER04-009-SS-001	DLC772	SO	9/11/2016 12:25	E537	2B
PETER04-010-SS-001	DLC770	SO	9/11/2016 9:15	E537	2B
PETER04-011-SS-001	DLC771	SO	9/11/2016 9:40	E537	2B
PETER04-012-SS-001	DLC769	SO	9/11/2016 8:15	E537	2B
PETER05-001-GW-045	DLC780	WG	9/11/2016 14:00	E537	2B
PETER-IDW-SOIL	DLC788	SO	11/11/2016 14:00	E537	2B
PETER-IDW-WATER	DLC787	WG	11/11/2016 14:00	E537	2B
PETER-RS-013	DLC791	WG	8/11/2016 8:30	E537	2B
PETER-RS-014	DLC768	WG	9/11/2016 8:00	E537	2B
PETER-RS-014A	DLC783	WG	10/11/2016 14:05	E537	2B
PETER-RS-015	DLC784	WG	11/11/2016 9:10	E537	2B

II. SAMPLE MANAGEMENT

According to the case narrative and the chain-of-custody (COC) provided by the laboratory for sample delivery group (SDG) B6N8117, B6O2957, and B6O6630:

- The case narratives for these SDGs noted no shipping problems were encountered.
- Field and laboratory personnel signed and dated the COC.
- Discrepancies between sample collection times for one sample were clarified by the field team.

TABLE 2 - DATA QUALIFIER REFERENCE

Qualifier	Definition
R	The sample results are rejected because of serious deficiencies in the ability to analyze the sample and to meet quality control (QC) criteria. The presence or absence of the analyte cannot be verified.
U	The analyte was analyzed for but was nondetect (ND) above the reported sample quantification limit.
B	The reported concentration is less than 5 times the concentration reported in an associated field or lab blank.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample. J- denotes a low bias for the sample results and J+ for a high bias.
UJ	The material was analyzed for but was ND. The associated value is an estimate and may be inaccurate or imprecise.

TABLE 3 - REASON CODE REFERENCE

Reason Code	Definition
01	Sample received outside of 4+/-2 degrees Celsius (°C)
01A	Improper sample preservation
02	Holding time exceeded
02A	Extraction
02B	Analysis
03	Instrument performance – outside criteria
03A*	Bromofluorobenzene (BFB)
03B*	Decafluorotriphenylphosphine (DFTPP)
03C*	dichlorodiphenyltrichloroethane (DDT) and/or endrin % breakdown exceeds criteria
03D	Retention time windows
03E	Resolution
04	ICAL results outside specified criteria
04A	Compound mean RRF QC criteria not met
04B	Individual % RSD criteria not met
04C	Correlation coefficient >0.995
04D	ICAL % Recovery
05	Continuing calibration results outside specified criteria

Reason Code	Definition
05A	Compound mean RRF QC criteria not met
05B	Compound % Difference QC criteria not met
06	Result qualified as a result of the 5x/10x blank correction
06A	Method or preparation blank
06B	ICB or CCB
06C	ER
06D	TB
06E	FB
07	Surrogate recoveries outside control limits
07A	Sample
07B	Associated MB or LCS
08	MS/MSD/Duplicate results outside criteria
08A	MS and/or MSD recovery not within control limits (accuracy)
08B	% RPD outside acceptance criteria (precision)
09*	Post digestion spike outside criteria graphite furnace atomic absorption (GFAA)
10	Internal standards outside specified control limits
10A	Recovery
10B	Retention time
11	LCS recoveries outside specified limits
11A	Recovery
11B	% RPD (if run in duplicate)
12*	Interference check standard
13*	Serial dilution
14*	Tentatively identified compounds
15	Quantification
16	Multiple results available; alternate analysis preferred
17	Field duplicate RPD criteria is exceeded
18*	Percent difference between original and second column exceeds QC criteria
19	Professional judgment was used to qualify the data
20*	Pesticide clean-up checks
21	Target compound identification

Reason Code	Definition
22*	Radiological calibration
23*	Radiological quantification
24	Reported result and/or lab qualifier revised to reflect validation findings

III. METHOD ANALYSIS – PERFLUORINATED COMPOUNDS BY EPA METHOD 537

L. Calvin of MEC^X reviewed the SDG on December 28, 2016, January 20, 2017

III.1. HOLDING TIMES

With exceptions noted below, samples were extracted within 14 days of collection. All analyses were performed within 28 days of extraction.

SDG B6N8117
Extraction and analytical holding times were met.

SDG B6O2957
The case narrative for this SDG noted sample PETER05-MW1-2-GW-056 was re-extracted beyond the 14-day holding time. The result for PFHxS reported from the re-extraction analysis was qualified as estimated (J).

SDG B6O6330
The case narrative for this SDG noted the following samples were re-extracted beyond the 14-day holding time: PETER-RS-014, PETER04-002-GW-045, PETER04-002-GW-945, PETER03-003-GW-070, PETER03-001-GW-064, PETER03-002-GW-071, PETER05-001-GW-045, PETER02-001-GW-056, and PETER-RS-013. Nondetected sample results were qualified as estimated (UJ), and detects were qualified as estimated (J).

III.2. CALIBRATION

Calibration criteria were met, with exceptions noted in the tables below.

III.2.1. *INITIAL CALIBRATION*

Except as noted below, all recoveries were within 70-130% for the lowest level of each initial calibration and 75-125% for the remaining levels, and all correlation coefficient r values were within the control limit of ≥0.995. The calculated peak asymmetry factors were within the control range of 0.8-1.5. The initial calibration verification (ICV) recoveries were within the control limits of 75-125%. Results for r value outliers were qualified as estimated (J or UJ) in the affected samples. MEC^X noted that the laboratory utilized a weighted (1/X) linear internal standard curve which was not forced through zero as the calibration method.

Table 4-Initial Calibration

SDG B6N8117
None

SDG B6O2957

ICAL date / instrument	Analyte	r Value	Affected Samples
11/21/2016 15:37:16 LCMS03	PFHpA PFNA	0.991 0.991	PETER-RS-009, PETER-RS-010, PETER04-MW2-5-GW-069, PETER04-MW2-2-GW-050, PETER04-MW4-1-GW-074, PETER04-MW4-1-GW-974
11/21/2016 20:16:44 LCMS03	8:2-FTS	0.994	PETER02-001-SO-024, PETER04-006-SD-001,

ICAL date / instrument	Analyte	r Value	Affected Samples
			PETER03-001-SO-064, PETER03-003-SO-069, PETER03-002-SS-001, PETER03-002-SO-065, PETER02-003-SO-034, PETER02-002-SO-024, PETER02-001-SS-001

SDG B6O6330

ICAL date / instrument	Analyte	r Value	Affected Samples
11/21/2016 20:16:44 LCMS03	8:2-FTS	0.994	PETER-IDW-SOIL

III.2.2. *CONTINUING CALIBRATION*

Except as noted in the tables below, continuing calibration verification (CCV) recoveries were within the control limits of 75-125%.

Table 5-Continuing Calibration

SDG B6N8117
All recoveries were within the control limits.

SDG B6O2957

CCV date / instrument	Analyte	Recovery	Affected Samples
11/21/2016 19:56:25 LCMS03	PFOS	126%	PETER05-MW1-2-GW-056, PETER04-005-GW-065, PETER04-004-GW-085

SDG B6O6330

CCV date / instrument	Analyte	Recovery	Affected Samples
11/21/2016 19:56:25 LCMS03	PFOS	126%	PETER-IDW-WATER
11/23/2016 14:12:13 LCMS03	6:2-FTS	133%	PETER04-002-GW-045, PETER04-002-GW-945, PETER03-003-GW-070, PETER03-001-GW-064, PETER03-002-GW-071, PETER-RS-014

III.3. QUALITY CONTROL SAMPLES

III.3.1. *METHOD BLANKS*

SDGs B6N8117, B6O2957, B6O6330
The method blanks associated with the analyses of the soil and water samples had no target analyte detects above the respective soil and water detection limits (DLs).

III.3.2. *LABORATORY CONTROL SAMPLES*

With exceptions noted below, recoveries were within the control limits of 70-130%, and RPDs for LCS/LCSD pairs were within the control limit of ≤30%.

SDG B6N8117
Recoveries were above the control limits for PFTeA (135%) and PFTrA (150%) in the LCS associated with the water samples; however, as neither analyte was detected in the samples, no qualification was necessary.

SDG B6O2957
Recoveries and RPDs were within control limits.

SDG B6O6330
Recoveries and RPDs were within control limits.

III.3.3. *SURROGATE RECOVERY*

Surrogate standard recoveries were within the QAPP control limits of 80-140% for soils and 70-130% for waters, with exceptions listed in the tables below. Detects associated with the high recovery were qualified as estimated (J). Nondetected results associated with the low recoveries were qualified as estimated (UJ) and detects were qualified as estimated (J).

Table 6-Surrogate Recoveries

SDG B6N8117

Surrogate	Sample	Recovery	Affected Target Analytes
13C4-perfluorooctanesulfonate	PETER01-001-SS-001 PETER04-002-SO-041 PETER04-003-SO-050 PETER04-005-SS-901	164% 79% 79% 79%	All sulfonate analytes
13C4-perfluorooctanoic acid	PETER04-002-SO-041	77%	All acid analytes
13C8-perfluorooctanesulfonamide	PETER04-002-SO-041 PETER04-003-SO-050 PETER04-005-SS-901 PETER05-001-SO-035	73% 75% 71% 75%	PFOSA

SDG B6O2957

Surrogate	Sample	Recovery	Affected Target Analytes
13C4-perfluorooctanesulfonate	PETER02-002-SO-024 PETER03-001-SO-064 PETER03-001-SS-001 PETER03-002-SS-001 PETER03-002-SO-065 PETER03-003-SO-069	61% 64% 73% 76% 76% 77%	All sulfonate analytes
13C4-perfluorooctanoic acid	PETER04-0013-SD-001 PETER03-001-SO-064 PETER02-002-SS-001 PETER02-002-SO-024 PETER03-001-SS-001	59% 68% 70% 73% 75%	All acid analytes
13C8-perfluorooctanesulfonamide	PETER04-0013-SD-001 PETER03-001-SS-001 PETER03-001-SO-064 PETER02-002-SS-001 PETER03-003-SO-069 PETER02-002-SO-024	42% 51% 52% 56% 58% 61%	PFOSA

Surrogate	Sample	Recovery	Affected Target Analytes
	PETER02-001-SO-024	64%	
	PETER03-002-SO-065	64%	
	PETER03-002-SS-001	66%	
	PETER04-006-SD-001	73%	
	PETER02-003-SS-001	75%	

SDG B6O6330

Surrogate	Sample	% Recovery	Affected Target Analytes
13C4-perfluorooctanesulfonate	PETER-IDW-SOIL	54%	All sulfonate analytes
	PETER04-002-GW-045	57%	
13C4-perfluorooctanoic acid	PETER04-002-GW-045	64%	All acid analytes
	PETER-IDW-SOIL	68%	
13C8-perfluorooctanesulfonamide	PETER-IDW-SOIL	58%	PFOSA
	PETER04-002-GW-045	62%	
	PETER04-012-SS-001	68%	
	PETER04-009-SS-001	76%	
	PETER04-011-SS-001	78%	
	PETER04-010-SS-001	79%	
	PETER04-007-SS-001	79%	

III.3.4. *MATRIX SPIKE/MATRIX SPIKE DUPLICATE*

MS/MSD analyses were performed on the samples listed below. Recoveries were not evaluated for target analytes present in the parent samples at concentrations >4× the spike amount. Remaining recoveries and RPDs were within the control limits of 70-130% and ≤30%, respectively.

SDG B6N8117
MS/MSD analyses were performed on samples PETER01-001-SO-083 and PETER01-001-SS-001. Applicable recoveries and RPDs were within the control limits.

SDG B6O2957
MS/MSD analyses were performed on samples PETER01-001-GW-087 and PETER02-003-SO-034. Applicable recoveries and RPDs were within the control limits.

SDG B6O6330
MS/MSD analyses were performed on sample PETER04-002-GW-945 for PFHxS only. Recoveries and the RPD were within the control limits.

III.4. FIELD QC SAMPLES

MEC^X evaluated field QC samples, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. MEC^X used the remaining detects to evaluate the associated site samples. Findings associated with field QC samples are summarized below.

III.4.1. *FIELD BLANKS AND EQUIPMENT BLANKS*

Sample PETER-SB-001 was identified as the field blank associated with the site samples in these SDGs. The field blank had a trace level detect below the LOQ for PFOS at 0.0034 µg/L. Compounds 6:2 fluorotelomer sulfonate and 8:2 fluorotelomer sulfonate were not reported in equipment blank sample PETER-RS-013. Review of the raw data indicated that these compounds were not present in this equipment blank. The laboratory also reported perfluoroheptane sulfonate in this sample which was rejected by the reviewer since it was not a requested target compound. Field blank results are not used to qualify sample results. Equipment blanks and detects, if any, are listed in the tables below. The detected concentrations were not considered sufficient to qualify site sample results.

Table 7-FB/EB Detects

SDG B6N8117

Field or Equipment Blank	Detects	Concentration
PETER-SB-001	PFOS	0.0034 µg/L
PETER-RS-001	PFOS	0.0037 µg/L
PETER-RS-002	none	N/A
PETER-RS-003	none	N/A
PETER-RS-004	PFOS	0.0038 µg/L
PETER-RS-005	PFOS	0.0036 µg/L
PETER-RS-006	none	N/A

SDG B6O2957

Field or Equipment Blank	Detects	Concentration
PETER-SB-001	PFOS	0.0034 µg/L
PETER-RS-007	none	N/A
PETER-RS-008	none	N/A
PETER-RS-009	none	N/A
PETER-RS-010	none	N/A
PETER-RS-011	none	N/A
PETER-RS-012	none	N/A

SDG B6O6330

Field or Equipment Blank	Detects	Concentration
PETER-SB-001	PFOS	0.0034 µg/L
PETER-RS-013	none	N/A
PETER-RS-014	none	N/A
PETER-RS-014A	none	N/A
PETER-RS-015	none	N/A

III.4.2. *FIELD DUPLICATES*

Field duplicate pairs are listed below. RPDs for common detects above the LOQ were within the control limit of ≤30%, and detects below the LOQ in one or both samples of a pair were within the reasonable control limit of ±LOQ, with exceptions noted in the table below. Results for the outlier target analytes were qualified as estimated (J) in both samples of a pair.

SDG B6N8117

Four field duplicate pairs were identified in this SDG: PETER01-001-SO-083 / PETER01-001-SO-983, PETER01-001-SS-001 / PETER01-001-SS-901, PETER04-002-SO-041 / PETER04-002-SO-941, and PETER04-005-SS-001 / PETER04-005-SS-901. RPD outliers are noted in the table below.

Table 8-FD RPDs

Field Duplicates	Target Analyte	RPD
PETER01-001-SO-083 / PETER01-001-SO-983	PFBS PFPeA	34% 47%
PETER01-001-SS-001 / PETER01-001-SS-901	8:2 FTS PFDA PFOA PFOS PFPeA	86% 53% 90% 73% 53%
PETER01-004-SS-001 / PETER01-004-SS-901	PFOS	96%

SDG B6O2957

Two field duplicate pairs were identified in this SDG: PETER01-001-SS-001 / PETER01-001-SS-001 and PETER04-MW4-1-GW-074 / PETER04-MW4-1-GW-974. All results were within the control limits.

SDG BO6330

One field duplicate pair was identified in this SDG: PETER04-002-GW-045 / PETER04-002-GW-045. All results were within the control limits.

III.5. INTERNAL STANDARDS PERFORMANCE

The applicable labeled internal standard recoveries were within the control limits of ±50% of the average peak areas of the initial calibration, except as noted in the tables below. Results for the associated target compounds were qualified as estimated (UJ and J, respectively,) in the affected samples.

Table 9-Internal Standards Percent Recovery

SDG B6N8117

None

SDG B6O2957

Internal Standard	% Recovery	Affected Samples	Associated Target Analytes
MPFTeDA	48% 44% 48%	PETER-RS-011 PETER04-0013-SD-001 PETER04-0013-SW-001	PFTeDA and PFTrDA

SDG B6O6330

Internal Standard	% Recovery	Affected Sample	Associated Target Analytes
MPFBA	17%	PETER04-002-GW-045	PFBA
MPFHxS	49%		PFBS, PFHxS
MPFDoA	48%		PFDoA
MPFTeDA	41%		PFTeDA, PFTrDA
M2 6:2FTS	155%	PETER04-002-GW-945	6:2FTS

III.6. COMPOUND IDENTIFICATION

SDGs B6N8117, BO2957, B6O6330

Compound identification was verified for a representative number of samples. The laboratory analyzed for 18 perfluorinated compounds by EPA Method 537. Review of retention times and the ion chromatograms indicated no issues with compound identification.

III.7. COMPOUND QUANTIFICATION AND REPORTED DETECTION LIMITS

Calculations were verified and sample results reported on the sample result summaries were verified against the raw data for the following samples: soil samples PETER01-001-SS-001, PETER05-001-SO-035, PETER04-006-SD-001, and PETER04-009-SO-079, and water samples PETER05-MW1-2-GW-056, PETER04-006-SW-001, PETER03-003-GW-070, and PETER04-008-GW-096. Quantitation verification was limited based upon the significant figures presented in the raw data and were therefore estimations of the actual sample amounts. The reviewer considered the concentration verified within that limitation. The laboratory calculated and reported compound-specific detection limits. Detects below the LOQ were qualified as estimated (J). Nondetects are valid to the MDL.

SDG B6N8117

Samples PETER01-001-SS-001 and PETER01-003-SS-001 were initially analyzed undiluted and were reanalyzed at dilutions for concentrations of PFOS detected above the linear range of the calibration. Remaining analytes were reported from the undiluted analyses of the samples.

SDG B6O2957

Samples PETER03-003-SS-001 and PETER05-MW1-2-GW-056 were initially analyzed at dilutions and were reanalyzed at further dilutions for concentrations of PFOS and PFHxS, respectively, above the linear range of the calibration in the initial dilutions. Sample PETER05-MW1-2-GW-056 required high level re-extraction and analysis to report PFHxS within the linear range of the calibration. Samples PETER04-0013-SD-001, PETER02-003-SS-001, and PETER02-002-SS-001 were initially analyzed undiluted and were reanalyzed at dilutions for PFOS detected above the linear range of the calibration. Remaining analytes were reported from the undiluted or least dilute analyses of the samples.

SDG B6O6330

Samples PETER04-010-SS-001, PETER04-011-SS-001, PETER04-002-GW-045, and PETER05-001-GW-045 were initially analyzed undiluted and were reanalyzed at dilutions for concentrations of one or more analytes detected above the linear range of the calibration. Remaining analytes were reported from the undiluted or least dilute analyses of the samples.

III.8. SYSTEM PERFORMANCE

SDGs B6N8117, BO2957, B6O6330
No issues were noted with system performance.

IV. SUMMARY AND CONCLUSIONS

MEC^X evaluated a total of 1258 data records from field samples during the validation and qualified 363 records (28.9% of the data) as estimated values (J/UJ). The qualification was required for holding time exceedances, initial calibration outliers, continuing calibration outliers, low surrogate recoveries, internal standard recovery outliers and field duplicate precision outliers. Nondetect compounds were flagged (U) to indicate that the compound was analyzed for but not detected above the laboratory detection limit (MDL). Specific qualification were discussed in the text above.

Overall, the quality of the data was acceptable. One point three percent of the data were qualified for precision outliers while 14.5% of the data were qualified for accuracy outliers. Other data quality indicators (DQI) (representativeness, comparability and completeness) met the project objectives. Each of these DQIs is discussed below.

IV.1. PRECISION

Precision is a measure of the agreement between duplicate sample measurements of the same quantity and is reflected in the relative percent difference (RPD) between spikes and the RPD for the field duplicate pair analysis. Precision was measured at 98.7%. Precision was considered acceptable for the project.

IV.2. ACCURACY

Accuracy is measured by the results from the recovery of known amounts of compounds or elements from laboratory control samples (LCS), matrix spikes (MS) and surrogate recoveries. The percentage of results with acceptable accuracy was 85.5%. The outliers in the accuracy measurements were largely due to the number of surrogate outliers in the soil samples. Surrogates are added to the sample prior to extraction and are an indication of extraction and injection efficiency. The surrogates failed to meet the laboratory's QC acceptance criteria. The same surrogate compounds are also used as isotope dilution internal standards for specific target analytes. Sample concentrations were quantified by isotope dilution; therefore, the bias in the samples would be considered minimal. The qualifications are considered a conservative measure.

IV.3. REPRESENTATIVENESS

The measures of representativeness – sample handling, analytical blank analysis, were met. Designated analytical protocols were followed. The laboratory did utilize a weighted 1/X calibration curve which was not forced through zero. Although this is a deviation from Method 537, it is acceptable on DoD projects and was considered acceptable by the reviewer. Holding times were met for most analyses with 127 individual target compounds (10.1%) being qualified as estimated (UJ/J); mostly for reanalyses performed outside of holding times. No analytical problems were noted which would impact data representativeness.

IV.4. COMPARABILITY

The samples were analyzed using appropriate approved methods of analysis. All data were reported correctly using standard units.

IV.5. COMPLETENESS

Completeness is the amount of validated data compared to the planned amount of data and is expressed as a percentage of the usable data divided by the total number of data points. Although one data point was rejected by the reviewer, it was not a target compound and was not counted against the overall percent completeness. Of the 1258 target data points, no data points were rejected, resulting in a completeness of 100%.

V. REFERENCES

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EPA, 2009. *Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS),* Version 1.1, September 2009. EPA Document #: EPA/600/R-08/092.

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EPA (U.S. Environmental Protection Agency), January 2009. OSWER 9200-1-85. *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use.* EPA-540/R-08-005.

Validated Sample Result Forms: B6N8117

Analysis Method E537

Sample Name PETER01-001-SO-083 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL078 **Sample Date/Time:** 2016-10-27 15:38 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.90	0.23	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.90	0.19	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	2.2	0.90	0.23	ug/kg		J	17
PERFLUOROBUTANOIC ACID	375-22-4	0.68	0.90	0.21	ug/kg	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.90	0.18	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.90	0.25	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.90	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.90	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.17	0.90	0.17	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	2.2	0.90	0.19	ug/kg			
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.90	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.90	0.15	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.16	0.90	0.14	ug/kg	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.90	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	1.3	0.90	0.19	ug/kg		J	17
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.90	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.90	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.90	0.23	ug/kg	U	U	

Analysis Method E537

Sample Name PETER01-001-SO-983 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL079 **Sample Date/Time:** 2016-10-27 15:38 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.90	0.23	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.90	0.19	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	3.1	0.90	0.23	ug/kg		J	17
PERFLUOROBUTANOIC ACID	375-22-4	1.0	0.90	0.21	ug/kg			
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.90	0.18	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.90	0.25	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.90	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.90	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.17	0.90	0.17	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	2.5	0.90	0.19	ug/kg			
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.90	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.90	0.15	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.14	0.90	0.14	ug/kg	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.90	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	2.1	0.90	0.19	ug/kg		J	17
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.90	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.90	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.90	0.23	ug/kg	U	U	

Analysis Method E537

Sample Name PETER01-001-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL076 **Sample Date/Time:** 2016-10-27 11:25 **Validation Level:** Stage 4

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.91	0.23	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	8.3	0.91	0.19	ug/kg		J	07A;17
PERFLUOROBUTANE SULFONATE	375-73-5	0.41	0.91	0.23	ug/kg	J	J	07A
PERFLUOROBUTANOIC ACID	375-22-4	3.3	0.91	0.21	ug/kg			
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.91	0.18	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	1.5	0.91	0.25	ug/kg		J	17
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.91	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.94	0.91	0.16	ug/kg			
PERFLUOROHEXANE SULFONATE	108427-53-8	1.2	0.91	0.17	ug/kg		J	07A
PERFLUOROHEXANOIC ACID	307-24-4	1.5	0.91	0.19	ug/kg			
PERFLUORONONANOIC ACID	375-95-1	29	0.91	0.13	ug/kg			
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.91	0.15	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	77	9.1	1.5	ug/kg		J	07A;17
PERFLUOROOCTANOIC ACID	335-67-1	3.7	0.91	0.11	ug/kg		J	17
PERFLUOROPENTANOIC ACID	2706-90-3	2.9	0.91	0.19	ug/kg		J	17
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.91	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.91	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	0.40	0.91	0.24	ug/kg	J	J	

Analysis Method E537

Sample Name PETER01-001-SS-901 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL077 **Sample Date/Time:** 2016-10-27 11:25 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.92	0.23	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	3.3	0.92	0.19	ug/kg		J	17
PERFLUOROBUTANE SULFONATE	375-73-5	0.48	0.92	0.23	ug/kg	J	J	
PERFLUOROBUTANOIC ACID	375-22-4	3.9	0.92	0.21	ug/kg			
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.92	0.18	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	0.87	0.92	0.26	ug/kg	J	J	17
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.92	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	1.1	0.92	0.17	ug/kg			
PERFLUOROHEXANE SULFONATE	108427-53-8	1.5	0.92	0.17	ug/kg			
PERFLUOROHEXANOIC ACID	307-24-4	1.3	0.92	0.19	ug/kg			
PERFLUORONONANOIC ACID	375-95-1	24	0.92	0.13	ug/kg			
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.16	0.92	0.16	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	36	0.92	0.15	ug/kg		J	17
PERFLUOROOCTANOIC ACID	335-67-1	9.7	0.92	0.11	ug/kg		J	17
PERFLUOROPENTANOIC ACID	2706-90-3	5.6	0.92	0.19	ug/kg		J	17
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.92	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.92	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.24	0.92	0.24	ug/kg	U	U	

Analysis Method E537

Sample Name PETER01-002-SO-089 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL062 **Sample Date/Time:** 2016-10-28 17:25 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.25	1.0	0.25	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.21	1.0	0.21	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.25	1.0	0.25	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.23	1.0	0.23	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.20	1.0	0.20	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.28	1.0	0.28	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.24	1.0	0.24	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.18	1.0	0.18	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.19	1.0	0.19	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.21	1.0	0.21	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.14	1.0	0.14	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.17	1.0	0.17	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.16	1.0	0.16	ug/kg	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.12	1.0	0.12	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.21	1.0	0.21	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.22	1.0	0.22	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.25	1.0	0.25	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.26	1.0	0.26	ug/kg	U	U	

