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30 November 2021

Nicole Osuch, PMP
Voluntary Remediation Program
Arizona Department of Environmental Quality
1110 W. Washington Street
Phoenix, AZ 85007

Subject: Third Quarter 2021 Groundwater Monitoring Results
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Dear Ms. Osuch,

Attached please find results for the third quarter 2021 groundwater monitoring event that was conducted by Geosyntec Consultants, Inc. on behalf of Nammo Defense Systems Inc. (NDS) at the former Thermal Treatment Unit (TTU) at the NDS facility in Mesa, Arizona. Tables of results provided in Attachment 1 include the following: groundwater well network (Table 1), groundwater elevation measurements (Table 2), observed concentrations of volatile organic compounds (VOCs) (Table 3), and observed concentrations of perchlorate (Table 4). Figures provided in Attachment 2 include a site location map (Figure 1), groundwater elevation contours (Figure 2), perchlorate isoconcentration contours (Figure 3), isoconcentration contours for 1,1-dichloroethene and trichloroethene (Figure 4), and time-series plots of groundwater elevations and select VOC concentrations (Figures 5-1 through 5-26). Results from the Washington National Primate Research Center wells well PF-2 located on Salt River Pima-Maricopa Indian Community property did not exceed the perchlorate concentration limit of 6.4 µg/L and trigger level of 3.2 µg/L[1].

[1] Haley&Aldrich. 2015. Contingency Plan for Exceeding Perchlorate Concentration Limits at the Primate Facility Well No. 2 (Revision 2). Former Thermal Treatment Unit, Nammo Talley, Inc. Mesa, Arizona. October 27.

Geosyntec prepared a Tier 1A data validation of the laboratory results according to United States Environmental Protection Agency guidance and the laboratory results are qualified as usable for meeting project objectives. A data validation memorandum is provided in Attachment 3. Field notes including field-measured water quality parameters (temperature, specific conductivity, dissolved oxygen, pH, and oxidative-reductive potential) are provided in Attachment 4. Laboratory reports are provided in Attachment 5.

If you have any questions about this report, please contact either Mr. Angel Soto with NDS, or Mr. Fabrizio Mascioni with Geosyntec.

Sincerely,

Fabrizio Mascioni, R.G. 65652 (AZ)
Senior Geologist

Tory Luttermoser
Senior Staff Professional

Attachments: Attachment 1 – Tables
Attachment 2 – Figures
Attachment 3 – Data Validation Memorandum
Attachment 4 – Field Notes
Attachment 5 – Laboratory Analytical Reports

cc: Angel Soto, Nammo Defense Systems Inc.
Christopher Horan, Salt River Pima-Maricopa Indian Community
Lily Bermejo, Salt River Pima-Maricopa Indian Community

ATTACHMENT 1

TABLES

TABLE 1:
FORMER THERMAL TREATMENT UNIT
2021 GROUNDWATER WELL NETWORK
NAMMO DEFENSE SYSTEMS INC.
MESA, ARIZONA
NOVEMBER 2021

Geosyntec consultants

Well Identification	Latitude	Longitude	Measuring Point Elevation (ft asml)	ADWR Number	Well Type/Use	Well Name/ Owner	Well Owner Information	Well Const	Well Diameter (in)	Screen Interval (ft bgs)	Casing Depth (ft bgs)	Boring Depth (ft bgs)
Plume Monitoring Wells												
TTU-3	33 29 57.98	-111 43 00.91	1308.03	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85279	PVC	4	78.1-138.1	143.6	180
TTU-4	33 30 01.65	-111 42 59.09	1305.12	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85280	PVC	4	39.5-99.5	104.9	180
TTU-5	33 29 52.48	-111 42 58.40	1314.93	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85281	PVC	4	59.5-164.5	169.5	174
TTU-6	33 29 57.57	-111 43 04.79	1300.84	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85282	PVC	4	110-175	180	185
TTU-7	33 29 57.85	-111 43 05.18	1301.84	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85282	Steel Open Borehole	8.5 8	282-410	282 None	410
TTU-8	33 30 01.91	-111 43 05.31	1310.23	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85282	PVC	4	135-185	190	204
TTU-9A	33 30 04.61	-111 42 51.19	1318.04	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85282	PVC	4	24-99	104	105
TTU-10	33 29 54.60	-111 43 07.90	1302.42	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85282	PVC	4	115-180	185	204
TTU-12	33 29 56.03	-111 42 58.38	1312.21	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85282	Steel Open Borehole	5.5 5	30-180	30 None	180
TTU-13	33 29 58.99	-111 42 56.85	1310.79	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85283	Steel Open Borehole	5.5 5	30-80	30 None	80
TTU-14	33 29 57.20	-111 42 57.46	1316.80	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85284	Steel Open Borehole	5.5 5	45-100	45 None	100
TTU-15	33 29 56.78	-111 42 47.03	1350.85	55-228014	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85285	Steel Open Borehole	5 4.5	10-100	10 None	100
TTU-16	33 29 56.18	-111 42 49.59	1338.55	55-231730	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85286	Steel Open Borehole	8 8	20-95.6	20 None	95.6
TTU-17	33 29 58.61	-111 42 45.69	1347.49	55-231735	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85287	Steel Open Borehole	8 8	20-101	20 None	101
TTU-18	33 29 47.20	-111 42 58.10	1320.25	55-231737	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85288	Steel Open Borehole	8 8	21-140	21 None	140
TTU-20	33 29 55.17	-111 42 51.58	1336.90	55-232968	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85288	PVC	4	25-95	95	100

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2021 GROUNDWATER WELL NETWORK
NAMMO DEFENSE SYSTEMS INC.
MESA, ARIZONA
NOVEMBER 2021

Geosyntec consultants

Well Identification	Latitude	Longitude	Measuring Point Elevation (ft asml)	ADWR Number	Well Type/Use	Well Name/ Owner	Well Owner Information	Well Const	Well Diameter (in)	Screen Interval (ft bgs)	Casing Depth (ft bgs)	Boring Depth (ft bgs)
Extraction and Injection Wells												
TTU-1	33 29 59.14	-111 42 56.27	1312.73	55-914440	Extraction	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85277	PVC	4	30-70	75	200
TTU-2	33 29 55.85	-111 42 57.85	1314.44	N/A	Extraction	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85278	PVC	4	49.4-179.6	185	187.5
TTU-11	33 29 55.28	-111 42 51.47	1339.20	55-918534	Extraction/ Injection [1]	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85282	PVC	4	24.1-89.1	94	136
TTU-19	33 29 55.25	-111 42 51.50	1336.81	55-232969	Monitoring/ Injection [2]	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85288	PVC	4	25-95	95	96
TTU-EX-1	33 29 58.42	-111 42 52.55	1321.69	55-231733	Extraction	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85288	Steel	8	19-110.7	19	110.7
								Open Borehole	8		None	
TTU-EX-2	33 29 57.61	-111 42 53.79	1316.40	55-231734	Extraction	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85289	Steel	8	20-110	20	110
								Open Borehole	8		None	
TTU-EX-3	33 29 56.29	-111 42 54.12	1316.85	55-231731	Extraction	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85290	Steel	8	20-101.45	20	111
								Open Borehole	8		None	
TTU-EX-4	33 29 55.46	-111 42 54.39	1319.96	55-231732	Extraction	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85291	Steel	8	20-110.7	20	110.7
								Open Borehole	8		None	
TTU-EX-5	33 29 54.68	-111 42 54.62	1319.50	55-231736	Extraction	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85292	Steel	8	20-110.8	20	110.8
								Open Borehole	8		None	
Production Wells												
PF-1	33 29 56.60	-111 43 09.75	1295.99	N/A	Production	University of Washington	4202 N Higley Rd Mesa, AZ 85215	Unknown	Unknown	Unknown	Unknown	Unknown
PF-2	33 29 56.65	-111 43 09.96	1296.35	N/A	Production	University of Washington	4202 N Higley Rd Mesa, AZ 85215	Steel	6 5/8	300-400	400	400

Abbreviations:

ft amsl = feet above mean sea level (NAVD88)
ADWR = Arizona Department of Water Resources
Const = construction
in = inches
N/A = Not applicable
PVC = polyvinyl chloride
ft bgs = feet below ground surface
TTU = Thermal Treatment Unit
EX = Extraction
PF = Primate Facility

Notes:

(1) - TTU-11 was converted from an extraction well to an injection well in October 2020 for a In-Situ Bioremediation Pilot Test.
(2) - TTU-19 was converted from a monitoring well to an injection well in February 2021 for an In-Situ Bioremediation Pilot Test
TTU-EX-1 through TTU-EX-5 are not currently operating as extraction wells. TTU-11 and TTU-19 are not currently operating as injection wells.

TABLE 2: GROUNDWATER ELEVATIONS - THIRD QUARTER 2021
FORMER THERMAL TREATMENT UNIT
NAMMO DEFENSE SYSTEMS INC.
NOVEMBER 2021

Geosyntec consultants

Location	Northing (intl ft)	Easting (intl ft)	Top of Casing Elevation (ft asml)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft asml)
TTU-1	909420.734	761281.203	1312.73	7/29/2021	33.03	1279.70
TTU-2	909087.852	761148.265	1314.44	7/29/2021	63.40	1251.04
TTU-3	909303.363	760888.204	1308.03	7/30/2021	87.78	1220.25
TTU-4	909673.68	761041.975	1305.12	7/30/2021	52.18	1252.94
TTU-5	908747.636	761102.227	1314.93	7/29/2021	81.79	1233.14
TTU-6	909260.820	760560.096	1300.84	7/30/2021	123.02	1177.82
TTU-7	909287.611	760527.269	1301.84	7/30/2021	124.07	1177.77
TTU-8	909699.266	760514.908	1310.23	7/30/2021	145.86	1164.37
TTU-9A	909974.49	761710.151	1318.04	7/29/2021	27.06	1290.98
TTU-10	908960.114	760297.013	1302.42	8/6/2021	146.37	1156.05
TTU-11	909029.758	761706.47	1339.20	8/24/2021	43.03	1296.17
TTU-12	909105.99	761103.28	1312.21	7/29/2021	72.75	1239.46
TTU-13	909405.92	761232.18	1310.79	7/29/2021	38.45	1272.34
TTU-14	909224.26	761181.23	1316.80	7/29/2021	60.23	1256.57
TTU-15	909185.10	762065.91	1350.85	7/29/2021	38.60	1312.25
TTU-16	909124.98	761848.851	1338.55	7/29/2021	28.87	1309.68
TTU-17	909370.90	762179.168	1347.49	7/29/2021	44.11	1303.38
TTU-18	908215.83	761130.011	1320.25	7/29/2021	DRY	
TTU-19	909030.75	761687.70	1336.81	8/24/2021	38.25	1298.56
TTU-20	909022.53	761681.99	1336.90	8/24/2021	39.98	1296.92
TTU-EX-1	909350.57	761597.823	1321.69	7/29/2021	33.01	1288.68
TTU-EX-2	909268.19	761493.214	1316.40	7/29/2021	39.97	1276.43
TTU-EX-3	909134.94	761465.507	1316.85	7/29/2021	44.41	1272.44
TTU-EX-4	909051.30	761442.876	1319.96	7/29/2021	47.15	1272.81
TTU-EX-5	908971.77	761423.325	1319.50	7/29/2021	44.32	1275.18
PF-1	909161.578	760140.434	1295.99	8/6/2021	143.52	1152.47
PF-2	909166.89	760122.25	1296.35	8/6/2021	143.62	1152.73

Notes:

intl ft = international foot

ft amsl = feet above mean sea level

ft btoc = feet below top of casing

NM = Not Measured

NA = Not Applicable

TABLE 3: SUMMARY OF DETECTED VOC CONCENTRATIONS - THIRD QUARTER 2021
FORMER THERMAL TREATMENT UNIT
NAMMO DEFENSE SYSTEMS INC.
NOVEMBER 2021

Geosyntec consultants

			Analyte	1,4-Dioxane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichlorobenzene	1,2-Dichloroethane	1,4-Dichlorobenzene	2-butanone (MEK)	4-Methyl-2-Pentanone (MIBK)	Acetone	Benzene	Bromoform	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Dichloromethane	Diisopropyl Ether	Ethylbenzene	Isopropylbenzene	Methylcyclohexane	n-Propylbenzene	Propene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	Trichloroethene (TCE)	Vinyl Chloride	Xylenes (Total)
			Method	8260 B SIM	8260 B																										
			Units	µg/l																											
			AWQS	NE	5	NE	7	NE	5	75	NE	NE	NE	5	100 (1)	NE	100 (1)	70	5	NE	700	NE	NE	NE	NE	5	1,000	100	5	2	10,000
Location	Sample Depth (ft btoc)	Date Sampled	Sample Type																												
TTU-1	50	2021-07-29	Primary	37.7	< 1.00	< 1.00	5.91	< 1.00	< 1.00	< 1.00	< 10.0	< 10.0	< 50.0	< 1.00	< 1.00	< 1.00	0.121 J	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	< 1.00	0.314 J	< 1.00	**14.3**	< 1.00	< 3.00
TTU-2	114	2021-07-29	Primary	373	2.22	1.07	**93.6**	< 1.00	0.158 J	< 1.00	< 10.0	< 10.0	< 50.0	1.21	< 1.00	< 1.00	1.75 J	1.58	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	0.988 J	< 1.00	0.217 J	**654**	< 1.00	< 3.00
TTU-3	108	2021-07-30	Primary	< 3.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 10.0	< 10.0	< 50.0	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 3.00
TTU-4	57	2021-07-30	Primary	< 3.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 10.0	< 10.0	< 50.0	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 3.00
			Duplicate	< 3.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 10.0	< 10.0	< 50.0	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 3.00
TTU-5	110	2021-07-29	Primary	< 3.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 10.0	< 10.0	< 50.0	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 3.00
TTU-6	143	2021-07-30	Primary	< 3.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 10.0	< 10.0	< 50.0	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 3.00
TTU-7	345	2021-07-30	Primary	< 3.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 10.0	< 10.0	< 50.0	0.131 J	< 1.00	< 1.00	< 5.00	< 1.00	< 5.00	< 1.00	< 1.00	0.113 J	< 1.00	< 1.00	2.42 J	< 1.00	1.72	< 1.00	< 1.00	< 1.00	0.232 J
TTU-8	164	2021-07-30	Primary	< 3.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 10.0	< 10.0	< 50.0	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 3.00
TTU-9A	61	2021-07-29	Primary	< 3.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 10.0	< 10.0	< 50.0	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	< 1.00	< 1.00	< 1.00	2.75	< 1.00	< 3.00
TTU-10	152	2021-08-06	Primary	< 3.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 10.0	< 10.0	< 50.0	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	0.689 J	0.198 J	< 2.50	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 3.00
TTU-11	73	2021-09-23	Primary	6.95 J-	< 5.00	< 5.00	**9.84**	< 5.00	< 5.00	< 5.00	221	19.0 J	232 J	0.652 J	< 5.00	< 5.00	< 25.0	4.48 J	**6.62 J**	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	11.9 J	< 5.00	< 5.00	< 5.00	**69.8**	**2.11 J**	< 15.0
TTU-12	82	2021-07-29	Primary	176	1.36	0.656 J	**58.4**	< 1.00	< 1.00	< 1.00	< 10.0	< 10.0	< 50.0	0.708 J	< 1.00	< 1.00	1.15 J	0.851 J	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	0.773 J	< 1.00	< 1.00	**466**	< 1.00	< 3.00
TTU-13	51	2021-07-29	Primary	58.6	< 1.00	< 1.00	4.49	< 1.00	< 1.00	< 1.00	< 10.0	< 10.0	< 50.0	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	< 1.00	< 1.00	< 1.00	**11.1**	< 1.00	< 3.00
TTU-14	69	2021-07-29	Primary	493	2.37	1.15	**126**	< 1.00	0.275 J	< 1.00	< 10.0	< 10.0	< 50.0	1.77	< 1.00	< 1.00	1.76 J	2.00	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	1.61	< 1.00	0.266 J	**966**	< 1.00	< 3.00
TTU-15	75	2021-07-29	Primary	6.26	< 1.00	< 1.00	0.676 J	< 1.00	< 1.00	< 1.00	< 10.0	< 10.0	< 50.0	< 1.00	< 1.00	< 1.00	< 5.00	2.38	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	< 1.00	< 1.00	< 1.00	**13.0**	0.239 J	< 3.00
TTU-16	80	2021-07-29	Primary	5,140	86.5	55.9	**3,710**	< 50.0	**36.8 J**	< 50.0	< 500	< 500	< 2,500	**291**	< 50.0	< 50.0	79.8 J	13.7 J	**118,000**	< 50.0	16.8 J	< 50.0	< 50.0	< 50.0	< 125	**68.2**	279	7.65 J	**86,000**	< 50.0	114 J
			Duplicate	5,710	81.2	54.3	**3,720**	< 50.0	**35.6 J**	< 50.0	< 500	< 500	< 2,500	**275**	< 50.0	< 50.0	81.1 J	12.9 J	**121,000**	< 50.0	18.3 J	< 50.0	< 50.0	< 50.0	< 125	**63.6**	285	7.70 J	**87,300**	< 50.0	115 J
TTU-17	80	2021-07-29	Primary	< 3.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 10.0	< 10.0	< 50.0	< 1.00	< 1.00	< 1.00	< 5.00	1.36	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	< 1.00	< 1.00	< 1.00	3.99	< 1.00	< 3.00
TTU-19	73	2021-09-23	Primary	70.4 J-	< 10.0	< 10.0	**46.4**	< 10.0	< 10.0	< 10.0	56.2 J	< 100	< 500	2.99 J	< 10.0	< 10.0	6.00 J	4.47 J	**6.78 J**	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	24.5 J	< 10.0	< 10.0	< 10.0	**478**	< 10.0	< 30.0
TTU-20	73	2021-09-23	Primary	841 J	< 250	< 250	**2,200**	< 250	< 250	< 250	< 2,500	< 2,500	< 12,500	**81.9 J**	< 250	< 250	< 1,250	< 250	**230 J**	< 250	< 250	< 250	< 250	< 250	< 625	< 250	< 250	< 250	**14,300**	< 250	< 750
TTU-EX-1	69	2021-07-29	Primary	702	2.11	0.925 J	**169**	< 1.00	0.287 J	< 1.00	< 10.0	< 10.0	< 50.0	0.342 J	< 1.00	< 1.00	1.38 J	0.189 J	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	1.12	< 1.00	< 1.00	**372**	< 1.00	< 3.00
TTU-EX-2	74	2021-07-29	Primary	523	2.42	1.00 J	**134**	< 1.00	0.284 J	< 1.00	< 10.0	< 10.0	< 50.0	1.07	0.146 J	< 1.00	1.59 J	1.77	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	1.48	< 1.00	0.177 J	**630**	< 1.00	< 3.00
TTU-EX-3	76	2021-07-29	Primary	1,010	10.3	8.02	**843**	0.557 J	1.41	0.371 J	< 10.0	< 10.0	< 50.0	**11.1**	< 1.00	0.321 J	9.44	3.23	0.711 J	0.155 J	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	**9.20**	< 1.00	1.47	**7,260**	0.275 J	< 3.00
TTU-EX-4	77	2021-07-29	Primary	29.0	0.665 J	1.05	**71.4**	< 1.00	< 1.00	< 1.00	< 10.0	< 10.0	< 50.0	0.838 J	< 1.00	< 1.00	1.14 J	1.70	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	0.572 J	< 1.00	0.260 J	**461**	< 1.00	< 3.00
TTU-EX-5	80	2021-07-29	Primary	< 3.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 10.0	< 10.0	< 50.0	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.50	< 1.00	< 1.00	< 1.00	**5.51**	< 1.00	< 3.00
PF-2	400	2021-08-06	Primary	< 3.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 10.0	< 10.0	< 50.0	< 1.00	< 1.00	< 1.00	< 5.00	< 1.00	< 5.00	< 1.00	< 1.00	0.218 J	0.793 J	0.750 J	< 2.50	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 3.00

Notes:

Any analytes not presented on this table were of non-detectable concentrations.

VOC = volatile organic compound

Ft btoc = feet below the top of well casing

Method = The United States Environmental Protection Agency standard analytical method used for analysis

µg/l = micrograms per liter

AWQS = Arizona Aquifer Water Quality Standard

(1) = AWQS established for total trihalomethanes, which include chloroform, dibromochloromethane, bromodichloromethane, and bromoform.

NE = Not established; no aquifer water quality standard is established.

Non-detect results are indicated by "<" followed by the laboratory reporting limit.

Concentrations exceeding the AWQS are indicated in **boldface**.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

TABLE 4: SUMMARY OF PERCHLORATE CONCENTRATIONS - THIRD QUARTER 2021
FORMER THERMAL TREATMENT UNIT
NAMMO DEFENSE SYSTEMS INC.
NOVEMBER 2021

Geosyntec consultants

			Analyte	Perchlorate	
			Method	EPA 314.0	EPA 6850
			Units	µg/l	
			HBGL	14	
Location	**Sample Depth (ft btoc)**	**Sample Date**	**Sample Type**	**Concentration**	
TTU-1	50	2021-07-29	Primary	**5,640**	--
TTU-2	114	2021-07-29	Primary	**155,000**	--
TTU-3	108	2021-07-30	Primary	7.16	--
TTU-4	57	2021-07-30	Primary	1.97 J	--
			Duplicate	1.75 J	--
TTU-5	110	2021-07-29	Primary	**38.7**	--
TTU-6	143	2021-07-30	Primary	< 4.00	--
TTU-7	345	2021-07-30	Primary	< 40.0	--
TTU-8	164	2021-07-30	Primary	< 4.00	--
TTU-9A	61	2021-07-29	Primary	**15.9 J+**	--
TTU-10	152	2021-08-06	Primary	< 4.00	--
TTU-11	73	2021-09-23	Primary	< 200	
TTU-12	82	2021-07-29	Primary	**123,000**	--
TTU-13	51	2021-07-29	Primary	**24,000**	--
TTU-14	69	2021-07-29	Primary	**132,000**	--
TTU-15	75	2021-07-29	Primary	< 4.00	--
TTU-16	80	2021-07-29	Primary	**750,000**	--
			Duplicate	**746,000**	--
TTU-17	80	2021-07-29	Primary	< 4.00	--
TTU-19	73	2021-09-23	Primary	< 200	
TTU-20	73	2021-09-23	Primary	**455,000**	--
TTU-EX-1	69	2021-07-29	Primary	**94,700**	--
TTU-EX-2	74	2021-07-29	Primary	**106,000**	--
TTU-EX-3	76	2021-07-29	Primary	**430,000**	--
TTU-EX-4	77	2021-07-29	Primary	**77,300**	--
TTU-EX-5	80	2021-07-29	Primary	< 4.00	--
PF-2	400	2021-08-06	Primary	--	0.750
			Duplicate	--	0.560

Notes:

µg/l = micrograms per liter

HBGL = Health-Based Guidance Level

EPA = United States Environmental Protection Agency

Ft btoc = feet below the top of well casing

Concentrations exceeding the HBGL are indicated in **boldface**.