Analysis Method E537

Sample Name PETER01-002-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL061 **Sample Date/Time:** 2016-10-28 13:30 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.21	0.82	0.21	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.17	0.82	0.17	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.21	0.82	0.21	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.19	0.82	0.19	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.16	0.82	0.16	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.23	0.82	0.23	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.20	0.82	0.20	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.15	0.82	0.15	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.16	0.82	0.16	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.17	0.82	0.17	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.11	0.82	0.11	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.14	0.82	0.14	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	3.9	0.82	0.13	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	<0.098	0.82	0.098	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.17	0.82	0.17	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.18	0.82	0.18	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.21	0.82	0.21	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.21	0.82	0.21	ug/kg	U	U	

Analysis Method E537

Sample Name PETER01-003-SO-075 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL082 **Sample Date/Time:** 2016-10-28 11:30 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.93	0.23	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.20	0.93	0.20	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	0.77	0.93	0.23	ug/kg	J	J	
PERFLUOROBUTANOIC ACID	375-22-4	0.32	0.93	0.21	ug/kg	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.19	0.93	0.19	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.26	0.93	0.26	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.93	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.17	0.93	0.17	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.18	0.93	0.18	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	0.22	0.93	0.20	ug/kg	J	J	
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.93	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.16	0.93	0.16	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.15	0.93	0.15	ug/kg	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.93	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.54	0.93	0.20	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.93	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.93	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.24	0.93	0.24	ug/kg	U	U	

Analysis Method E537

Sample Name PETER01-003-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL081 **Sample Date/Time:** 2016-10-28 07:50 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.91	0.23	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	3.0	0.91	0.19	ug/kg			
PERFLUOROBUTANE SULFONATE	375-73-5	<0.23	0.91	0.23	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	1.3	0.91	0.21	ug/kg			
PERFLUORODECANE SULFONATE	335-77-3	1.9	0.91	0.18	ug/kg			
PERFLUORODECANOIC ACID	335-76-2	2.6	0.91	0.25	ug/kg			
PERFLUORODODECANOIC ACID	307-55-1	0.24	0.91	0.22	ug/kg	J	J	
PERFLUOROHEPTANOIC ACID	375-85-9	1.3	0.91	0.16	ug/kg			
PERFLUOROHEXANE SULFONATE	108427-53-8	1.0	0.91	0.17	ug/kg			
PERFLUOROHEXANOIC ACID	307-24-4	0.65	0.91	0.19	ug/kg	J	J	
PERFLUORONONANOIC ACID	375-95-1	5.5	0.91	0.13	ug/kg			
PERFLUOROOCTANE SULFONAMIDE	754-91-6	0.98	0.91	0.15	ug/kg			
PERFLUOROOCTANE SULFONATE	1763-23-1	120	9.1	1.5	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	3.1	0.91	0.11	ug/kg			
PERFLUOROPENTANOIC ACID	2706-90-3	0.96	0.91	0.19	ug/kg			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.91	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.91	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	1.4	0.91	0.24	ug/kg			

Analysis Method E537

Sample Name PETER04-001-SO-049 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL072 **Sample Date/Time:** 2016-11-01 13:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.24	0.95	0.24	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.20	0.95	0.20	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.24	0.95	0.24	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.22	0.95	0.22	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.19	0.95	0.19	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.27	0.95	0.27	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.23	0.95	0.23	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.17	0.95	0.17	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.18	0.95	0.18	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.20	0.95	0.20	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.95	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.16	0.95	0.16	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.15	0.95	0.15	ug/kg	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.95	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.20	0.95	0.20	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.21	0.95	0.21	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.24	0.95	0.24	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.25	0.95	0.25	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-002-SO-041 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL070 **Sample Date/Time:** 2016-10-31 16:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.90	0.23	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.90	0.19	ug/kg	U	UJ	07A
PERFLUOROBUTANE SULFONATE	375-73-5	<0.23	0.90	0.23	ug/kg	U	UJ	07A
PERFLUOROBUTANOIC ACID	375-22-4	<0.21	0.90	0.21	ug/kg	U	UJ	07A
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.90	0.18	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.90	0.25	ug/kg	U	UJ	07A
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.90	0.22	ug/kg	U	UJ	07A
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.90	0.16	ug/kg	U	UJ	07A
PERFLUOROHEXANE SULFONATE	108427-53-8	1.1	0.90	0.17	ug/kg		J	07A
PERFLUOROHEXANOIC ACID	307-24-4	<0.19	0.90	0.19	ug/kg	U	UJ	07A
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.90	0.13	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.90	0.15	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.14	0.90	0.14	ug/kg	U	UJ	07A
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.90	0.11	ug/kg	U	UJ	07A
PERFLUOROPENTANOIC ACID	2706-90-3	<0.19	0.90	0.19	ug/kg	U	UJ	07A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.90	0.20	ug/kg	U	UJ	07A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.90	0.23	ug/kg	U	UJ	07A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.90	0.23	ug/kg	U	UJ	07A

Analysis Method E537

Sample Name PETER04-002-SO-941 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL071 **Sample Date/Time:** 2016-10-31 16:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.22	0.87	0.22	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.18	0.87	0.18	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.22	0.87	0.22	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.87	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.17	0.87	0.17	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.24	0.87	0.24	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.21	0.87	0.21	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.87	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.63	0.87	0.17	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	<0.18	0.87	0.18	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.87	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.87	0.15	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.14	0.87	0.14	ug/kg	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.10	0.87	0.10	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.18	0.87	0.18	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.87	0.19	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.22	0.87	0.22	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.87	0.23	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-003-SO-050 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL069 **Sample Date/Time:** 2016-10-31 11:30 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.91	0.23	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.91	0.19	ug/kg	U	UJ	07A
PERFLUOROBUTANE SULFONATE	375-73-5	<0.23	0.91	0.23	ug/kg	U	UJ	07A
PERFLUOROBUTANOIC ACID	375-22-4	<0.21	0.91	0.21	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.91	0.18	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.91	0.25	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.91	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.91	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.17	0.91	0.17	ug/kg	U	UJ	07A
PERFLUOROHEXANOIC ACID	307-24-4	<0.19	0.91	0.19	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.91	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.91	0.15	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.15	0.91	0.15	ug/kg	U	UJ	07A
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.91	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.19	0.91	0.19	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.91	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.91	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.24	0.91	0.24	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-004-SO-058 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL065 **Sample Date/Time:** 2016-10-30 10:20 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.22	0.88	0.22	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.22	0.88	0.22	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.88	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.88	0.25	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.21	0.88	0.21	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.88	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.17	0.88	0.17	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.88	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.88	0.15	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.18	0.88	0.14	ug/kg	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.88	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.88	0.19	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.22	0.88	0.22	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.88	0.23	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-004-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL064 **Sample Date/Time:** 2016-10-30 08:50 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.24	0.97	0.24	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.20	0.97	0.20	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.24	0.97	0.24	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.22	0.97	0.22	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.19	0.97	0.19	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.27	0.97	0.27	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.23	0.97	0.23	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.17	0.97	0.17	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.73	0.97	0.18	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	<0.20	0.97	0.20	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.14	0.97	0.14	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.16	0.97	0.16	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.32	0.97	0.16	ug/kg	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.12	0.97	0.12	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.20	0.97	0.20	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.21	0.97	0.21	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.24	0.97	0.24	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.25	0.97	0.25	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-005-SO-054 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL083 **Sample Date/Time:** 2016-10-30 14:58 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.24	0.95	0.24	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.20	0.95	0.20	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.24	0.95	0.24	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.22	0.95	0.22	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.19	0.95	0.19	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.27	0.95	0.27	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.23	0.95	0.23	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.17	0.95	0.17	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.49	0.95	0.18	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	<0.20	0.95	0.20	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.95	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.16	0.95	0.16	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	3.2	0.95	0.15	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.95	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.20	0.95	0.20	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.21	0.95	0.21	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.24	0.95	0.24	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.25	0.95	0.25	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-005-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL066 **Sample Date/Time:** 2016-10-30 13:50 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.22	0.88	0.22	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.22	0.88	0.22	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.88	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.88	0.25	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.21	0.88	0.21	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.88	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.70	0.88	0.17	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	0.28	0.88	0.18	ug/kg	J	J	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.88	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.88	0.15	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	1.4	0.88	0.14	ug/kg		J	17
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.88	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.24	0.88	0.18	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.88	0.19	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.22	0.88	0.22	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.88	0.23	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-005-SS-901 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL067 **Sample Date/Time:** 2016-10-30 13:50 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.91	0.23	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.91	0.19	ug/kg	U	UJ	07A
PERFLUOROBUTANE SULFONATE	375-73-5	<0.23	0.91	0.23	ug/kg	U	UJ	07A
PERFLUOROBUTANOIC ACID	375-22-4	<0.21	0.91	0.21	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.91	0.18	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.91	0.25	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.91	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.91	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.71	0.91	0.17	ug/kg	J	J	07A
PERFLUOROHEXANOIC ACID	307-24-4	0.36	0.91	0.19	ug/kg	J	J	
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.91	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.91	0.15	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.49	0.91	0.15	ug/kg	J	J	07A;17
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.91	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.25	0.91	0.19	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.91	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.91	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.24	0.91	0.24	ug/kg	U	U	

Analysis Method E537

Sample Name PETER05-001-SO-035 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL060 **Sample Date/Time:** 2016-10-25 17:36 **Validation Level:** Stage 4

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.92	0.23	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.92	0.19	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	3.2	0.92	0.23	ug/kg			
PERFLUOROBUTANOIC ACID	375-22-4	0.92	0.92	0.21	ug/kg			
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.92	0.18	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.26	0.92	0.26	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.92	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.17	0.92	0.17	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.27	0.92	0.17	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	3.4	0.92	0.19	ug/kg			
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.92	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.16	0.92	0.16	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.38	0.92	0.15	ug/kg	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.92	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	2.0	0.92	0.19	ug/kg			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.92	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.92	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.24	0.92	0.24	ug/kg	U	U	

Analysis Method E537

Sample Name PETER-RS-001 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DJL059 **Sample Date/Time:** 2016-10-25 13:00 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.0019	0.020	0.0019	ug/L	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.0040	0.020	0.0040	ug/L	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.0037	0.020	0.0033	ug/L	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.0036	0.020	0.0036	ug/L	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	UQ	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	UQ	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER-RS-002 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DJL075 **Sample Date/Time:** 2016-10-27 11:20 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.0019	0.020	0.0019	ug/L	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.0040	0.020	0.0040	ug/L	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.0036	0.020	0.0036	ug/L	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	UQ	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	UQ	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER-RS-003 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DJL080 **Sample Date/Time:** 2016-10-28 07:45 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.0019	0.020	0.0019	ug/L	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.0040	0.020	0.0040	ug/L	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.0036	0.020	0.0036	ug/L	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	UQ	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	UQ	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER-RS-004 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DJL063 **Sample Date/Time:** 2016-10-30 08:40 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.0019	0.020	0.0019	ug/L	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.0040	0.020	0.0040	ug/L	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.0038	0.020	0.0033	ug/L	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.0036	0.020	0.0036	ug/L	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	UQ	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	UQ	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER-RS-005 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DJL068 **Sample Date/Time:** 2016-10-31 10:35 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.0019	0.020	0.0019	ug/L	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.0040	0.020	0.0040	ug/L	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.0036	0.020	0.0033	ug/L	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.0036	0.020	0.0036	ug/L	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	UQ	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	UQ	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER-RS-006 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DJL073 **Sample Date/Time:** 2016-11-01 13:10 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.0019	0.020	0.0019	ug/L	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.0040	0.020	0.0040	ug/L	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.0036	0.020	0.0036	ug/L	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	UQ	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	UQ	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER-SB-001 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DJL074 **Sample Date/Time:** 2016-10-25 09:50 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.0019	0.020	0.0019	ug/L	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.0040	0.020	0.0040	ug/L	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.0034	0.020	0.0033	ug/L	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.0036	0.020	0.0036	ug/L	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	UQ	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	UQ	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Validated Sample Result Forms: B6O2957

Analysis Method E537

Sample Name PETER01-001-GW-087 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ764 **Sample Date/Time:** 2016-11-06 15:35 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	0.27	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.15	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.019	0.020	0.0040	ug/L	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	0.57	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.25	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER01-001-GW-987 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ765 **Sample Date/Time:** 2016-11-06 15:35 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	0.27	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.14	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.022	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.53	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.22	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER01-002-GW-095 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ766 **Sample Date/Time:** 2016-11-06 16:50 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	0.10	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.084	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.019	0.020	0.0040	ug/L	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	0.14	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.29	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER01-003-GW-082 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ762 **Sample Date/Time:** 2016-11-06 14:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	0.020	0.020	0.0019	ug/L	J	J	
PERFLUOROBUTANOIC ACID	375-22-4	0.016	0.020	0.0066	ug/L	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.031	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.052	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.020	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER02-001-SO-024 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ763 **Sample Date/Time:** 2016-11-06 12:06 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.22	0.86	0.22	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.18	0.86	0.18	ug/kg	U	UJ	04C
PERFLUOROBUTANE SULFONATE	375-73-5	<0.22	0.86	0.22	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.86	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.17	0.86	0.17	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.24	0.86	0.24	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.21	0.86	0.21	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.15	0.86	0.15	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.16	0.86	0.16	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.18	0.86	0.18	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.86	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.86	0.15	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.64	0.86	0.14	ug/kg	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.10	0.86	0.10	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.18	0.86	0.18	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.86	0.19	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.22	0.86	0.22	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.22	0.86	0.22	ug/kg	U	U	

Analysis Method E537

Sample Name PETER02-001-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ785 **Sample Date/Time:** 2016-11-06 11:44 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.21	0.85	0.21	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.22	0.85	0.18	ug/kg	J	J	04C
PERFLUOROBUTANE SULFONATE	375-73-5	<0.21	0.85	0.21	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.85	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	0.38	0.85	0.17	ug/kg	J	J	
PERFLUORODECANOIC ACID	335-76-2	<0.24	0.85	0.24	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.20	0.85	0.20	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.15	0.85	0.15	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.16	0.85	0.16	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.18	0.85	0.18	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.85	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	1.1	0.85	0.14	ug/kg			
PERFLUOROOCTANE SULFONATE	1763-23-1	7.0	0.85	0.14	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	<0.10	0.85	0.10	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.18	0.85	0.18	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.85	0.19	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.21	0.85	0.21	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.22	0.85	0.22	ug/kg	U	U	

Analysis Method E537

Sample Name PETER02-002-SO-024 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ784 **Sample Date/Time:** 2016-11-05 12:32 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.22	0.89	0.22	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.89	0.19	ug/kg	U	UJ	04C;07A
PERFLUOROBUTANE SULFONATE	375-73-5	<0.22	0.89	0.22	ug/kg	U	UJ	07A
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.89	0.20	ug/kg	U	UJ	07A
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.89	0.18	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.89	0.25	ug/kg	U	UJ	07A
PERFLUORODODECANOIC ACID	307-55-1	<0.21	0.89	0.21	ug/kg	U	UJ	07A
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.89	0.16	ug/kg	U	UJ	07A
PERFLUOROHEXANE SULFONATE	108427-53-8	0.28	0.89	0.17	ug/kg	J	J	07A
PERFLUOROHEXANOIC ACID	307-24-4	<0.19	0.89	0.19	ug/kg	U	UJ	07A
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.89	0.12	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.89	0.15	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.78	0.89	0.14	ug/kg	J	J	07A
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.89	0.11	ug/kg	U	UJ	07A
PERFLUOROPENTANOIC ACID	2706-90-3	<0.19	0.89	0.19	ug/kg	U	UJ	07A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.89	0.20	ug/kg	U	UJ	07A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.22	0.89	0.22	ug/kg	U	UJ	07A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.89	0.23	ug/kg	U	UJ	07A

Analysis Method E537

Sample Name PETER02-002-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ783 **Sample Date/Time:** 2016-11-05 12:20 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.22	0.88	0.22	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.22	0.88	0.22	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	0.26	0.88	0.20	ug/kg	J	J	07A
PERFLUORODECANE SULFONATE	335-77-3	0.21	0.88	0.18	ug/kg	J	J	
PERFLUORODECANOIC ACID	335-76-2	0.96	0.88	0.25	ug/kg		J	07A
PERFLUORODODECANOIC ACID	307-55-1	<0.21	0.88	0.21	ug/kg	U	UJ	07A
PERFLUOROHEPTANOIC ACID	375-85-9	0.33	0.88	0.16	ug/kg	J	J	07A
PERFLUOROHEXANE SULFONATE	108427-53-8	4.4	0.88	0.17	ug/kg			
PERFLUOROHEXANOIC ACID	307-24-4	0.26	0.88	0.18	ug/kg	J	J	07A
PERFLUORONONANOIC ACID	375-95-1	0.98	0.88	0.12	ug/kg		J	07A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	0.36	0.88	0.15	ug/kg	J	J	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	110	8.8	1.4	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	0.61	0.88	0.11	ug/kg	J	J	07A
PERFLUOROPENTANOIC ACID	2706-90-3	0.58	0.88	0.18	ug/kg	J	J	07A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.88	0.19	ug/kg	U	UJ	07A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.22	0.88	0.22	ug/kg	U	UJ	07A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.88	0.23	ug/kg	U	UJ	07A

Analysis Method E537

Sample Name PETER02-003-SO-034 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ782 **Sample Date/Time:** 2016-11-05 10:38 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.30	0.88	0.22	ug/kg	J	J	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.25	0.88	0.18	ug/kg	J	J	04C
PERFLUOROBUTANE SULFONATE	375-73-5	<0.22	0.88	0.22	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.88	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.88	0.25	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.21	0.88	0.21	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.88	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.74	0.88	0.17	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.88	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	0.78	0.88	0.15	ug/kg	J	J	
PERFLUOROOCTANE SULFONATE	1763-23-1	5.6	0.88	0.14	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.88	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.88	0.19	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.22	0.88	0.22	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.88	0.23	ug/kg	U	U	

Analysis Method E537

Sample Name PETER02-003-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ781 **Sample Date/Time:** 2016-11-05 09:55 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.21	0.85	0.21	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	1.5	0.85	0.18	ug/kg			
PERFLUOROBUTANE SULFONATE	375-73-5	<0.21	0.85	0.21	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.85	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	0.85	0.85	0.17	ug/kg			
PERFLUORODECANOIC ACID	335-76-2	0.43	0.85	0.24	ug/kg	J	J	
PERFLUORODODECANOIC ACID	307-55-1	<0.20	0.85	0.20	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.15	0.85	0.15	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	6.6	0.85	0.16	ug/kg			
PERFLUOROHEXANOIC ACID	307-24-4	0.32	0.85	0.18	ug/kg	J	J	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.85	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	44	0.85	0.14	ug/kg		J	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	160	8.5	1.4	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	0.51	0.85	0.10	ug/kg	J	J	
PERFLUOROPENTANOIC ACID	2706-90-3	0.20	0.85	0.18	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.85	0.19	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.21	0.85	0.21	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.22	0.85	0.22	ug/kg	U	U	

Analysis Method E537

Sample Name PETER03-001-SO-064 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ774 **Sample Date/Time:** 2016-11-02 17:45 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.21	0.83	0.21	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.17	0.83	0.17	ug/kg	U	UJ	04C;07A
PERFLUOROBUTANE SULFONATE	375-73-5	<0.21	0.83	0.21	ug/kg	U	UJ	07A
PERFLUOROBUTANOIC ACID	375-22-4	<0.19	0.83	0.19	ug/kg	U	UJ	07A
PERFLUORODECANE SULFONATE	335-77-3	<0.17	0.83	0.17	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.23	0.83	0.23	ug/kg	U	UJ	07A
PERFLUORODODECANOIC ACID	307-55-1	<0.20	0.83	0.20	ug/kg	U	UJ	07A
PERFLUOROHEPTANOIC ACID	375-85-9	<0.15	0.83	0.15	ug/kg	U	UJ	07A
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.16	0.83	0.16	ug/kg	U	UJ	07A
PERFLUOROHEXANOIC ACID	307-24-4	<0.17	0.83	0.17	ug/kg	U	UJ	07A
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.83	0.12	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.14	0.83	0.14	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.13	0.83	0.13	ug/kg	U	UJ	07A
PERFLUOROOCTANOIC ACID	335-67-1	<0.10	0.83	0.10	ug/kg	U	UJ	07A
PERFLUOROPENTANOIC ACID	2706-90-3	<0.17	0.83	0.17	ug/kg	U	UJ	07A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.18	0.83	0.18	ug/kg	U	UJ	07A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.21	0.83	0.21	ug/kg	U	UJ	07A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.22	0.83	0.22	ug/kg	U	UJ	07A

Analysis Method E537

Sample Name PETER03-001-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ773 **Sample Date/Time:** 2016-11-02 15:30 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.20	0.80	0.20	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.17	0.80	0.17	ug/kg	U	UJ	04C;07A
PERFLUOROBUTANE SULFONATE	375-73-5	0.29	0.80	0.20	ug/kg	J	J	07A
PERFLUOROBUTANOIC ACID	375-22-4	0.20	0.80	0.18	ug/kg	J	J	07A
PERFLUORODECANE SULFONATE	335-77-3	<0.16	0.80	0.16	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.22	0.80	0.22	ug/kg	U	UJ	07A
PERFLUORODODECANOIC ACID	307-55-1	<0.19	0.80	0.19	ug/kg	U	UJ	07A
PERFLUOROHEPTANOIC ACID	375-85-9	<0.14	0.80	0.14	ug/kg	U	UJ	07A
PERFLUOROHEXANE SULFONATE	108427-53-8	7.0	0.80	0.15	ug/kg		J	07A
PERFLUOROHEXANOIC ACID	307-24-4	0.98	0.80	0.17	ug/kg		J	07A
PERFLUORONONANOIC ACID	375-95-1	<0.11	0.80	0.11	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.14	0.80	0.14	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.13	0.80	0.13	ug/kg	U	UJ	07A
PERFLUOROOCTANOIC ACID	335-67-1	<0.096	0.80	0.096	ug/kg	U	UJ	07A
PERFLUOROPENTANOIC ACID	2706-90-3	0.38	0.80	0.17	ug/kg	J	J	07A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.18	0.80	0.18	ug/kg	U	UJ	07A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.20	0.80	0.20	ug/kg	U	UJ	07A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.21	0.80	0.21	ug/kg	U	UJ	07A

Analysis Method E537

Sample Name PETER03-002-SO-065 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ779 **Sample Date/Time:** 2016-11-04 10:50 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.20	0.79	0.20	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.17	0.79	0.17	ug/kg	U	UJ	04C;07A
PERFLUOROBUTANE SULFONATE	375-73-5	<0.20	0.79	0.20	ug/kg	U	UJ	07A
PERFLUOROBUTANOIC ACID	375-22-4	<0.18	0.79	0.18	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.16	0.79	0.16	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.22	0.79	0.22	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.19	0.79	0.19	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.14	0.79	0.14	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.15	0.79	0.15	ug/kg	U	UJ	07A
PERFLUOROHEXANOIC ACID	307-24-4	<0.17	0.79	0.17	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.11	0.79	0.11	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.13	0.79	0.13	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.13	0.79	0.13	ug/kg	U	UJ	07A
PERFLUOROOCTANOIC ACID	335-67-1	<0.095	0.79	0.095	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.17	0.79	0.17	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.17	0.79	0.17	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.20	0.79	0.20	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.21	0.79	0.21	ug/kg	U	U	

Analysis Method E537

Sample Name PETER03-002-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ778 **Sample Date/Time:** 2016-11-04 08:35 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.20	0.81	0.20	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.17	0.81	0.17	ug/kg	U	UJ	07A
PERFLUOROBUTANE SULFONATE	375-73-5	<0.20	0.81	0.20	ug/kg	U	UJ	07A
PERFLUOROBUTANOIC ACID	375-22-4	0.25	0.81	0.19	ug/kg	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.16	0.81	0.16	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.23	0.81	0.23	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.19	0.81	0.19	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.17	0.81	0.15	ug/kg	J	J	
PERFLUOROHEXANE SULFONATE	108427-53-8	16	0.81	0.15	ug/kg		J	07A
PERFLUOROHEXANOIC ACID	307-24-4	0.62	0.81	0.17	ug/kg	J	J	
PERFLUORONONANOIC ACID	375-95-1	<0.11	0.81	0.11	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.14	0.81	0.14	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	2.0	0.81	0.13	ug/kg		J	07A
PERFLUOROOCTANOIC ACID	335-67-1	0.22	0.81	0.097	ug/kg	J	J	
PERFLUOROPENTANOIC ACID	2706-90-3	0.38	0.81	0.17	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.18	0.81	0.18	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.20	0.81	0.20	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.21	0.81	0.21	ug/kg	U	U	

Analysis Method E537

Sample Name PETER03-003-SO-069 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ777 **Sample Date/Time:** 2016-11-03 12:26 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.21	0.82	0.21	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.17	0.82	0.17	ug/kg	U	UJ	04C;07A
PERFLUOROBUTANE SULFONATE	375-73-5	0.76	0.82	0.21	ug/kg	J	J	07A
PERFLUOROBUTANOIC ACID	375-22-4	0.72	0.82	0.19	ug/kg	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.16	0.82	0.16	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.23	0.82	0.23	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.20	0.82	0.20	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.15	0.82	0.15	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.16	0.82	0.16	ug/kg	U	UJ	07A
PERFLUOROHEXANOIC ACID	307-24-4	<0.17	0.82	0.17	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.11	0.82	0.11	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.14	0.82	0.14	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.49	0.82	0.13	ug/kg	J	J	07A
PERFLUOROOCTANOIC ACID	335-67-1	<0.098	0.82	0.098	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.75	0.82	0.17	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.18	0.82	0.18	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.21	0.82	0.21	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.21	0.82	0.21	ug/kg	U	U	