Non-detect results are indicated by "<" followed by the laboratory reporting limit.

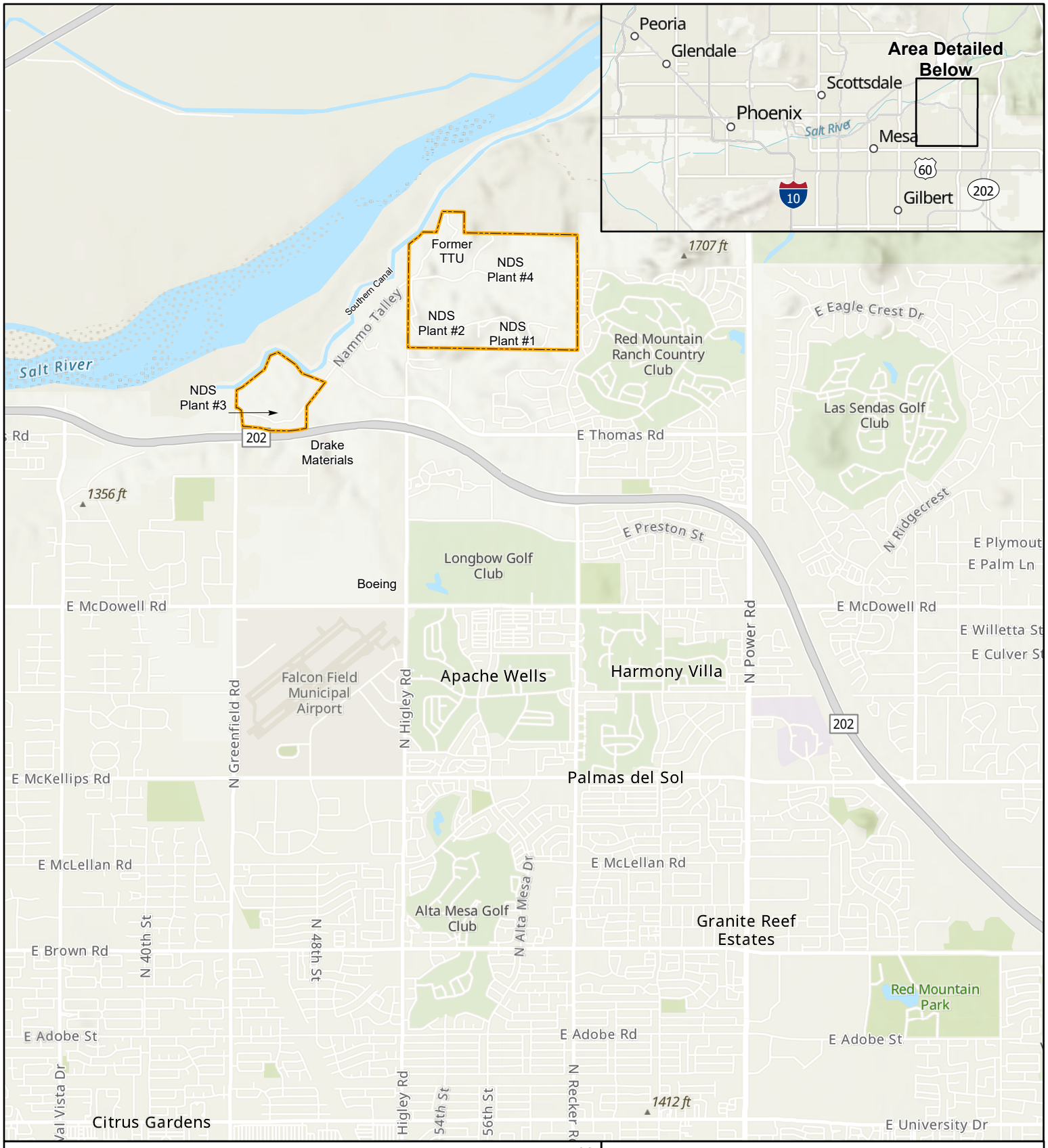
-- = not applicable

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ = Estimated concentration; actual concentration is likely higher than the detected value.

ATTACHMENT 2

FIGURES



Approximate Property Boundary

Notes:
-NDS: Nammo Defense Systems Inc.
-TTU: Thermal Treatment Unit

N

0 2,000 4,000 Feet

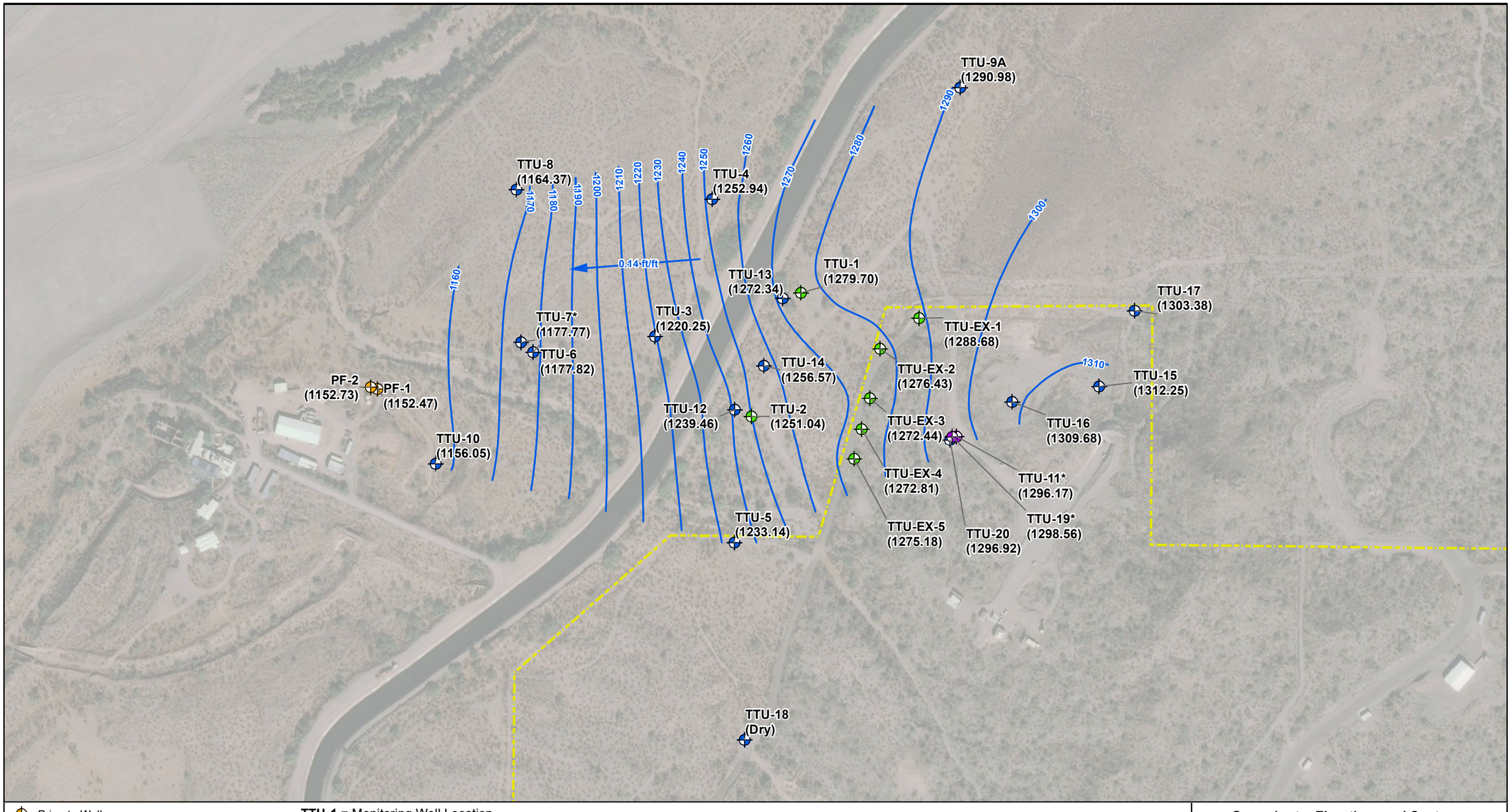
Site Location
Former Thermal Treatment Unit

Nammo Defense Systems Inc.
Former Thermal Treatment Unit
Mesa, Arizona

Geosyntec consultants

Phoenix, AZ | November 2021

Figure 1



Primate Well
Extraction Well
Injection Well
Monitoring Well
Flow Direction and Hydraulic Gradient (ft/ft)
Groundwater Elevation Contour (ft amsl)
NDS Leased Property Boundary with Salt River Pima-Maricopa Indian Community

TTU-1 = Monitoring Well Location
1279.70 = Groundwater Elevation (ft. amsl)

ft amsl: feet above mean sea level
NM: Not Measured
*: not used to generate contours.
PF-1, PF-2, and TTU-7 are deep wells.
TTU-EX-1 through TTU-EX-5 are not currently operating as extraction wells.
*TTU-11 and TTU-19 were converted to injection wells for the In-Situ Bio-Remediation Pilot Test conducted from October 2020 through March 2021.
Laboratory results were not used for contouring.

N

0 250 Feet

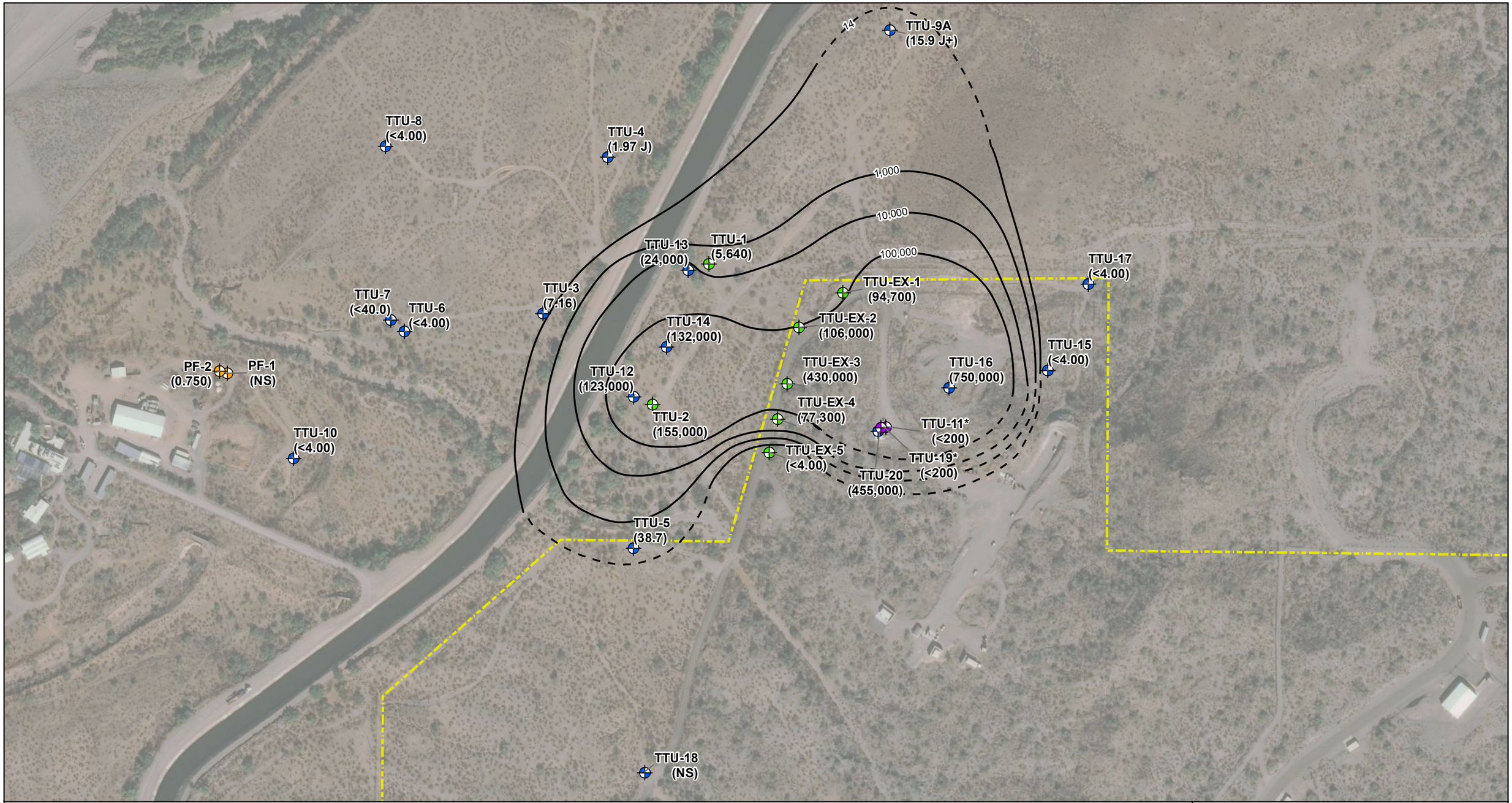
Groundwater Elevations and Contours
July/August 2021
Nammo Defense Systems Inc.
Former Thermal Treatment Unit (TTU)
Mesa, Arizona

Geosyntec consultants

Phoenix | November 2021

Figure 2

SantaBarbara-01\\\SANDIEGO-01\Data\GIS_SanDiego01\SP0101_Nammo\MXD\TTU\TTU_GWM_2021Q3\Fig02_2021Q3_Groundwater_Elevations_and_Contours.mxd 11/3/2021 (Author: MBradford) 5:46:34 PM



Legend

- Primate Well
- Extraction Well
- Injection Well
- Monitoring Well
- Extent of estimated Perchlorate concentrations in Groundwater (dashed where inferred)
- NDS Leased Property Boundary with Salt River Pima - Maricopa Indian Community

Notes:
All locations are approximate.
NS: Not Sampled
J: estimated concentration.
J+: The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.
Non-detect results are indicated by "<" followed by the laboratory RL.
Highest result used where duplicate samples are collected.
TTU-18: This well is dry and has not been sampled since installation in 1Q 2020.
PF-1: The pump for this well is not operational and the well is not in use. Samples for this well have not been collected for the monitoring period.
*TTU-11 and TTU-19 were converted to injection wells for the In-Situ Bio-Remediation Pilot Test conducted from October 2020 through March 2021.
Laboratory results were not used for contouring.
Perchlorate groundwater Health Based Guidance Level is 14 µg/L.

TTU-1 = Monitoring Well Location
5,640 = Perchlorate Concentration in micrograms per liter (µg/L).

N

0 220 Feet

Perchlorate Detections in Groundwater Third Quarter 2021

Nammo Defense Systems Inc.
Former Thermal Treatment Unit (TTU)
Mesa, Arizona

Geosyntec consultants

Phoenix | November 2021

Figure 3

\\SANDIEGO-01\Data\GIS_SanDiego01\SP0101_Nammo\MXD\TTU\TTU_GWM_2021Q3\Fig03_2021Q3_Perchlorate_Detections_GW.mxd 11/3/2021 (Author: MBradford) 5:34:16 PM

TTU-14	7/29/2021
1,1,2-Trichloroethane	2.37
1,1-Dichloroethane	1.15
1,1-Dichloroethene	**126**
1,2-Dichloroethane	0.275 J
1,4-Dioxane	493
Benzene	1.77
Chloroform	1.76 J
cis-1,2-Dichloroethene	2.00
Tetrachloroethene (PCE)	1.61
trans-1,2-Dichloroethene	0.266 J
Trichloroethene (TCE)	**966**

TTU-EX-3	7/29/2021
1,1,2-Trichloroethane	**10.3**
1,1-Dichloroethane	8.02
1,1-Dichloroethene	**843**
1,2-Dichlorobenzene	0.557 J
1,2-Dichloroethane	1.41
1,4-Dichlorobenzene	0.371 J
1,4-Dioxane	1,010
Benzene	**11.1**
Chlorobenzene	0.321 J
Chloroform	9.44
cis-1,2-Dichloroethene	3.23
Dichloromethane	0.711 J
Diisopropyl Ether	0.155 J
Tetrachloroethene (PCE)	**9.20**
trans-1,2-Dichloroethene	1.47
Trichloroethene (TCE)	**7,260**
Vinyl Chloride	0.275 J

TTU-13	7/29/2021
1,1-Dichloroethene	4.49
1,4-Dioxane	58.6
Trichloroethene (TCE)	**11.1**

TTU-9A	7/29/2021
Trichloroethene (TCE)	2.75

TTU-EX-1	7/29/2021
1,1,2-Trichloroethane	2.11
1,1-Dichloroethane	0.925 J
1,1-Dichloroethene	**169**
1,2-Dichloroethane	0.287 J
1,4-Dioxane	702
Benzene	0.342 J
Chloroform	1.38 J
cis-1,2-Dichloroethene	0.189 J
Tetrachloroethene (PCE)	1.12
Trichloroethene (TCE)	**372**

TTU-EX-2	7/29/2021
1,1,2-Trichloroethane	2.42
1,1-Dichloroethane	1.00 J
1,1-Dichloroethene	**134**
1,2-Dichloroethane	0.284 J
1,4-Dioxane	523
Benzene	1.07
Bromoform	0.146 J
Chloroform	1.59 J
cis-1,2-Dichloroethene	1.77
Tetrachloroethene (PCE)	1.48
trans-1,2-Dichloroethene	0.177 J
Trichloroethene (TCE)	**630**

TTU-1	7/29/2021
1,1-Dichloroethene	5.91
1,4-Dioxane	37.7
Chloroform	0.121 J
Toluene	0.314 J
Trichloroethene (TCE)	**14.3**

TTU-7	7/30/2021
Benzene	0.131 J
Isopropylbenzene	0.113 J
Propene	2.42 J
Toluene	1.72
Xylenes (Total)	0.232 J

TTU-17	7/29/2021
cis-1,2-Dichloroethene	1.36
Trichloroethene (TCE)	3.99

PF-2	8/6/2021
Isopropylbenzene	0.218 J
Methylcyclohexane	0.793 J
n-Propylbenzene	0.750 J

TTU-EX-5	7/29/2021
Trichloroethene (TCE)	**5.51**

TTU-15	7/29/2021
1,1-Dichloroethene	0.676 J
1,4-Dioxane	6.26
cis-1,2-Dichloroethene	2.38
Trichloroethene (TCE)	**13.0**
Vinyl Chloride	0.239 J

TTU-10	8/6/2021
Methylcyclohexane	0.689 J
n-Propylbenzene	0.198 J

TTU-11*	9/23/2021
1,1-Dichloroethene	**9.84**
2-butanone (MEK)	221
4-Methyl-2-Pentanone (MIBK)	19 J
Acetone	232 J
Benzene	0.652 J
cis-1,2-Dichloroethene	4.48 J
Dichloromethane	**6.62 J**
Propene	11.9 J
Trichloroethene (TCE)	**69.8**
Vinyl Chloride	**2.11 J**

TTU-16	7/29/2021
1,1,2-Trichloroethane	**86.5/81.2**
1,1-Dichloroethane	55.9/54.3
1,1-Dichloroethene	**3,710/3,720**
1,2-Dichloroethane	36.8 J/35.6 J
1,4-Dioxane	5,140/5,710
Benzene	**291/275**
Chloroform	79.8 J/81.1 J
cis-1,2-Dichloroethene	**13.7 J/12.9 J**
Dichloromethane	**118,000/121,000**
Ethylbenzene	16.8 J/18.3 J
Tetrachloroethene (PCE)	**68.2/63.6**
Toluene	279/285
trans-1,2-Dichloroethene	7.65 J/7.70 J
Trichloroethene (TCE)	**86,000/87,300**
Xylenes (Total)	114 J/115 J

TTU-12	7/29/2021
1,1,2-Trichloroethane	1.36
1,1-Dichloroethane	0.656 J
1,1-Dichloroethene	**58.4**
1,4-Dioxane	176
Benzene	0.708 J
Chloroform	1.15 J
cis-1,2-Dichloroethene	0.851 J
Tetrachloroethene (PCE)	0.773 J
Trichloroethene (TCE)	**466**

TTU-20	9/23/2021
1,1-Dichloroethene	**2,200**
Benzene	**81.9 J**
Dichloromethane	**230 J**
Trichloroethene (TCE)	**14,300**

TTU-19*	9/23/2021
1,1-Dichloroethene	**46.4**
2-butanone (MEK)	56.2 J
Benzene	2.99 J
Chloroform	6.0 J
cis-1,2-Dichloroethene	4.47 J
Dichloromethane	**6.78 J**
Propene	24.5 J
Trichloroethene (TCE)	**478**

TTU-2	7/29/2021
1,1,2-Trichloroethane	2.22
1,1-Dichloroethane	1.07
1,1-Dichloroethene	**93.6**
1,2-Dichloroethane	0.158 J
1,4-Dioxane	373
Benzene	1.21
Chloroform	1.75 J
cis-1,2-Dichloroethene	1.58
Tetrachloroethene (PCE)	0.988 J
trans-1,2-Dichloroethene	0.217 J
Trichloroethene (TCE)	**654**

TTU-EX-4	7/29/2021
1,1,2-Trichloroethane	0.665 J
1,1-Dichloroethane	1.05
1,1-Dichloroethene	**71.4**
1,4-Dioxane	29.0
Benzene	0.838 J
Chloroform	1.14 J
cis-1,2-Dichloroethene	1.70
Tetrachloroethene (PCE)	0.572 J
trans-1,2-Dichloroethene	0.260 J
Trichloroethene (TCE)	**461**

TTU-8 (ND)
TTU-4 (ND)
TTU-3 (ND)
TTU-6 (ND)
PF-1 (NS)
TTU-5 (ND)
TTU-18 (NS)

5
7

Legend

- Primate Well
- Extraction Well
- Injection Well
- Monitoring Well
- Extent of Estimated 1,1-Dichloroethene (1,1-DCE) concentration in Groundwater July/August 2021 (Dashed Where Inferred)
- Extent of Estimated Trichloroethene (TCE) Concentration in Groundwater July/August 2021 (Dashed Where Inferred)
- NDS Leased Property Boundary with Salt River Pima-Maricopa Indian Community

Notes:
All locations are approximate.
Concentrations are in micrograms per liter (µg/L)
Only detected results are shown.
Primary/duplicate sample results.
ND: Not Detected; NS: Not Sampled
J: estimated concentration.
TTU-18: This well is dry and has not been sampled since installation in 1Q 2020.
PF-1: The pump for this well is not operational and the well is not in use.
Samples for this well have not been collected for the monitoring period.
*TTU-11 and TTU-19 were converted to injection wells for the In-Situ Bio-Remediation Pilot Test conducted from October 2020 through March 2021.
Laboratory results were not used for contouring.