Analysis Method E537

Sample Name PETER03-003-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ776 **Sample Date/Time:** 2016-11-03 10:26 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<21	82	21	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<17	82	17	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<21	82	21	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<19	82	19	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<16	82	16	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<23	82	23	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<20	82	20	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<15	82	15	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	25	82	16	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	<17	82	17	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<11	82	11	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<14	82	14	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	2400	820	130	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	<9.8	82	9.8	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<17	82	17	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<18	82	18	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<21	82	21	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<21	82	21	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-0013-SD-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ760 **Sample Date/Time:** 2016-11-06 09:20 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	4.7	1.9	0.48	ug/kg			
8:2 FLUOROTELOMER SULFONATE	39108-34-4	9.1	1.9	0.40	ug/kg			
PERFLUOROBUTANE SULFONATE	375-73-5	<0.48	1.9	0.48	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.44	1.9	0.44	ug/kg	U	UJ	07A
PERFLUORODECANE SULFONATE	335-77-3	4.9	1.9	0.38	ug/kg			
PERFLUORODECANOIC ACID	335-76-2	<0.53	1.9	0.53	ug/kg	U	UJ	07A
PERFLUORODODECANOIC ACID	307-55-1	3.4	1.9	0.46	ug/kg		J	07A
PERFLUOROHEPTANOIC ACID	375-85-9	0.46	1.9	0.34	ug/kg	J	J	07A
PERFLUOROHEXANE SULFONATE	108427-53-8	2.7	1.9	0.36	ug/kg			
PERFLUOROHEXANOIC ACID	307-24-4	2.0	1.9	0.40	ug/kg		J	07A
PERFLUORONONANOIC ACID	375-95-1	<0.27	1.9	0.27	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	4.8	1.9	0.32	ug/kg		J	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	370	19	3.0	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	0.74	1.9	0.23	ug/kg	J	J	07A
PERFLUOROPENTANOIC ACID	2706-90-3	0.70	1.9	0.40	ug/kg	J	J	07A
PERFLUOROTETRADECANOIC ACID	376-06-7	2.4	1.9	0.42	ug/kg		J	07A;10A
PERFLUOROTRIDECANOIC ACID	72629-94-8	2.0	1.9	0.48	ug/kg		J	07A;10A
PERFLUOROUNDECANOIC ACID	2058-94-8	0.54	1.9	0.49	ug/kg	J	J	07A

Analysis Method E537

Sample Name PETER04-0013-SW-001 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ761 **Sample Date/Time:** 2016-11-06 09:20 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.12	0.020	0.0065	ug/L			
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.029	0.020	0.0055	ug/L			
PERFLUOROBUTANE SULFONATE	375-73-5	0.024	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	0.0069	0.020	0.0043	ug/L	J	J	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.028	0.020	0.0047	ug/L			
PERFLUOROHEXANE SULFONATE	108427-53-8	0.28	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.091	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.63	0.020	0.0033	ug/L			
PERFLUOROOCTANOIC ACID	335-67-1	0.10	0.020	0.0053	ug/L			
PERFLUOROPENTANOIC ACID	2706-90-3	0.057	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	UJ	10A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	UJ	10A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-001-GW-059 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ767 **Sample Date/Time:** 2016-11-07 11:05 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	0.035	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.0093	0.020	0.0066	ug/L	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.025	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.13	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.0060	0.020	0.0033	ug/L	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	0.022	0.020	0.0053	ug/L			
PERFLUOROPENTANOIC ACID	2706-90-3	0.016	0.020	0.0036	ug/L	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-003-GW-056 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ769 **Sample Date/Time:** 2016-11-07 12:40 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	0.18	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.054	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.026	0.020	0.0047	ug/L			
PERFLUOROHEXANE SULFONATE	108427-53-8	0.23	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.76	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	0.015	0.020	0.0053	ug/L	J	J	
PERFLUOROPENTANOIC ACID	2706-90-3	0.12	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-004-GW-085 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ771 **Sample Date/Time:** 2016-11-07 16:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	0.012	0.020	0.0019	ug/L	J	J	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.024	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.013	0.020	0.0046	ug/L	J	J	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.0037	0.020	0.0033	ug/L	J	J	05B
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.016	0.020	0.0036	ug/L	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-005-GW-065 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ770 **Sample Date/Time:** 2016-11-07 15:05 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.059	0.020	0.0065	ug/L			
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.48	0.020	0.0055	ug/L			
PERFLUOROBUTANE SULFONATE	375-73-5	0.032	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.039	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	0.050	0.020	0.0066	ug/L			
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.11	0.020	0.0047	ug/L			
PERFLUOROHEXANE SULFONATE	108427-53-8	0.28	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.16	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	0.030	0.020	0.0046	ug/L			
PERFLUOROOCTANE SULFONAMIDE	754-91-6	0.014	0.020	0.0058	ug/L	J	J	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.87	0.020	0.0033	ug/L		J	05B
PERFLUOROOCTANOIC ACID	335-67-1	0.11	0.020	0.0053	ug/L			
PERFLUOROPENTANOIC ACID	2706-90-3	0.12	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-006-SD-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ758 **Sample Date/Time:** 2016-11-06 08:45 **Validation Level:** Stage 4

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.28	1.1	0.28	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.38	1.1	0.23	ug/kg	J	J	04C
PERFLUOROBUTANE SULFONATE	375-73-5	<0.28	1.1	0.28	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.25	1.1	0.25	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	0.26	1.1	0.22	ug/kg	J	J	
PERFLUORODECANOIC ACID	335-76-2	<0.31	1.1	0.31	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.26	1.1	0.26	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.20	1.1	0.20	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.21	1.1	0.21	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.23	1.1	0.23	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.15	1.1	0.15	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.19	1.1	0.19	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	4.3	1.1	0.18	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	<0.13	1.1	0.13	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.23	1.1	0.23	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.24	1.1	0.24	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.28	1.1	0.28	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.29	1.1	0.29	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-006-SW-001 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ759 **Sample Date/Time:** 2016-11-06 08:45 **Validation Level:** Stage 4

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.14	0.020	0.0065	ug/L			
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.038	0.020	0.0055	ug/L			
PERFLUOROBUTANE SULFONATE	375-73-5	0.022	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	0.019	0.020	0.0043	ug/L	J	J	
PERFLUORODECANOIC ACID	335-76-2	0.0075	0.020	0.0066	ug/L	J	J	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.023	0.020	0.0047	ug/L			
PERFLUOROHEXANE SULFONATE	108427-53-8	0.27	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.080	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	0.016	0.020	0.0058	ug/L	J	J	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.73	0.020	0.0033	ug/L			
PERFLUOROOCTANOIC ACID	335-67-1	0.096	0.020	0.0053	ug/L			
PERFLUOROPENTANOIC ACID	2706-90-3	0.045	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	0.0092	0.020	0.0037	ug/L	J	J	

Analysis Method E537

Sample Name PETER04-MW2-1-GW-059 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ751 **Sample Date/Time:** 2016-11-04 16:25 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.0069	0.020	0.0055	ug/L	J	J	
PERFLUOROBUTANE SULFONATE	375-73-5	0.021	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.0087	0.020	0.0066	ug/L	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.012	0.020	0.0047	ug/L	J	J	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.095	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.022	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.070	0.020	0.0033	ug/L			
PERFLUOROOCTANOIC ACID	335-67-1	0.0090	0.020	0.0053	ug/L	J	J	
PERFLUOROPENTANOIC ACID	2706-90-3	0.019	0.020	0.0036	ug/L	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-MW2-2-GW-050 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ754 **Sample Date/Time:** 2016-11-05 16:40 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	0.079	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.013	0.020	0.0066	ug/L	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.0086	0.020	0.0047	ug/L	J	J	04C
PERFLUOROHEXANE SULFONATE	108427-53-8	0.14	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.035	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	04C
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.0046	0.020	0.0033	ug/L	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.020	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-MW2-3-GW-050 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ750 **Sample Date/Time:** 2016-11-04 15:05 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.017	0.020	0.0065	ug/L	J	J	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.019	0.020	0.0055	ug/L	J	J	
PERFLUOROBUTANE SULFONATE	375-73-5	0.023	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.015	0.020	0.0066	ug/L	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.033	0.020	0.0047	ug/L			
PERFLUOROHEXANE SULFONATE	108427-53-8	0.14	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.053	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.52	0.020	0.0033	ug/L			
PERFLUOROOCTANOIC ACID	335-67-1	0.027	0.020	0.0053	ug/L			
PERFLUOROPENTANOIC ACID	2706-90-3	0.044	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-MW2-4-GW-053 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ749 **Sample Date/Time:** 2016-11-04 13:50 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.0079	0.020	0.0055	ug/L	J	J	
PERFLUOROBUTANE SULFONATE	375-73-5	0.013	0.020	0.0019	ug/L	J	J	
PERFLUOROBUTANOIC ACID	375-22-4	0.0098	0.020	0.0066	ug/L	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.011	0.020	0.0047	ug/L	J	J	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.043	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.022	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.085	0.020	0.0033	ug/L			
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.018	0.020	0.0036	ug/L	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-MW2-5-GW-069 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ753 **Sample Date/Time:** 2016-11-05 15:50 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	0.063	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.028	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.046	0.020	0.0047	ug/L		J	04C
PERFLUOROHEXANE SULFONATE	108427-53-8	0.25	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.11	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	04C
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	0.0087	0.020	0.0053	ug/L	J	J	
PERFLUOROPENTANOIC ACID	2706-90-3	0.096	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-MW4-1-GW-074 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ755 **Sample Date/Time:** 2016-11-05 17:35 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.023	0.020	0.0065	ug/L			
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	0.040	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.020	0.020	0.0066	ug/L	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.028	0.020	0.0047	ug/L		J	04C
PERFLUOROHEXANE SULFONATE	108427-53-8	0.14	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.068	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	04C
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.012	0.020	0.0033	ug/L	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	0.0071	0.020	0.0053	ug/L	J	J	
PERFLUOROPENTANOIC ACID	2706-90-3	0.059	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-MW4-1-GW-974 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ756 **Sample Date/Time:** 2016-11-05 17:35 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.022	0.020	0.0065	ug/L			
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	0.038	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.022	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.033	0.020	0.0047	ug/L		J	04C
PERFLUOROHEXANE SULFONATE	108427-53-8	0.14	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.067	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	04C
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.012	0.020	0.0033	ug/L	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	0.0067	0.020	0.0053	ug/L	J	J	
PERFLUOROPENTANOIC ACID	2706-90-3	0.062	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER05-MW1-2-GW-056 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ748 **Sample Date/Time:** 2016-11-04 11:45 **Validation Level:** Stage 4

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	6.6	0.20	0.065	ug/L			
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.055	0.20	0.055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	17	1.0	0.095	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	8.5	0.20	0.066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.043	0.20	0.043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.066	0.20	0.066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.057	0.20	0.057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	4.1	0.20	0.047	ug/L			
PERFLUOROHEXANE SULFONATE	108427-53-8	55	8.0	1.6	ug/L		J	02A
PERFLUOROHEXANOIC ACID	307-24-4	42	1.0	0.23	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.046	0.20	0.046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.058	0.20	0.058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	9.7	0.20	0.033	ug/L		J	05B
PERFLUOROOCTANOIC ACID	335-67-1	5.3	0.20	0.053	ug/L			
PERFLUOROPENTANOIC ACID	2706-90-3	11	1.0	0.18	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.052	0.20	0.052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.032	0.20	0.032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.037	0.20	0.037	ug/L	U	U	

Analysis Method E537

Sample Name PETER-RS-007 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ772 **Sample Date/Time:** 2016-11-02 15:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.0019	0.020	0.0019	ug/L	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.0040	0.020	0.0040	ug/L	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.0036	0.020	0.0036	ug/L	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER-RS-008 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ775 **Sample Date/Time:** 2016-11-03 08:30 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.0019	0.020	0.0019	ug/L	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.0040	0.020	0.0040	ug/L	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.0036	0.020	0.0036	ug/L	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER-RS-009 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ780 **Sample Date/Time:** 2016-11-04 07:30 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.0019	0.020	0.0019	ug/L	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.0040	0.020	0.0040	ug/L	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.0036	0.020	0.0036	ug/L	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER-RS-010 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ752 **Sample Date/Time:** 2016-11-05 15:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.0019	0.020	0.0019	ug/L	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.0040	0.020	0.0040	ug/L	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.0036	0.020	0.0036	ug/L	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER-RS-011 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ757 **Sample Date/Time:** 2016-11-06 08:30 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.0019	0.020	0.0019	ug/L	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.0040	0.020	0.0040	ug/L	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.0036	0.020	0.0036	ug/L	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER-RS-012 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ768 **Sample Date/Time:** 2016-11-07 11:40 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.0019	0.020	0.0019	ug/L	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.0040	0.020	0.0040	ug/L	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.0036	0.020	0.0036	ug/L	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Validated Sample Result Forms: B6O6630

Analysis Method E537

Sample Name PETER02-001-GW-056 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC781 **Sample Date/Time:** 2016-11-09 15:25 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	UJ	02A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	UJ	02A
PERFLUOROBUTANE SULFONATE	375-73-5	0.010	0.020	0.0019	ug/L	J	J	02A
PERFLUOROBUTANOIC ACID	375-22-4	0.0078	0.020	0.0066	ug/L	J	J	02A
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	UJ	02A
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	UJ	02A
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	UJ	02A
PERFLUOROHEPTANOIC ACID	375-85-9	0.0069	0.020	0.0047	ug/L	J	J	02A
PERFLUOROHEXANE SULFONATE	108427-53-8	0.17	0.020	0.0040	ug/L		J	02A
PERFLUOROHEXANOIC ACID	307-24-4	0.024	0.020	0.0046	ug/L		J	02A
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.058	0.020	0.0033	ug/L		J	02A
PERFLUOROOCTANOIC ACID	335-67-1	0.12	0.020	0.0053	ug/L		J	02A
PERFLUOROPENTANOIC ACID	2706-90-3	0.013	0.020	0.0036	ug/L	J	J	02A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	UJ	02A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	UJ	02A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	UJ	02A

Analysis Method E537

Sample Name PETER02-003-GW-043 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC782 **Sample Date/Time:** 2016-11-10 14:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.017	0.020	0.0065	ug/L	J	J	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	0.030	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.030	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.040	0.020	0.0047	ug/L			
PERFLUOROHEXANE SULFONATE	108427-53-8	0.35	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.16	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.012	0.020	0.0033	ug/L	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	0.065	0.020	0.0053	ug/L			
PERFLUOROPENTANOIC ACID	2706-90-3	0.083	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER03-001-GW-064 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC778 **Sample Date/Time:** 2016-11-08 16:40 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	UJ	02A;05B
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	UJ	02A
PERFLUOROBUTANE SULFONATE	375-73-5	0.0073	0.020	0.0019	ug/L	J	J	02A
PERFLUOROBUTANOIC ACID	375-22-4	0.0067	0.020	0.0066	ug/L	J	J	02A
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	UJ	02A
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	UJ	02A
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	UJ	02A
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	UJ	02A
PERFLUOROHEXANE SULFONATE	108427-53-8	0.0051	0.020	0.0040	ug/L	J	J	02A
PERFLUOROHEXANOIC ACID	307-24-4	0.0095	0.020	0.0046	ug/L	J	J	02A
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	UJ	02A
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	UJ	02A
PERFLUOROPENTANOIC ACID	2706-90-3	0.013	0.020	0.0036	ug/L	J	J	02A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	UJ	02A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	UJ	02A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	UJ	02A

Analysis Method E537

Sample Name PETER03-002-GW-071 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC779 **Sample Date/Time:** 2016-11-08 17:35 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	UJ	02A;05B
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	UJ	02A
PERFLUOROBUTANE SULFONATE	375-73-5	0.050	0.020	0.0019	ug/L		J	02A
PERFLUOROBUTANOIC ACID	375-22-4	0.010	0.020	0.0066	ug/L	J	J	02A
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	UJ	02A
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	UJ	02A
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	UJ	02A
PERFLUOROHEPTANOIC ACID	375-85-9	0.0069	0.020	0.0047	ug/L	J	J	02A
PERFLUOROHEXANE SULFONATE	108427-53-8	0.15	0.020	0.0040	ug/L		J	02A
PERFLUOROHEXANOIC ACID	307-24-4	0.022	0.020	0.0046	ug/L		J	02A
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.0064	0.020	0.0033	ug/L	J	J	02A
PERFLUOROOCTANOIC ACID	335-67-1	0.023	0.020	0.0053	ug/L		J	02A
PERFLUOROPENTANOIC ACID	2706-90-3	0.015	0.020	0.0036	ug/L	J	J	02A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	UJ	02A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	UJ	02A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	UJ	02A

Analysis Method E537

Sample Name PETER03-003-GW-070 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC777 **Sample Date/Time:** 2016-11-08 15:50 **Validation Level:** Stage 4

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0075	0.023	0.0075	ug/L	U	UJ	02A;05B
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0063	0.023	0.0063	ug/L	U	UJ	02A
PERFLUOROBUTANE SULFONATE	375-73-5	0.062	0.023	0.0022	ug/L		J	02A
PERFLUOROBUTANOIC ACID	375-22-4	0.040	0.023	0.0076	ug/L		J	02A
PERFLUORODECANE SULFONATE	335-77-3	<0.0049	0.023	0.0049	ug/L	U	UJ	02A
PERFLUORODECANOIC ACID	335-76-2	<0.0076	0.023	0.0076	ug/L	U	UJ	02A
PERFLUORODODECANOIC ACID	307-55-1	<0.0066	0.023	0.0066	ug/L	U	UJ	02A
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0054	0.023	0.0054	ug/L	U	UJ	02A
PERFLUOROHEXANE SULFONATE	108427-53-8	0.028	0.023	0.0046	ug/L		J	02A
PERFLUOROHEXANOIC ACID	307-24-4	0.037	0.023	0.0053	ug/L		J	02A
PERFLUORONONANOIC ACID	375-95-1	<0.0053	0.023	0.0053	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0067	0.023	0.0067	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.028	0.023	0.0038	ug/L		J	02A
PERFLUOROOCTANOIC ACID	335-67-1	0.0084	0.023	0.0061	ug/L	J	J	02A
PERFLUOROPENTANOIC ACID	2706-90-3	0.048	0.023	0.0041	ug/L		J	02A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0060	0.023	0.0060	ug/L	U	UJ	02A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0037	0.023	0.0037	ug/L	U	UJ	02A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0043	0.023	0.0043	ug/L	U	UJ	02A

Analysis Method E537

Sample Name PETER04-002-GW-045 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC774 **Sample Date/Time:** 2016-11-08 08:45 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.012	0.020	0.0065	ug/L	J	J	02A;05B;07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	UJ	02A;07A
PERFLUOROBUTANE SULFONATE	375-73-5	0.087	0.020	0.0019	ug/L		J	02A;07A;10A
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	UJ	02A;07A;10A
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	UJ	02A;07A
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	UJ	02A;07A
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	UJ	02A;07A;10A
PERFLUOROHEPTANOIC ACID	375-85-9	0.018	0.020	0.0047	ug/L	J	J	02A;07A
PERFLUOROHEXANE SULFONATE	108427-53-8	1.8	0.80	0.16	ug/L		J	02A;07A;10A
PERFLUOROHEXANOIC ACID	307-24-4	0.48	0.020	0.0046	ug/L		J	02A;07A
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	02A;07A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	UJ	02A;07A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.031	0.020	0.0033	ug/L		J	02A;07A
PERFLUOROOCTANOIC ACID	335-67-1	0.099	0.020	0.0053	ug/L		J	02A;07A
PERFLUOROPENTANOIC ACID	2706-90-3	0.028	0.020	0.0036	ug/L		J	02A;07A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	UJ	02A;07A;10A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	UJ	02A;07A;10A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	UJ	02A;07A

Analysis Method E537

Sample Name PETER04-002-GW-945 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC775 **Sample Date/Time:** 2016-11-08 08:45 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.020	0.021	0.0068	ug/L	J	J	02A;05B;10A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0058	0.021	0.0058	ug/L	U	UJ	02A
PERFLUOROBUTANE SULFONATE	375-73-5	0.083	0.021	0.0020	ug/L		J	02A
PERFLUOROBUTANOIC ACID	375-22-4	0.016	0.021	0.0069	ug/L	J	J	02A
PERFLUORODECANE SULFONATE	335-77-3	<0.0045	0.021	0.0045	ug/L	U	UJ	02A
PERFLUORODECANOIC ACID	335-76-2	<0.0069	0.021	0.0069	ug/L	U	UJ	02A
PERFLUORODODECANOIC ACID	307-55-1	<0.0060	0.021	0.0060	ug/L	U	UJ	02A
PERFLUOROHEPTANOIC ACID	375-85-9	0.018	0.021	0.0049	ug/L	J	J	02A
PERFLUOROHEXANE SULFONATE	108427-53-8	1.8	0.80	0.16	ug/L		J	02A
PERFLUOROHEXANOIC ACID	307-24-4	0.50	0.021	0.0048	ug/L		J	02A
PERFLUORONONANOIC ACID	375-95-1	<0.0048	0.021	0.0048	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0061	0.021	0.0061	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.031	0.021	0.0035	ug/L		J	02A
PERFLUOROOCTANOIC ACID	335-67-1	0.095	0.021	0.0056	ug/L		J	02A
PERFLUOROPENTANOIC ACID	2706-90-3	0.029	0.021	0.0038	ug/L		J	02A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0055	0.021	0.0055	ug/L	U	UJ	02A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0034	0.021	0.0034	ug/L	U	UJ	02A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0039	0.021	0.0039	ug/L	U	UJ	02A

Analysis Method E537

Sample Name PETER04-007-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DLC776 **Sample Date/Time:** 2016-11-08 10:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.91	0.23	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.91	0.19	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.23	0.91	0.23	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.21	0.91	0.21	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	0.34	0.91	0.18	ug/kg	J	J	
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.91	0.25	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	0.53	0.91	0.22	ug/kg	J	J	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.91	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.17	0.91	0.17	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	<0.19	0.91	0.19	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.91	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.91	0.15	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.80	0.91	0.15	ug/kg	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.91	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.32	0.91	0.19	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	0.26	0.91	0.20	ug/kg	J	J	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.91	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.24	0.91	0.24	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-008-GW-096 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC785 **Sample Date/Time:** 2016-11-11 10:15 **Validation Level:** Stage 4

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	0.037	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.037	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.040	0.020	0.0047	ug/L			
PERFLUOROHEXANE SULFONATE	108427-53-8	0.068	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.12	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.074	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-008-SO-088 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DLC790 **Sample Date/Time:** 2016-11-08 14:44 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.25	0.98	0.25	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.21	0.98	0.21	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.25	0.98	0.25	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.23	0.98	0.23	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.20	0.98	0.20	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.27	0.98	0.27	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.24	0.98	0.24	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.18	0.98	0.18	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.19	0.98	0.19	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.21	0.98	0.21	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.14	0.98	0.14	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.17	0.98	0.17	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.16	0.98	0.16	ug/kg	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.12	0.98	0.12	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.21	0.98	0.21	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.22	0.98	0.22	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.25	0.98	0.25	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.25	0.98	0.25	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-008-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DLC789 **Sample Date/Time:** 2016-11-08 08:00 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.92	0.23	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.92	0.19	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.23	0.92	0.23	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.21	0.92	0.21	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.92	0.18	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.26	0.92	0.26	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.92	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.17	0.92	0.17	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.17	0.92	0.17	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.19	0.92	0.19	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.92	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.16	0.92	0.16	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.15	0.92	0.15	ug/kg	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.92	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.19	0.92	0.19	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.92	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.92	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.24	0.92	0.24	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-009-GW-090 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC786 **Sample Date/Time:** 2016-11-11 12:30 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	0.011	0.020	0.0019	ug/L	J	J	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.013	0.020	0.0040	ug/L	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	0.014	0.020	0.0046	ug/L	J	J	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.0096	0.020	0.0036	ug/L	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-009-SO-079 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DLC773 **Sample Date/Time:** 2016-11-09 15:05 **Validation Level:** Stage 4

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.22	0.87	0.22	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.18	0.87	0.18	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.22	0.87	0.22	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.87	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.17	0.87	0.17	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.24	0.87	0.24	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.21	0.87	0.21	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.87	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.17	0.87	0.17	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.18	0.87	0.18	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.87	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.87	0.15	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.14	0.87	0.14	ug/kg	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.10	0.87	0.10	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.18	0.87	0.18	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.87	0.19	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.22	0.87	0.22	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.87	0.23	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-009-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DLC772 **Sample Date/Time:** 2016-11-09 12:25 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.24	0.94	0.24	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.20	0.94	0.20	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.24	0.94	0.24	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.22	0.94	0.22	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.19	0.94	0.19	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.26	0.94	0.26	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.23	0.94	0.23	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.17	0.94	0.17	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.18	0.94	0.18	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.20	0.94	0.20	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.94	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.16	0.94	0.16	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.28	0.94	0.15	ug/kg	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.94	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.20	0.94	0.20	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.21	0.94	0.21	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.24	0.94	0.24	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.24	0.94	0.24	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-010-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DLC770 **Sample Date/Time:** 2016-11-09 09:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.36	1.0	0.25	ug/kg	J	J	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.27	1.0	0.21	ug/kg	J	J	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.25	1.0	0.25	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.23	1.0	0.23	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	2.4	1.0	0.20	ug/kg			
PERFLUORODECANOIC ACID	335-76-2	0.53	1.0	0.28	ug/kg	J	J	
PERFLUORODODECANOIC ACID	307-55-1	<0.24	1.0	0.24	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.36	1.0	0.18	ug/kg	J	J	
PERFLUOROHEXANE SULFONATE	108427-53-8	2.8	1.0	0.19	ug/kg			
PERFLUOROHEXANOIC ACID	307-24-4	<0.21	1.0	0.21	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	1.4	1.0	0.14	ug/kg			
PERFLUOROOCTANE SULFONAMIDE	754-91-6	1.0	1.0	0.17	ug/kg		J	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	61	10	1.6	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	1.5	1.0	0.12	ug/kg			
PERFLUOROPENTANOIC ACID	2706-90-3	0.37	1.0	0.21	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.22	1.0	0.22	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.25	1.0	0.25	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.26	1.0	0.26	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-011-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DLC771 **Sample Date/Time:** 2016-11-09 09:40 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.25	0.99	0.25	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.21	0.99	0.21	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	0.27	0.99	0.25	ug/kg	J	J	
PERFLUOROBUTANOIC ACID	375-22-4	0.28	0.99	0.23	ug/kg	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.20	0.99	0.20	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	0.32	0.99	0.28	ug/kg	J	J	
PERFLUORODODECANOIC ACID	307-55-1	<0.24	0.99	0.24	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.35	0.99	0.18	ug/kg	J	J	
PERFLUOROHEXANE SULFONATE	108427-53-8	2.5	0.99	0.19	ug/kg			
PERFLUOROHEXANOIC ACID	307-24-4	0.69	0.99	0.21	ug/kg	J	J	
PERFLUORONONANOIC ACID	375-95-1	2.4	0.99	0.14	ug/kg			
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.17	0.99	0.17	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	57	9.9	1.6	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	0.49	0.99	0.12	ug/kg	J	J	
PERFLUOROPENTANOIC ACID	2706-90-3	0.76	0.99	0.21	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.22	0.99	0.22	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.25	0.99	0.25	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.26	0.99	0.26	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-012-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DLC769 **Sample Date/Time:** 2016-11-09 08:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.41	0.85	0.21	ug/kg	J	J	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.18	0.85	0.18	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.21	0.85	0.21	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.85	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.17	0.85	0.17	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	0.28	0.85	0.24	ug/kg	J	J	
PERFLUORODODECANOIC ACID	307-55-1	0.40	0.85	0.20	ug/kg	J	J	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.15	0.85	0.15	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.33	0.85	0.16	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	<0.18	0.85	0.18	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.85	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.14	0.85	0.14	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	3.0	0.85	0.14	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	<0.10	0.85	0.10	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.21	0.85	0.18	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	0.20	0.85	0.19	ug/kg	J	J	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.21	0.85	0.21	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.22	0.85	0.22	ug/kg	U	U	

Analysis Method E537

Sample Name PETER05-001-GW-045 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC780 **Sample Date/Time:** 2016-11-09 14:00 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.55	0.020	0.0065	ug/L		J	02A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	UJ	02A
PERFLUOROBUTANE SULFONATE	375-73-5	1.7	0.40	0.038	ug/L		J	02A
PERFLUOROBUTANOIC ACID	375-22-4	0.58	0.020	0.0066	ug/L		J	02A
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	UJ	02A
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	UJ	02A
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	UJ	02A
PERFLUOROHEPTANOIC ACID	375-85-9	0.52	0.020	0.0047	ug/L		J	02A
PERFLUOROHEXANE SULFONATE	108427-53-8	7.4	0.40	0.080	ug/L		J	02A
PERFLUOROHEXANOIC ACID	307-24-4	3.2	0.40	0.092	ug/L		J	02A
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONATE	1763-23-1	2.7	0.40	0.066	ug/L		J	02A
PERFLUOROOCTANOIC ACID	335-67-1	0.54	0.020	0.0053	ug/L		J	02A
PERFLUOROPENTANOIC ACID	2706-90-3	1.1	0.40	0.072	ug/L		J	02A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	UJ	02A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	UJ	02A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	UJ	02A

Analysis Method E537

Sample Name PETER-IDW-SOIL **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DLC788 **Sample Date/Time:** 2016-11-11 14:00 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.22	0.88	0.22	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.18	0.88	0.18	ug/kg	U	UJ	04C;07A
PERFLUOROBUTANE SULFONATE	375-73-5	<0.22	0.88	0.22	ug/kg	U	UJ	07A
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.88	0.20	ug/kg	U	UJ	07A
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.88	0.18	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.88	0.25	ug/kg	U	UJ	07A
PERFLUORODODECANOIC ACID	307-55-1	<0.21	0.88	0.21	ug/kg	U	UJ	07A
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.88	0.16	ug/kg	U	UJ	07A
PERFLUOROHEXANE SULFONATE	108427-53-8	0.34	0.88	0.17	ug/kg	J	J	07A
PERFLUOROHEXANOIC ACID	307-24-4	<0.18	0.88	0.18	ug/kg	U	UJ	07A
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.88	0.12	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.88	0.15	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.38	0.88	0.14	ug/kg	J	J	07A
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.88	0.11	ug/kg	U	UJ	07A
PERFLUOROPENTANOIC ACID	2706-90-3	<0.18	0.88	0.18	ug/kg	U	UJ	07A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.88	0.19	ug/kg	U	UJ	07A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.22	0.88	0.22	ug/kg	U	UJ	07A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.88	0.23	ug/kg	U	UJ	07A

Analysis Method E537

Sample Name PETER-IDW-WATER **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC787 **Sample Date/Time:** 2016-11-11 14:00 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.021	0.020	0.0065	ug/L			
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.0062	0.020	0.0055	ug/L	J	J	
PERFLUOROBUTANE SULFONATE	375-73-5	0.027	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.013	0.020	0.0066	ug/L	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.024	0.020	0.0047	ug/L			
PERFLUOROHEXANE SULFONATE	108427-53-8	0.10	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.049	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.082	0.020	0.0033	ug/L		J	05B
PERFLUOROOCTANOIC ACID	335-67-1	0.0093	0.020	0.0053	ug/L	J	J	
PERFLUOROPENTANOIC ACID	2706-90-3	0.043	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Sample Name PETER-RS-013 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC791 **Sample Date/Time:** 2016-11-08 08:30 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
PERFLUOROBUTANE SULFONATE	375-73-5	<0.0019	0.020	0.0019	ug/L	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.0040	0.020	0.0040	ug/L	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.0036	0.020	0.0036	ug/L	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER-RS-014 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC768 **Sample Date/Time:** 2016-11-09 08:00 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.0019	0.020	0.0019	ug/L	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.0040	0.020	0.0040	ug/L	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.0036	0.020	0.0036	ug/L	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER-RS-014A **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC783 **Sample Date/Time:** 2016-11-10 14:05 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.0019	0.020	0.0019	ug/L	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.0040	0.020	0.0040	ug/L	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.0036	0.020	0.0036	ug/L	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER-RS-015 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC784 **Sample Date/Time:** 2016-11-11 09:10 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	375-73-5	<0.0019	0.020	0.0019	ug/L	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.0040	0.020	0.0040	ug/L	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.0036	0.020	0.0036	ug/L	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Groundwater
E537
Analytical Results

Validated Sample Result Forms: B6O2957

Analysis Method *E537*

Sample Name PETER01-001-GW-087 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ764 **Sample Date/Time:** 2016-11-06 15:35 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.27	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.15	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.019	0.020	0.0040	ug/L	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	0.57	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.25	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER01-001-GW-987 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ765 **Sample Date/Time:** 2016-11-06 15:35 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.27	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.14	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.022	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.53	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.22	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER01-002-GW-095 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ766 **Sample Date/Time:** 2016-11-06 16:50 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.10	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.084	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.019	0.020	0.0040	ug/L	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	0.14	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.29	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method *E537*

Sample Name PETER01-003-GW-082 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ762 **Sample Date/Time:** 2016-11-06 14:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.020	0.020	0.0019	ug/L	J	J	
PERFLUOROBUTANOIC ACID	375-22-4	0.016	0.020	0.0066	ug/L	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.031	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.052	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.020	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Validated Sample Result Forms: B6O6630

Analysis Method *E537*

Sample Name PETER02-001-GW-056 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC781 **Sample Date/Time:** 2016-11-09 15:25 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	UJ	02A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	UJ	02A
PERFLUOROBUTANE SULFONATE	29420-43-3	0.010	0.020	0.0019	ug/L	J	J	02A
PERFLUOROBUTANOIC ACID	375-22-4	0.0078	0.020	0.0066	ug/L	J	J	02A
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	UJ	02A
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	UJ	02A
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	UJ	02A
PERFLUOROHEPTANOIC ACID	375-85-9	0.0069	0.020	0.0047	ug/L	J	J	02A
PERFLUOROHEXANE SULFONATE	108427-53-8	0.17	0.020	0.0040	ug/L		J	02A
PERFLUOROHEXANOIC ACID	307-24-4	0.024	0.020	0.0046	ug/L		J	02A
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.058	0.020	0.0033	ug/L		J	02A
PERFLUOROOCTANOIC ACID	335-67-1	0.12	0.020	0.0053	ug/L		J	02A
PERFLUOROPENTANOIC ACID	2706-90-3	0.013	0.020	0.0036	ug/L	J	J	02A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	UJ	02A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	UJ	02A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	UJ	02A

Analysis Method E537

Sample Name PETER02-003-GW-043 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC782 **Sample Date/Time:** 2016-11-10 14:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.017	0.020	0.0065	ug/L	J	J	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.030	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.030	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.040	0.020	0.0047	ug/L			
PERFLUOROHEXANE SULFONATE	108427-53-8	0.35	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.16	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.012	0.020	0.0033	ug/L	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	0.065	0.020	0.0053	ug/L			
PERFLUOROPENTANOIC ACID	2706-90-3	0.083	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method *E537*

Sample Name PETER03-001-GW-064 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC778 **Sample Date/Time:** 2016-11-08 16:40 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	UJ	02A;05B
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	UJ	02A
PERFLUOROBUTANE SULFONATE	29420-43-3	0.0073	0.020	0.0019	ug/L	J	J	02A
PERFLUOROBUTANOIC ACID	375-22-4	0.0067	0.020	0.0066	ug/L	J	J	02A
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	UJ	02A
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	UJ	02A
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	UJ	02A
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	UJ	02A
PERFLUOROHEXANE SULFONATE	108427-53-8	0.0051	0.020	0.0040	ug/L	J	J	02A
PERFLUOROHEXANOIC ACID	307-24-4	0.0095	0.020	0.0046	ug/L	J	J	02A
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	UJ	02A
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	UJ	02A
PERFLUOROPENTANOIC ACID	2706-90-3	0.013	0.020	0.0036	ug/L	J	J	02A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	UJ	02A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	UJ	02A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	UJ	02A

Analysis Method E537

Sample Name PETER03-002-GW-071 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC779 **Sample Date/Time:** 2016-11-08 17:35 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	UJ	02A;05B
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	UJ	02A
PERFLUOROBUTANE SULFONATE	29420-43-3	0.050	0.020	0.0019	ug/L		J	02A
PERFLUOROBUTANOIC ACID	375-22-4	0.010	0.020	0.0066	ug/L	J	J	02A
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	UJ	02A
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	UJ	02A
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	UJ	02A
PERFLUOROHEPTANOIC ACID	375-85-9	0.0069	0.020	0.0047	ug/L	J	J	02A
PERFLUOROHEXANE SULFONATE	108427-53-8	0.15	0.020	0.0040	ug/L		J	02A
PERFLUOROHEXANOIC ACID	307-24-4	0.022	0.020	0.0046	ug/L		J	02A
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.0064	0.020	0.0033	ug/L	J	J	02A
PERFLUOROOCTANOIC ACID	335-67-1	0.023	0.020	0.0053	ug/L		J	02A
PERFLUOROPENTANOIC ACID	2706-90-3	0.015	0.020	0.0036	ug/L	J	J	02A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	UJ	02A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	UJ	02A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	UJ	02A

Analysis Method E537

Sample Name PETER03-003-GW-070 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC777 **Sample Date/Time:** 2016-11-08 15:50 **Validation Level:** Stage 4

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0075	0.023	0.0075	ug/L	U	UJ	02A;05B
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0063	0.023	0.0063	ug/L	U	UJ	02A
PERFLUOROBUTANE SULFONATE	29420-43-3	0.062	0.023	0.0022	ug/L		J	02A
PERFLUOROBUTANOIC ACID	375-22-4	0.040	0.023	0.0076	ug/L		J	02A
PERFLUORODECANE SULFONATE	335-77-3	<0.0049	0.023	0.0049	ug/L	U	UJ	02A
PERFLUORODECANOIC ACID	335-76-2	<0.0076	0.023	0.0076	ug/L	U	UJ	02A
PERFLUORODODECANOIC ACID	307-55-1	<0.0066	0.023	0.0066	ug/L	U	UJ	02A
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0054	0.023	0.0054	ug/L	U	UJ	02A
PERFLUOROHEXANE SULFONATE	108427-53-8	0.028	0.023	0.0046	ug/L		J	02A
PERFLUOROHEXANOIC ACID	307-24-4	0.037	0.023	0.0053	ug/L		J	02A
PERFLUORONONANOIC ACID	375-95-1	<0.0053	0.023	0.0053	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0067	0.023	0.0067	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.028	0.023	0.0038	ug/L		J	02A
PERFLUOROOCTANOIC ACID	335-67-1	0.0084	0.023	0.0061	ug/L	J	J	02A
PERFLUOROPENTANOIC ACID	2706-90-3	0.048	0.023	0.0041	ug/L		J	02A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0060	0.023	0.0060	ug/L	U	UJ	02A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0037	0.023	0.0037	ug/L	U	UJ	02A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0043	0.023	0.0043	ug/L	U	UJ	02A

Analysis Method E537

Sample Name PETER04-001-GW-059 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ767 **Sample Date/Time:** 2016-11-07 11:05 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.035	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.0093	0.020	0.0066	ug/L	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.025	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.13	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.0060	0.020	0.0033	ug/L	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	0.022	0.020	0.0053	ug/L			
PERFLUOROPENTANOIC ACID	2706-90-3	0.016	0.020	0.0036	ug/L	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-002-GW-045 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC774 **Sample Date/Time:** 2016-11-08 08:45 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.012	0.020	0.0065	ug/L	J	J	02A;05B;07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	UJ	02A;07A
PERFLUOROBUTANE SULFONATE	29420-43-3	0.087	0.020	0.0019	ug/L		J	02A;07A;10A
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	UJ	02A;07A;10A
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	UJ	02A;07A
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	UJ	02A;07A
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	UJ	02A;07A;10A
PERFLUOROHEPTANOIC ACID	375-85-9	0.018	0.020	0.0047	ug/L	J	J	02A;07A
PERFLUOROHEXANE SULFONATE	108427-53-8	1.8	0.80	0.16	ug/L		J	02A;07A;10A
PERFLUOROHEXANOIC ACID	307-24-4	0.48	0.020	0.0046	ug/L		J	02A;07A
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	02A;07A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	UJ	02A;07A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.031	0.020	0.0033	ug/L		J	02A;07A
PERFLUOROOCTANOIC ACID	335-67-1	0.099	0.020	0.0053	ug/L		J	02A;07A
PERFLUOROPENTANOIC ACID	2706-90-3	0.028	0.020	0.0036	ug/L		J	02A;07A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	UJ	02A;07A;10A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	UJ	02A;07A;10A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	UJ	02A;07A

Analysis Method E537

Sample Name PETER04-002-GW-945 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC775 **Sample Date/Time:** 2016-11-08 08:45 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.020	0.021	0.0068	ug/L	J	J	02A;05B;10A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0058	0.021	0.0058	ug/L	U	UJ	02A
PERFLUOROBUTANE SULFONATE	29420-43-3	0.083	0.021	0.0020	ug/L		J	02A
PERFLUOROBUTANOIC ACID	375-22-4	0.016	0.021	0.0069	ug/L	J	J	02A
PERFLUORODECANE SULFONATE	335-77-3	<0.0045	0.021	0.0045	ug/L	U	UJ	02A
PERFLUORODECANOIC ACID	335-76-2	<0.0069	0.021	0.0069	ug/L	U	UJ	02A
PERFLUORODODECANOIC ACID	307-55-1	<0.0060	0.021	0.0060	ug/L	U	UJ	02A
PERFLUOROHEPTANOIC ACID	375-85-9	0.018	0.021	0.0049	ug/L	J	J	02A
PERFLUOROHEXANE SULFONATE	108427-53-8	1.8	0.80	0.16	ug/L		J	02A
PERFLUOROHEXANOIC ACID	307-24-4	0.50	0.021	0.0048	ug/L		J	02A
PERFLUORONONANOIC ACID	375-95-1	<0.0048	0.021	0.0048	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0061	0.021	0.0061	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.031	0.021	0.0035	ug/L		J	02A
PERFLUOROOCTANOIC ACID	335-67-1	0.095	0.021	0.0056	ug/L		J	02A
PERFLUOROPENTANOIC ACID	2706-90-3	0.029	0.021	0.0038	ug/L		J	02A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0055	0.021	0.0055	ug/L	U	UJ	02A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0034	0.021	0.0034	ug/L	U	UJ	02A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0039	0.021	0.0039	ug/L	U	UJ	02A

Analysis Method E537

Sample Name PETER04-003-GW-056 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ769 **Sample Date/Time:** 2016-11-07 12:40 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.18	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.054	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.026	0.020	0.0047	ug/L			
PERFLUOROHEXANE SULFONATE	108427-53-8	0.23	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.76	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	0.015	0.020	0.0053	ug/L	J	J	
PERFLUOROPENTANOIC ACID	2706-90-3	0.12	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-004-GW-085 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ771 **Sample Date/Time:** 2016-11-07 16:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.012	0.020	0.0019	ug/L	J	J	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.024	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.013	0.020	0.0046	ug/L	J	J	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.0037	0.020	0.0033	ug/L	J	J	05B
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.016	0.020	0.0036	ug/L	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method *E537*

Sample Name PETER04-005-GW-065 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ770 **Sample Date/Time:** 2016-11-07 15:05 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.059	0.020	0.0065	ug/L			
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.48	0.020	0.0055	ug/L			
PERFLUOROBUTANE SULFONATE	29420-43-3	0.032	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.039	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	0.050	0.020	0.0066	ug/L			
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.11	0.020	0.0047	ug/L			
PERFLUOROHEXANE SULFONATE	108427-53-8	0.28	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.16	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	0.030	0.020	0.0046	ug/L			
PERFLUOROOCTANE SULFONAMIDE	754-91-6	0.014	0.020	0.0058	ug/L	J	J	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.87	0.020	0.0033	ug/L		J	05B
PERFLUOROOCTANOIC ACID	335-67-1	0.11	0.020	0.0053	ug/L			
PERFLUOROPENTANOIC ACID	2706-90-3	0.12	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-008-GW-096 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC785 **Sample Date/Time:** 2016-11-11 10:15 **Validation Level:** Stage 4

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.037	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.037	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.040	0.020	0.0047	ug/L			
PERFLUOROHEXANE SULFONATE	108427-53-8	0.068	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.12	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.074	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-009-GW-090 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC786 **Sample Date/Time:** 2016-11-11 12:30 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.011	0.020	0.0019	ug/L	J	J	
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.0047	0.020	0.0047	ug/L	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.013	0.020	0.0040	ug/L	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	0.014	0.020	0.0046	ug/L	J	J	
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.0096	0.020	0.0036	ug/L	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-MW2-1-GW-059 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ751 **Sample Date/Time:** 2016-11-04 16:25 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.0069	0.020	0.0055	ug/L	J	J	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.021	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.0087	0.020	0.0066	ug/L	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.012	0.020	0.0047	ug/L	J	J	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.095	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.022	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.070	0.020	0.0033	ug/L			
PERFLUOROOCTANOIC ACID	335-67-1	0.0090	0.020	0.0053	ug/L	J	J	
PERFLUOROPENTANOIC ACID	2706-90-3	0.019	0.020	0.0036	ug/L	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-MW2-2-GW-050 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ754 **Sample Date/Time:** 2016-11-05 16:40 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.079	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.013	0.020	0.0066	ug/L	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.0086	0.020	0.0047	ug/L	J	J	04C
PERFLUOROHEXANE SULFONATE	108427-53-8	0.14	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.035	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	04C
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.0046	0.020	0.0033	ug/L	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.020	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-MW2-3-GW-050 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ750 **Sample Date/Time:** 2016-11-04 15:05 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.017	0.020	0.0065	ug/L	J	J	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.019	0.020	0.0055	ug/L	J	J	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.023	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.015	0.020	0.0066	ug/L	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.033	0.020	0.0047	ug/L			
PERFLUOROHEXANE SULFONATE	108427-53-8	0.14	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.053	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.52	0.020	0.0033	ug/L			
PERFLUOROOCTANOIC ACID	335-67-1	0.027	0.020	0.0053	ug/L			
PERFLUOROPENTANOIC ACID	2706-90-3	0.044	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method *E537*

Sample Name PETER04-MW2-4-GW-053 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ749 **Sample Date/Time:** 2016-11-04 13:50 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.0079	0.020	0.0055	ug/L	J	J	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.013	0.020	0.0019	ug/L	J	J	
PERFLUOROBUTANOIC ACID	375-22-4	0.0098	0.020	0.0066	ug/L	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.011	0.020	0.0047	ug/L	J	J	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.043	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.022	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.085	0.020	0.0033	ug/L			
PERFLUOROOCTANOIC ACID	335-67-1	<0.0053	0.020	0.0053	ug/L	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.018	0.020	0.0036	ug/L	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-MW2-5-GW-069 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ753 **Sample Date/Time:** 2016-11-05 15:50 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.0065	0.020	0.0065	ug/L	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.063	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.028	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.046	0.020	0.0047	ug/L		J	04C
PERFLUOROHEXANE SULFONATE	108427-53-8	0.25	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.11	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	04C
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.0033	0.020	0.0033	ug/L	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	0.0087	0.020	0.0053	ug/L	J	J	
PERFLUOROPENTANOIC ACID	2706-90-3	0.096	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-MW4-1-GW-074 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ755 **Sample Date/Time:** 2016-11-05 17:35 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.023	0.020	0.0065	ug/L			
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.040	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.020	0.020	0.0066	ug/L	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.028	0.020	0.0047	ug/L		J	04C
PERFLUOROHEXANE SULFONATE	108427-53-8	0.14	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.068	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	04C
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.012	0.020	0.0033	ug/L	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	0.0071	0.020	0.0053	ug/L	J	J	
PERFLUOROPENTANOIC ACID	2706-90-3	0.059	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER04-MW4-1-GW-974 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ756 **Sample Date/Time:** 2016-11-05 17:35 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.022	0.020	0.0065	ug/L			
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.038	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	0.022	0.020	0.0066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.033	0.020	0.0047	ug/L		J	04C
PERFLUOROHEXANE SULFONATE	108427-53-8	0.14	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.067	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	04C
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.012	0.020	0.0033	ug/L	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	0.0067	0.020	0.0053	ug/L	J	J	
PERFLUOROPENTANOIC ACID	2706-90-3	0.062	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Analysis Method E537

Sample Name PETER05-001-GW-045 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DLC780 **Sample Date/Time:** 2016-11-09 14:00 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.55	0.020	0.0065	ug/L		J	02A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.0055	0.020	0.0055	ug/L	U	UJ	02A
PERFLUOROBUTANE SULFONATE	29420-43-3	1.7	0.40	0.038	ug/L		J	02A
PERFLUOROBUTANOIC ACID	375-22-4	0.58	0.020	0.0066	ug/L		J	02A
PERFLUORODECANE SULFONATE	335-77-3	<0.0043	0.020	0.0043	ug/L	U	UJ	02A
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	UJ	02A
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	UJ	02A
PERFLUOROHEPTANOIC ACID	375-85-9	0.52	0.020	0.0047	ug/L		J	02A
PERFLUOROHEXANE SULFONATE	108427-53-8	7.4	0.40	0.080	ug/L		J	02A
PERFLUOROHEXANOIC ACID	307-24-4	3.2	0.40	0.092	ug/L		J	02A
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	UJ	02A
PERFLUOROOCTANE SULFONATE	1763-23-1	2.7	0.40	0.066	ug/L		J	02A
PERFLUOROOCTANOIC ACID	335-67-1	0.54	0.020	0.0053	ug/L		J	02A
PERFLUOROPENTANOIC ACID	2706-90-3	1.1	0.40	0.072	ug/L		J	02A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	UJ	02A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	UJ	02A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	UJ	02A

Analysis Method E537

Sample Name PETER05-MW1-2-GW-056 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ748 **Sample Date/Time:** 2016-11-04 11:45 **Validation Level:** Stage 4

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	6.6	0.20	0.065	ug/L			
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.055	0.20	0.055	ug/L	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	17	1.0	0.095	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	8.5	0.20	0.066	ug/L			
PERFLUORODECANE SULFONATE	335-77-3	<0.043	0.20	0.043	ug/L	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.066	0.20	0.066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.057	0.20	0.057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	4.1	0.20	0.047	ug/L			
PERFLUOROHEXANE SULFONATE	108427-53-8	55	8.0	1.6	ug/L		J	02A
PERFLUOROHEXANOIC ACID	307-24-4	42	1.0	0.23	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.046	0.20	0.046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.058	0.20	0.058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	9.7	0.20	0.033	ug/L		J	05B
PERFLUOROOCTANOIC ACID	335-67-1	5.3	0.20	0.053	ug/L			
PERFLUOROPENTANOIC ACID	2706-90-3	11	1.0	0.18	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.052	0.20	0.052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.032	0.20	0.032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.037	0.20	0.037	ug/L	U	U	

Surface Soil
E537
Analytical Results

Analysis Method E537

Sample Name PETER01-001-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL076 **Sample Date/Time:** 2016-10-27 11:25 **Validation Level:** Stage 4

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.91	0.23	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	8.3	0.91	0.19	ug/kg		J	07A;17
PERFLUOROBUTANE SULFONATE	29420-43-3	0.41	0.91	0.23	ug/kg	J	J	07A
PERFLUOROBUTANOIC ACID	375-22-4	3.3	0.91	0.21	ug/kg			
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.91	0.18	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	1.5	0.91	0.25	ug/kg		J	17
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.91	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.94	0.91	0.16	ug/kg			
PERFLUOROHEXANE SULFONATE	108427-53-8	1.2	0.91	0.17	ug/kg		J	07A
PERFLUOROHEXANOIC ACID	307-24-4	1.5	0.91	0.19	ug/kg			
PERFLUORONONANOIC ACID	375-95-1	29	0.91	0.13	ug/kg			
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.91	0.15	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	77	9.1	1.5	ug/kg		J	07A;17
PERFLUOROOCTANOIC ACID	335-67-1	3.7	0.91	0.11	ug/kg		J	17
PERFLUOROPENTANOIC ACID	2706-90-3	2.9	0.91	0.19	ug/kg		J	17
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.91	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.91	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	0.40	0.91	0.24	ug/kg	J	J	