Contours represent the approximate extent of the TCE plume (green) and 1,1 DCE plume (purple) with concentrations above the Arizona Water Quality Standards (AWQS) for TCE and 1,1 DCE.
Concentrations exceeding the AWQS indicated in **bold.**

AWQS Screening Levels (µg/L):

1,1-DCE - 7	Total Trihalomethanes (including Chloroform) - 100
1,1,1-TCA - 200	Dichloromethane - 5
1,1,2-TCA 5	Trans-1,2-Dichloroethene - 100
Benzene - 5	PCE - 5
Cis-1,2-DCE - 70	TCE - 5

N

0 250 Feet

VOC Detections in Groundwater Third Quarter 2021

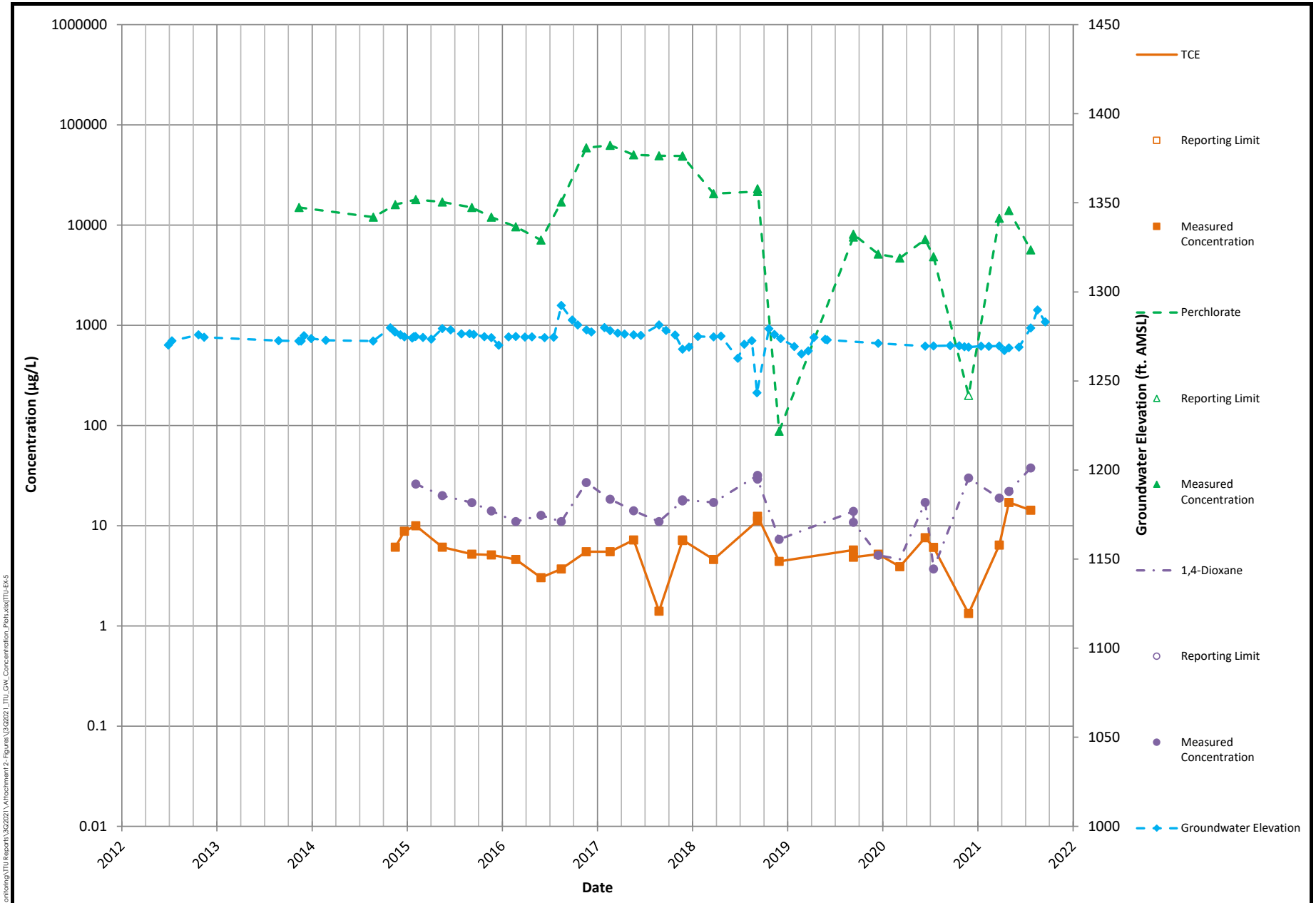
Nammo Defense Systems Inc.
Former Thermal Treatment Unit (TTU)
Mesa, Arizona

Geosyntec consultants

Phoenix | November 2021

Figure 4

\\SANDIEGO-01\Data\GIS_SanDiego01\SP0101_Nammo\MXD\TTU\TTU_GWM_2021Q3\Fig04_2021Q3_VOC_Detections_GW.mxd 11/3/2021 (Author: gcatlin) 5:45:31 PM



Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-1
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-1

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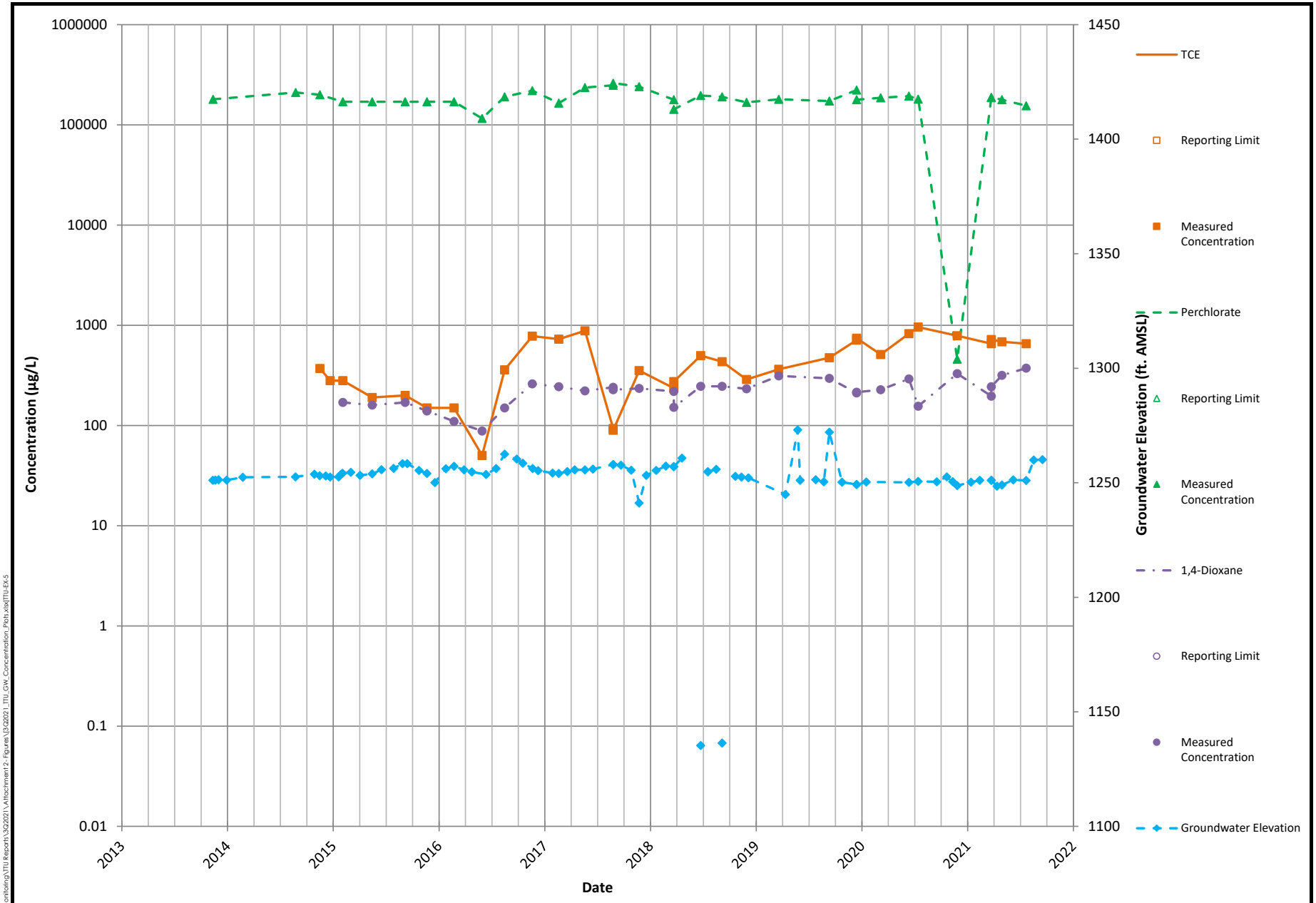


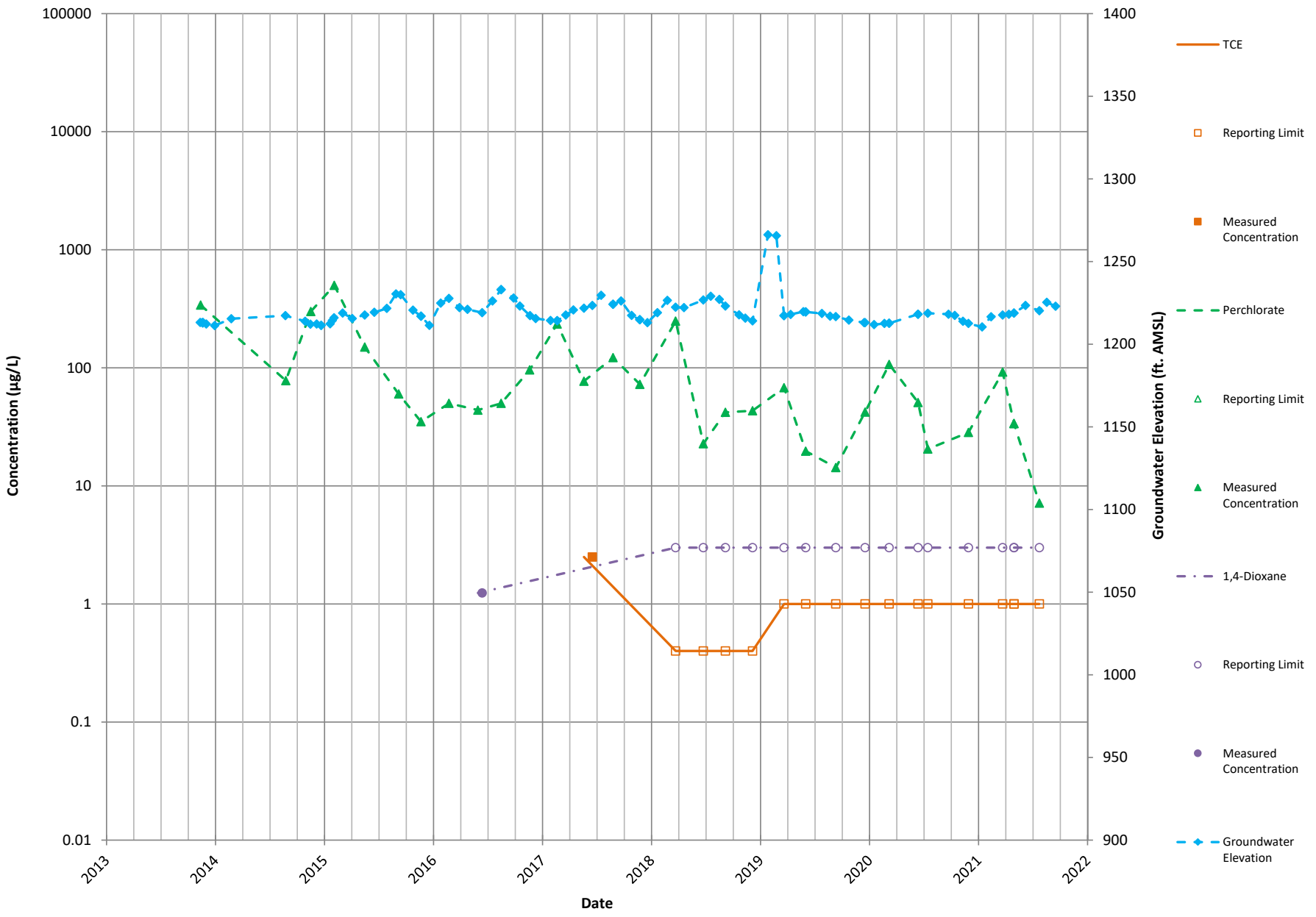
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-2
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-2

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2 - Figures\3Q2021_TTU_GW_Concentration_Plots.xlsx]TTU-EXS



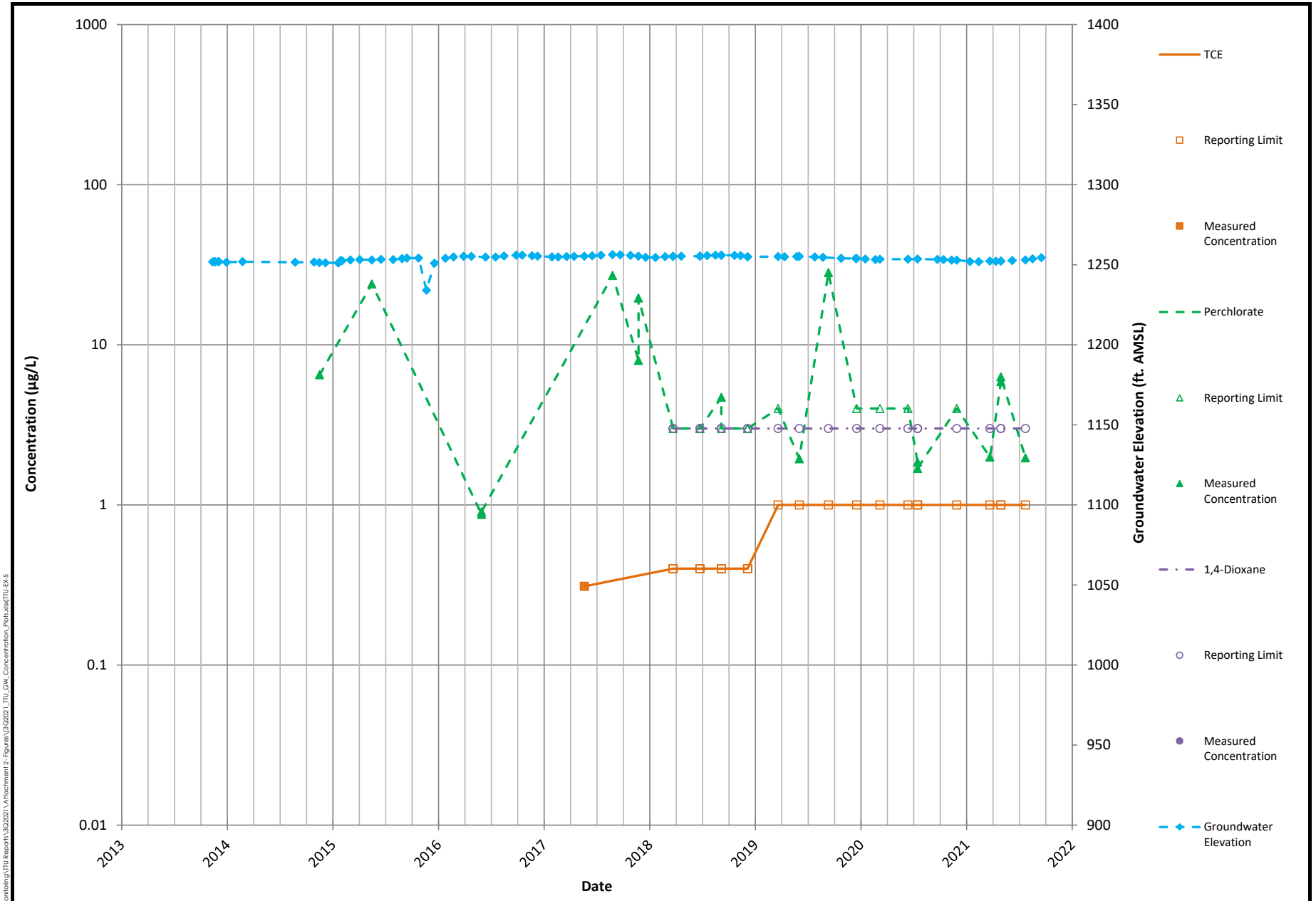
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-3
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-3

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2 - Figures\13Q2021_TTU_GW_Concentration_Plots.xlsx[TTU-EX-5



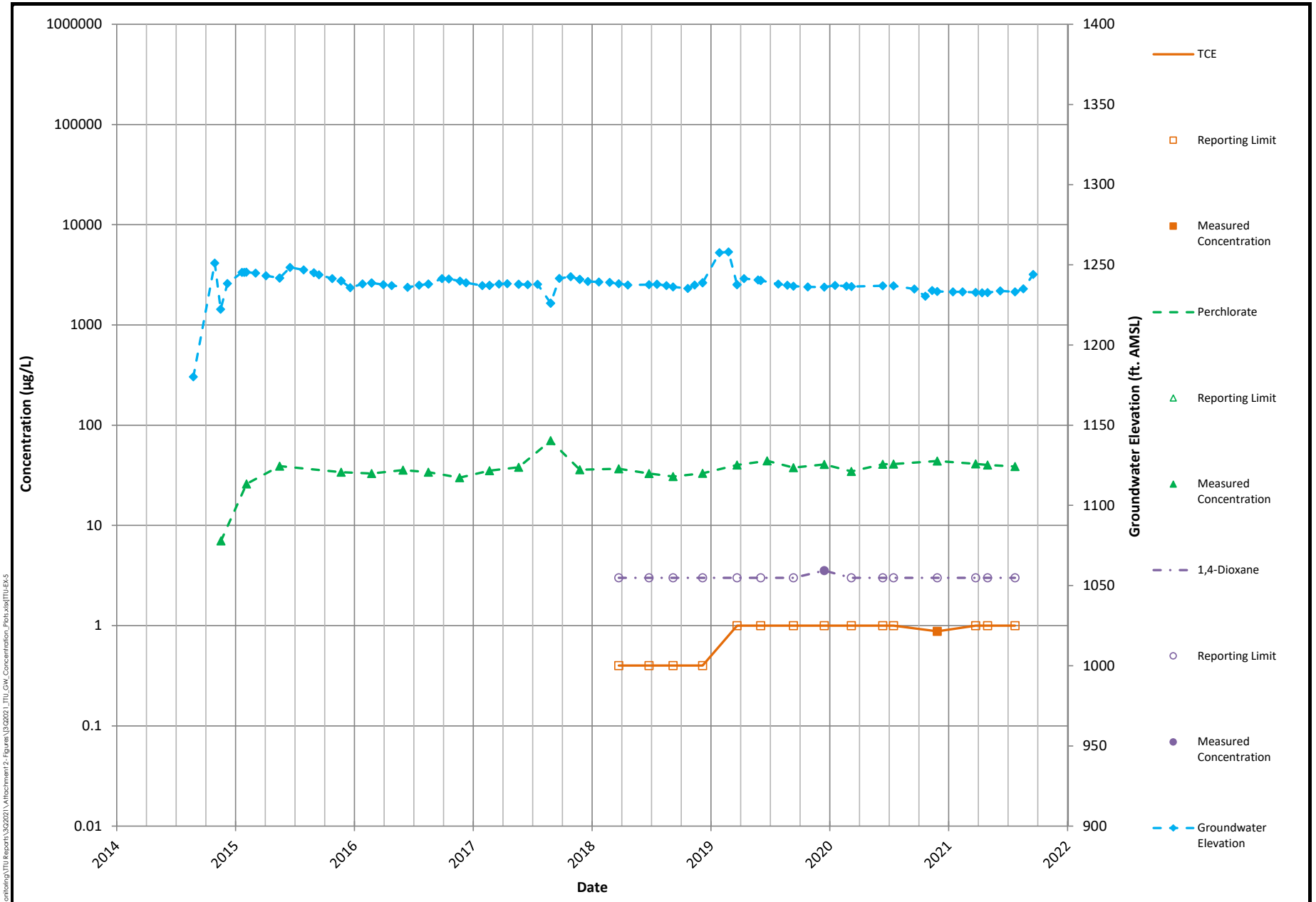
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-4
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-4

P:\GP0101\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2 - Figures\3Q2021_TTU_GW_Concentration_Plots.xlsx]TTU-EX-5



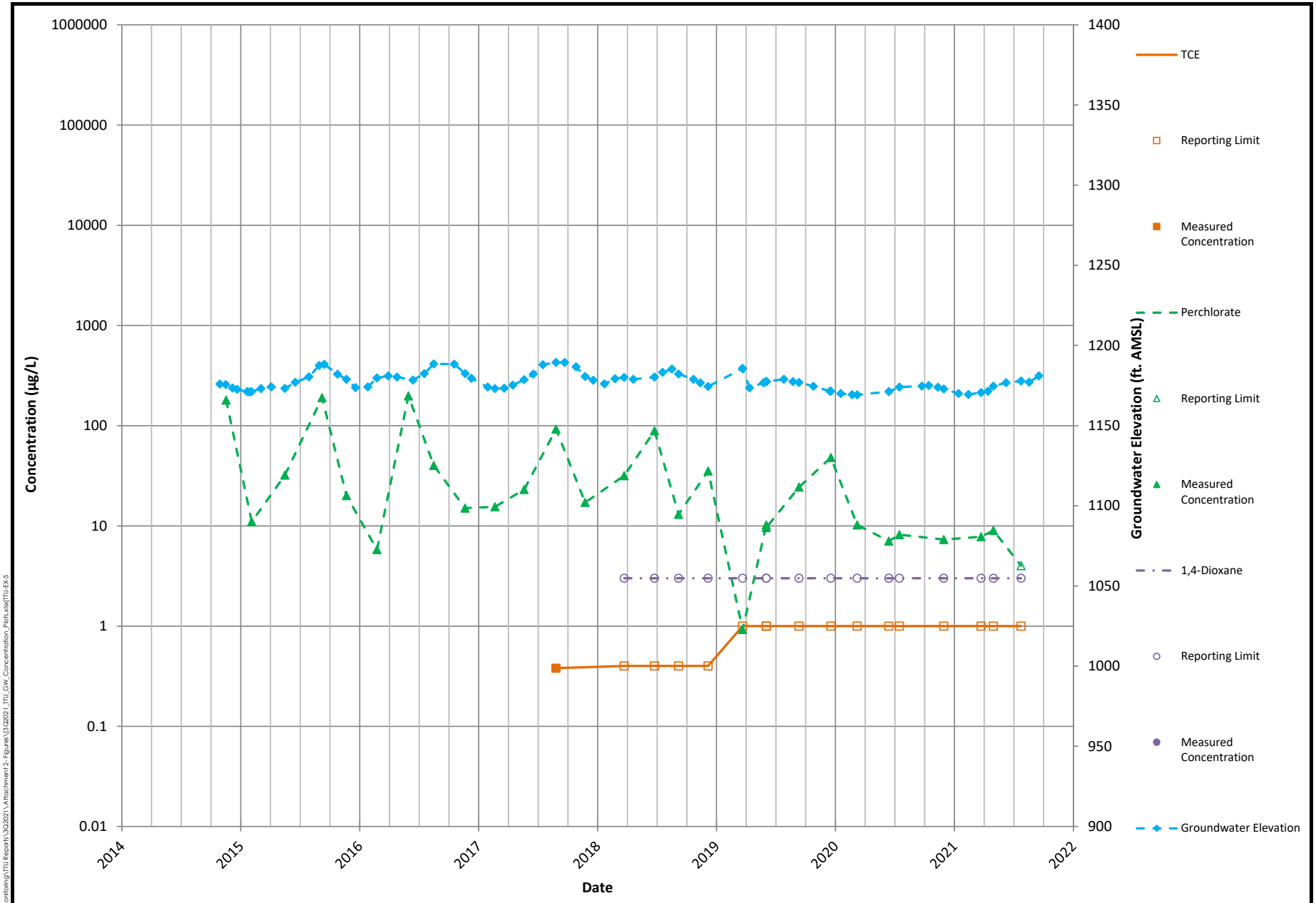
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-5
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-5

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2- Figures\13Q2021_TTU_GW_Concentration_Plots.xlsx[TTU-EX-5



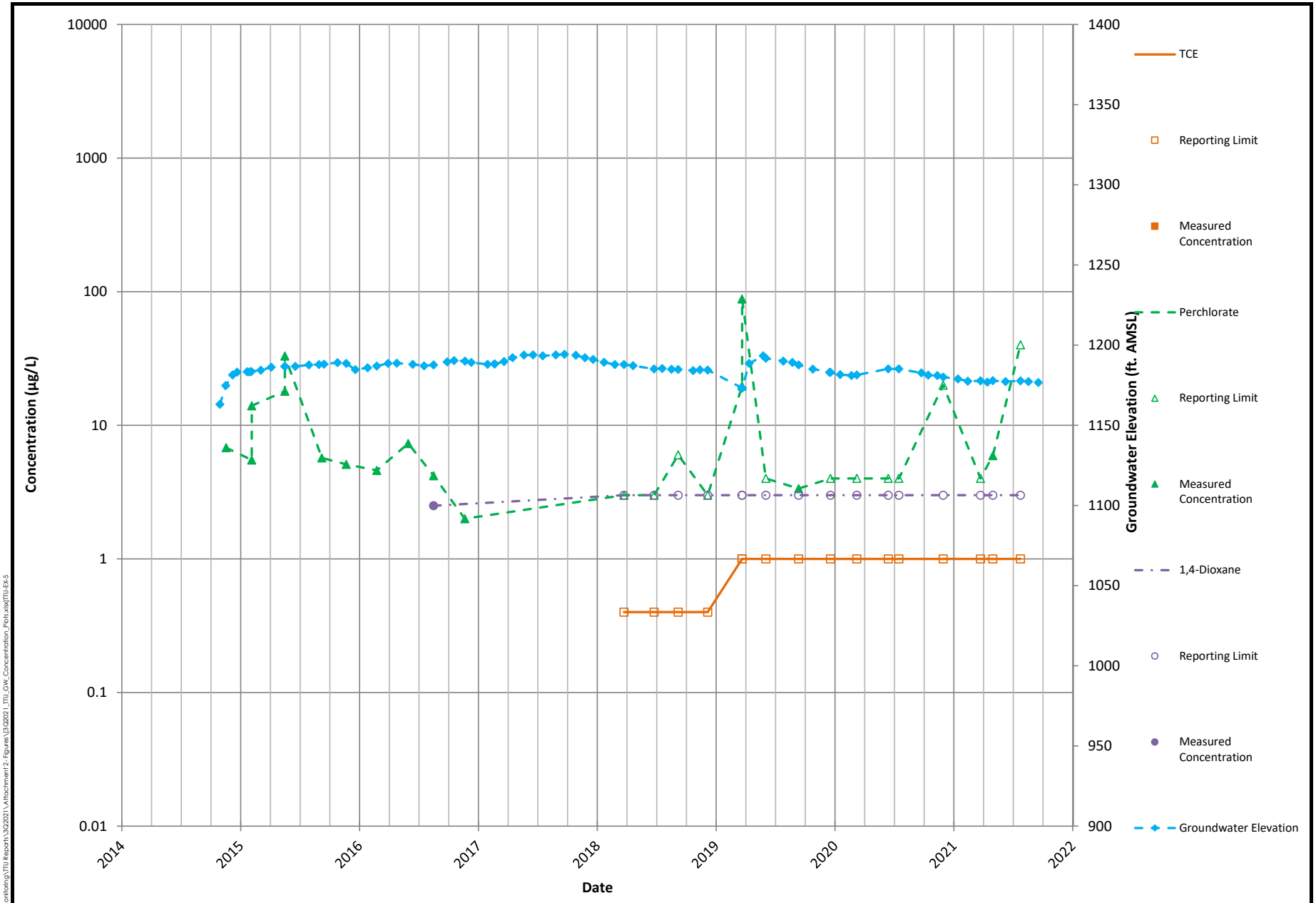
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-6
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-6

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2- Figures\13Q2021_TTU_GW_Concentration_Plots.xlsx[TTU-EX-5



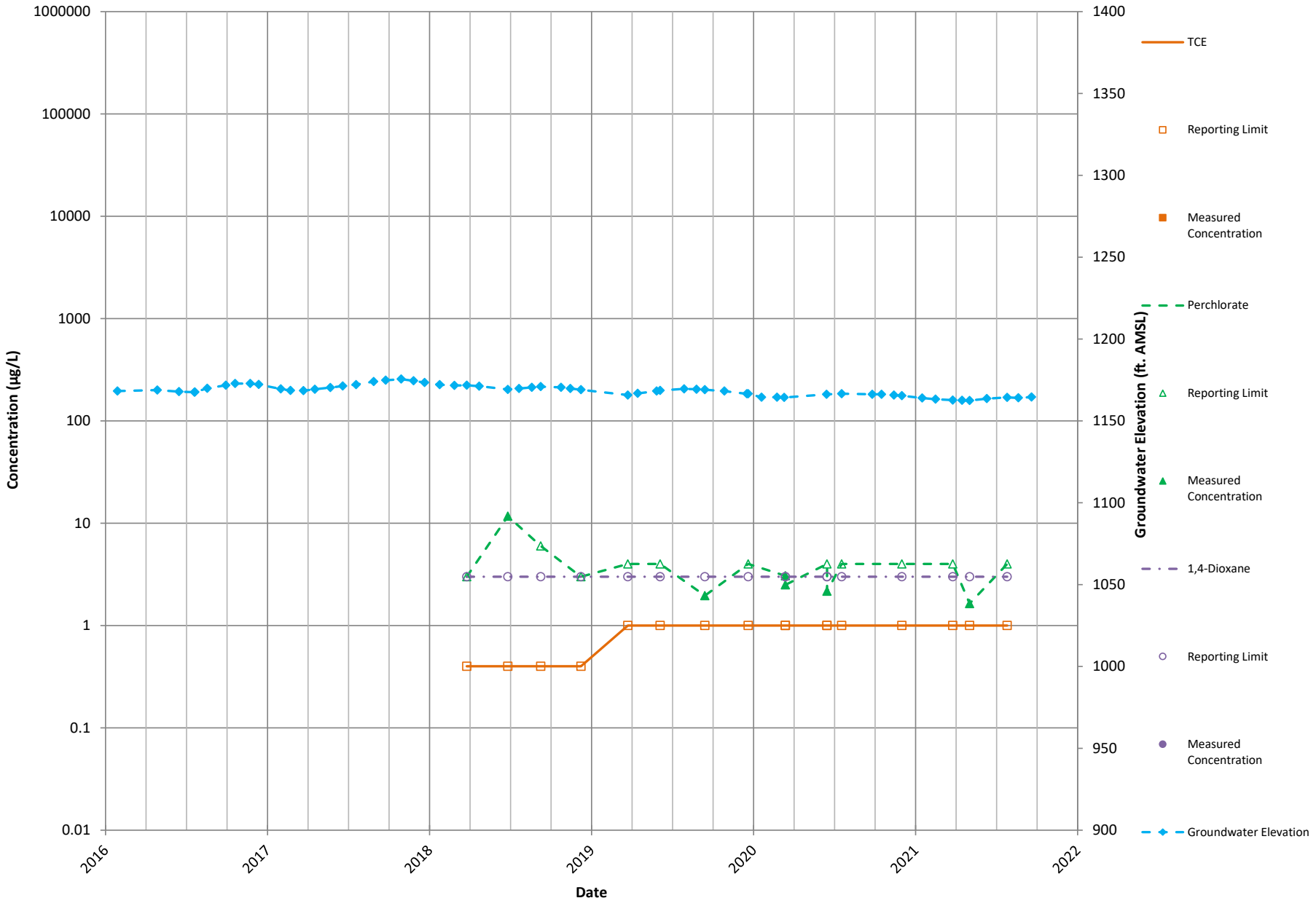
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-7
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-7

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment\2- Figures\3Q2021_TTU_GW_Concentration_Plots.xlsx]TTU-EXS



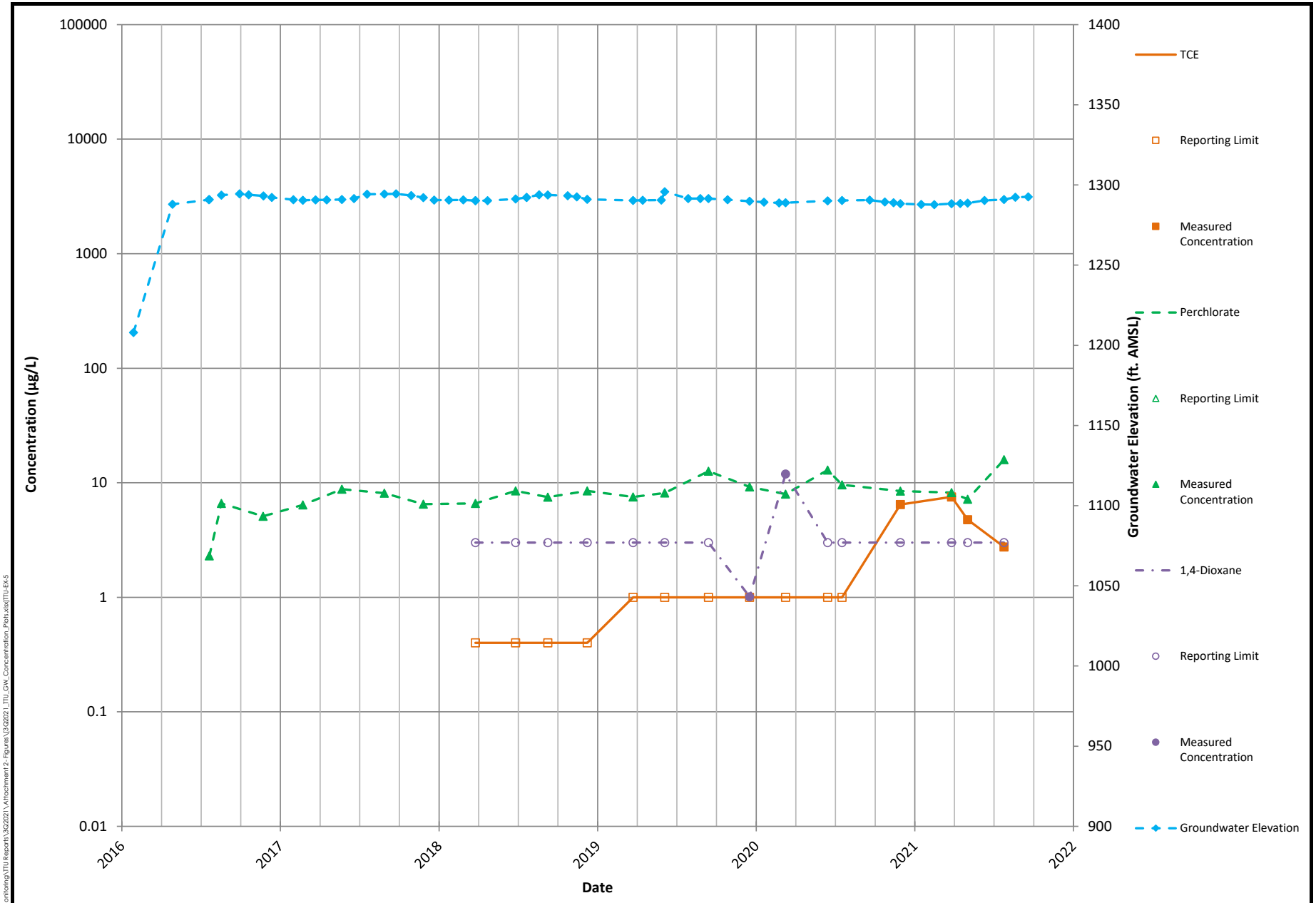
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-8
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-8

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2 - Figures\13Q2021_TTU_GW_Concentration_Plots.xlsx]TTU-EX-5



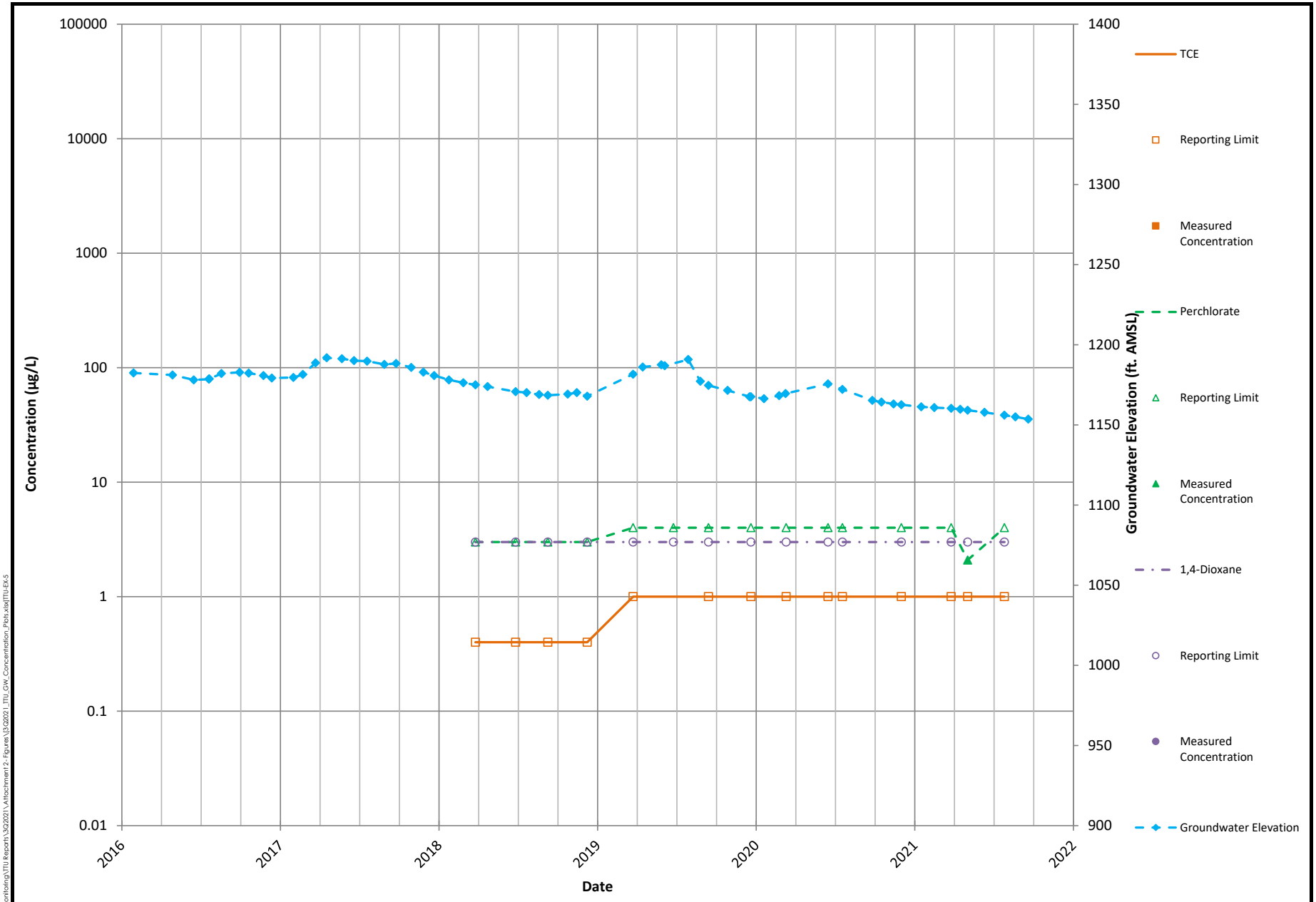
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-9A
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-9

P:\GP0101\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2 - Figures\13Q2021_TTU_GW_Concentration_Plots.xlsx[TTU-EX-5



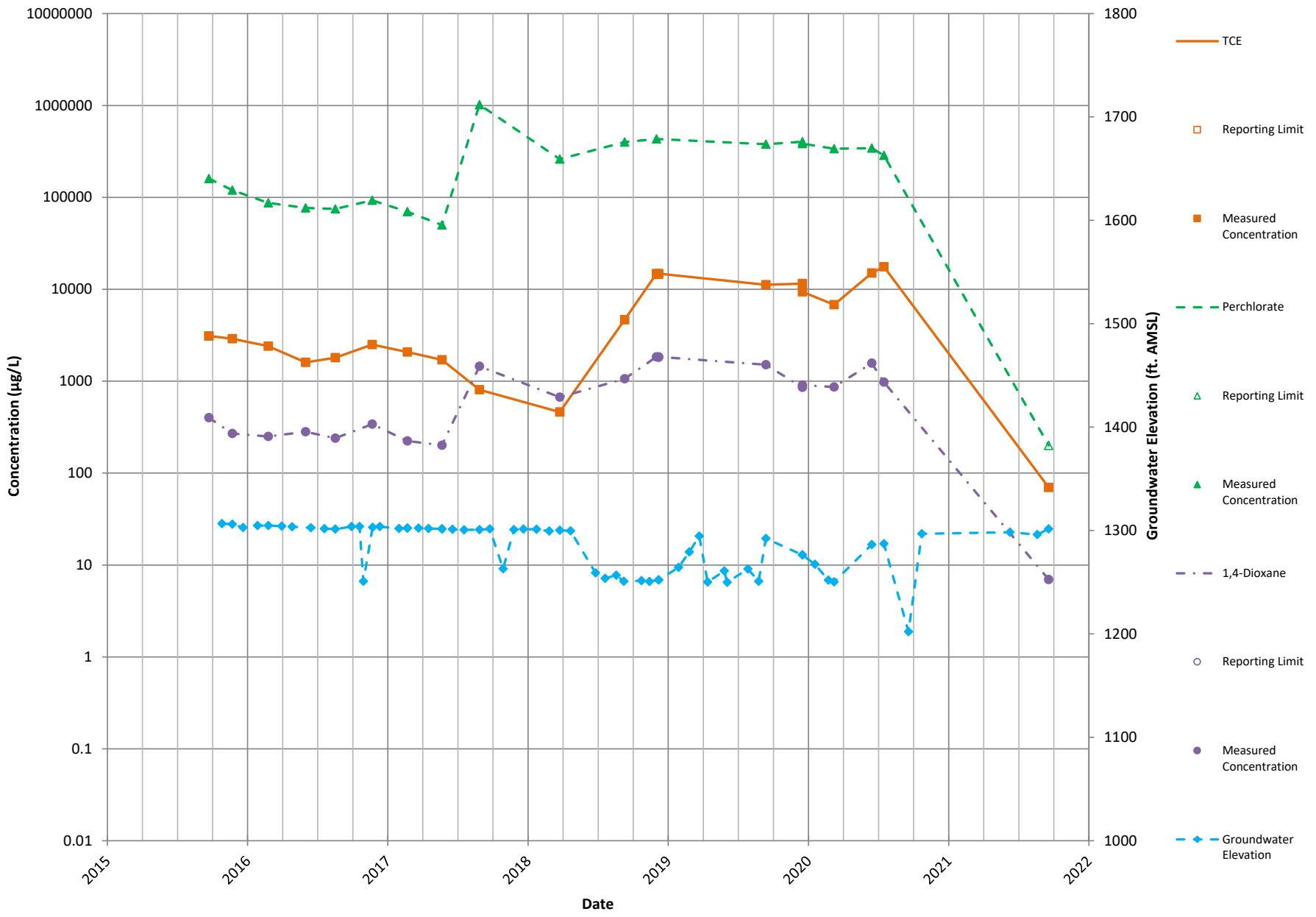
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-10
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-10

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2 - Figures\3Q2021_TTU_GW_Concentration_Plots.xlsx[TTU-EX-5