Analysis Method E537

Sample Name PETER01-001-SS-901 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL077 **Sample Date/Time:** 2016-10-27 11:25 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.92	0.23	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	3.3	0.92	0.19	ug/kg		J	17
PERFLUOROBUTANE SULFONATE	29420-43-3	0.48	0.92	0.23	ug/kg	J	J	
PERFLUOROBUTANOIC ACID	375-22-4	3.9	0.92	0.21	ug/kg			
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.92	0.18	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	0.87	0.92	0.26	ug/kg	J	J	17
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.92	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	1.1	0.92	0.17	ug/kg			
PERFLUOROHEXANE SULFONATE	108427-53-8	1.5	0.92	0.17	ug/kg			
PERFLUOROHEXANOIC ACID	307-24-4	1.3	0.92	0.19	ug/kg			
PERFLUORONONANOIC ACID	375-95-1	24	0.92	0.13	ug/kg			
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.16	0.92	0.16	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	36	0.92	0.15	ug/kg		J	17
PERFLUOROOCTANOIC ACID	335-67-1	9.7	0.92	0.11	ug/kg		J	17
PERFLUOROPENTANOIC ACID	2706-90-3	5.6	0.92	0.19	ug/kg		J	17
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.92	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.92	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.24	0.92	0.24	ug/kg	U	U	

Analysis Method E537

Sample Name PETER01-002-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL061 **Sample Date/Time:** 2016-10-28 13:30 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.21	0.82	0.21	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.17	0.82	0.17	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.21	0.82	0.21	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.19	0.82	0.19	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.16	0.82	0.16	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.23	0.82	0.23	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.20	0.82	0.20	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.15	0.82	0.15	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.16	0.82	0.16	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.17	0.82	0.17	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.11	0.82	0.11	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.14	0.82	0.14	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	3.9	0.82	0.13	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	<0.098	0.82	0.098	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.17	0.82	0.17	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.18	0.82	0.18	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.21	0.82	0.21	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.21	0.82	0.21	ug/kg	U	U	

Analysis Method E537

Sample Name PETER01-003-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL081 **Sample Date/Time:** 2016-10-28 07:50 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.91	0.23	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	3.0	0.91	0.19	ug/kg			
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.23	0.91	0.23	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	1.3	0.91	0.21	ug/kg			
PERFLUORODECANE SULFONATE	335-77-3	1.9	0.91	0.18	ug/kg			
PERFLUORODECANOIC ACID	335-76-2	2.6	0.91	0.25	ug/kg			
PERFLUORODODECANOIC ACID	307-55-1	0.24	0.91	0.22	ug/kg	J	J	
PERFLUOROHEPTANOIC ACID	375-85-9	1.3	0.91	0.16	ug/kg			
PERFLUOROHEXANE SULFONATE	108427-53-8	1.0	0.91	0.17	ug/kg			
PERFLUOROHEXANOIC ACID	307-24-4	0.65	0.91	0.19	ug/kg	J	J	
PERFLUORONONANOIC ACID	375-95-1	5.5	0.91	0.13	ug/kg			
PERFLUOROOCTANE SULFONAMIDE	754-91-6	0.98	0.91	0.15	ug/kg			
PERFLUOROOCTANE SULFONATE	1763-23-1	120	9.1	1.5	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	3.1	0.91	0.11	ug/kg			
PERFLUOROPENTANOIC ACID	2706-90-3	0.96	0.91	0.19	ug/kg			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.91	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.91	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	1.4	0.91	0.24	ug/kg			

Analysis Method E537

Sample Name PETER02-001-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ785 **Sample Date/Time:** 2016-11-06 11:44 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.21	0.85	0.21	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.22	0.85	0.18	ug/kg	J	J	04C
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.21	0.85	0.21	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.85	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	0.38	0.85	0.17	ug/kg	J	J	
PERFLUORODECANOIC ACID	335-76-2	<0.24	0.85	0.24	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.20	0.85	0.20	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.15	0.85	0.15	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.16	0.85	0.16	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.18	0.85	0.18	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.85	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	1.1	0.85	0.14	ug/kg			
PERFLUOROOCTANE SULFONATE	1763-23-1	7.0	0.85	0.14	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	<0.10	0.85	0.10	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.18	0.85	0.18	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.85	0.19	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.21	0.85	0.21	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.22	0.85	0.22	ug/kg	U	U	

Analysis Method E537

Sample Name PETER02-002-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ783 **Sample Date/Time:** 2016-11-05 12:20 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.22	0.88	0.22	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.22	0.88	0.22	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	0.26	0.88	0.20	ug/kg	J	J	07A
PERFLUORODECANE SULFONATE	335-77-3	0.21	0.88	0.18	ug/kg	J	J	
PERFLUORODECANOIC ACID	335-76-2	0.96	0.88	0.25	ug/kg		J	07A
PERFLUORODODECANOIC ACID	307-55-1	<0.21	0.88	0.21	ug/kg	U	UJ	07A
PERFLUOROHEPTANOIC ACID	375-85-9	0.33	0.88	0.16	ug/kg	J	J	07A
PERFLUOROHEXANE SULFONATE	108427-53-8	4.4	0.88	0.17	ug/kg			
PERFLUOROHEXANOIC ACID	307-24-4	0.26	0.88	0.18	ug/kg	J	J	07A
PERFLUORONONANOIC ACID	375-95-1	0.98	0.88	0.12	ug/kg		J	07A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	0.36	0.88	0.15	ug/kg	J	J	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	110	8.8	1.4	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	0.61	0.88	0.11	ug/kg	J	J	07A
PERFLUOROPENTANOIC ACID	2706-90-3	0.58	0.88	0.18	ug/kg	J	J	07A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.88	0.19	ug/kg	U	UJ	07A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.22	0.88	0.22	ug/kg	U	UJ	07A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.88	0.23	ug/kg	U	UJ	07A

Analysis Method E537

Sample Name PETER02-003-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ781 **Sample Date/Time:** 2016-11-05 09:55 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.21	0.85	0.21	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	1.5	0.85	0.18	ug/kg			
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.21	0.85	0.21	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.85	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	0.85	0.85	0.17	ug/kg			
PERFLUORODECANOIC ACID	335-76-2	0.43	0.85	0.24	ug/kg	J	J	
PERFLUORODODECANOIC ACID	307-55-1	<0.20	0.85	0.20	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.15	0.85	0.15	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	6.6	0.85	0.16	ug/kg			
PERFLUOROHEXANOIC ACID	307-24-4	0.32	0.85	0.18	ug/kg	J	J	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.85	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	44	0.85	0.14	ug/kg		J	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	160	8.5	1.4	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	0.51	0.85	0.10	ug/kg	J	J	
PERFLUOROPENTANOIC ACID	2706-90-3	0.20	0.85	0.18	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.85	0.19	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.21	0.85	0.21	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.22	0.85	0.22	ug/kg	U	U	

Analysis Method E537

Sample Name PETER03-001-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ773 **Sample Date/Time:** 2016-11-02 15:30 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.20	0.80	0.20	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.17	0.80	0.17	ug/kg	U	UJ	04C;07A
PERFLUOROBUTANE SULFONATE	29420-43-3	0.29	0.80	0.20	ug/kg	J	J	07A
PERFLUOROBUTANOIC ACID	375-22-4	0.20	0.80	0.18	ug/kg	J	J	07A
PERFLUORODECANE SULFONATE	335-77-3	<0.16	0.80	0.16	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.22	0.80	0.22	ug/kg	U	UJ	07A
PERFLUORODODECANOIC ACID	307-55-1	<0.19	0.80	0.19	ug/kg	U	UJ	07A
PERFLUOROHEPTANOIC ACID	375-85-9	<0.14	0.80	0.14	ug/kg	U	UJ	07A
PERFLUOROHEXANE SULFONATE	108427-53-8	7.0	0.80	0.15	ug/kg		J	07A
PERFLUOROHEXANOIC ACID	307-24-4	0.98	0.80	0.17	ug/kg		J	07A
PERFLUORONONANOIC ACID	375-95-1	<0.11	0.80	0.11	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.14	0.80	0.14	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.13	0.80	0.13	ug/kg	U	UJ	07A
PERFLUOROOCTANOIC ACID	335-67-1	<0.096	0.80	0.096	ug/kg	U	UJ	07A
PERFLUOROPENTANOIC ACID	2706-90-3	0.38	0.80	0.17	ug/kg	J	J	07A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.18	0.80	0.18	ug/kg	U	UJ	07A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.20	0.80	0.20	ug/kg	U	UJ	07A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.21	0.80	0.21	ug/kg	U	UJ	07A

Analysis Method E537

Sample Name PETER03-002-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ778 **Sample Date/Time:** 2016-11-04 08:35 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.20	0.81	0.20	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.17	0.81	0.17	ug/kg	U	UJ	07A
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.20	0.81	0.20	ug/kg	U	UJ	07A
PERFLUOROBUTANOIC ACID	375-22-4	0.25	0.81	0.19	ug/kg	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.16	0.81	0.16	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.23	0.81	0.23	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.19	0.81	0.19	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.17	0.81	0.15	ug/kg	J	J	
PERFLUOROHEXANE SULFONATE	108427-53-8	16	0.81	0.15	ug/kg		J	07A
PERFLUOROHEXANOIC ACID	307-24-4	0.62	0.81	0.17	ug/kg	J	J	
PERFLUORONONANOIC ACID	375-95-1	<0.11	0.81	0.11	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.14	0.81	0.14	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	2.0	0.81	0.13	ug/kg		J	07A
PERFLUOROOCTANOIC ACID	335-67-1	0.22	0.81	0.097	ug/kg	J	J	
PERFLUOROPENTANOIC ACID	2706-90-3	0.38	0.81	0.17	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.18	0.81	0.18	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.20	0.81	0.20	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.21	0.81	0.21	ug/kg	U	U	

Analysis Method E537

Sample Name PETER03-003-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ776 **Sample Date/Time:** 2016-11-03 10:26 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<21	82	21	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<17	82	17	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	<21	82	21	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<19	82	19	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<16	82	16	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<23	82	23	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<20	82	20	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<15	82	15	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	25	82	16	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	<17	82	17	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<11	82	11	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<14	82	14	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	2400	820	130	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	<9.8	82	9.8	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<17	82	17	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<18	82	18	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<21	82	21	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<21	82	21	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-004-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL064 **Sample Date/Time:** 2016-10-30 08:50 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.24	0.97	0.24	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.20	0.97	0.20	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.24	0.97	0.24	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.22	0.97	0.22	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.19	0.97	0.19	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.27	0.97	0.27	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.23	0.97	0.23	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.17	0.97	0.17	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.73	0.97	0.18	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	<0.20	0.97	0.20	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.14	0.97	0.14	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.16	0.97	0.16	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.32	0.97	0.16	ug/kg	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.12	0.97	0.12	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.20	0.97	0.20	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.21	0.97	0.21	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.24	0.97	0.24	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.25	0.97	0.25	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-005-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL066 **Sample Date/Time:** 2016-10-30 13:50 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.22	0.88	0.22	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.22	0.88	0.22	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.88	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.88	0.25	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.21	0.88	0.21	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.88	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.70	0.88	0.17	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	0.28	0.88	0.18	ug/kg	J	J	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.88	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.88	0.15	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	1.4	0.88	0.14	ug/kg		J	17
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.88	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.24	0.88	0.18	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.88	0.19	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.22	0.88	0.22	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.88	0.23	ug/kg	U	U	

Analysis Method *E537*

Sample Name PETER04-005-SS-901 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL067 **Sample Date/Time:** 2016-10-30 13:50 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.91	0.23	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.91	0.19	ug/kg	U	UJ	07A
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.23	0.91	0.23	ug/kg	U	UJ	07A
PERFLUOROBUTANOIC ACID	375-22-4	<0.21	0.91	0.21	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.91	0.18	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.91	0.25	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.91	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.91	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.71	0.91	0.17	ug/kg	J	J	07A
PERFLUOROHEXANOIC ACID	307-24-4	0.36	0.91	0.19	ug/kg	J	J	
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.91	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.91	0.15	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.49	0.91	0.15	ug/kg	J	J	07A;17
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.91	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.25	0.91	0.19	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.91	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.91	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.24	0.91	0.24	ug/kg	U	U	

Analysis Method *E537*

Sample Name PETER04-007-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DLC776 **Sample Date/Time:** 2016-11-08 10:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.91	0.23	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.91	0.19	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.23	0.91	0.23	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.21	0.91	0.21	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	0.34	0.91	0.18	ug/kg	J	J	
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.91	0.25	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	0.53	0.91	0.22	ug/kg	J	J	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.91	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.17	0.91	0.17	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	<0.19	0.91	0.19	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.91	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.91	0.15	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.80	0.91	0.15	ug/kg	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.91	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.32	0.91	0.19	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	0.26	0.91	0.20	ug/kg	J	J	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.91	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.24	0.91	0.24	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-008-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DLC789 **Sample Date/Time:** 2016-11-08 08:00 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.92	0.23	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.92	0.19	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.23	0.92	0.23	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.21	0.92	0.21	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.92	0.18	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.26	0.92	0.26	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.92	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.17	0.92	0.17	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.17	0.92	0.17	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.19	0.92	0.19	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.92	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.16	0.92	0.16	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.15	0.92	0.15	ug/kg	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.92	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.19	0.92	0.19	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.92	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.92	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.24	0.92	0.24	ug/kg	U	U	

Analysis Method *E537*

Sample Name PETER04-009-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DLC772 **Sample Date/Time:** 2016-11-09 12:25 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.24	0.94	0.24	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.20	0.94	0.20	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.24	0.94	0.24	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.22	0.94	0.22	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.19	0.94	0.19	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.26	0.94	0.26	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.23	0.94	0.23	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.17	0.94	0.17	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.18	0.94	0.18	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.20	0.94	0.20	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.94	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.16	0.94	0.16	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.28	0.94	0.15	ug/kg	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.94	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.20	0.94	0.20	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.21	0.94	0.21	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.24	0.94	0.24	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.24	0.94	0.24	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-010-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DLC770 **Sample Date/Time:** 2016-11-09 09:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.36	1.0	0.25	ug/kg	J	J	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.27	1.0	0.21	ug/kg	J	J	
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.25	1.0	0.25	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.23	1.0	0.23	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	2.4	1.0	0.20	ug/kg			
PERFLUORODECANOIC ACID	335-76-2	0.53	1.0	0.28	ug/kg	J	J	
PERFLUORODODECANOIC ACID	307-55-1	<0.24	1.0	0.24	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.36	1.0	0.18	ug/kg	J	J	
PERFLUOROHEXANE SULFONATE	108427-53-8	2.8	1.0	0.19	ug/kg			
PERFLUOROHEXANOIC ACID	307-24-4	<0.21	1.0	0.21	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	1.4	1.0	0.14	ug/kg			
PERFLUOROOCTANE SULFONAMIDE	754-91-6	1.0	1.0	0.17	ug/kg		J	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	61	10	1.6	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	1.5	1.0	0.12	ug/kg			
PERFLUOROPENTANOIC ACID	2706-90-3	0.37	1.0	0.21	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.22	1.0	0.22	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.25	1.0	0.25	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.26	1.0	0.26	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-011-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DLC771 **Sample Date/Time:** 2016-11-09 09:40 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.25	0.99	0.25	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.21	0.99	0.21	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.27	0.99	0.25	ug/kg	J	J	
PERFLUOROBUTANOIC ACID	375-22-4	0.28	0.99	0.23	ug/kg	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.20	0.99	0.20	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	0.32	0.99	0.28	ug/kg	J	J	
PERFLUORODODECANOIC ACID	307-55-1	<0.24	0.99	0.24	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.35	0.99	0.18	ug/kg	J	J	
PERFLUOROHEXANE SULFONATE	108427-53-8	2.5	0.99	0.19	ug/kg			
PERFLUOROHEXANOIC ACID	307-24-4	0.69	0.99	0.21	ug/kg	J	J	
PERFLUORONONANOIC ACID	375-95-1	2.4	0.99	0.14	ug/kg			
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.17	0.99	0.17	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	57	9.9	1.6	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	0.49	0.99	0.12	ug/kg	J	J	
PERFLUOROPENTANOIC ACID	2706-90-3	0.76	0.99	0.21	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.22	0.99	0.22	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.25	0.99	0.25	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.26	0.99	0.26	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-012-SS-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DLC769 **Sample Date/Time:** 2016-11-09 08:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.41	0.85	0.21	ug/kg	J	J	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.18	0.85	0.18	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.21	0.85	0.21	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.85	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.17	0.85	0.17	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	0.28	0.85	0.24	ug/kg	J	J	
PERFLUORODODECANOIC ACID	307-55-1	0.40	0.85	0.20	ug/kg	J	J	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.15	0.85	0.15	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.33	0.85	0.16	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	<0.18	0.85	0.18	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.85	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.14	0.85	0.14	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	3.0	0.85	0.14	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	<0.10	0.85	0.10	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.21	0.85	0.18	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	0.20	0.85	0.19	ug/kg	J	J	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.21	0.85	0.21	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.22	0.85	0.22	ug/kg	U	U	

Subsurface Soil
E537
Analytical Results

Validated Sample Result Forms: B6N8117

Analysis Method *E537*

Sample Name PETER01-001-SO-083 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL078 **Sample Date/Time:** 2016-10-27 15:38 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.90	0.23	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.90	0.19	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	2.2	0.90	0.23	ug/kg		J	17
PERFLUOROBUTANOIC ACID	375-22-4	0.68	0.90	0.21	ug/kg	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.90	0.18	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.90	0.25	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.90	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.90	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.17	0.90	0.17	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	2.2	0.90	0.19	ug/kg			
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.90	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.90	0.15	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.16	0.90	0.14	ug/kg	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.90	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	1.3	0.90	0.19	ug/kg		J	17
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.90	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.90	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.90	0.23	ug/kg	U	U	

Analysis Method *E537*

Sample Name PETER01-001-SO-983 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL079 **Sample Date/Time:** 2016-10-27 15:38 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.90	0.23	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.90	0.19	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	3.1	0.90	0.23	ug/kg		J	17
PERFLUOROBUTANOIC ACID	375-22-4	1.0	0.90	0.21	ug/kg			
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.90	0.18	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.90	0.25	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.90	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.90	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.17	0.90	0.17	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	2.5	0.90	0.19	ug/kg			
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.90	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.90	0.15	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.14	0.90	0.14	ug/kg	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.90	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	2.1	0.90	0.19	ug/kg		J	17
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.90	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.90	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.90	0.23	ug/kg	U	U	

Analysis Method E537

Sample Name PETER01-002-SO-089 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL062 **Sample Date/Time:** 2016-10-28 17:25 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.25	1.0	0.25	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.21	1.0	0.21	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.25	1.0	0.25	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.23	1.0	0.23	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.20	1.0	0.20	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.28	1.0	0.28	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.24	1.0	0.24	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.18	1.0	0.18	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.19	1.0	0.19	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.21	1.0	0.21	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.14	1.0	0.14	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.17	1.0	0.17	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.16	1.0	0.16	ug/kg	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.12	1.0	0.12	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.21	1.0	0.21	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.22	1.0	0.22	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.25	1.0	0.25	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.26	1.0	0.26	ug/kg	U	U	

Analysis Method *E537*

Sample Name PETER01-003-SO-075 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL082 **Sample Date/Time:** 2016-10-28 11:30 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.93	0.23	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.20	0.93	0.20	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	0.77	0.93	0.23	ug/kg	J	J	
PERFLUOROBUTANOIC ACID	375-22-4	0.32	0.93	0.21	ug/kg	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.19	0.93	0.19	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.26	0.93	0.26	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.93	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.17	0.93	0.17	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.18	0.93	0.18	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	0.22	0.93	0.20	ug/kg	J	J	
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.93	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.16	0.93	0.16	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.15	0.93	0.15	ug/kg	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.93	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.54	0.93	0.20	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.93	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.93	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.24	0.93	0.24	ug/kg	U	U	

Analysis Method *E537*

Sample Name PETER02-001-SO-024 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ763 **Sample Date/Time:** 2016-11-06 12:06 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.22	0.86	0.22	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.18	0.86	0.18	ug/kg	U	UJ	04C
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.22	0.86	0.22	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.86	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.17	0.86	0.17	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.24	0.86	0.24	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.21	0.86	0.21	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.15	0.86	0.15	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.16	0.86	0.16	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.18	0.86	0.18	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.86	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.86	0.15	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.64	0.86	0.14	ug/kg	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.10	0.86	0.10	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.18	0.86	0.18	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.86	0.19	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.22	0.86	0.22	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.22	0.86	0.22	ug/kg	U	U	

Analysis Method E537

Sample Name PETER02-002-SO-024 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ784 **Sample Date/Time:** 2016-11-05 12:32 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.22	0.89	0.22	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.89	0.19	ug/kg	U	UJ	04C;07A
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.22	0.89	0.22	ug/kg	U	UJ	07A
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.89	0.20	ug/kg	U	UJ	07A
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.89	0.18	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.89	0.25	ug/kg	U	UJ	07A
PERFLUORODODECANOIC ACID	307-55-1	<0.21	0.89	0.21	ug/kg	U	UJ	07A
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.89	0.16	ug/kg	U	UJ	07A
PERFLUOROHEXANE SULFONATE	108427-53-8	0.28	0.89	0.17	ug/kg	J	J	07A
PERFLUOROHEXANOIC ACID	307-24-4	<0.19	0.89	0.19	ug/kg	U	UJ	07A
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.89	0.12	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.89	0.15	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.78	0.89	0.14	ug/kg	J	J	07A
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.89	0.11	ug/kg	U	UJ	07A
PERFLUOROPENTANOIC ACID	2706-90-3	<0.19	0.89	0.19	ug/kg	U	UJ	07A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.89	0.20	ug/kg	U	UJ	07A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.22	0.89	0.22	ug/kg	U	UJ	07A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.89	0.23	ug/kg	U	UJ	07A

Analysis Method *E537*

Sample Name PETER02-003-SO-034 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ782 **Sample Date/Time:** 2016-11-05 10:38 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.30	0.88	0.22	ug/kg	J	J	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.25	0.88	0.18	ug/kg	J	J	04C
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.22	0.88	0.22	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.88	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.88	0.25	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.21	0.88	0.21	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.88	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.74	0.88	0.17	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.88	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	0.78	0.88	0.15	ug/kg	J	J	
PERFLUOROOCTANE SULFONATE	1763-23-1	5.6	0.88	0.14	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.88	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.88	0.19	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.22	0.88	0.22	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.88	0.23	ug/kg	U	U	

Analysis Method E537

Sample Name PETER03-001-SO-064 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ774 **Sample Date/Time:** 2016-11-02 17:45 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.21	0.83	0.21	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.17	0.83	0.17	ug/kg	U	UJ	04C;07A
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.21	0.83	0.21	ug/kg	U	UJ	07A
PERFLUOROBUTANOIC ACID	375-22-4	<0.19	0.83	0.19	ug/kg	U	UJ	07A
PERFLUORODECANE SULFONATE	335-77-3	<0.17	0.83	0.17	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.23	0.83	0.23	ug/kg	U	UJ	07A
PERFLUORODODECANOIC ACID	307-55-1	<0.20	0.83	0.20	ug/kg	U	UJ	07A
PERFLUOROHEPTANOIC ACID	375-85-9	<0.15	0.83	0.15	ug/kg	U	UJ	07A
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.16	0.83	0.16	ug/kg	U	UJ	07A
PERFLUOROHEXANOIC ACID	307-24-4	<0.17	0.83	0.17	ug/kg	U	UJ	07A
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.83	0.12	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.14	0.83	0.14	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.13	0.83	0.13	ug/kg	U	UJ	07A
PERFLUOROOCTANOIC ACID	335-67-1	<0.10	0.83	0.10	ug/kg	U	UJ	07A
PERFLUOROPENTANOIC ACID	2706-90-3	<0.17	0.83	0.17	ug/kg	U	UJ	07A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.18	0.83	0.18	ug/kg	U	UJ	07A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.21	0.83	0.21	ug/kg	U	UJ	07A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.22	0.83	0.22	ug/kg	U	UJ	07A

Analysis Method E537

Sample Name PETER03-002-SO-065 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ779 **Sample Date/Time:** 2016-11-04 10:50 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.20	0.79	0.20	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.17	0.79	0.17	ug/kg	U	UJ	04C;07A
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.20	0.79	0.20	ug/kg	U	UJ	07A
PERFLUOROBUTANOIC ACID	375-22-4	<0.18	0.79	0.18	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.16	0.79	0.16	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.22	0.79	0.22	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.19	0.79	0.19	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.14	0.79	0.14	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.15	0.79	0.15	ug/kg	U	UJ	07A
PERFLUOROHEXANOIC ACID	307-24-4	<0.17	0.79	0.17	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.11	0.79	0.11	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.13	0.79	0.13	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.13	0.79	0.13	ug/kg	U	UJ	07A
PERFLUOROOCTANOIC ACID	335-67-1	<0.095	0.79	0.095	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.17	0.79	0.17	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.17	0.79	0.17	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.20	0.79	0.20	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.21	0.79	0.21	ug/kg	U	U	

Analysis Method E537

Sample Name PETER03-003-SO-069 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ777 **Sample Date/Time:** 2016-11-03 12:26 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.21	0.82	0.21	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.17	0.82	0.17	ug/kg	U	UJ	04C;07A
PERFLUOROBUTANE SULFONATE	29420-43-3	0.76	0.82	0.21	ug/kg	J	J	07A
PERFLUOROBUTANOIC ACID	375-22-4	0.72	0.82	0.19	ug/kg	J	J	
PERFLUORODECANE SULFONATE	335-77-3	<0.16	0.82	0.16	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.23	0.82	0.23	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.20	0.82	0.20	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.15	0.82	0.15	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.16	0.82	0.16	ug/kg	U	UJ	07A
PERFLUOROHEXANOIC ACID	307-24-4	<0.17	0.82	0.17	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.11	0.82	0.11	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.14	0.82	0.14	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.49	0.82	0.13	ug/kg	J	J	07A
PERFLUOROOCTANOIC ACID	335-67-1	<0.098	0.82	0.098	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	0.75	0.82	0.17	ug/kg	J	J	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.18	0.82	0.18	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.21	0.82	0.21	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.21	0.82	0.21	ug/kg	U	U	