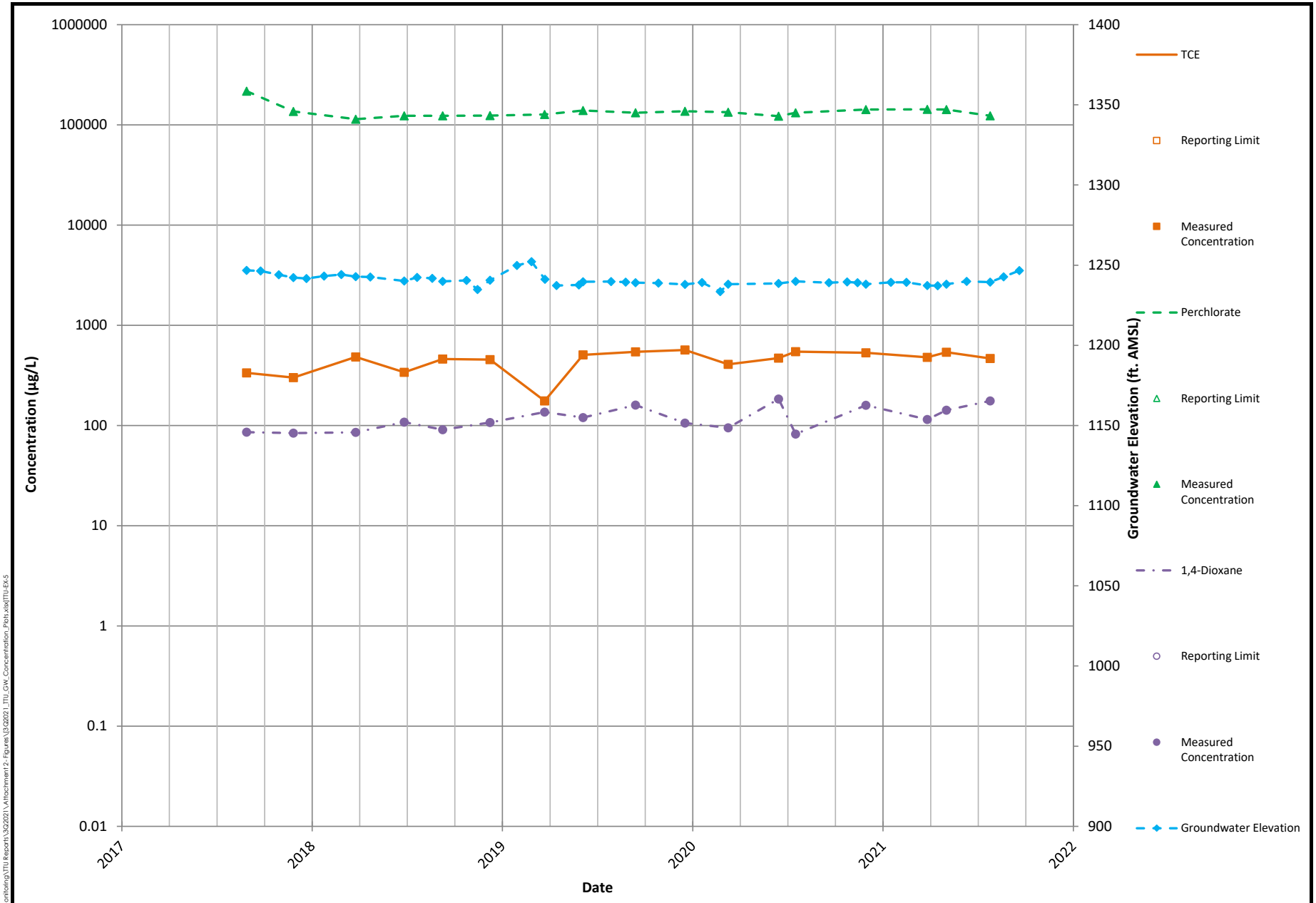
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
Converted into an injection well for a In-Situ Bio Remediation Pilot Test in October 2020.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-11
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-11

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment\2- Figures\[3Q2021_TTU_GW_Concentration_Plots.xlsx]TTU-EX-5



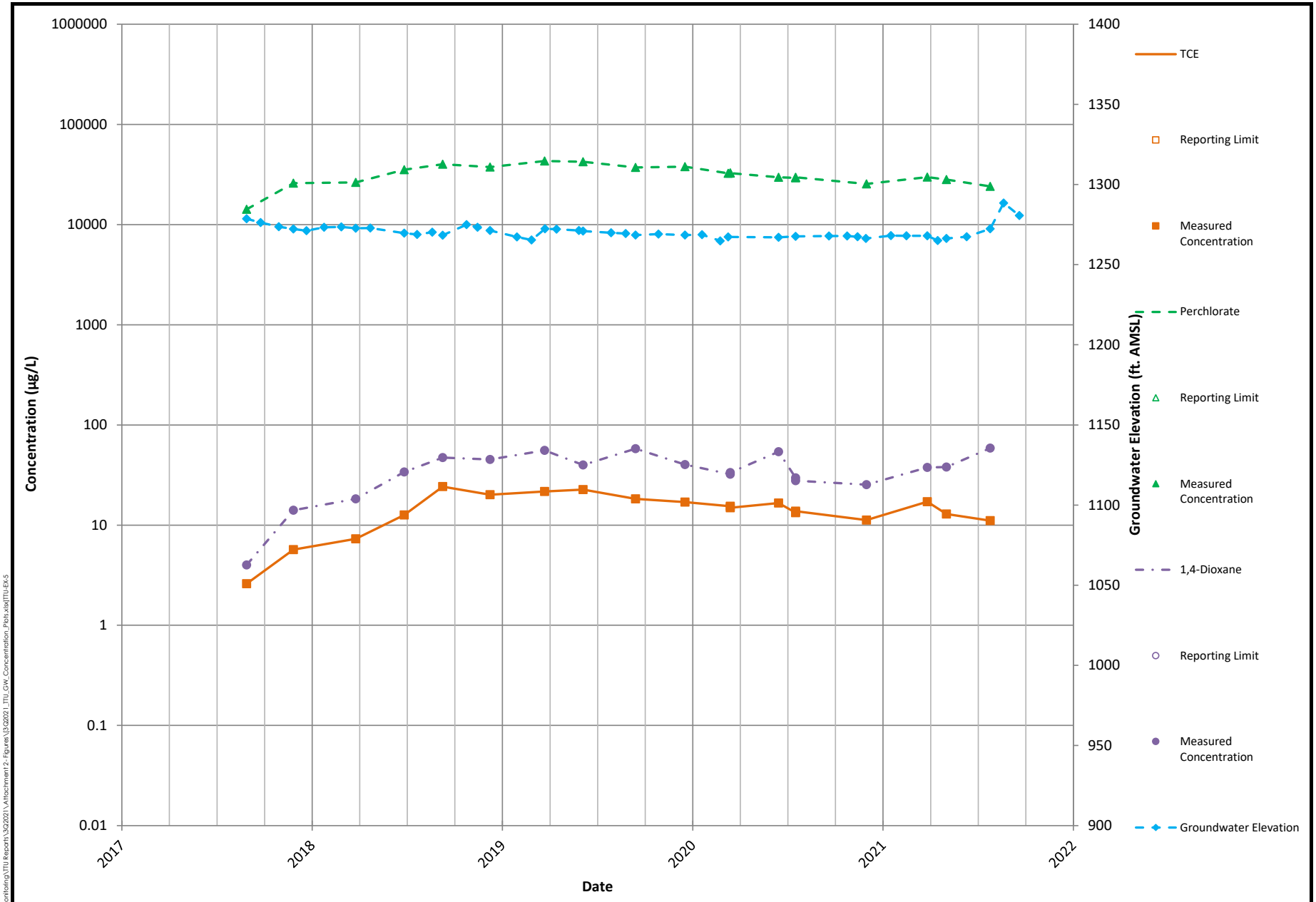
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-12
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-12

P:\GP0101\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2- Figures\3Q2021_TTU_GW_Concentration_Plots.xlsx]TTU-EXS



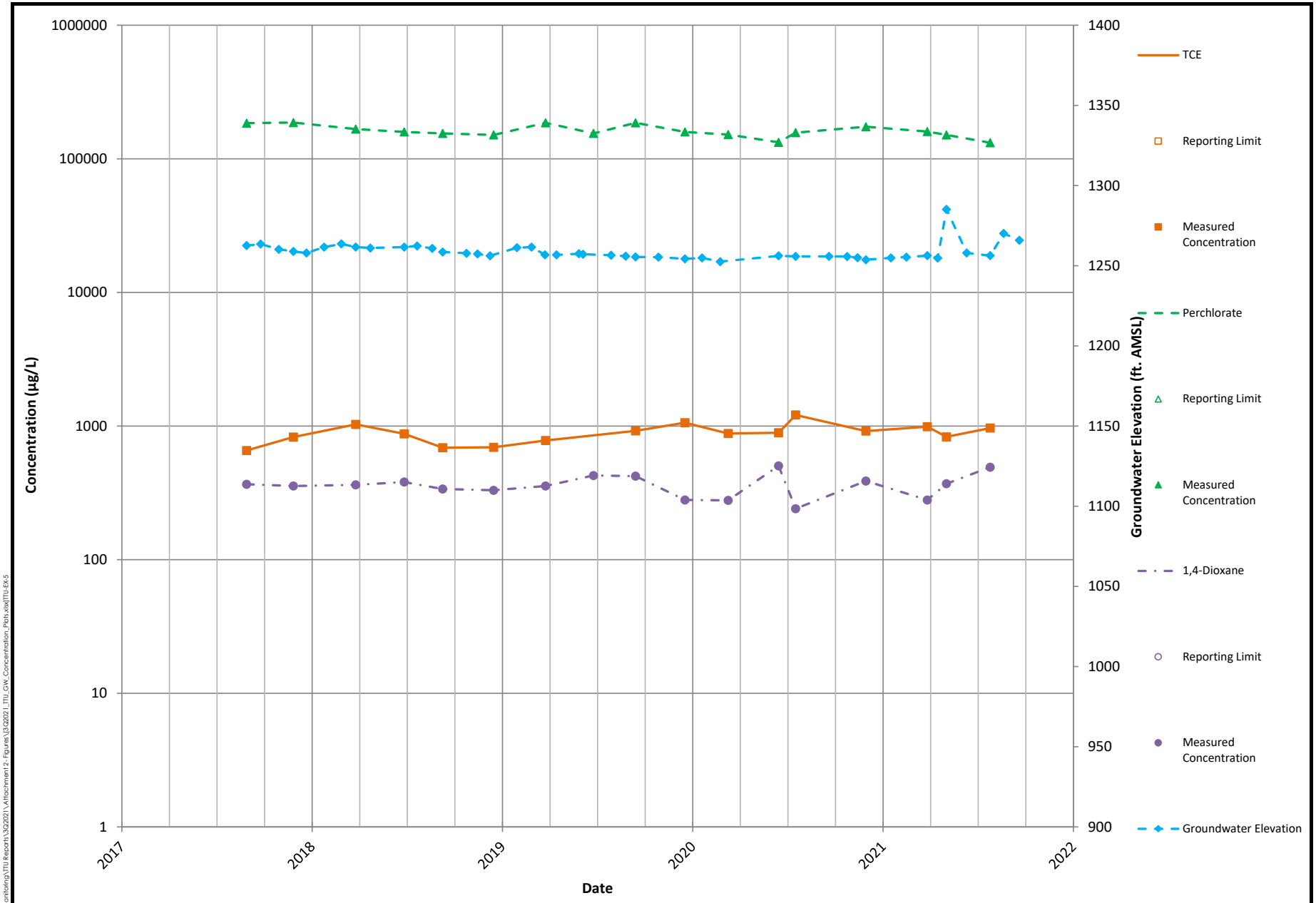
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-13
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-13

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2- Figures\13-3Q2021_TTU_GW_Concentration_Plots.xlsx]TTU-EX-5



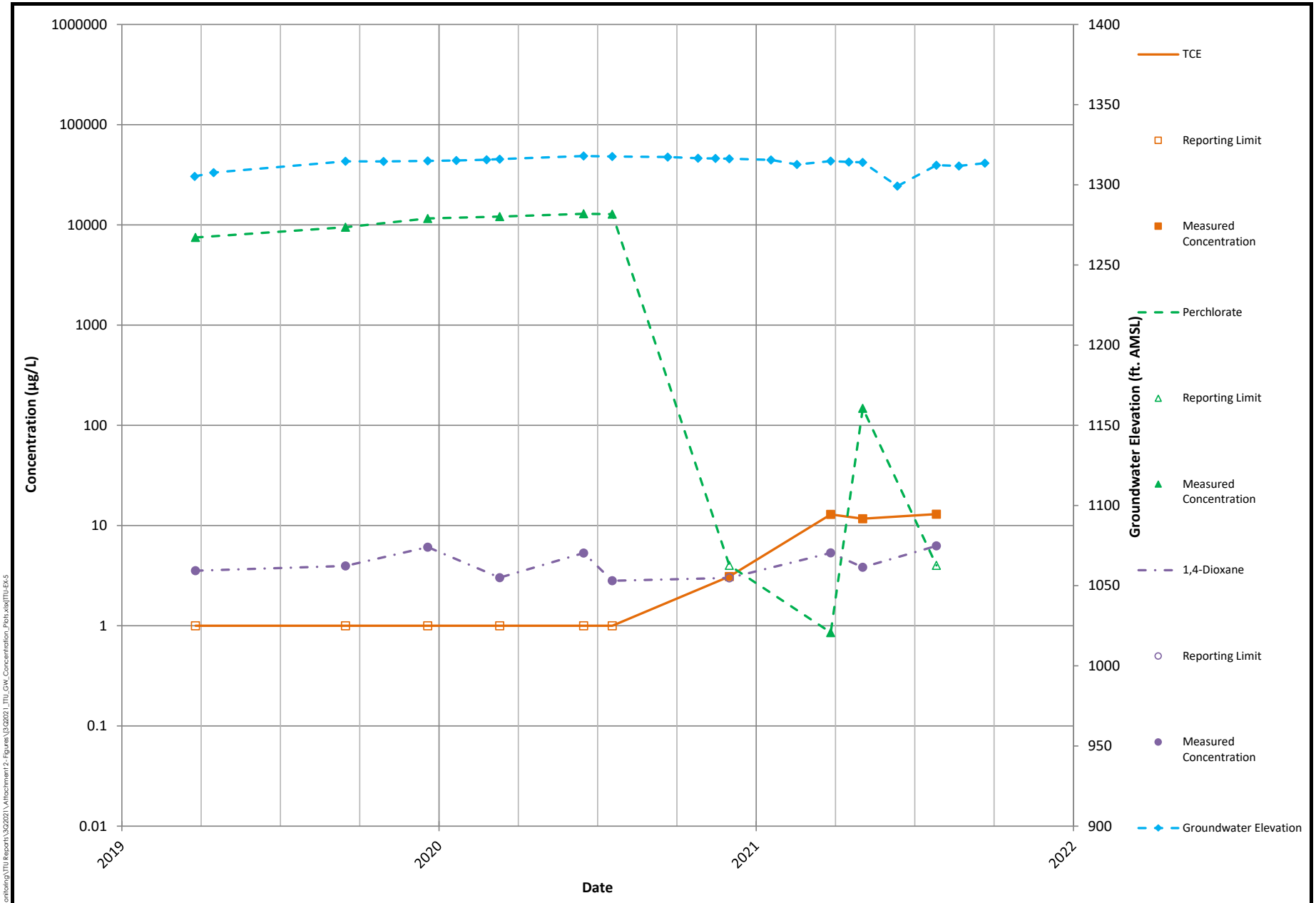
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-14
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-14

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2- Figures\13-3Q2021_TTU_GW_Concentration_Plots.xlsx]TTU-EX-5



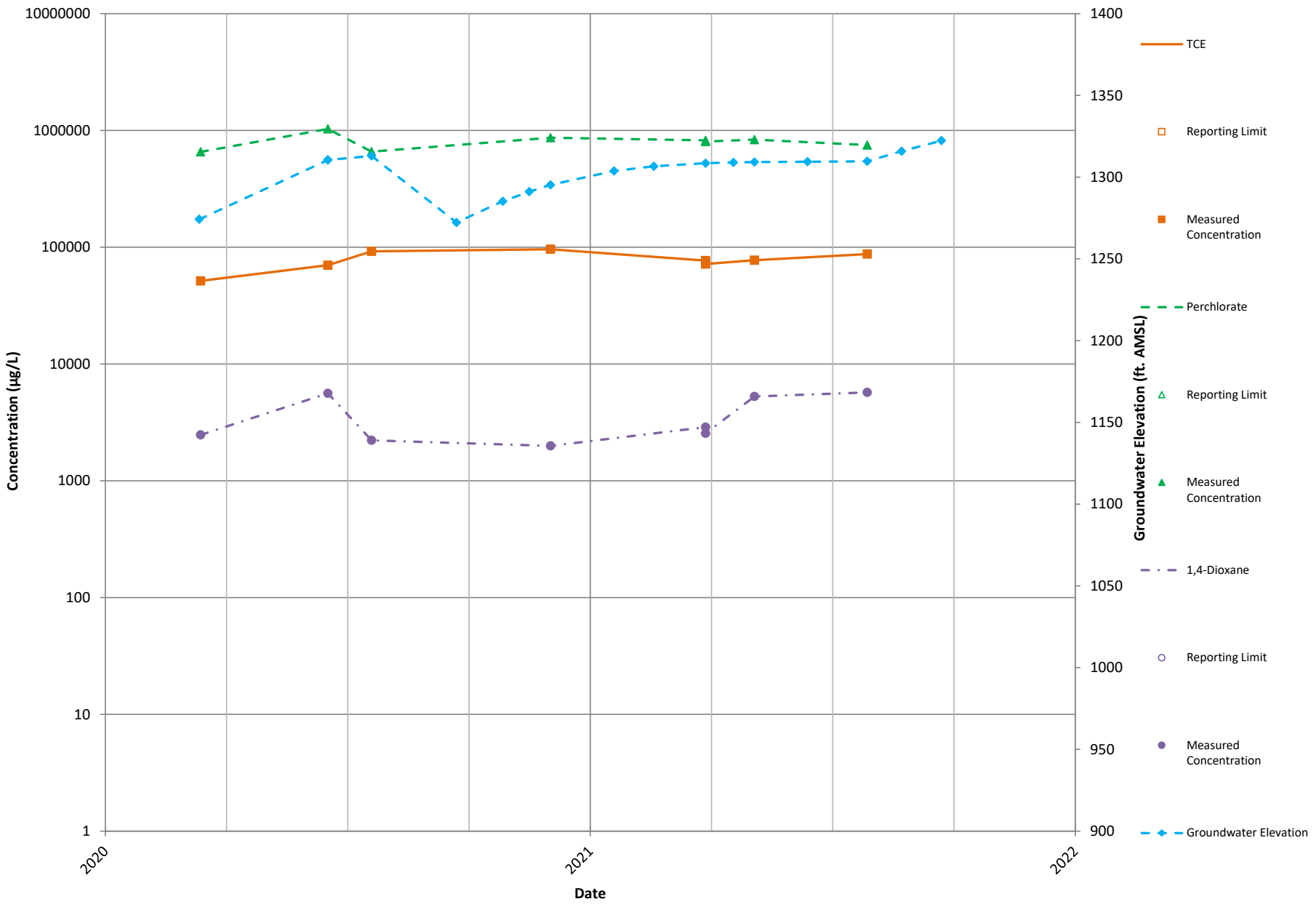
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-15
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-15

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2 - Figures\13Q2021_TTU_GW_Concentration_Plots.xlsx[TTU-EX-5



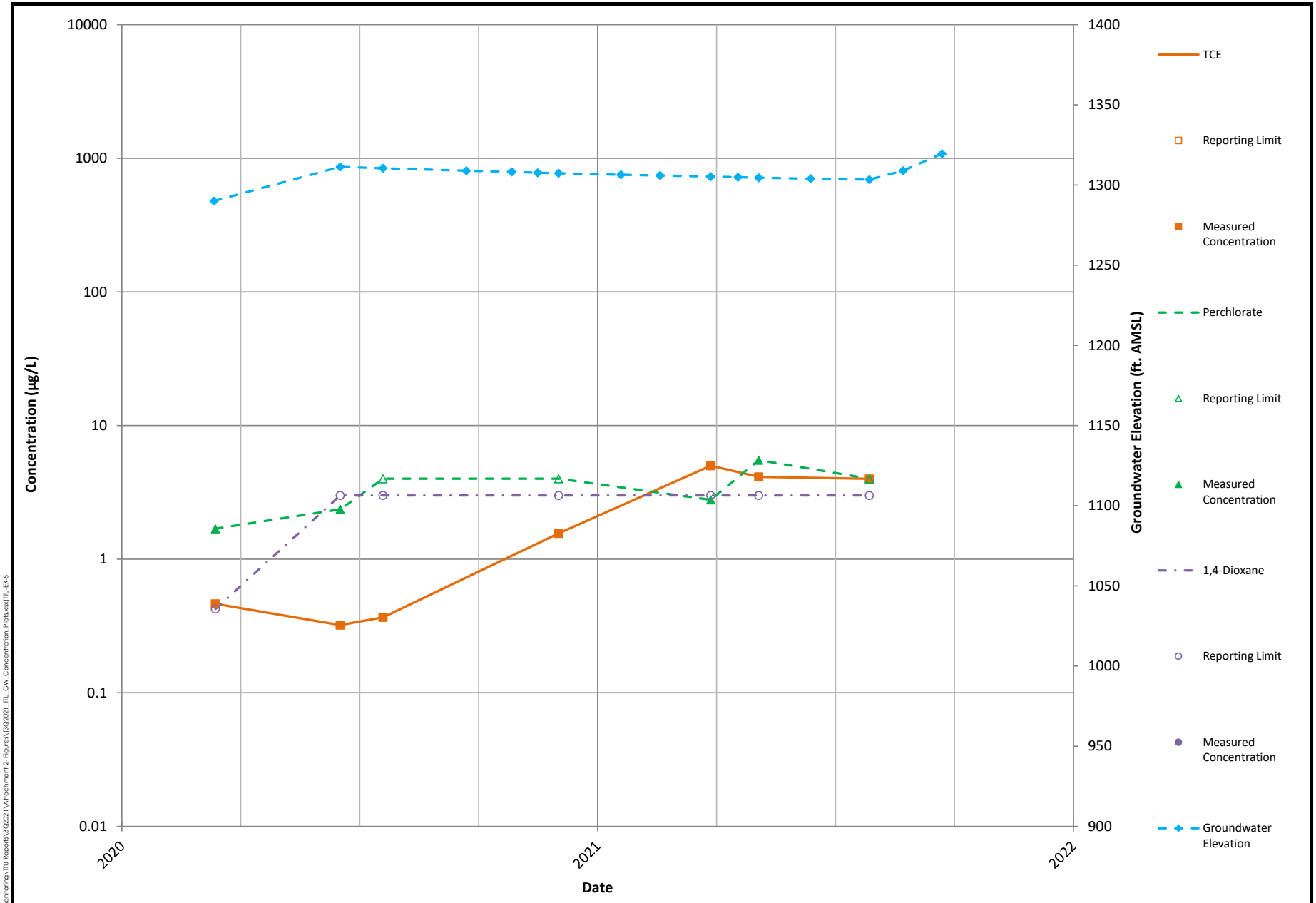
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-16
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-16

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2 - Figures\13Q2021_TTU_GW_Concentration_Plots.xlsx]TTU-EX-5