Analysis Method *E537*

Sample Name PETER04-001-SO-049 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL072 **Sample Date/Time:** 2016-11-01 13:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.24	0.95	0.24	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.20	0.95	0.20	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.24	0.95	0.24	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.22	0.95	0.22	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.19	0.95	0.19	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.27	0.95	0.27	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.23	0.95	0.23	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.17	0.95	0.17	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.18	0.95	0.18	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.20	0.95	0.20	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.95	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.16	0.95	0.16	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.15	0.95	0.15	ug/kg	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.95	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.20	0.95	0.20	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.21	0.95	0.21	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.24	0.95	0.24	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.25	0.95	0.25	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-002-SO-041 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL070 **Sample Date/Time:** 2016-10-31 16:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.90	0.23	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.90	0.19	ug/kg	U	UJ	07A
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.23	0.90	0.23	ug/kg	U	UJ	07A
PERFLUOROBUTANOIC ACID	375-22-4	<0.21	0.90	0.21	ug/kg	U	UJ	07A
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.90	0.18	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.90	0.25	ug/kg	U	UJ	07A
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.90	0.22	ug/kg	U	UJ	07A
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.90	0.16	ug/kg	U	UJ	07A
PERFLUOROHEXANE SULFONATE	108427-53-8	1.1	0.90	0.17	ug/kg		J	07A
PERFLUOROHEXANOIC ACID	307-24-4	<0.19	0.90	0.19	ug/kg	U	UJ	07A
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.90	0.13	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.90	0.15	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.14	0.90	0.14	ug/kg	U	UJ	07A
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.90	0.11	ug/kg	U	UJ	07A
PERFLUOROPENTANOIC ACID	2706-90-3	<0.19	0.90	0.19	ug/kg	U	UJ	07A
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.90	0.20	ug/kg	U	UJ	07A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.90	0.23	ug/kg	U	UJ	07A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.90	0.23	ug/kg	U	UJ	07A

Analysis Method E537

Sample Name PETER04-002-SO-941 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL071 **Sample Date/Time:** 2016-10-31 16:15 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.22	0.87	0.22	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.18	0.87	0.18	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.22	0.87	0.22	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.87	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.17	0.87	0.17	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.24	0.87	0.24	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.21	0.87	0.21	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.87	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.63	0.87	0.17	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	<0.18	0.87	0.18	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.87	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.87	0.15	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.14	0.87	0.14	ug/kg	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.10	0.87	0.10	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.18	0.87	0.18	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.87	0.19	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.22	0.87	0.22	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.87	0.23	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-003-SO-050 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL069 **Sample Date/Time:** 2016-10-31 11:30 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.91	0.23	ug/kg	U	UJ	07A
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.91	0.19	ug/kg	U	UJ	07A
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.23	0.91	0.23	ug/kg	U	UJ	07A
PERFLUOROBUTANOIC ACID	375-22-4	<0.21	0.91	0.21	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.91	0.18	ug/kg	U	UJ	07A
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.91	0.25	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.91	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.91	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.17	0.91	0.17	ug/kg	U	UJ	07A
PERFLUOROHEXANOIC ACID	307-24-4	<0.19	0.91	0.19	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.91	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.91	0.15	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.15	0.91	0.15	ug/kg	U	UJ	07A
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.91	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.19	0.91	0.19	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.91	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.91	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.24	0.91	0.24	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-004-SO-058 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL065 **Sample Date/Time:** 2016-10-30 10:20 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.22	0.88	0.22	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.22	0.88	0.22	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.88	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.25	0.88	0.25	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.21	0.88	0.21	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.88	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.17	0.88	0.17	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.88	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.88	0.15	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.18	0.88	0.14	ug/kg	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.88	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.18	0.88	0.18	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.88	0.19	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.22	0.88	0.22	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.88	0.23	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-005-SO-054 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL083 **Sample Date/Time:** 2016-10-30 14:58 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.24	0.95	0.24	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.20	0.95	0.20	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.24	0.95	0.24	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.22	0.95	0.22	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.19	0.95	0.19	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.27	0.95	0.27	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.23	0.95	0.23	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.17	0.95	0.17	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.49	0.95	0.18	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	<0.20	0.95	0.20	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.95	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.16	0.95	0.16	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	3.2	0.95	0.15	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.95	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.20	0.95	0.20	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.21	0.95	0.21	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.24	0.95	0.24	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.25	0.95	0.25	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-008-SO-088 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DLC790 **Sample Date/Time:** 2016-11-08 14:44 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.25	0.98	0.25	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.21	0.98	0.21	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.25	0.98	0.25	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.23	0.98	0.23	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.20	0.98	0.20	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.27	0.98	0.27	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.24	0.98	0.24	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.18	0.98	0.18	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.19	0.98	0.19	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.21	0.98	0.21	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.14	0.98	0.14	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.17	0.98	0.17	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.16	0.98	0.16	ug/kg	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.12	0.98	0.12	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.21	0.98	0.21	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.22	0.98	0.22	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.25	0.98	0.25	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.25	0.98	0.25	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-009-SO-079 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DLC773 **Sample Date/Time:** 2016-11-09 15:05 **Validation Level:** Stage 4

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.22	0.87	0.22	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.18	0.87	0.18	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.22	0.87	0.22	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.20	0.87	0.20	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	<0.17	0.87	0.17	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.24	0.87	0.24	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.21	0.87	0.21	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.16	0.87	0.16	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.17	0.87	0.17	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.18	0.87	0.18	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.12	0.87	0.12	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.15	0.87	0.15	ug/kg	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	<0.14	0.87	0.14	ug/kg	U	U	
PERFLUOROOCTANOIC ACID	335-67-1	<0.10	0.87	0.10	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.18	0.87	0.18	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.19	0.87	0.19	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.22	0.87	0.22	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.23	0.87	0.23	ug/kg	U	U	

Analysis Method E537

Sample Name PETER05-001-SO-035 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DJL060 **Sample Date/Time:** 2016-10-25 17:36 **Validation Level:** Stage 4

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.23	0.92	0.23	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	<0.19	0.92	0.19	ug/kg	U	U	
PERFLUOROBUTANE SULFONATE	29420-43-3	3.2	0.92	0.23	ug/kg			
PERFLUOROBUTANOIC ACID	375-22-4	0.92	0.92	0.21	ug/kg			
PERFLUORODECANE SULFONATE	335-77-3	<0.18	0.92	0.18	ug/kg	U	U	
PERFLUORODECANOIC ACID	335-76-2	<0.26	0.92	0.26	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.22	0.92	0.22	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.17	0.92	0.17	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	0.27	0.92	0.17	ug/kg	J	J	
PERFLUOROHEXANOIC ACID	307-24-4	3.4	0.92	0.19	ug/kg			
PERFLUORONONANOIC ACID	375-95-1	<0.13	0.92	0.13	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.16	0.92	0.16	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	0.38	0.92	0.15	ug/kg	J	J	
PERFLUOROOCTANOIC ACID	335-67-1	<0.11	0.92	0.11	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	2.0	0.92	0.19	ug/kg			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.20	0.92	0.20	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.23	0.92	0.23	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.24	0.92	0.24	ug/kg	U	U	

Sediment
E537
Analytical Results

Analysis Method E537

Sample Name PETER04-006-SD-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ758 **Sample Date/Time:** 2016-11-06 08:45 **Validation Level:** Stage 4

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	<0.28	1.1	0.28	ug/kg	U	U	
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.38	1.1	0.23	ug/kg	J	J	04C
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.28	1.1	0.28	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.25	1.1	0.25	ug/kg	U	U	
PERFLUORODECANE SULFONATE	335-77-3	0.26	1.1	0.22	ug/kg	J	J	
PERFLUORODECANOIC ACID	335-76-2	<0.31	1.1	0.31	ug/kg	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.26	1.1	0.26	ug/kg	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	<0.20	1.1	0.20	ug/kg	U	U	
PERFLUOROHEXANE SULFONATE	108427-53-8	<0.21	1.1	0.21	ug/kg	U	U	
PERFLUOROHEXANOIC ACID	307-24-4	<0.23	1.1	0.23	ug/kg	U	U	
PERFLUORONONANOIC ACID	375-95-1	<0.15	1.1	0.15	ug/kg	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.19	1.1	0.19	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	4.3	1.1	0.18	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	<0.13	1.1	0.13	ug/kg	U	U	
PERFLUOROPENTANOIC ACID	2706-90-3	<0.23	1.1	0.23	ug/kg	U	U	
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.24	1.1	0.24	ug/kg	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.28	1.1	0.28	ug/kg	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.29	1.1	0.29	ug/kg	U	U	

Analysis Method E537

Sample Name PETER04-0013-SD-001 **Matrix Type:** S **Result Type:** TRG

Lab Sample Name: DKJ760 **Sample Date/Time:** 2016-11-06 09:20 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	4.7	1.9	0.48	ug/kg			
8:2 FLUOROTELOMER SULFONATE	39108-34-4	9.1	1.9	0.40	ug/kg			
PERFLUOROBUTANE SULFONATE	29420-43-3	<0.48	1.9	0.48	ug/kg	U	U	
PERFLUOROBUTANOIC ACID	375-22-4	<0.44	1.9	0.44	ug/kg	U	UJ	07A
PERFLUORODECANE SULFONATE	335-77-3	4.9	1.9	0.38	ug/kg			
PERFLUORODECANOIC ACID	335-76-2	<0.53	1.9	0.53	ug/kg	U	UJ	07A
PERFLUORODODECANOIC ACID	307-55-1	3.4	1.9	0.46	ug/kg		J	07A
PERFLUOROHEPTANOIC ACID	375-85-9	0.46	1.9	0.34	ug/kg	J	J	07A
PERFLUOROHEXANE SULFONATE	108427-53-8	2.7	1.9	0.36	ug/kg			
PERFLUOROHEXANOIC ACID	307-24-4	2.0	1.9	0.40	ug/kg		J	07A
PERFLUORONONANOIC ACID	375-95-1	<0.27	1.9	0.27	ug/kg	U	UJ	07A
PERFLUOROOCTANE SULFONAMIDE	754-91-6	4.8	1.9	0.32	ug/kg		J	07A
PERFLUOROOCTANE SULFONATE	1763-23-1	370	19	3.0	ug/kg			
PERFLUOROOCTANOIC ACID	335-67-1	0.74	1.9	0.23	ug/kg	J	J	07A
PERFLUOROPENTANOIC ACID	2706-90-3	0.70	1.9	0.40	ug/kg	J	J	07A
PERFLUOROTETRADECANOIC ACID	376-06-7	2.4	1.9	0.42	ug/kg		J	07A;10A
PERFLUOROTRIDECANOIC ACID	72629-94-8	2.0	1.9	0.48	ug/kg		J	07A;10A
PERFLUOROUNDECANOIC ACID	2058-94-8	0.54	1.9	0.49	ug/kg	J	J	07A

Surface Water
E537
Analytical Results

Analysis Method *E537*

Sample Name PETER04-006-SW-001 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ759 **Sample Date/Time:** 2016-11-06 08:45 **Validation Level:** Stage 4

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.14	0.020	0.0065	ug/L			
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.038	0.020	0.0055	ug/L			
PERFLUOROBUTANE SULFONATE	29420-43-3	0.022	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	0.019	0.020	0.0043	ug/L	J	J	
PERFLUORODECANOIC ACID	335-76-2	0.0075	0.020	0.0066	ug/L	J	J	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.023	0.020	0.0047	ug/L			
PERFLUOROHEXANE SULFONATE	108427-53-8	0.27	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.080	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	0.016	0.020	0.0058	ug/L	J	J	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.73	0.020	0.0033	ug/L			
PERFLUOROOCTANOIC ACID	335-67-1	0.096	0.020	0.0053	ug/L			
PERFLUOROPENTANOIC ACID	2706-90-3	0.045	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	U	
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	U	
PERFLUOROUNDECANOIC ACID	2058-94-8	0.0092	0.020	0.0037	ug/L	J	J	

Analysis Method E537

Sample Name PETER04-0013-SW-001 **Matrix Type:** W **Result Type:** TRG

Lab Sample Name: DKJ761 **Sample Date/Time:** 2016-11-06 09:20 **Validation Level:** Stage 2B

Analyte	CAS No	Result Value	RDL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Reason Code
6:2 FLUOROTELOMER SULFONATE	27619-97-2	0.12	0.020	0.0065	ug/L			
8:2 FLUOROTELOMER SULFONATE	39108-34-4	0.029	0.020	0.0055	ug/L			
PERFLUOROBUTANE SULFONATE	29420-43-3	0.024	0.020	0.0019	ug/L			
PERFLUOROBUTANOIC ACID	375-22-4	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODECANE SULFONATE	335-77-3	0.0069	0.020	0.0043	ug/L	J	J	
PERFLUORODECANOIC ACID	335-76-2	<0.0066	0.020	0.0066	ug/L	U	U	
PERFLUORODODECANOIC ACID	307-55-1	<0.0057	0.020	0.0057	ug/L	U	U	
PERFLUOROHEPTANOIC ACID	375-85-9	0.028	0.020	0.0047	ug/L			
PERFLUOROHEXANE SULFONATE	108427-53-8	0.28	0.020	0.0040	ug/L			
PERFLUOROHEXANOIC ACID	307-24-4	0.091	0.020	0.0046	ug/L			
PERFLUORONONANOIC ACID	375-95-1	<0.0046	0.020	0.0046	ug/L	U	U	
PERFLUOROOCTANE SULFONAMIDE	754-91-6	<0.0058	0.020	0.0058	ug/L	U	U	
PERFLUOROOCTANE SULFONATE	1763-23-1	0.63	0.020	0.0033	ug/L			
PERFLUOROOCTANOIC ACID	335-67-1	0.10	0.020	0.0053	ug/L			
PERFLUOROPENTANOIC ACID	2706-90-3	0.057	0.020	0.0036	ug/L			
PERFLUOROTETRADECANOIC ACID	376-06-7	<0.0052	0.020	0.0052	ug/L	U	UJ	10A
PERFLUOROTRIDECANOIC ACID	72629-94-8	<0.0032	0.020	0.0032	ug/L	U	UJ	10A
PERFLUOROUNDECANOIC ACID	2058-94-8	<0.0037	0.020	0.0037	ug/L	U	U	

Appendix D

IDW Waste Manifest

(Manifest will be provided after waste disposal.)

Appendix E

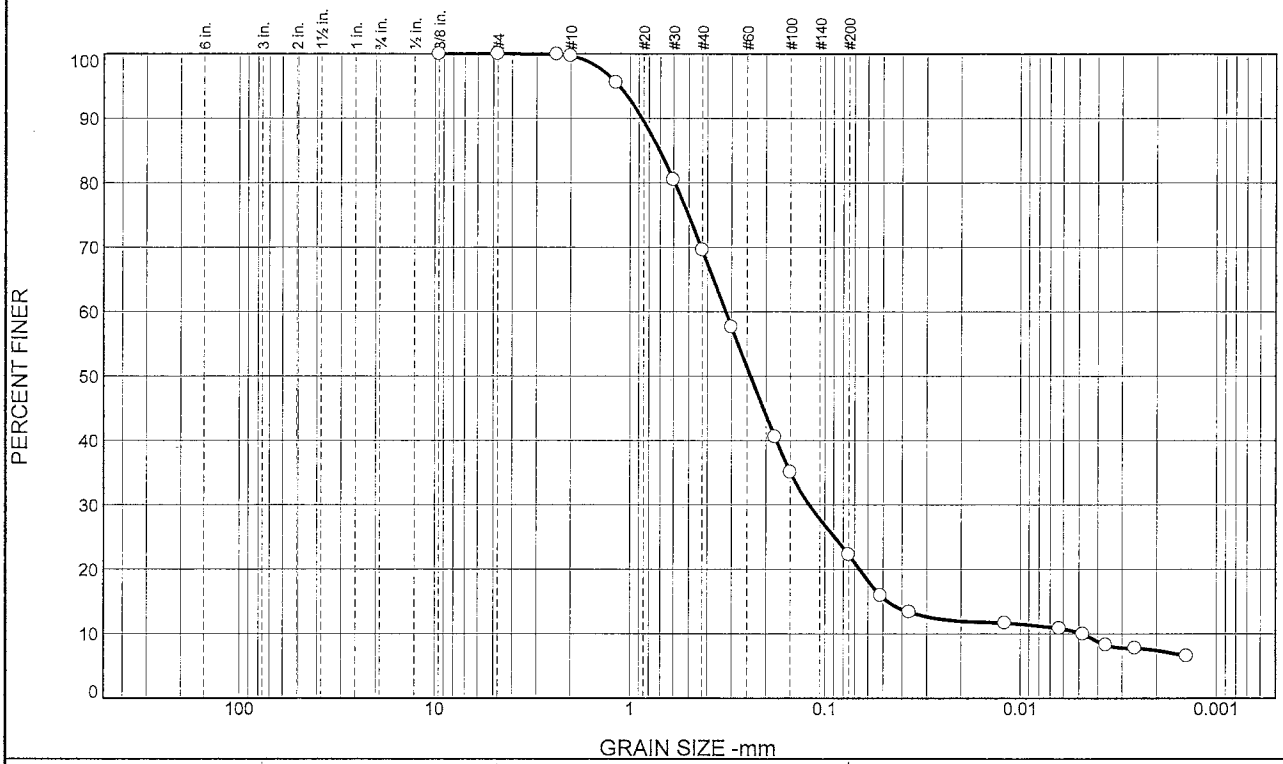
Physiochemical Analytical Results

Table E-1 Soil Physiochemical Analyses Summary

AFFF Area	Sample Number	Percent Passing No. 4 Screen	Percent Passing No. 200 Screen	USCS Classification	TOC (mg/kg)	pH	Percent Solids
AFFF Area 1 Site 8 (FT003)	PETER01-004-SS-001	100	22.3	SM	7160	7.83	77.6
	PETER01-004-SO-088	98.5	10.7	SW-SM	90.3	8.49	89.0
AFFF Area 2 Fire Station #1 (Bldg 218)	PETER02-004-SS-001	86.3	17.5	SM	1710	8.95	91.4
	PETER02-004-SO-027	87.2	10.7	SW-SM	172	8.15	90.2
AFFF Area 3 Fire Station #2 (Bldg 2032)	PETER03-004-SS-001	100.0	12.0	SW-SM	359	7.99	96.4
	PETER03-004-SO-066	91.0	7.2	SW-SM	46.7	7.94	95.7
AFFF Area 4 Golf Course/Leach Field (WP006), Detention Pond #3, Site 5 (FT002)	PETER04-014-SS-001	97.3	17.1	SM	6270	7.87	94.4
	PETER04-014-SO-078	95.2	14.7	SM	145	8.47	94.0
AFFF Area 5 Current FTA	PETER05-002-SO-035	97.6	27.2	SM	432	7.98	81.8

AFFF = aqueous film forming foam
FTA = fire training area
mg/kg = milligrams per kilogram
pH = potential of hydrogen
TOC = total organic carbon
SM = silty sand
SW-SM = well graded silty sand
U = Analyte was not detected at the reported value.
J = Reported concentration is an estimated value.

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.3	30.1	47.3	12.1	10.2

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8	100.0		
#4	100.0		
#8	99.9		
#10	99.7		
#16	95.5		
#30	80.5		
#40	69.6		
#50	57.6		
#80	40.5		
#100	35.1		
#200	22.3		

* (no specification provided)

Material Description

Brown Fine to Medium Sand, Some Silt, Little Clay

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.8690 D_{85}= 0.7062 D_{60}= 0.3214
D_{50}= 0.2400 D_{30}= 0.1199 D_{15}= 0.0475
D_{10}= 0.0048 C_u= 66.79 C_c= 9.30

Classification

USCS= SM AASHTO=

Remarks

Sample Number: PETER01-004-SS-001

Date: 12/1/16

CGC, Inc.

Client: CT Laboratories
Project: AFFF SI - Peterson AFB
PO# 123619 CGC
Project No: C15013-23 **Figure**

Tested By: DRW **Checked By:** AJB

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER01-004-SS-001

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	77.6	Lab Sample ID:	805663
Analytical Method:	L-Kahn/9060A	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132705	Analysis Date/Time	11/15/2016 14:46
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL TOC0105	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	7160		46	97	190	190

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER01-004-SS-001

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	77.6	Lab Sample ID:	805663
Analytical Method:	EPA 9045D	Date Received:	11/12/2016
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132822	Analysis Date/Time	11/17/2016 15:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.83		0.1	0.1	0.1	0.1

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INORGANIC ANALYSIS DATA SHEET

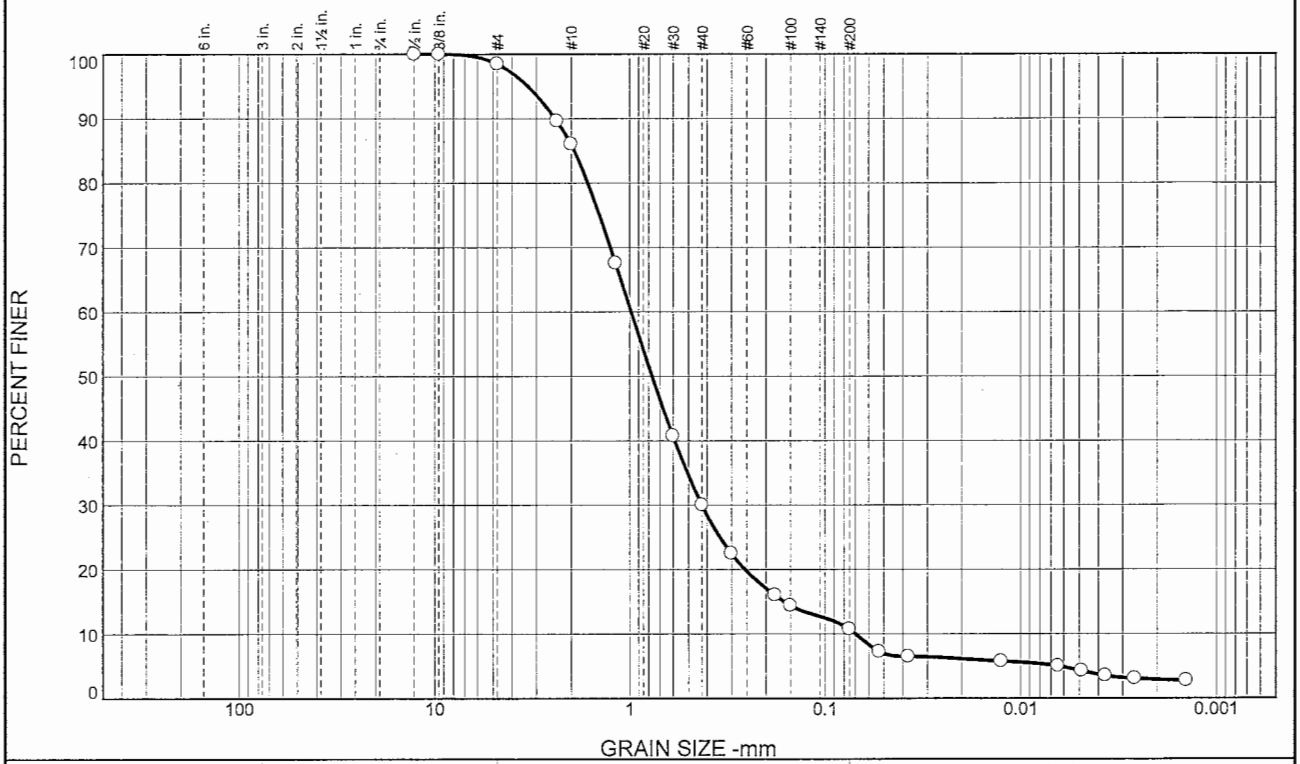
Sample Description

PETER01-004-SS-001

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	77.6	Lab Sample ID:	805663
Analytical Method:	EPA 8000C	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132707	Analysis Date/Time	11/14/2016 18:42
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	77.6		0.1	0.1	0.1	0.1

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.5	12.5	56.0	19.3	6.4	4.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1/2	100.0		
3/8	100.0		
#4	98.5		
#8	89.6		
#10	86.0		
#16	67.5		
#30	40.7		
#40	30.0		
#50	22.5		
#80	16.0		
#100	14.4		
#200	10.7		

* (no specification provided)

Material Description

Brown Fine to Coarse Sand, Little Silt, Trace Clay and Gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 2.4111 D_{85}= 1.9231 D_{60}= 0.9822
D_{50}= 0.7674 D_{30}= 0.4250 D_{15}= 0.1618
D_{10}= 0.0698 C_u= 14.07 C_c= 2.63

Classification

USCS= SW-SM AASHTO=

Remarks

Sample Number: PETER01-004-SO-088

Date: 12/1/16

CGC,Inc.

Client: CT Laboratories
Project: AFFF SI - Peterson AFB
PO# 123619 CGC
Project No: C15013-23 **Figure**

Tested By: DRW **Checked By:** AJB

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER01-004-SO-088

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	89.0	Lab Sample ID:	805664
Analytical Method:	L-Kahn/9060A	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132705	Analysis Date/Time	11/15/2016 14:59
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL TOC0105	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	90.3	J	40	84	170	170

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER01-004-SO-088

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	89.0	Lab Sample ID:	805664
Analytical Method:	EPA 9045D	Date Received:	11/12/2016
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132822	Analysis Date/Time	11/17/2016 15:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	8.49		0.1	0.1	0.1	0.1

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INORGANIC ANALYSIS DATA SHEET

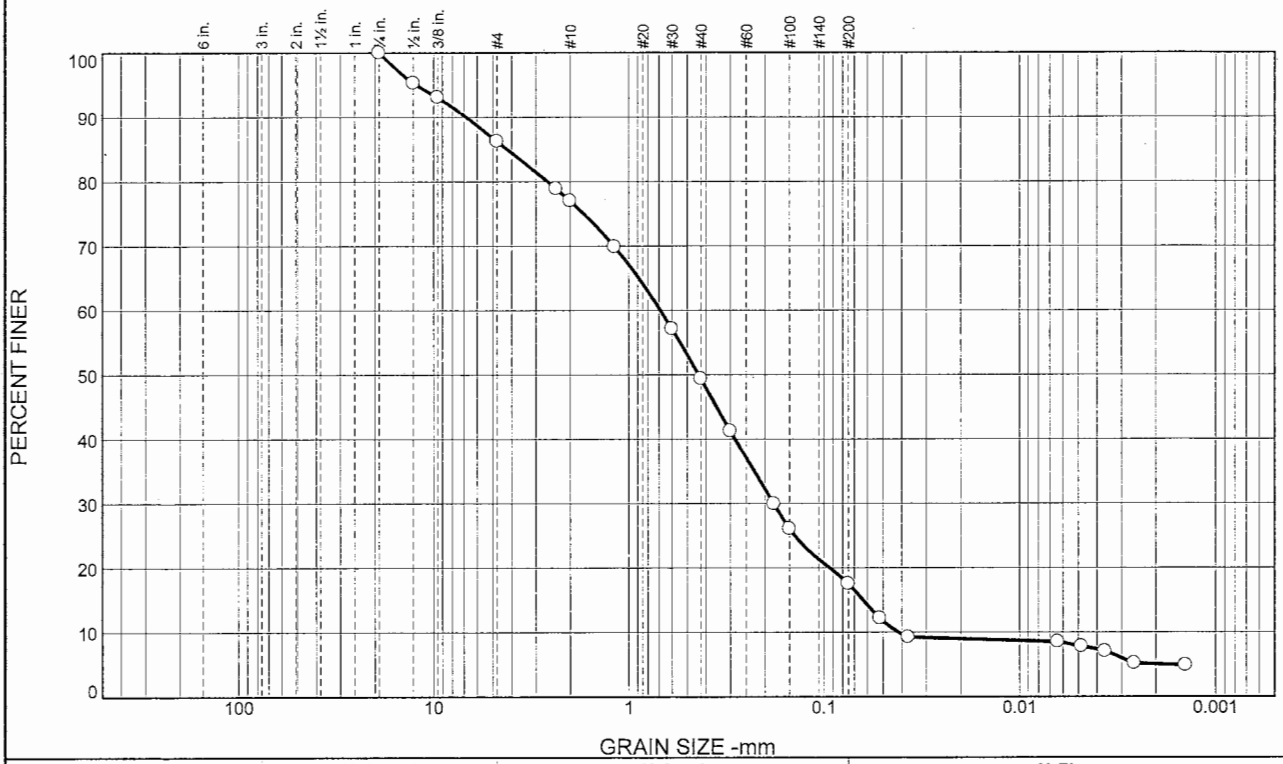
Sample Description

PETER01-004-SO-088

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	89.0	Lab Sample ID:	805664
Analytical Method:	EPA 8000C	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132707	Analysis Date/Time	11/14/2016 18:42
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	89.0		0.1	0.1	0.1	0.1

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	13.7	9.3	27.6	31.9	9.6	7.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4	100.0		
1/2	95.3		
3/8	93.1		
#4	86.3		
#8	78.9		
#10	77.0		
#16	69.9		
#30	57.1		
#40	49.4		
#50	41.2		
#80	29.9		
#100	26.1		
#200	17.5		

* (no specification provided)

Material Description

Brown Fine to Coarse Sand, Some Gravel, Little Silt and Clay

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 6.7997 D_{85}= 4.2131 D_{60}= 0.6877
D_{50}= 0.4362 D_{30}= 0.1805 D_{15}= 0.0631
D_{10}= 0.0416 C_u= 16.53 C_c= 1.14

Classification

USCS= SM AASHTO=

Remarks

Sample Number: PETER02-004-SS-001

Date: 12/1/16

CGC, Inc.

Client: CT Laboratories
Project: AFFF SI - Peterson AFB
PO# 123619 CGC
Project No: C15013-23 **Figure**

Tested By: DRW **Checked By:** AJB

CT LABORATORIES

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER02-004-SS-001

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	91.4	Lab Sample ID:	805665
Analytical Method:	EPA 9045D	Date Received:	11/12/2016
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132822	Analysis Date/Time	11/17/2016 15:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	8.95		0.1	0.1	0.1	0.1

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER02-004-SS-001

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	91.4	Lab Sample ID:	805665
Analytical Method:	L-Kahn/9060A	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132705	Analysis Date/Time	11/15/2016 16:44
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL TOC0105	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1710		39	82	160	160

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INORGANIC ANALYSIS DATA SHEET

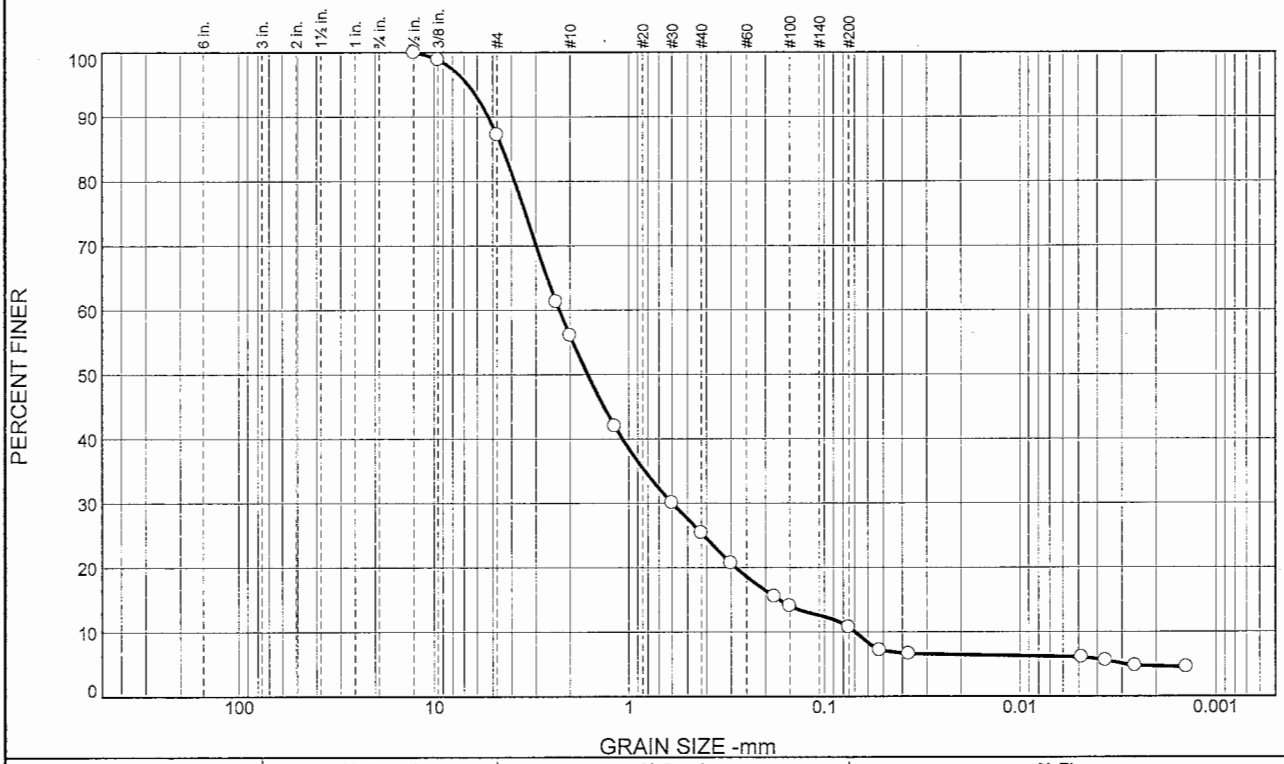
Sample Description

PETER02-004-SS-001

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	91.4	Lab Sample ID:	805665
Analytical Method:	EPA 8000C	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132707	Analysis Date/Time	11/14/2016 18:42
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	91.4		0.1	0.1	0.1	0.1

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	12.8	31.1	30.7	14.7	4.6	6.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1/2	100.0		
3/8	98.8		
#4	87.2		
#8	61.3		
#10	56.1		
#16	42.0		
#30	30.1		
#40	25.4		
#50	20.7		
#80	15.5		
#100	14.0		
#200	10.7		

* (no specification provided)

Material Description

Light Brown to Gray Fine to Coarse Sand, Some Gravel, Little Clay, Trace Silt

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 5.2508 D_{85}= 4.4343 D_{60}= 2.2687
D_{50}= 1.6186 D_{30}= 0.5974 D_{15}= 0.1700
D_{10}= 0.0697 C_u= 32.55 C_c= 2.26

Classification

USCS= SW-SM AASHTO=

Remarks

Sample Number: PETER02-004-SO-027

Date: 12/1/16

CGC, Inc.

Client: CT Laboratories
Project: AFFF SI - Peterson AFB
PO# 123619 CGC
Project No: C15013-23 **Figure**

Tested By: DRW **Checked By:** AJB

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER02-004-SO-027

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	90.2	Lab Sample ID:	805666
Analytical Method:	EPA 9045D	Date Received:	11/12/2016
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132822	Analysis Date/Time	11/17/2016 15:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	8.15		0.1	0.1	0.1	0.1

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER02-004-SO-027

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	90.2	Lab Sample ID:	805666
Analytical Method:	L-Kahn/9060A	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132705	Analysis Date/Time	11/15/2016 16:52
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL TOC0105	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	172		40	83	170	170

CT LABORATORIES

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INORGANIC ANALYSIS DATA SHEET

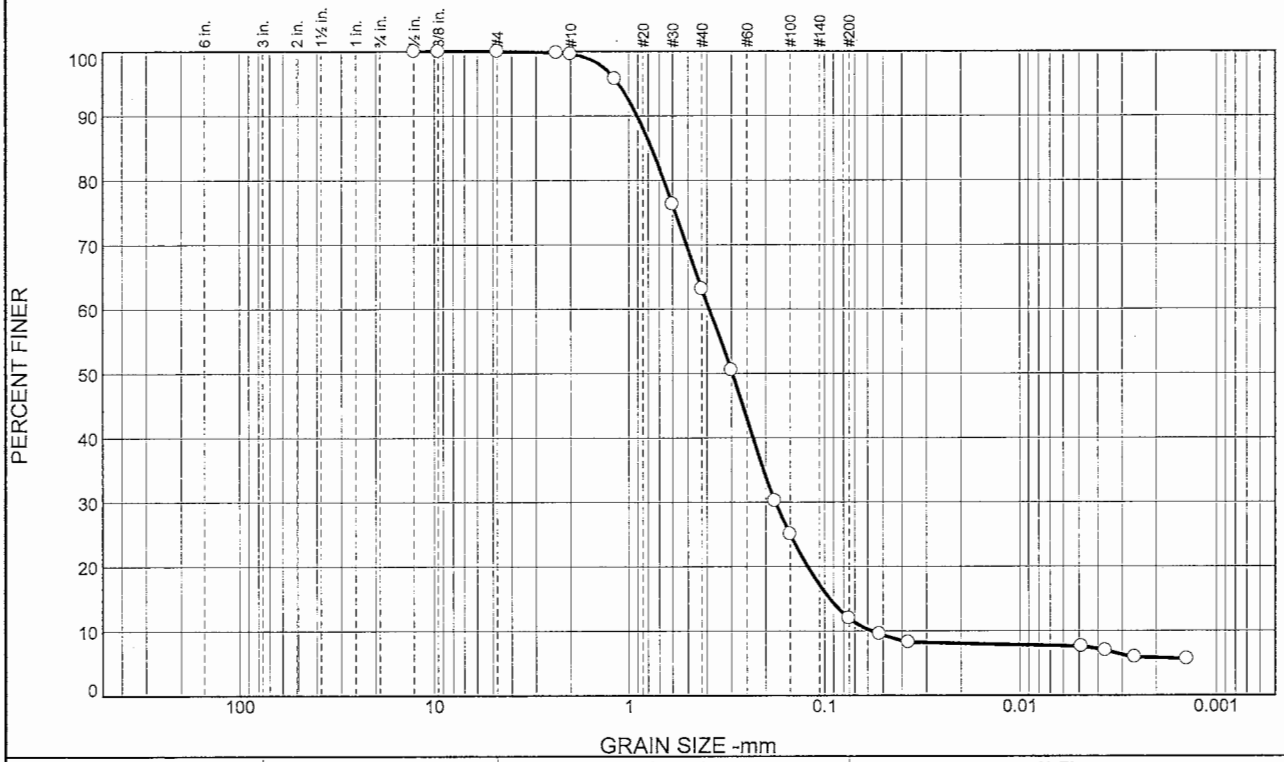
Sample Description

PETER02-004-SO-027

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	90.2	Lab Sample ID:	805666
Analytical Method:	EPA 8000C	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132707	Analysis Date/Time	11/14/2016 18:42
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	90.2		0.1	0.1	0.1	0.1

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.4	36.4	51.2	4.4	7.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1/2	100.0		
3/8	100.0		
#4	100.0		
#8	99.8		
#10	99.6		
#16	95.7		
#30	76.3		
#40	63.2		
#50	50.5		
#80	30.2		
#100	25.0		
#200	12.0		

* (no specification provided)

Material Description

Light Brown Fine to Medium Sand, Little Clay, Trace Silt

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.9083 D_{85}= 0.7682 D_{60}= 0.3893
D_{50}= 0.2959 D_{30}= 0.1787 D_{15}= 0.0939
D_{10}= 0.0572 C_u= 6.80 C_c= 1.43

Classification

USCS= SW-SM AASHTO=

Remarks

Sample Number: PETER03-004-SS-001

Date: 12/1/16

CGC, Inc.

Client: CT Laboratories
Project: AFFF SI - Peterson AFB
PO# 123619 CGC
Project No: C15013-23 **Figure**

Tested By: DRW **Checked By:** AJB

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER03-004-SS-001

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	96.4	Lab Sample ID:	805667
Analytical Method:	EPA 9045D	Date Received:	11/12/2016
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132822	Analysis Date/Time	11/17/2016 15:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.99		0.1	0.1	0.1	0.1

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER03-004-SS-001

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	96.4	Lab Sample ID:	805667
Analytical Method:	L-Kahn/9060A	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132705	Analysis Date/Time	11/15/2016 16:58
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL TOC0105	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	359		37	78	160	160

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INORGANIC ANALYSIS DATA SHEET

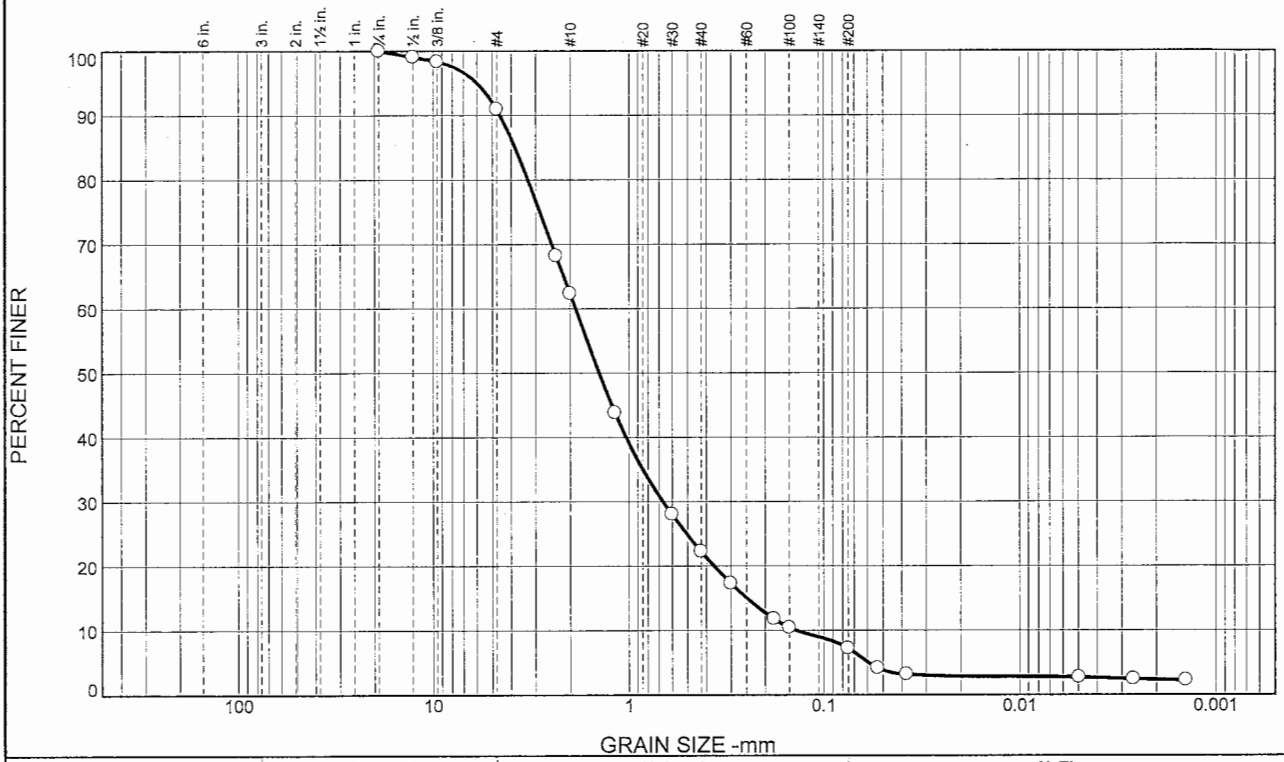
Sample Description

PETER03-004-SS-001

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	96.4	Lab Sample ID:	805667
Analytical Method:	EPA 8000C	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132707	Analysis Date/Time	11/14/2016 18:42
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	96.4		0.1	0.1	0.1	0.1

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	9.0	28.7	40.1	15.0	4.5	2.7

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4	100.0		
1/2	99.0		
3/8	98.3		
#4	91.0		
#8	68.2		
#10	62.3		
#16	43.8		
#30	28.0		
#40	22.2		
#50	17.3		
#80	11.8		
#100	10.4		
#200	7.2		

* (no specification provided)

Material Description

Light Brown Fine to Coarse Sand, Little Gravel, Trace Silt and Clay

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 4.5626 D_{85}= 3.8186 D_{60}= 1.8735
D_{50}= 1.4214 D_{30}= 0.6678 D_{15}= 0.2482
D_{10}= 0.1385 C_u= 13.53 C_c= 1.72

Classification

USCS= SW-SM AASHTO=

Remarks

Sample Number: PETER03-004-SO-066

Date: 12/1/16

CGC,Inc.

Client: CT Laboratories
Project: AFFF SI - Peterson AFB
PO# 123619 CGC
Project No: C15013-23 **Figure**

Tested By: DRW **Checked By:** AJB

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER03-004-SO-066

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	95.7	Lab Sample ID:	805668
Analytical Method:	EPA 9045D	Date Received:	11/12/2016
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132822	Analysis Date/Time	11/17/2016 15:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.94		0.1	0.1	0.1	0.1

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER03-004-SO-066

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	95.7	Lab Sample ID:	805668
Analytical Method:	L-Kahn/9060A	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132705	Analysis Date/Time	11/15/2016 15:48
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL TOC0105	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	46.7	J	38	78	160	160

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INORGANIC ANALYSIS DATA SHEET

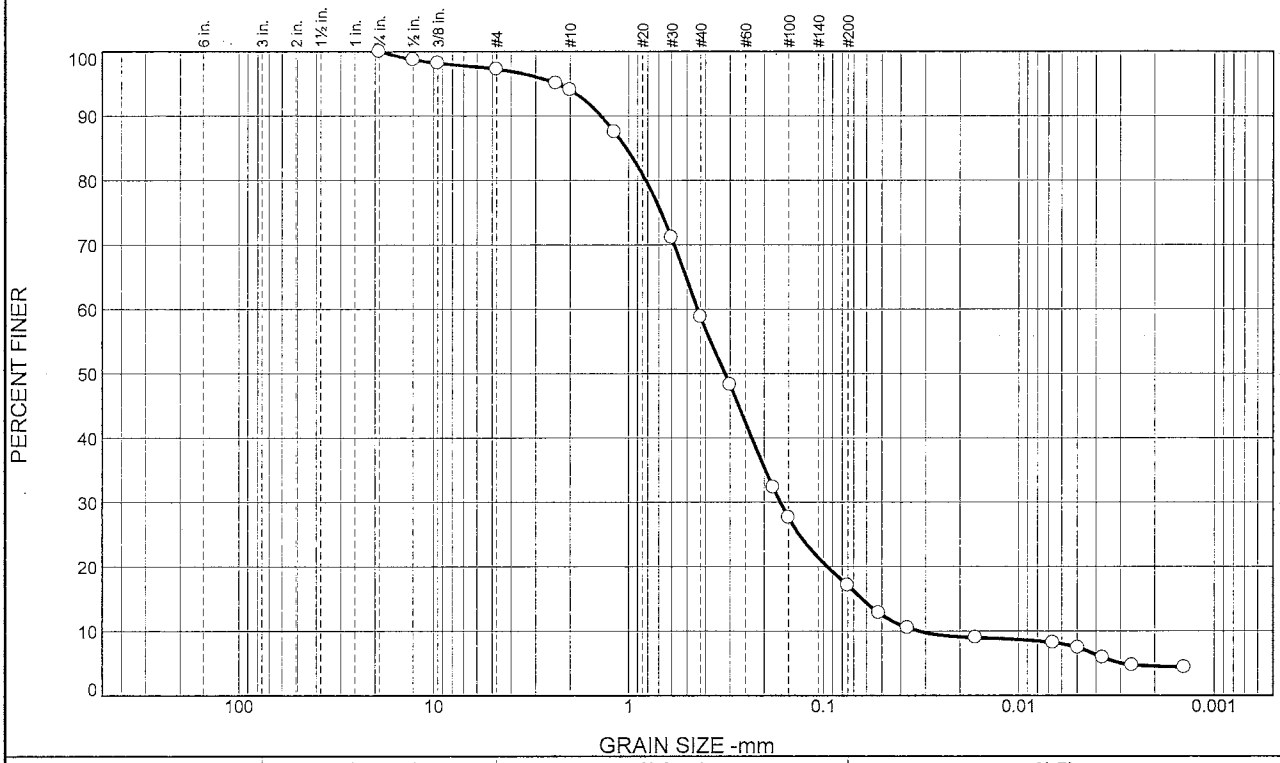
Sample Description

PETER03-004-SO-066

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	95.7	Lab Sample ID:	805668
Analytical Method:	EPA 8000C	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132707	Analysis Date/Time	11/14/2016 18:42
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	95.7		0.1	0.1	0.1	0.1

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	2.7	3.3	35.2	41.7	9.6	7.5

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4	100.0		
1/2	98.7		
3/8	98.2		
#4	97.3		
#8	95.0		
#10	94.0		
#16	87.5		
#30	71.1		
#40	58.8		
#50	48.3		
#80	32.3		
#100	27.6		
#200	17.1		

* (no specification provided)

Material Description

Brown Fine to Medium Sand, Little Silt and Clay, Trace Gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 1.3830 D_{85}= 1.0263 D_{60}= 0.4400
D_{50}= 0.3180 D_{30}= 0.1653 D_{15}= 0.0632
D_{10}= 0.0326 C_u= 13.51 C_c= 1.91

Classification

USCS= SM AASHTO=

Remarks

Sample Number: PETER04-014-SS-001

Date: 12/1/16

CGC, Inc.

Client: CT Laboratories
Project: AFFF SI - Peterson AFB
PO# 123619 CGC
Project No: C15013-23 **Figure**

Tested By: DRW **Checked By:** AJB

CT LABORATORIES

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER04-014-SS-001

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	94.4	Lab Sample ID:	805669
Analytical Method:	EPA 9045D	Date Received:	11/12/2016
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132822	Analysis Date/Time	11/17/2016 15:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.87		0.1	0.1	0.1	0.1

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER04-014-SS-001

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	94.4	Lab Sample ID:	805669
Analytical Method:	L-Kahn/9060A	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132705	Analysis Date/Time	11/15/2016 15:59
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL TOC0105	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	6270		38	79	160	160

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INORGANIC ANALYSIS DATA SHEET

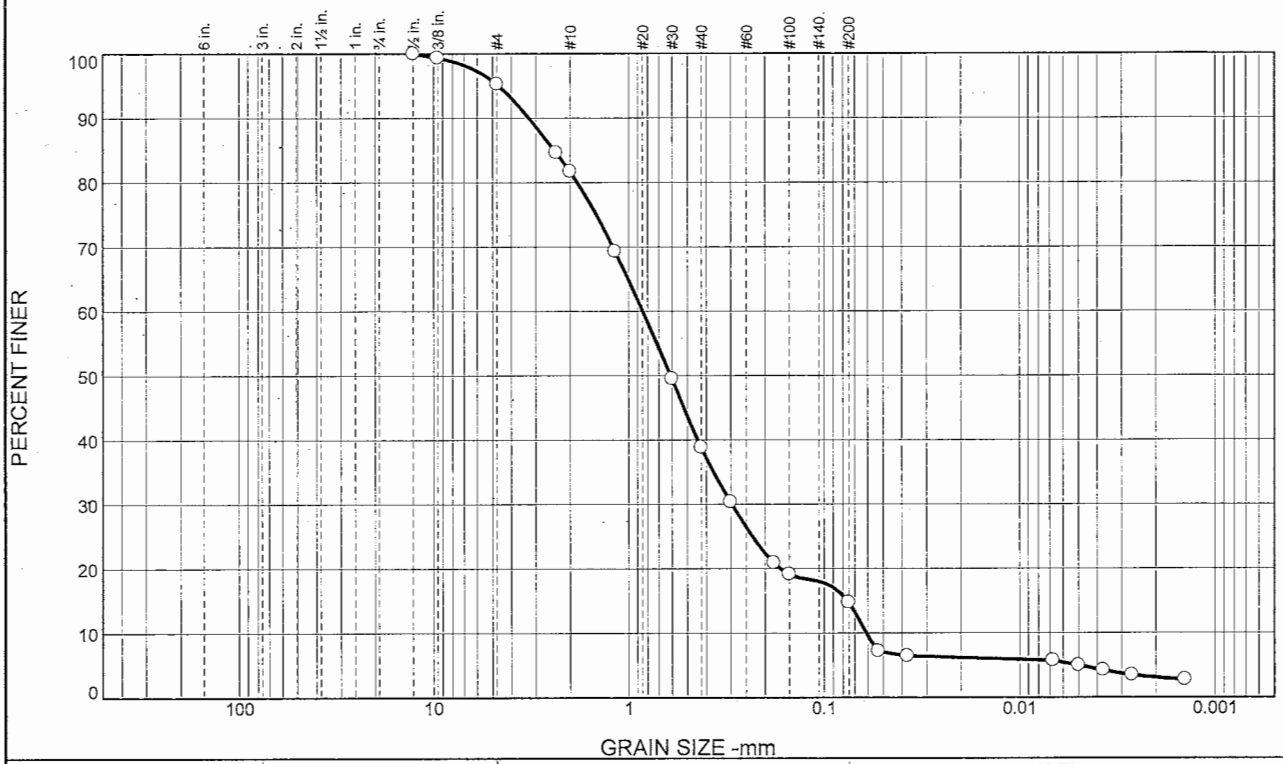
Sample Description

PETER04-014-SS-001

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	94.4	Lab Sample ID:	805669
Analytical Method:	EPA 8000C	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132707	Analysis Date/Time	11/14/2016 18:42
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	94.4		0.1	0.1	0.1	0.1

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	4.8	13.5	42.9	24.1	9.7	5.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1/2	100.0		
3/8	99.3		
#4	95.2		
#8	84.6		
#10	81.7		
#16	69.3		
#30	49.5		
#40	38.8		
#50	30.4		
#80	20.9		
#100	19.1		
#200	14.7		

* (no specification provided)

Material Description

Light Brown Fine to Coarse Sand, Little Silt and Clay, Trace Gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 3.2553 D_{85}= 2.4179 D_{60}= 0.8465
D_{50}= 0.6095 D_{30}= 0.2951 D_{15}= 0.0761
D_{10}= 0.0611 C_u= 13.86 C_c= 1.69

Classification

USCS= SM AASHTO=

Remarks

Sample Number: PETER04-014-SO-078

Date: 12/1/16

CGC, Inc.