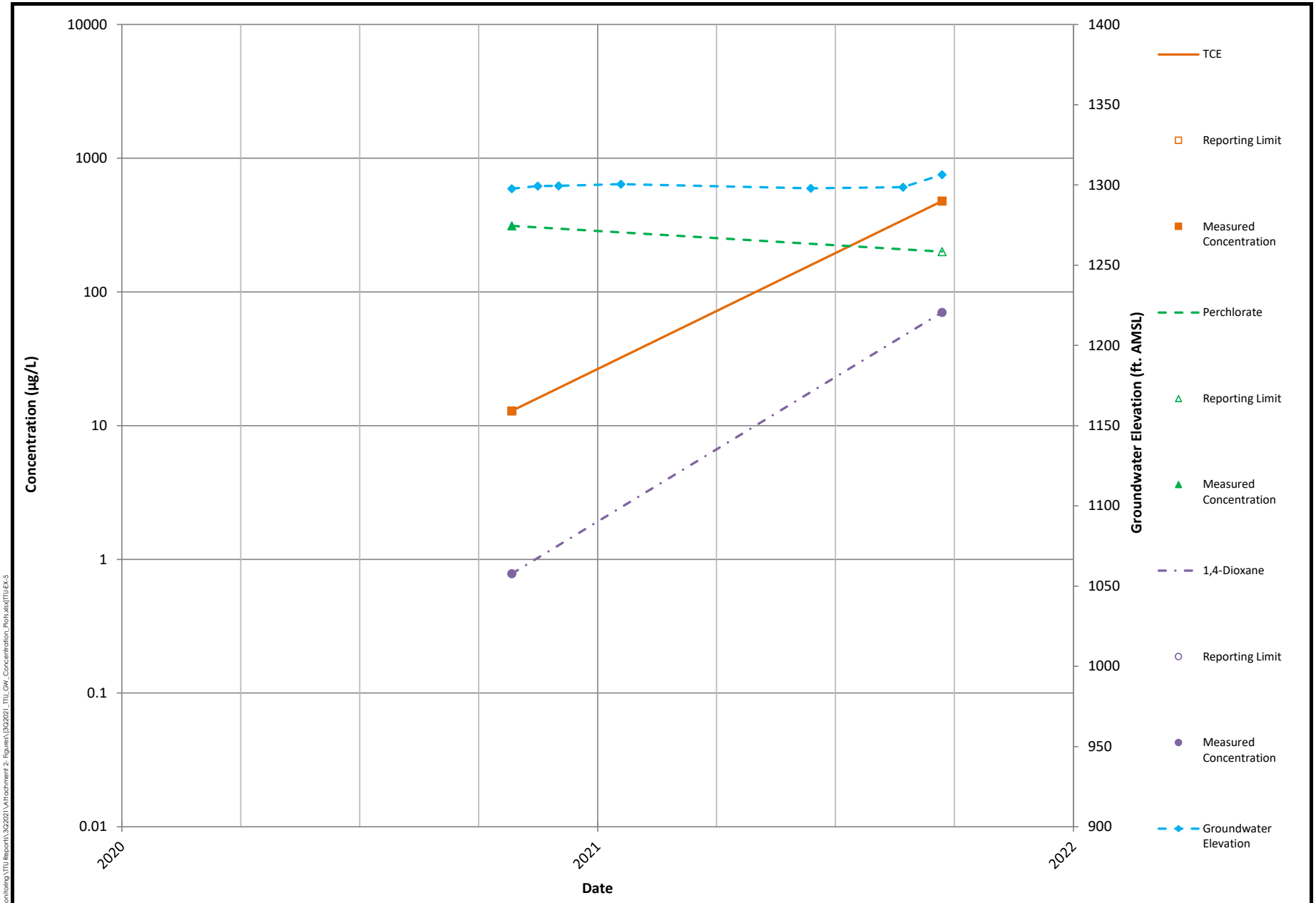
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-17
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-17

P:\SP\01\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2- Figures\3Q2021_TTU_GW_Concentration_Plots.xlsx]TTU-EX-5



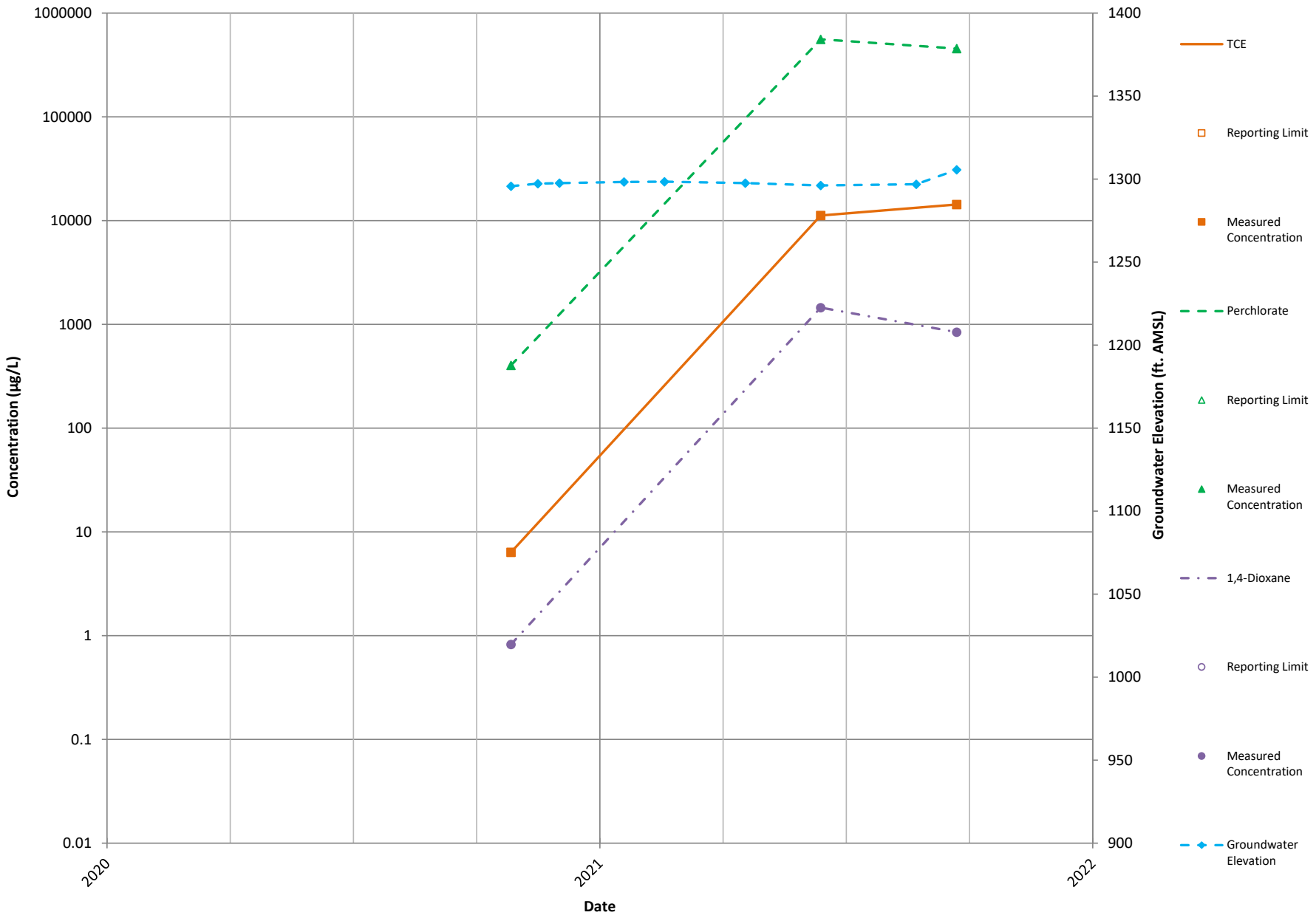
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
Installed as a monitoring well for an In-Situ Bio Remediation Pilot Test and converted into an injection well for the Pilot Test in February, 2020.
µg/L - micrograms per liter ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-19
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-18

P:\GP0101\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2- Figures\[3Q2021_TTU_GW_Concentration_Plots.xlsx]TTU-EX-S



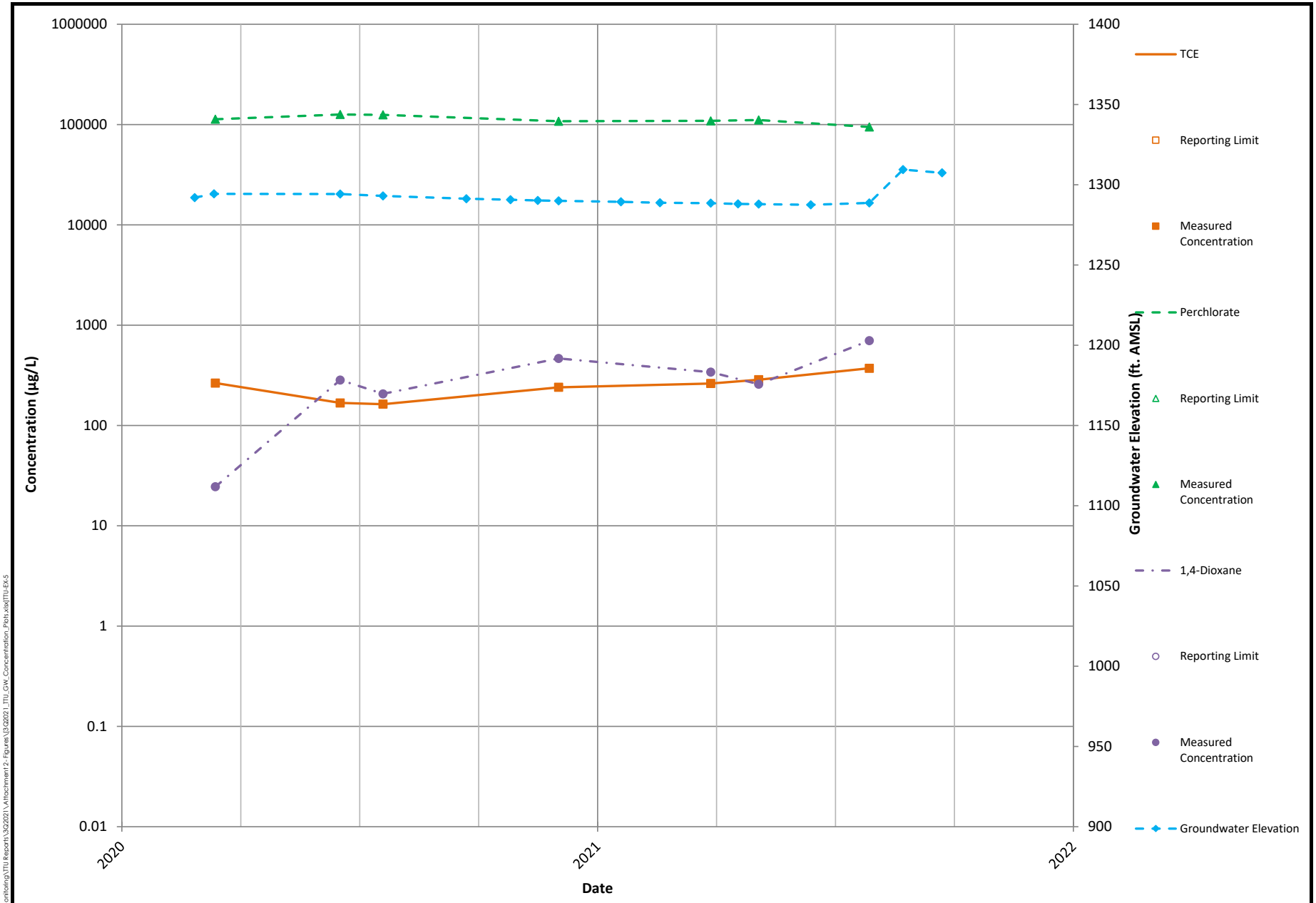
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
Installed as a monitoring well for a In-Situ Bio Remediation Pilot Test and a quarterly sampling plan has not been established.
µg/L - micrograms per liter ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-20
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-19

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2- Figures\13Q2021_TTU_GW_Concentration_Plots.xlsx[TTU-EX-5



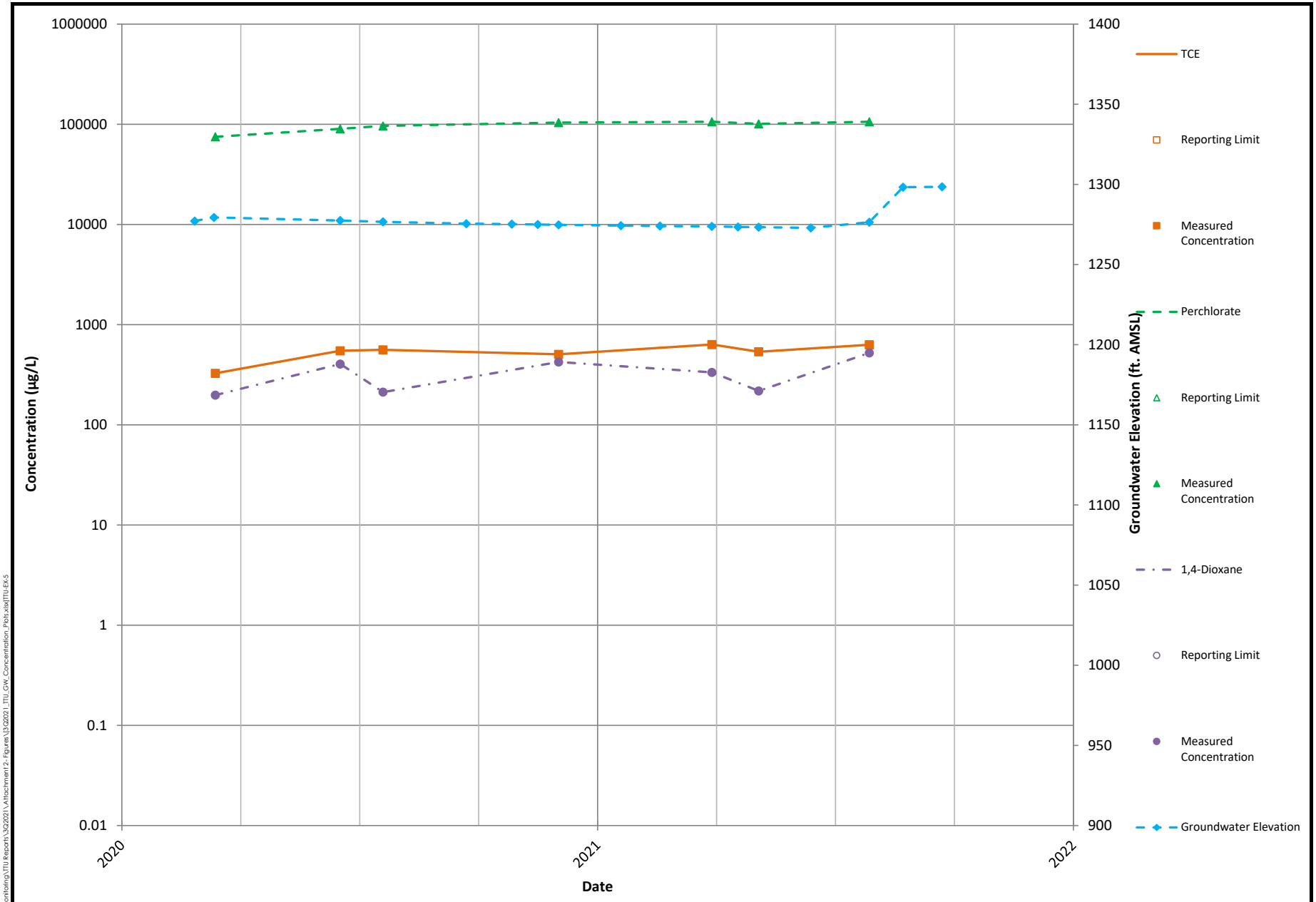
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-EX-1
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-20

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2 - Figures\3Q2021_TTU_GW_Concentration_Plots.xlsx]TTU-EX-5



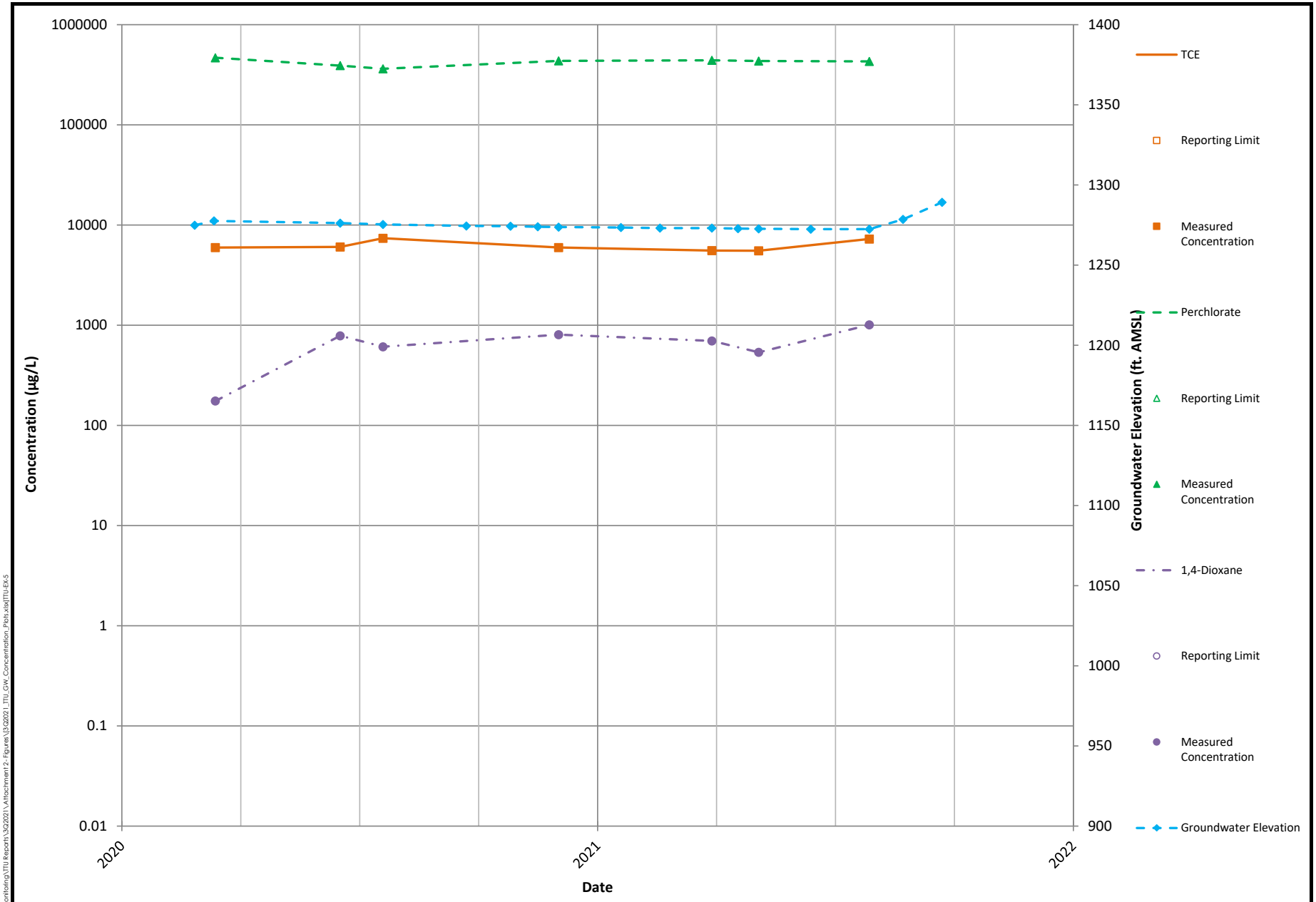
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-EX-2
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-21

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2 - Figures\13-3Q2021_TTU_GW_Concentration_Plots.xlsx]TTU-EX-5



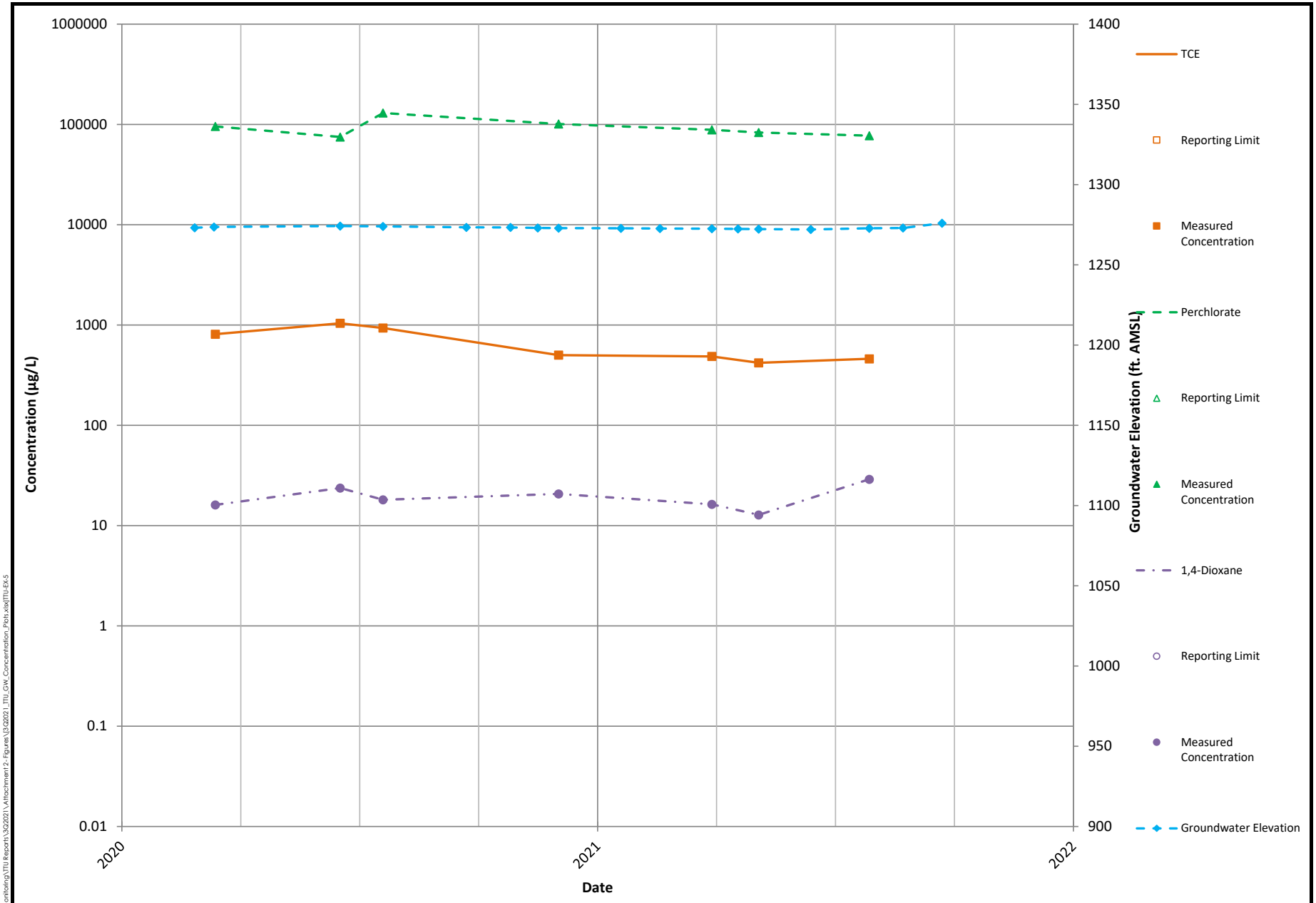
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-EX-3
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-22