Client: CT Laboratories
Project: AFFF SI - Peterson AFB
PO# 123619 CGC
Project No: C15013-23 **Figure**

Tested By: DRW **Checked By:** AJB

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER04-014-SO-078

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	94.0	Lab Sample ID:	805670
Analytical Method:	EPA 9045D	Date Received:	11/12/2016
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132822	Analysis Date/Time	11/17/2016 15:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	8.47		0.1	0.1	0.1	0.1

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER04-014-SO-078

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	94.0	Lab Sample ID:	805670
Analytical Method:	L-Kahn/9060A	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132705	Analysis Date/Time	11/15/2016 16:28
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL TOC0105	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	145	J	38	80	160	160

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INORGANIC ANALYSIS DATA SHEET

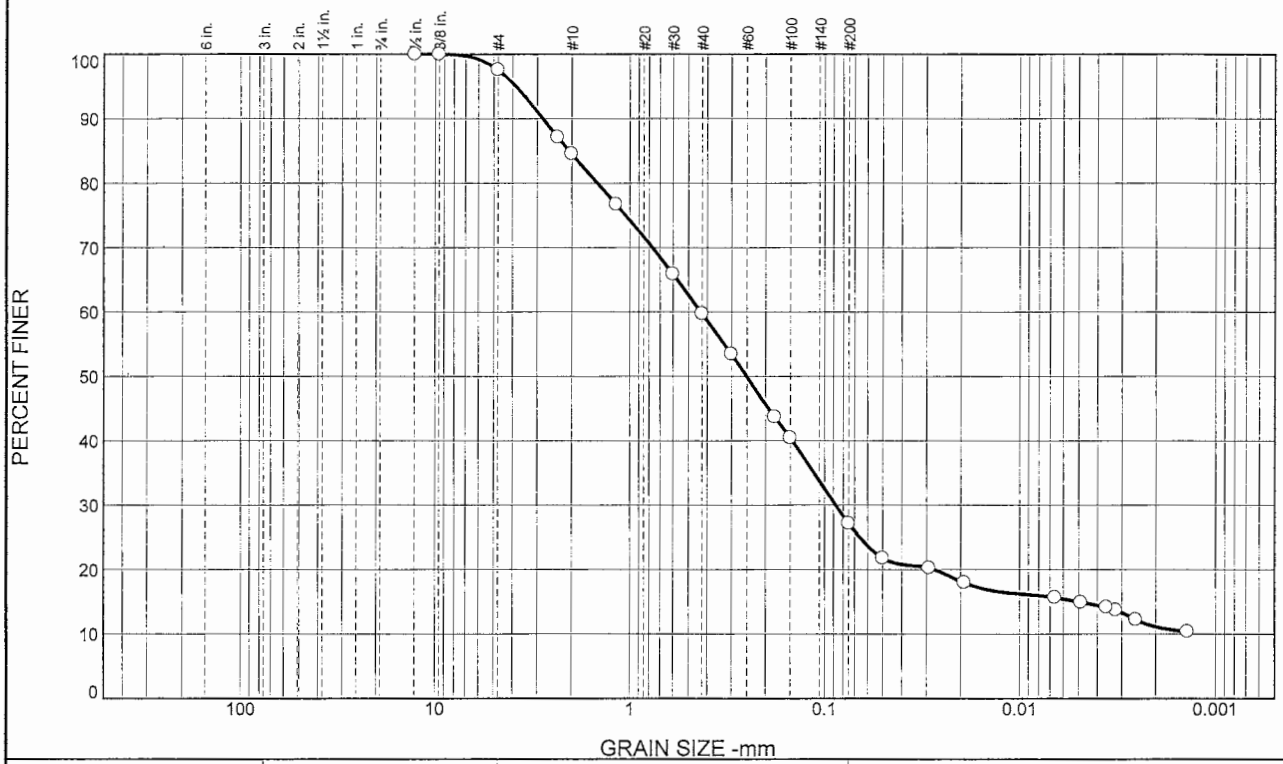
Sample Description

PETER04-014-SO-078

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	94.0	Lab Sample ID:	805670
Analytical Method:	EPA 8000C	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132707	Analysis Date/Time	11/14/2016 18:42
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	94.0		0.1	0.1	0.1	0.1

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	2.4	13.1	24.8	32.5	12.2	15.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1/2	100.0		
3/8	100.0		
#4	97.6		
#8	87.1		
#10	84.5		
#16	76.7		
#30	65.9		
#40	59.7		
#50	53.5		
#80	43.7		
#100	40.4		
#200	27.2		

* (no specification provided)

Material Description

Brown Fine to Coarse Sand, Some Clay and Silt, Trace Gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 2.8117 D_{85}= 2.0630 D_{60}= 0.4320
D_{50}= 0.2505 D_{30}= 0.0876 D_{15}= 0.0050
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Sample Number: PETER05-002-SO-035

Date: 12/1/16

CGC,Inc.

Client: CT Laboratories
Project: AFFF SI - Peterson AFB
PO# 123619 CGC
Project No: C15013-23 **Figure**

Tested By: DRW **Checked By:** AJB

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER05-002-SO-035

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	81.8	Lab Sample ID:	805671
Analytical Method:	EPA 9045D	Date Received:	11/12/2016
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132822	Analysis Date/Time	11/17/2016 15:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.98		0.1	0.1	0.1	0.1

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER05-002-SO-035

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	81.8	Lab Sample ID:	805671
Analytical Method:	L-Kahn/9060A	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132705	Analysis Date/Time	11/15/2016 16:38
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL TOC0105	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	432		44	92	180	180

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INORGANIC ANALYSIS DATA SHEET

Sample Description

PETER05-002-SO-035

Lab Name:	CT Laboratories	Contract:	MAXXAM ANALYTICS-AFFF SI
Matrix (soil/water):	SOIL	SDG No.:	123619
% Solids:	81.8	Lab Sample ID:	805671
Analytical Method:	EPA 8000C	Date Received:	11/12/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	132707	Analysis Date/Time	11/14/2016 18:42
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	81.8		0.1	0.1	0.1	0.1

Appendix F

Water Level Data

Table F-1
Peterson AFB AFFF Areas December 6, 2016, Groundwater Elevations

AFFF Area	Well ID	Northing	Easting	Top of Casing Elevation	Ground Surface Elevation	Screened Interval (ft bgs)	Depth to Water (btoc)	Groundwater Elevation
AFFF Area 1 Site 8 (FT003)	PETER01-001	1352961.32	3229817.20	6137.81	6137.95	82-92	85.50	6052.31
	PETER01-002	1352687.56	3229163.57	6140.43	6140.49	90-100	94.49	6045.94
	PETER01-003	1352904.68	3230073.59	6130.73	6130.91	76.6-86.6	76.56	6054.17
AFFF Area 2 Fire Station #1 (Building 218)	PETER02-001	1359930.64	3226776.74	6173.80	6174.39	50.5-60.5	51.20	6122.60
	PETER02-002	1359949.39	3226666.14	6174.12	6174.25	30-40	Dry	Dry
	PETER02-003	1359855.69	3226755.87	6169.09	6169.30	35-50	48.15	6120.94
AFFF Area 3 Fire Station #2 (Building 2032)	PETER03-001	1355805.02	3233285.12	6181.62	6181.58	60-70	66.24	6115.38
	PETER03-002	1355554.36	3233452.01	6180.59	6180.78	66-76	66.59	6114.00
	PETER03-003	1355616.93	3233185.22	6181.19	6181.37	65-75	69.31	6111.88
AFFF Area 4 Golf Course/Leach Field (WP006) Detention Pond #3 Site 5 (FT002)	PETER04-001	1356261.36	3230250.21	6139.21	6139.32	54-64	45.55	6093.66
	PETER04-002	1356043.81	3230076.07	6137.16	6137.37	40-50	46.94	6090.22
	PETER04-003	1355726.15	3229782.77	6137.85	6138.02	49-64	53.90	6083.95
	PETER04-004	1356948.89	3228509.26	6139.90	6140.03	80-90	57.44	6082.46
	PETER04-005	1356326.53	3229136.11	6131.45	6131.64	60-70	54.31	6077.14
	PETER04-008	1350874.08	3227438.41	6099.84	6100.10	91-101	91.19	6008.65
	PETER04-009	1347982.75	3222338.36	6016.45	6016.54	80-100	81.43	5935.02
	MW2-1	1357761.43	3229093.71	6142.47	6141.31	49.2-59.2	46.40	6096.07
	MW2-2	1357535.97	3229441.97	6139.76	6138.37	40.6-50.6	43.09	6096.67
	MW2-3	1357812.80	3229264.47	6140.71	6139.25	40.7-50.7	42.56	6098.15
	MW2-4	1357941.77	3229416.30	6142.99	6141.10	43.9-53.9	42.63	6100.36
	MW2-5	1357938.65	3229022.45	6150.64	6148.72	49.6-69.6	53.10	6097.54
	MW4-1	1357654.67	3228793.26	6152.36	6152.38	54.8-74.8	59.80	6092.56
AFFF Area 5 Current FTA	PETER05-001	1363127.58	3224559.37	6203.31	6203.42	40-50	39.12	6164.19
	MW1-2	1362921.68	3224264.85	6197.83	6198.40	36.3-56.3	38.12	6159.71

Northing and easting coordinates were recorded in US survey feet using the US State Plane 1983 coordinate system, Colorado Central Zone. Elevations were recorded referenced to the North American Vertical Datum 1988.

AFB = Air Force Base AFFF = aqueous film forming foam bgs = below ground surface btoc = below top of casing ft = foot/feet
FTA = fire training area ID = identification

Table F-2
Existing Monitoring Wells Near AFFF Area 5
August 24, 2016, Groundwater Elevations[1]

Well ID	Measuring Point Elevation (ft amsl)	Depth to Water Below Measuring Point (ft)	Water Level (ft amsl)
MW1-1	6212.44	31.05	6181.39
MW1-2	6194.36	37.50	6156.86
MW1-5A	6212.78	51.15	6161.63
MW1-6	6193.47	17.45	6176.02
MW1-7	6186.71	27.32	6159.39
MW1-8	6204.34	38.56	6165.78

[1]Collected by Noblis.
AFFF = aqueous film forming foam
amsl = above mean sea level
ft = foot/feet
ID = identification

Appendix G

New Monitoring Well Construction Details

Table G-1 New Monitoring Well Construction Details

AFFF Area	Well Identification	Northing (feet)	Easting (feet)	Top of Casing Elevation (feet)	Ground Surface Elevation (feet)	Total Boring Depth (feet bgs)	Approximate Depth Groundwater Encountered During Drilling (feet bgs)	Wellhead Completion Type	Total Well Depth (feet bgs)	Screen Interval (feet bgs)	Screen Length (feet)
AFFF Area 1 Site 8 (FT003)	PETER01-001	1352961.32	3229817.20	6137.81	6137.95	92.0	84	Flushmount	92.0	82-92	10
	PETER01-002	1352687.56	3229163.57	6140.43	6140.49	100.0	89	Flushmount	100.0	90-100	10
	PETER01-003	1352904.68	3230073.59	6130.73	6130.91	87.0	77	Flushmount	86.6	76.6-86.6	10
AFFF Area 2 Fire Station #1 (Bldg 218)	PETER02-001	1359930.64	3226776.74	6173.80	6174.39	66.0	25	Flushmount	60.5	50.5-60.5	10
	PETER02-002	1359949.39	3226666.14	6174.12	6174.25	40.0	25	Flushmount	40.0	30-40	10
	PETER02-003	1359855.69	3226755.87	6169.09	6169.30	50.0	35	Flushmount	50.0	35-50	15
AFFF Area 3 Fire Station #2 (Bldg 2032)	PETER03-001	1355805.02	3233285.12	6181.62	6181.58	75.0	65	Flushmount	70.0	60-70	10
	PETER03-002	1355554.36	3233452.01	6180.59	6180.78	76.0	65	Flushmount	76.0	66-76	10
	PETER03-003	1355616.93	3233185.22	6181.19	6181.37	75.0	70	Flushmount	75.0	65-75	10
AFFF Area 4 Golf Course/Leach Field (WP006) Detention Pond #3 Site 5 (FT002)	PETER04-001	1356261.36	3230250.21	6139.21	6139.32	67.0	50	Flushmount	64.0	54-64	10
	PETER04-002	1356043.81	3230076.07	6137.16	6137.37	53.0	42	Flushmount	50.0	40-50	10
	PETER04-003	1355726.15	3229782.77	6137.85	6138.02	65.0	51	Flushmount	64.0	49-64	15
	PETER04-004	1356948.89	3228509.26	6139.90	6140.03	90.0	59	Flushmount	90.0	80-90	10
	PETER04-005	1356326.53	3229136.11	6131.45	6131.64	70.0	55	Flushmount	70.0	60-70	10
	PETER04-008	1350874.08	3227438.41	6099.84	6100.10	101.0	89	Flushmount	101.0	91-101	10
	PETER04-009	1347982.75	3222338.36	6016.45	6016.54	108.0	80	Flushmount	100.0	80-100	20
AFFF Area 5 Current FTA	PETER05-001	1363127.58	3224559.37	6203.31	6203.42	50.0	36	Flushmount	50	40-50	10

Northing and easting coordinates were recorded in US survey feet using the US State Plane 1983 coordinate system, Colorado Central Zone. Elevations were recorded referenced to the North American Vertical Datum 1988.

AFB = Air Force Base
AFFF = aqueous film forming foam
bgs = below ground surface
btoc = below top of casing
ft = foot/feet
FTA = fire training area
ID = identification

Appendix H

RSL Calculations
for
PFOA and PFOS in Soil

Default

Resident Equation Inputs for Soil

Variable	Value
THQ (target hazard quotient) unitless	1
TR (target risk) unitless	1.0E-6
LT (lifetime) years	70
ET_{res} (exposure time) hours/day	24
ET_{res-c} (child exposure time) hours/day	24
ET_{res-a} (adult exposure time) hours/day	24
ET_{0-2} (mutagenic exposure time) hours/day	24
ET_{2-6} (mutagenic exposure time) hours/day	24
ET_{6-16} (mutagenic exposure time) hours/day	24
ET_{16-26} (mutagenic exposure time) hours/day	24
ED_{res} (exposure duration) years	26
ED_{res-c} (exposure duration - child) years	6
ED_{res-a} (exposure duration - adult) years	20
ED_{0-2} (mutagenic exposure duration) years	2
ED_{2-6} (mutagenic exposure duration) years	4
ED_{6-16} (mutagenic exposure duration) years	10
ED_{16-26} (mutagenic exposure duration) years	10
BW_{res-c} (body weight - child) kg	15
BW_{res-a} (body weight - adult) kg	80
BW_{0-2} (mutagenic body weight) kg	15
BW_{2-6} (mutagenic body weight) kg	15
BW_{6-16} (mutagenic body weight) kg	80
BW_{16-26} (mutagenic body weight) kg	80
SA_{res-c} (skin surface area - child) cm^2/day	2373
SA_{res-a} (skin surface area - adult) cm^2/day	6032
SA_{0-2} (mutagenic skin surface area) cm^2/day	2373
SA_{2-6} (mutagenic skin surface area) cm^2/day	2373
SA_{6-16} (mutagenic skin surface area) cm^2/day	6032
SA_{16-26} (mutagenic skin surface area) cm^2/day	6032
EF_{res} (exposure frequency) days/year	350
EF_{res-c} (exposure frequency - child) days/year	350
EF_{res-a} (exposure frequency - adult) days/year	350
EF_{0-2} (mutagenic exposure frequency) days/year	350

Default

Resident Equation Inputs for Soil

Variable	Value
EF_{2-6} (mutagenic exposure frequency) days/year	350
EF_{6-16} (mutagenic exposure frequency) days/year	350
EF_{16-26} (mutagenic exposure frequency) days/year	350
$IFS_{res-adj}$ (age-adjusted soil ingestion factor) mg/kg	36750
$IFSM_{res-adj}$ (mutagenic age-adjusted soil ingestion factor) mg/kg	166833.33
IRS_{res-c} (soil intake rate - child) mg/day	200
IRS_{res-a} (soil intake rate - adult) mg/day	100
IRS_{0-2} (mutagenic soil intake rate) mg/day	200
IRS_{2-6} (mutagenic soil intake rate) mg/day	200
IRS_{6-16} (mutagenic soil intake rate) mg/day	100
IRS_{16-26} (mutagenic soil intake rate) mg/day	100
AF_{res-a} (skin adherence factor - adult) mg/cm ^{2}	0.07
AF_{res-c} (skin adherence factor - child) mg/cm ^{2}	0.2
AF_{0-2} (mutagenic skin adherence factor) mg/cm ^{2}	0.2
AF_{2-6} (mutagenic skin adherence factor) mg/cm ^{2}	0.2
AF_{6-16} (mutagenic skin adherence factor) mg/cm ^{2}	0.07
AF_{16-26} (mutagenic skin adherence factor) mg/cm ^{2}	0.07
$DFS_{res-adj}$ (age-adjusted soil dermal factor) mg/kg	103390
$DFSM_{res-adj}$ (mutagenic age-adjusted soil dermal factor) mg/kg	428260
$City_{PEF}$ (Climate Zone) Selection	Default
A_s (acres)	0.5
Q/C_{wp} (inverse of the ratio of the geometric mean air concentration to the emission flu	93.77
PEF (particulate emission factor) m ^{3}/kg	1359344438
A (PEF Dispersion Constant)	16.2302
B (PEF Dispersion Constant)	18.7762
C (PEF Dispersion Constant)	216.108
V (fraction of vegetative cover) unitless	0.5
U_m (mean annual wind speed) m/s	4.69
U_t (equivalent threshold value)	11.32
F(x) (function dependant on U_m/U_t) unitless	0.194
$City_{VF}$ (Climate Zone) Selection	Default
A_s (acres)	0.5
Q/C_{vol} (inverse of the ratio of the geometric mean air concentration to the emission flu	68.18

Output generated 18JUL2017:23:07:27

Default

Resident Equation Inputs for Soil

Variable	Value
foc (fraction organic carbon in soil) g/g	0.006
p_b (dry soil bulk density) g/cm ^{3}	1.5
p_s (soil particle density) g/cm ^{3}	2.65
n (total soil porosity) L_{pore}/L_{soil}	0.43396
$_a$ (air-filled soil porosity) L_{air}/L_{soil}	0.28396
$_w$ (water-filled soil porosity) L_{water}/L_{soil}	0.15
T (exposure interval) s	819936000
A (VF Dispersion Constant)	11.911
B (VF Dispersion Constant)	18.4385
C (VF Dispersion Constant)	209.7845
$City_{VF\ mass\text{-}loading}$ (Climate Zone) Selection	Default
VF_{ml} (volitization factor - mass-limit) m ^{3}/kg	.
Q/C_{vol} (inverse of the ratio of the geometric mean air concentration to the emission fl	68.18365
A_c (acres)	0.5
T (exposure interval) yr	26
d_c (depth of source) m	.
p_b (dry soil bulk density) g/cm ^{3}	1.5
A (VF Dispersion Constant - Mass Limit)	11.911
B (VF Dispersion Constant - Mass Limit)	18.4385
C (VF Dispersion Constant - Mass Limit)	209.7845

Default

Resident Risk-Based Screening Levels (RSL) for Soil

Key: I = IRIS; P = PPRTV; D = DWSHA; O = OPP; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Chemical	CAS Number	Mutagen?	VOC?	Ingestion SF (mg/kg-day) $^{-1}$	SFO Ref	Inhalation Unit Risk (ug/m ^{3})$^{-1}$	IUR Ref	Chronic RfD (mg/kg-day)	Chronic RfD Ref	Chronic RfC (mg/m ^{3})	Chronic RfC Ref	GIABS	ABS	RBA
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	No	No	-		-		2.00E-05	DW	-		1	0.1	1
Perfluorooctanoic acid (PFOA)	335-67-1	No	No	7.00E-02	D	-		2.00E-05	DW	-		1	0.1	1

Chemical	Volatilization Factor (m ^{3}/kg)	Henry's Law Constant (unitless)	S (mg/L)	K_{oc} (cm3/g)	Soil Saturation Concentration (mg/kg)	Particulate Emission Factor (m ^{3}/kg)	Ingestion SL TR=1.0E-6 (mg/kg)	Dermal SL TR=1.0E-6 (mg/kg)	Inhalation SL TR=1.0E-6 (mg/kg)	Carcinogenic SL TR=1.0E-6 (mg/kg)
Perfluorooctane sulfonic acid (PFOS)	-	-	6.80E+02	3.72E+02	-	1.36E+09	-	-	-	-
Perfluorooctanoic acid (PFOA)	-	-	9.50E+03	1.15E+02	-	1.36E+09	9.93E+00	3.53E+01	-	7.75E+00

Chemical	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)	Ingestion SL Adult THQ=1 (mg/kg)	Dermal SL Adult THQ=1 (mg/kg)	Inhalation SL Adult THQ=1 (mg/kg)	Noncarcinogenic SL Adult THI=1 (mg/kg)	Screening Level (mg/kg)
Perfluorooctane sulfonic acid (PFOS)	1.56E+00	6.59E+00	-	1.26E+00	1.67E+01	3.95E+01	-	1.17E+01	1.26E+00 nc
Perfluorooctanoic acid (PFOA)	1.56E+00	6.59E+00	-	1.26E+00	1.67E+01	3.95E+01	-	1.17E+01	1.26E+00 nc

Chemical	CASNUM	Inhalation Unit Risk (µg/m $^{3})^{-1}$	Toxicity Source	EPA Cancer Classification	Inhalation Unit Risk Tumor Type	Inhalation Unit Risk Target Organ	Inhalation Unit Risk Species	Inhalation Unit Risk Method	Inhalation Unit Risk Route	Inhalation Unit Risk Treatment Duration	Inhalation Unit Risk Study Reference
Perfluorooctane sulfonic acid (PFOS)	1763-23-1										
Perfluorooctanoic acid (PFOA)	335-67-1										

Chemical	CASNUM	Oral Slope Factor (mg/kg-day) $^{-1}$	Toxicity Source	EPA Cancer Classification	Oral Slope Factor Tumor Type	Oral Slope Factor Target Organ	Oral Slope Factor Species	Oral Slope Factor Method	Oral Slope Factor Route	Oral Slope Factor Treatment Duration	Oral Slope Factor Study Reference
Perfluorooctane sulfonic acid (PFOS)	1763-23-1										
Perfluorooctanoic acid (PFOA)	335-67-1	7.00E-02	DWSHA	NA	NA	NA	NA	NA	NA	NA	NA

Oral Chronic Toxicity Metadata

Chemical	CASNUM	Chronic Oral Reference Dose (mg/kg-day)	Toxicity Source	Oral Chronic Reference Dose Basis	Oral Chronic Reference Dose Confidence Level	Oral Chronic Reference Dose Critical Effect
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	2.00E-05	DWSHA	NA	NA	NA
Perfluorooctanoic acid (PFOA)	335-67-1	2.00E-05	DWSHA	NA	NA	NA

Oral Chronic Reference Dose Target Organ	Oral Chronic Reference Dose Modifying Factor	Oral Chronic Reference Dose Uncertainty Factor	Oral Chronic Reference Dose Species	Oral Chronic Reference Dose Route	Oral Chronic Reference Dose Study Duration	Oral Chronic Reference Dose Study Reference
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA

Inhalation Chronic Toxicity Metadata

Chemical	CASNUM	Chronic Inhalation Reference Concentration (mg/m³)	Toxicity Source	Inhalation Chronic Reference Concentration Basis	Inhalation Chronic Reference Concentration Confidence Level	Inhalation Chronic Reference Concentration Critical Effect
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	-				
Perfluorooctanoic acid (PFOA)	335-67-1	-				

Inhalation Chronic Reference Concentration Target Organ	Inhalation Chronic Reference Concentration Modifying Factor	Inhalation Chronic Reference Concentration Uncertainty Factor	Inhalation Chronic Reference Concentration Species	Inhalation Chronic Reference Concentration Route	Inhalation Chronic Reference Concentration Study Duration	Inhalation Chronic Reference Concentration Study Reference