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2 - Figures\13Q2021_TTU_GW_Concentration_Plots.xlsx]TTU-EX-5



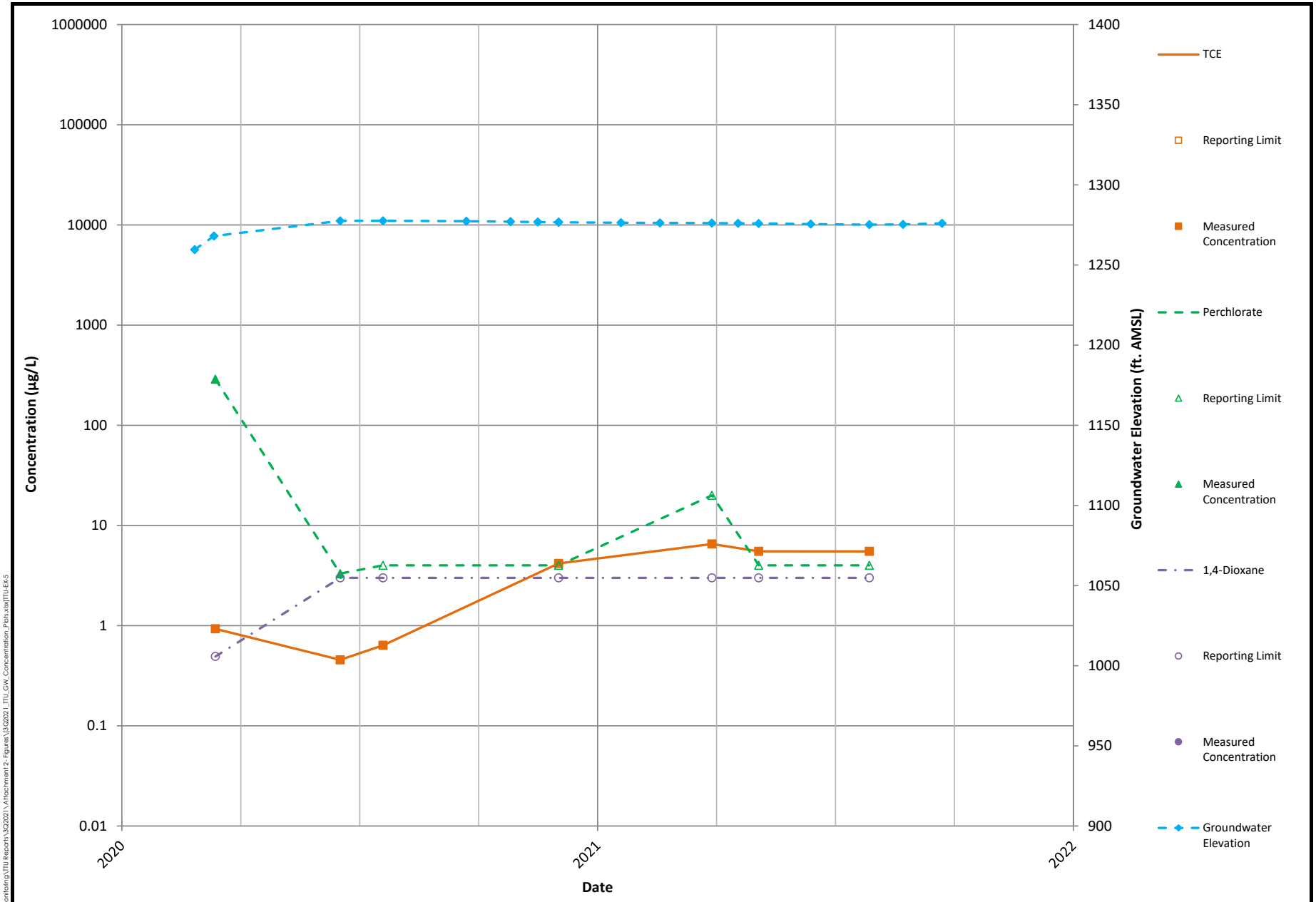
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-EX-4
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-23

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2 - Figures\3Q2021_TTU_GW_Concentration_Plots.xlsx]TTU-EX-5



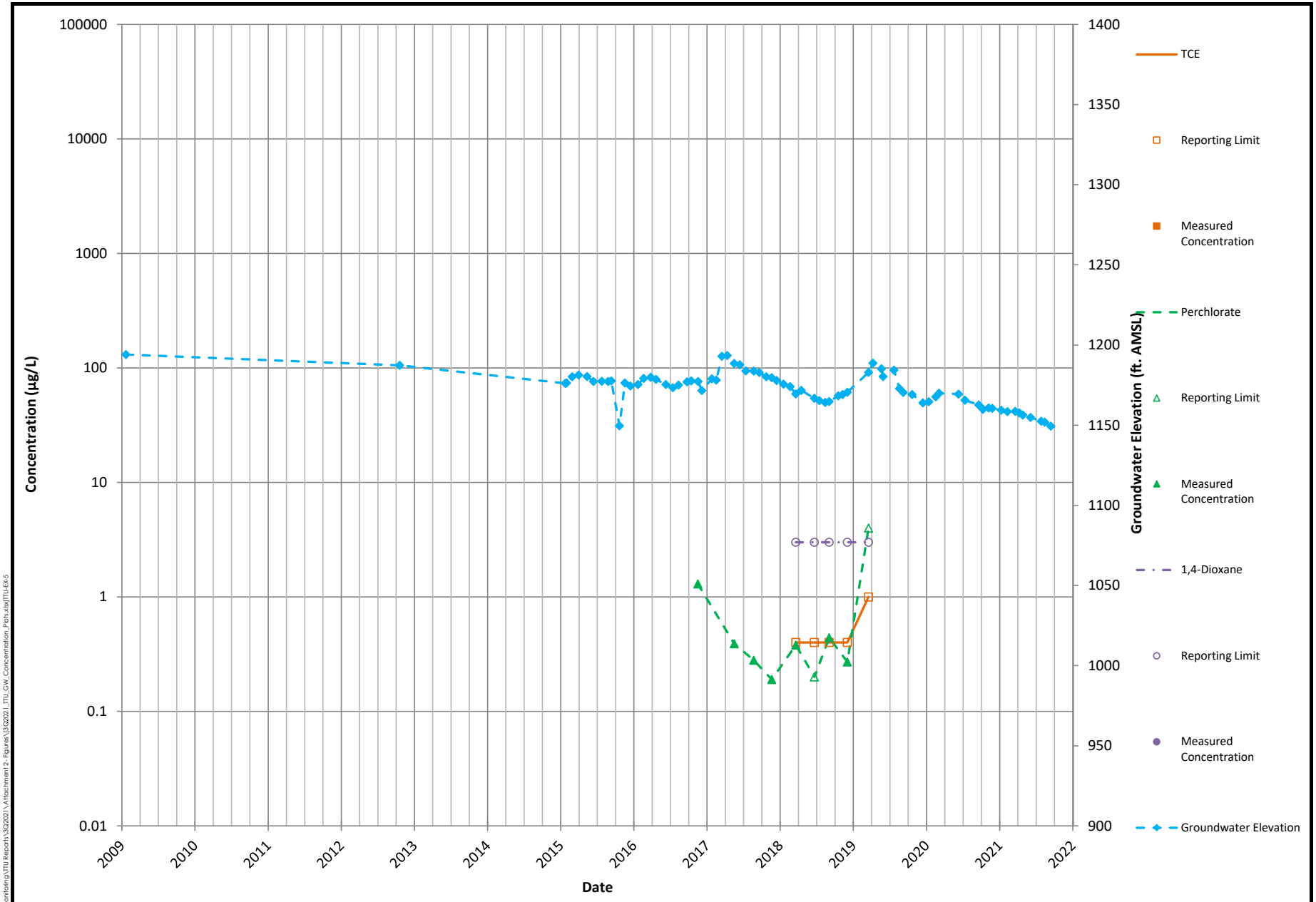
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
TTU-EX-5
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-24

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2 - Figures\3Q2021_TTU_GW_Concentration_Plots.xlsx[TTU-EX-5



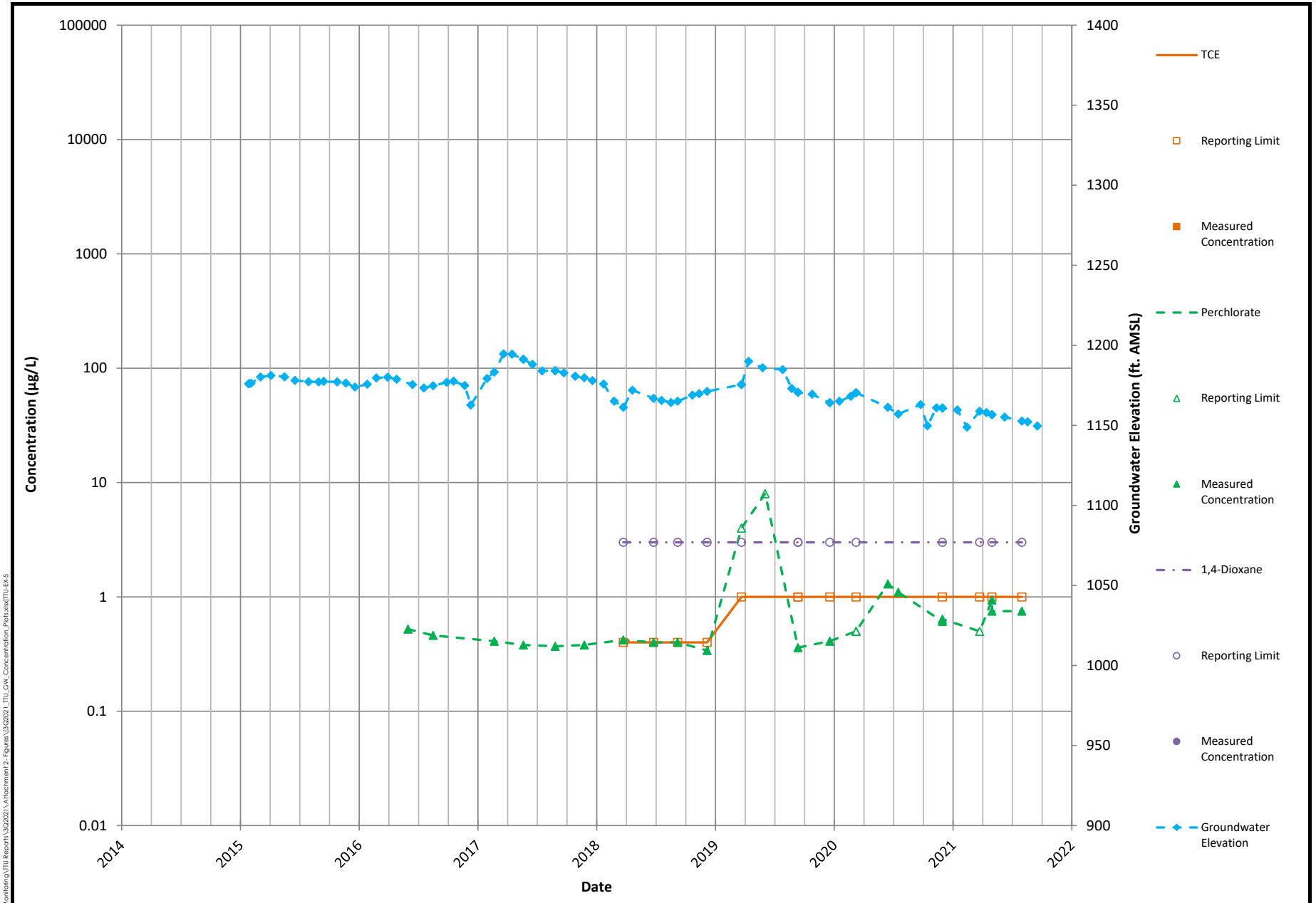
Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
PF-1
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-25

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment\2- Figures\13Q2021_TTU_GW_Concentration_Plots.xlsx[TTU-EX-5



Notes:
Reporting Limit - Non-detect results are plotted as the laboratory reporting limit.
µg/L - micrograms per liter
ft. AMSL - feet above mean sea level

Time-Series Plot of Groundwater Elevations and Concentrations
PF-2
Former Thermal Treatment Unit
Nammo Defense Systems Inc.
Mesa, Arizona

Geosyntec consultants
Phoenix | November 2021

Figure 5-26

P:\SP\010\GW21 - 2021 Groundwater Monitoring\TTU Report\3Q2021\Attachment 2- Figures\13-3Q2021_TTU_GW_Concentration_Plots.xlsx[TTU-EX-5

ATTACHMENT 3

DATA VALIDATION MEMORANDUM

Geosyntec consultants

3043 Gold Canal Drive Suite 100
Rancho Cordova, CA 95670
PH 916-637-8048
www.geosyntec.com

Memorandum

Date:	23 September 2021
To:	Fabrizio Mascioni
From:	Morgan Greenwald
CC:	Susan Scudder
Subject:	**Tier 1A Data Validation - Level II Data Deliverables, Pace Analytical Sample Delivery Groups (SDGs) L1385143 and L1387887 and Eurofins TestAmerica (ETA) Work Order Number 550-168580-1**

SITE: Nammo Defense Systems Inc. (NDS) - Thermal Treatment Unit (TTU)

INTRODUCTION

This report summarizes the findings of the Tier 1A data validation of twenty-three groundwater samples, three field duplicate samples, and three trip blanks, collected between 29 July 2021 and 6 August 2021, as part of the NDS TTU Third Quarter 2021 groundwater sampling event. The samples were submitted to Pace Analytical Laboratory (Pace) in Mount Juliet, Tennessee and analyzed for the following tests:

- Perchlorate by United States Environmental Protection Agency (USEPA) Method 314.0 (Modified)
- Volatile Organic Compounds (VOCs) by USEPA Method 8260B
- 1,4-Dioxane by USEPA Method 8260B using Selected Ion Monitoring (SIM) Mode

One groundwater sample and one field duplicate were submitted to ETA Phoenix, Arizona and subcontracted to ETA Sacramento, West Sacramento, California to be analyzed for the following test:

- Perchlorate by USEPA Method 6850

EXECUTIVE SUMMARY

Overall, based on this Tier 1A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives. The qualified data should be used within the limitations of the qualifications.

The data were reviewed based on the Quality Assurance Project Plan for Groundwater Investigation, August 2013 (QAPP), the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review, November 2020 (EPA-540-R-20-005), the USEPA NFG for Inorganic Superfund Methods Data Review, November 2020 (EPA-542-R-20-006), and the Draft Region 9 Superfund Data Evaluation/Validation Guidance, December 2001 (R9QA/006.1), as well as the pertinent methods referenced by the laboratory reports, and professional and technical judgment.

The following samples were analyzed and validated at a Tier 1A level in the data set:

Laboratory ID	Client ID
550-168580-1	PF-2-400-20210806_2
550-168580-2	PF-2-400-20210806-DUP
L1385143-01	TTU-5-110-20210729
L1385143-02	TTU-EX-5-80-20210729
L1385143-03	TTU-EX-4-77-20210729
L1385143-04	TTU-EX-3-76-20210729
L1385143-05	TTU-EX-2-74-20210729
L1385143-06	TTU-EX-1-69-20210729
L1385143-07	TTU-17-80-20210729
L1385143-08	TTU-15-75-20210729
L1385143-09	TTU-16-80-20210729
L1385143-10	TTU-16-80-20210729-DUP
L1385143-11	TTU-9A-61-20210729
L1385143-12	TTU-13-51-20210729
L1385143-13	TTU-14-69-20210729

Laboratory ID	Client ID
L1385143-14	TTU-12-82-20210729
L1385143-15	TTU-2-114-20210729
L1385143-16	TTU-1-50-20210729
L1385143-17	TTU-8-164-20210730
L1385143-18	TTU-4-57-20210730
L1385143-19	TTU-4-57-20210730-DUP
L1385143-20	TTU-3-108-20210730
L1385143-21	TTU-7-345-20210730
L1385143-22	TTU-6-143-20210730
L1385143-23	TB-1
L1385143-24	TB-2
L1387887-01	PF-2-400-20210806
L1387887-02	TB
L1387887-03	TTU-10-152-20210806

The samples were received at Pace at 1.0 degrees Celsius (ºC) and 2.6ºC, at ETA Phoenix at 0.3ºC, and at ETA Sacramento at 1.0ºC, meeting the QAPP criteria of approximately 4ºC, based on professional and technical judgment.

Based on email correspondence from ETA Sacramento, California on 14 September 2021, samples PF-2-400-20210806_2 and PF-2-400-20210806-DUP, submitted for perchlorate analysis by Method 6850, had insufficient headspace in the sample containers (defined by the laboratory as filled over the 200 milliliter [mL] mark on the containers). The samples were field filtered, which would prevent microbial degradation, and were collected consistent with the QAPP requirements for perchlorate analysis. Therefore, based on professional and technical judgment, no qualifications were applied to the data due to insufficient headspace in the perchlorate sample containers.

The samples were reported by the laboratories in the reports and laboratory-provided electronic data deliverables (EDDs) using the sample IDs recorded on the COCs. No sample ID discrepancies were noted between the laboratory reports and laboratory-provided EDDs for the samples. However, the sample with ETA laboratory ID 550-168580-1, originally recorded on the COC as PF-2-400-20210806, was amended by the Geosyntec project management (PM) team to include a "_2" suffix ("PF-2-400-20210806_2") in order to differentiate it from sample PF-2-400-20210806 (Pace laboratory ID L1387887-01). The sample is referred to by the amended sample ID in this data validation report.

The L1385143 and L1387887 case narratives indicated that insufficient volume was received for several project samples to perform matrix spike (MS)/MS duplicate (MSD) analysis per method QC requirements for USEPA Methods 8260B and/or 8260B-SIM. Further information from the laboratory clarified that this statement was included because the laboratory's Arizona Department of Health Services (ADHS) accreditation requires that at least one sample is collected in triplicate volume in case a MS/MSD pair is needed; the reported data were not impacted.

Sample collection times were not listed on the COCs for the trip blank samples. The laboratory assigned collection times of 00:00.

The receipt date recorded on the L1387887 COC did not include a year.

Incorrect error corrections were observed on the COCs, instead of the proper procedure of a single strike through, correction, and initials and date of person making the correction.

1.0 PERCHLORATE

The samples were analyzed for perchlorate by USEPA Methods 314.0 (modified) and 6850.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Times
✓ Method Blank
⊗ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Laboratory Duplicate
✓ Field Duplicate

- ✓ Equipment Blank
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The perchlorate data reported in these laboratory reports are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for the sample sets is 100%.

1.2 Holding Times

The holding time for the perchlorate analysis of an aqueous sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Six method blanks were reported (modified Method 314.0 batches WG1716640, WG1716655, WG1720097 [two method blanks reported], and WG1721302 and Method 6850 batch 514718). Perchlorate was not detected in the method blanks above the method detection limit (MDL) for modified Method 314.0 or above the reporting limit (RL) for Method 6850.

1.4 Matrix Spike/Matrix Spike Duplicate

One sample set specific MS/MSD pair was reported for Method 6850, using sample PF-2-400-20210806_2. One sample set specific MS/MSD pair was reported for modified Method 314.0, using sample TTU-2-114-20210729. Seven sample set specific MSs were reported for modified Method 314.0, using the following samples:

- TTU-15-75-20210729
- TTU-9A-61-20210729
- TTU-8-164-20210730
- TTU-4-57-20210730
- TTU-4-57-20210730-DUP
- TTU-3-108-20210730

- TTU-6-143-20210730

The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria, with the following exceptions.

The perchlorate recoveries in the MS/MSD pair using sample TTU-2-114-20210729 were low and outside the laboratory specified acceptance criteria. Due to the difference between the sample concentration and the spike concentration, and based on professional and technical judgment, no qualifications were applied to the data.

The perchlorate recoveries in the MSs using samples TTU-9A-61-20210729 and TTU-6-143-20210730 were high and outside the laboratory specified acceptance criteria. Therefore, the perchlorate concentration in sample TTU-9A-61-20210729 was J+ qualified as estimated with a high bias. Since perchlorate was not detected in sample TTU-6-143-20210730, no qualifications were applied to the data.

Sample ID	Analyte	Laboratory Result (µg/L)	Laboratory Flag	Validation Result (µg/L)	Validation Qualifier*	Reason code**
TTU-9A-61-20210729	Perchlorate	15.9	M1	15.9	J+	4

µg/L - Microgram per liter
M1 - Laboratory flag indicating the matrix spike recovery was high; the method control sample recovery was acceptable
* - Validation qualifiers are defined in Attachment 1 at the end of this report
** - Reason codes are defined in Attachment 2 at the end of this report

Batch sample MSs and MS/MSD pairs were also reported. Since these were batch QC, the results did not impact the data and did not result in qualification of the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four LCSs were reported for modified Method 314.0 and one LCS was reported for Method 6850. The recoveries were within the laboratory specified acceptance criteria.

1.6 Laboratory Duplicate

Two sample set specific laboratory duplicates were reported for modified Method 314.0, using samples TTU-17-80-20210729 and TTU-1-50-20210729. The RPD results were within the laboratory specified acceptance criteria.

Batch sample laboratory duplicates were also reported. Since these were batch QC, the results did not impact the data and did not result in qualification of the data.

1.7 Field Duplicate

Three field duplicates were collected with the sample sets and analyzed for perchlorate: PF-2-400-20210806-DUP, TTU-16-80-20210729-DUP, and TTU-4-57-20210730-DUP. Acceptable precision (RPD ≤30%) was demonstrated between the field duplicates and original samples, PF-2-400-20210806_2, TTU-16-80-20210729, and TTU-4-57-20210730, respectively.

The QAPP specifies that field duplicates should be collected and analyzed at a frequency of 10%. Three field duplicates were collected with the twenty-three project samples. Therefore, the QAPP-specified field duplicate frequency of 10% was met for the sample sets.

1.8 Equipment Blank

Table 2 in the QAPP specifies that equipment blanks should be collected at a rate of one per day when non-dedicated equipment is used, two per quarterly sampling event, and one per weekly or monthly sampling event. No non-dedicated equipment was used for the quarterly sampling event; therefore, equipment blanks were not collected.

1.9 Sensitivity

The samples analyzed by modified Method 314.0 were reported to the MDL and the samples analyzed by Method 6850 were reported to the RL. Elevated non-detect results were reported by modified Method 314.0 due to the dilutions analyzed. The undiluted modified Method 314.0 MDL and RL and the Method 6850 RL met the Arizona Department of Environmental Quality (ADEQ) Health-Based Guidance Level (HBGL) for perchlorate of 14 µg/L indicated in Table 1 of the QAPP.

Estimated concentrations greater than the MDLs and less than the RLs for modified Method 314.0 were flagged by the laboratory with E4. These estimated concentrations were J qualified as estimated.

1.10 Electronic Data Deliverable Review

Results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20%. No discrepancies were identified between the level II reports and the EDDs.

2.0 VOLATILE ORGANIC COMPOUNDS

The samples were analyzed for VOCs per USEPA Method 8260B.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

⊗ Overall Assessment
✓ Holding Times
✓ Method Blank
⊗ Matrix Spike/Matrix Spike Duplicate
⊗ Laboratory Control Sample
✓ Surrogates
✓ Field Duplicate
⊗ Trip Blank
✓ Equipment Blank
✓ Sensitivity
✓ Electronic Data Deliverable Review

2.1 Overall Assessment

The VOC data reported in the laboratory reports are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the sample sets is 100%.

The internal standard (IS) responses for the samples were reported in the laboratory reports. The IS responses were within the method specified acceptance criteria.

According to the case narrative for report L1385143, sample TB-2 was analyzed from a vial with headspace. Therefore, the non-detect results in sample TB-2 were UJ qualified as estimated less than the MDLs. See Attachment 3 for qualifications.

2.2 Holding Times

The holding time for the VOC analysis of preserved water samples is 14 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Six method blanks were reported (batches WG1716129, WG1716283, WG1717654, WG1721553, WG1720957, and WG1723598). VOCs were not detected in the method blanks above the MDLs, with the following exceptions.

2-Butanone (MEK) was detected in the method blank in batch WG1716129 at an estimated concentration greater than the MDL and less than the RL. Since 2-butanone was not detected in the associated samples, no qualifications were applied to the data.

Methylene chloride was detected in the method blank in batch WG1716283 at an estimated concentration greater than the MDL and less than the RL. Since methylene chloride was not detected in the associated samples, no qualifications were applied to the data.

The following analytes were detected in the method blanks in batches WG1717654 and WG1720957 at estimated concentrations greater than the MDLs and less than the RLs:

- n-Butylbenzene
- sec-Butylbenzene
- p-Isopropyltoluene
- 1,2,3-Trichlorobenzene

Additionally, hexachloro-1,3-butadiene was detected in the method blank in batch WG1720957 at an estimated concentration greater than the MDL and less than the RL. Since these analytes were not detected in the associated samples, no qualifications were applied to the data.

2.4 Matrix Spike/Matrix Spike Duplicate

One sample set specific MS/MSD pair was reported using sample TTU-2-114-20210729. The recovery and RPD results were within the laboratory specified acceptance criteria, with the following exceptions.

The dicyclopentadiene and 4-ethyltoluene RPDs were high and outside the laboratory specified acceptance criteria. Since dicyclopentadiene and 4-ethyltoluene were not detected in sample TTU-2-114-20210729, no qualifications were applied to the data.

The MS recovery for acetone was high and outside the laboratory specified acceptance criteria. Since acetone was not detected in sample TTU-2-114-20210729, no qualifications were applied to the data.

The MS/MSD recoveries for 1,1-dichloroethene and trichloroethene were low and outside the laboratory specified acceptance criteria. Due to the differences between the sample concentrations and the spike concentrations and based on professional and technical judgment, no qualifications were applied to the data.

The MS/MSD recoveries for dicyclopentadiene were low and outside the laboratory specified acceptance criteria. Therefore, the non-detect dicyclopentadiene result in sample TTU-2-114-20210729 was UJ qualified as estimated less than the MDL.

Sample ID	Analyte	Laboratory Result (ug/L)	Laboratory Flag	Validation Result (ug/L)	Validation Qualifier	Reason code
TTU-2-114-20210729	Dicyclopentadiene	0.253	U;M2;R5	0.253	UJ	4

ug/L - Microgram per liter
M2 - Laboratory flag indicating that the matrix spike recovery was low, but the method control sample recovery was acceptable
R5 - Laboratory flag indicating that the MS/MSD RPD exceeded the laboratory acceptance limit, but the recovery met acceptance criteria
U - The analyte was analyzed for, but was not detected at or above the reported sample quantitation limit

Batch sample MS/MSD pairs were also reported. Since these were batch QC, the results did not impact the data and did not result in qualification of the data.

MS/MSD pairs were not reported in batches WG1721553 and WG1723598. LCS/LCSD pairs were used to assess precision and accuracy.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Six LCS/LCSD pairs were reported. The recovery and RPD results were within the laboratory specified acceptance criteria, with the following exceptions.

The LCSD recovery for acetone was high and outside the laboratory specified acceptance criteria in the LCS/LCSD pair in batch WG1716129. Since acetone was not detected in the associated samples, no qualifications were applied to the data.

The 2,2-dichloropropane recoveries were high and outside the laboratory specified acceptance criteria in the LCS/LCSD pair in batch WG1716283. Since 2,2-dichloropropane was not detected in the associated samples, no qualifications were applied to the data.

The 1,3-butadiene recoveries were low and the 1,3-butadiene RPD was high, outside the laboratory specified acceptance criteria, in the LCS/LCSD pair in batch WG1716283. Therefore, the non-

detect 1,3-butadiene results in the associated samples were UJ qualified as estimated less than the MDLs.

The 1,2,3-trichlorobenzene RPDs were high and outside the laboratory specified acceptance criteria, in the LCS/LCSD pairs in batches WG1717654 and WG1723598. Since 1,2,3-trichlorobenzene was not detected in the associated samples, no qualifications were applied to the data.

One or both of the recoveries of 1,3-dichloropropane, 1,2-dibromoethane, and trichloroethene were high and outside the laboratory specified acceptance criteria in the LCS/LCSD pair in batch WG1720957. Therefore, the estimated concentration of trichloroethene in sample TB was J qualified as estimated. Since 1,3-dichloropropane and 1,2-dibromoethane were not detected in the associated samples, no qualifications were applied to the data.

Sample ID	Analyte	Laboratory Result (ug/L)	Laboratory Flag	Validation Result (ug/L)	Validation Qualifier	Reason code
TB-1	1,3-Butadiene	0.299	U;L2;R7	0.299	UJ	5
TTU-3-108-20210730	1,3-Butadiene	0.299	U;L2;R7	0.299	UJ	5
TTU-4-57-20210730-DUP	1,3-Butadiene	0.299	U;L2;R7	0.299	UJ	5
TTU-6-143-20210730	1,3-Butadiene	0.299	U;L2;R7	0.299	UJ	5
TTU-7-345-20210730	1,3-Butadiene	0.299	U;L2;R7	0.299	UJ	5
TB	Trichloroethene	0.251	E4;L1	0.251	J	5

ug/L - Microgram per liter
E4 - Laboratory flag indicating that the concentration is estimated; analyte was detected below RL, but above MDL
L1 - Laboratory flag indicating that the associated blank spike recovery was above laboratory acceptance limits
L2 - Laboratory flag indicating that the associated blank spike recovery was below laboratory acceptance limits
R7 - Laboratory flag indicating that the LCS/LCSD RPD exceeded the laboratory acceptance limit, but the recovery met acceptance criteria
U - The analyte was analyzed for, but was not detected at or above the reported sample quantitation limit

2.6 Surrogates

Acceptable surrogate recoveries were reported for the sample analyses.

2.7 Field Duplicate

Two field duplicates were collected with the sample sets and analyzed for VOCs: TTU-16-80-20210729-DUP and TTU-4-57-20210730-DUP. Acceptable precision (RPD $\leq$30%) was demonstrated between the field duplicates and original samples, TTU-16-80-20210729 and TTU-4-57-20210730, respectively.

The QAPP-specified field duplicate frequency of 10% was met for the sample set.

2.8 Trip Blank

Three trip blank samples, TB-1, TB-2, and TB, accompanied the VOC samples submitted in SDGs L1385143 and L1387887. Therefore, the QAPP-required frequency of one trip blank per shipment of VOC samples was met. VOCs were not detected above the MDLs in the trip blanks, with the following exception.

Carbon disulfide, trichloroethene, and total xylenes were detected at estimated concentrations greater than the MDLs and less than the RLs in trip blank TB, reported in SDG L1387887. Therefore, the estimated total xylene concentration in sample PF-2-400-20210806 was U qualified as not detected at the RL. Since carbon disulfide and trichloroethene were not detected in the associated samples, no qualifications were applied to the carbon disulfide and trichloroethene data.

Sample ID	Analyte	Laboratory Result (ug/L)	Laboratory Flag	Validation Result (ug/L)	Validation Qualifier	Reason code
PF-2-400-20210806	Xylenes (Total)	0.215	E4	3.0	U	3

ug/L - Microgram per liter
E4 - Laboratory flag indicating that the concentration is estimated; analyte was detected below RL, but above MDL

2.9 Equipment Blank

Equipment blanks were not submitted with the sample sets.

2.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to the dilutions analyzed. The undiluted trichloroethene MDLs and RLs met the EPA Maximum Contaminant Level (MCL) for trichloroethene of 5.0 µg/L indicated in Table 1 of the QAPP. There are no site specific technical and regulatory quality standards provided for other VOCs in Table 1 of the QAPP.

Estimated concentrations greater than the MDLs and less than the RLs were flagged by the laboratory with E4. These estimated concentrations were J qualified as estimated.

2.11 Electronic Data Deliverable Review

Results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20%. No discrepancies were identified between the level II reports and the EDDs.

3.0 1,4-DIOXANE

The samples were analyzed for 1,4-dioxane per USEPA Method 8260B-SIM.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Surrogates
- ✓ Field Duplicate
- ⊗ Trip Blank
- ✓ Equipment Blank
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

3.1 Overall Assessment

The 1,4-dioxane data reported in the laboratory reports are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the sample sets is 100%.

The IS responses for the samples were reported in the laboratory reports. The IS responses were within the method specified acceptance criteria.

3.2 Holding Times

The holding time for the 1,4-dioxane analysis of a preserved water sample is 14 days from sample collection to analysis. The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four method blanks were reported (batches WG1716576, WG1717221, WG1719066, and WG1720335). 1,4-Dioxane was not detected in the method blanks above the MDL.

3.4 Matrix Spike/Matrix Spike Duplicate

One sample set specific MS/MSD pair was reported using sample TTU-2-114-20210729. The MS/MSD RPD was within the laboratory specified acceptance criteria. However, the 1,4-dioxane recoveries were high and outside the laboratory specified acceptance criteria. Due to the difference between the sample concentration and the spike concentration and based on professional and technical judgment, no qualifications were applied to the data.

A batch sample MS/MSD pair was reported in batch WG1719066. Since these were batch QC, the results did not impact the data and did not result in qualification of the data.

MS/MSD pairs were not reported for batches WG1717221 and WG1720335. LCS/LCSD pairs were used to assess precision and accuracy.

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four LCS/LCSD pairs were reported. The recovery and RPD results were within the laboratory specified acceptance criteria, with the following exception.

The 1,4-dioxane RPD was high and outside the laboratory specified criteria in the LCS/LCSD in batch WG1720335. Since 1,4-dioxane was not detected in the associated samples, no qualifications were applied to the data.

3.6 Surrogates

Acceptable surrogate recoveries were reported for the sample analyses.

3.7 Field Duplicate

Two field duplicates were collected with the sample sets and analyzed for 1,4-dioxane: TTU-16-80-20210729-DUP and TTU-4-57-20210730-DUP. Acceptable precision (RPD $\leq$30%) was

demonstrated between the field duplicates and original samples, TTU-16-80-20210329 and TTU-2-114-20210330, respectively.

The QAPP specified field duplicate frequency of 10% was met for the sample set.

3.8 Trip Blank

Three trip blank samples accompanied the VOC samples. However, 1,4-dioxane analyses were not requested for the trip blanks. No qualifications were applied to the data, but the discrepancy should be noted by the data user.

3.9 Equipment Blank

Equipment blanks were not submitted with the sample set.

3.10 Sensitivity

The samples were reported to the MDL. No elevated non-detect results were reported. There are no site specific technical and regulatory quality standards provided for 1,4-dioxane in Table 1 of the QAPP.

3.11 Electronic Data Deliverable Review

Results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20%. No discrepancies were identified between the level II reports and the EDDs.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U — The analyte was analyzed for, but was not detected at or above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to "not detected at or above the reported result".

J — The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ — The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

J- — The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

UJ — The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R — The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Extraction or analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS recovery outside limits or RPD outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample duplicate
RPD - Relative percent difference

ATTACHMENT 3
DATA VALIDATION QUALIFIERS APPLIED DUE TO VOC HEADSPACE

Sample ID	Analyte	Laboratory Result (µg/L)	Laboratory Flag	Validation Result (µg/L)	Validation Qualifier	Reason code
TB-2	Dichloromethane	0.430	U	0.430	UJ	1
TB-2	1,1,1,2-Tetrachloroethane	0.147	U	0.147	UJ	1
TB-2	1,1,1-Trichloroethane	0.149	U	0.149	UJ	1
TB-2	1,1,2,2-Tetrachloroethane	0.133	U	0.133	UJ	1
TB-2	1,1,2-Trichloroethane	0.158	U	0.158	UJ	1
TB-2	1,1,2-Trichlorotrifluoroethane	0.180	U	0.180	UJ	1
TB-2	1,1-Dichloroethane	0.100	U	0.100	UJ	1
TB-2	1,1-Dichloroethene	0.188	U	0.188	UJ	1
TB-2	1,1-Dichloropropene	0.142	U	0.142	UJ	1
TB-2	1,2,3-Trichlorobenzene	0.230	U;R7	0.230	UJ	1
TB-2	1,2,3-Trichloropropane	0.237	U	0.237	UJ	1
TB-2	1,2,3-Trimethylbenzene	0.104	U	0.104	UJ	1
TB-2	1,2,4-Trichlorobenzene	0.481	U	0.481	UJ	1
TB-2	1,2,4-Trimethylbenzene	0.322	U	0.322	UJ	1
TB-2	1,2-Dibromo-3-Chloropropane	0.276	U	0.276	UJ	1
TB-2	1,2-Dibromoethane	0.126	U	0.126	UJ	1
TB-2	1,2-Dichlorobenzene	0.107	U	0.107	UJ	1
TB-2	1,2-Dichloroethane	0.0819	U	0.0819	UJ	1
TB-2	1,2-Dichloropropane	0.149	U	0.149	UJ	1
TB-2	1,3,5-Trimethylbenzene	0.104	U	0.104	UJ	1
TB-2	1,3-Butadiene	0.299	U	0.299	UJ	1
TB-2	1,3-Dichlorobenzene	0.110	U	0.110	UJ	1
TB-2	1,3-Dichloropropane	0.110	U	0.110	UJ	1
TB-2	1,4-Dichlorobenzene	0.120	U	0.120	UJ	1
TB-2	2,2-Dichloropropane	0.161	U	0.161	UJ	1
TB-2	2-butanone (MEK)	1.19	U	1.19	UJ	1
TB-2	2-Chlorotoluene	0.106	U	0.106	UJ	1
TB-2	4-Chlorotoluene	0.114	U	0.114	UJ	1
TB-2	4-Ethyltoluene	0.208	U	0.208	UJ	1
TB-2	4-Methyl-2-Pentanone (MIBK)	0.478	U	0.478	UJ	1
TB-2	Acetone	11.3	U	11.3	UJ	1
TB-2	Acrolein	2.54	U	2.54	UJ	1
TB-2	Acrylonitrile	0.671	U	0.671	UJ	1
TB-2	Benzene	0.0941	U	0.0941	UJ	1
TB-2	Bromobenzene	0.118	U	0.118	UJ	1
TB-2	Dichlorobromomethane	0.136	U	0.136	UJ	1
TB-2	Bromoform	0.129	U	0.129	UJ	1
TB-2	Methyl Bromide	0.605	U	0.605	UJ	1

Sample ID	Analyte	Laboratory Result (µg/L)	Laboratory Flag	Validation Result (µg/L)	Validation Qualifier	Reason code
TB-2	Carbon Disulfide	0.0962	U	0.0962	UJ	1
TB-2	Carbon Tetrachloride	0.128	U	0.128	UJ	1
TB-2	Chlorobenzene	0.116	U	0.116	UJ	1
TB-2	Chlorodibromomethane	0.140	U	0.140	UJ	1
TB-2	Chloroethane	0.192	U	0.192	UJ	1
TB-2	Chloroform	0.111	U	0.111	UJ	1
TB-2	Chloromethane	0.960	U	0.960	UJ	1
TB-2	cis-1,2-Dichloroethene	0.126	U	0.126	UJ	1
TB-2	cis-1,3-Dichloropropene	0.111	U	0.111	UJ	1
TB-2	Cyclohexane	0.188	U	0.188	UJ	1
TB-2	Diisopropyl Ether	0.105	U	0.105	UJ	1
TB-2	Dibromomethane	0.122	U	0.122	UJ	1
TB-2	Dichlorodifluoromethane	0.374	U	0.374	UJ	1
TB-2	Dicyclopentadiene	0.253	U	0.253	UJ	1
TB-2	Ethylbenzene	0.137	U	0.137	UJ	1
TB-2	Hexachlorobutadiene (HCBD)	0.337	U	0.337	UJ	1
TB-2	Isopropylbenzene	0.105	U	0.105	UJ	1
TB-2	Methylcyclohexane	0.660	U	0.660	UJ	1
TB-2	Methyl tert-Butyl Ether (MTBE)	0.101	U	0.101	UJ	1
TB-2	n-Butylbenzene	0.157	U	0.157	UJ	1
TB-2	n-Hexane	0.749	U	0.749	UJ	1
TB-2	n-Propylbenzene	0.0993	U	0.0993	UJ	1
TB-2	Naphthalene	1.00	U	1.00	UJ	1
TB-2	p-Isopropyltoluene	0.120	U	0.120	UJ	1
TB-2	Propene	0.936	U	0.936	UJ	1
TB-2	sec-Butylbenzene	0.125	U	0.125	UJ	1
TB-2	Styrene	0.118	U	0.118	UJ	1
TB-2	tert-Butylbenzene	0.127	U	0.127	UJ	1
TB-2	Tetrachloroethene (PCE)	0.300	U	0.300	UJ	1
TB-2	Toluene	0.278	U	0.278	UJ	1
TB-2	trans-1,2-Dichloroethene	0.149	U	0.149	UJ	1
TB-2	trans-1,3-Dichloropropene	0.118	U	0.118	UJ	1
TB-2	Trichloroethene (TCE)	0.190	U	0.190	UJ	1
TB-2	Trichlorofluoromethane	0.160	U	0.160	UJ	1
TB-2	Vinyl Chloride	0.234	U	0.234	UJ	1
TB-2	Xylenes (Total)	0.174	U	0.174	UJ	1

µg/L - Microgram per liter
R7 - Laboratory flag indicating that the LCS/LCSD RPD exceeded the laboratory acceptance limit, but the recovery met acceptance criteria
U - The analyte was analyzed for, but was not detected at or above the reported sample quantitation limit

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Memorandum

Date:	25 October 2021
To:	Tory Luttermoser
From:	Matthew Richardson
CC:	Julia Caprio
Subject:	**Tier 1A Data Validation - Level II Data Deliverables, Pace Analytical Laboratory Reports for Sample Delivery Groups (SDGs) L1278034, L1314832, L1343038, L1366715 and L1408450**

SITE: Nammo TTU Injection Pilot

INTRODUCTION

This report summarizes the findings of the Tier 1A data validation of thirteen groundwater samples including one groundwater sample for matrix spike/matrix spike duplicate (MS/MSD) analyses and three trip blanks, collected on 26 October 2020, 5 February 2021, 22 April 2021, 14 June 2021 and 23 September 2021, as part of the groundwater sampling event at the Nammo TTU Injection Pilot. The samples were submitted to Pace Analytical Laboratory, Mount Juliet, Tennessee and analyzed for the following tests:

- Volatile Organic Compounds (VOCs) by United States Environmental Protection Agency (US EPA) Method 8260B
- 1,4-Dioxane by US EPA Modified Method 8270C
- Dissolved Gases (Methane, Ethane, Ethene) by US EPA Standard Operating Procedure (SOP) RSKSOP-175
- Dissolved Iron and Manganese by US EPA Method 6010D
- Bromide by US EPA Method 9056A
- Sulfide by Standard Method (SM) 4500-S2 D
- Total Organic Carbon (TOC) by US EPA Method 9060A
- Anions by US EPA Method 300.0
- Perchlorate by USEPA Modified Method 314.0

EXECUTIVE SUMMARY

Overall, based on this Tier 1A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives, with the following exceptions.

The non-detect results for propene in samples TTU-11-59-20201026, TTU-11-73-20201026, TTU-19-59-20201026, TTU-19-73-20201026, TTU-20-59-20201026 and TTU-20-73-20201026 were R qualified as rejected due to less than 20% laboratory control sample (LCS) recovery.

The non-detect result for sulfide in sample TTU-20-73-20210923 was R qualified as rejected due to holding time exceedance.

The qualified data that were not rejected should be used within the limitations of the qualifications

The data were reviewed based on the USEPA National Functional Guidelines for Superfund Organic Methods Data Review, November 2020 (EPA 540-R-20-005), US EPA Contract Laboratory Program National Functional Guidelines for Superfund Inorganic Superfund Data Review, November 2020 (EPA 540-R-20-006), and the Draft Region 9 Superfund Data Evaluation/Validation Guidance, December 2001 (R9QA/006.1), as well as the pertinent method referenced by the laboratory reports and professional and technical judgment.

The following samples were validated at a Tier 1A level:

Laboratory ID	Client ID
L1278034-01	TTU-11-59-20201026
L1278034-02	TTU-11-73-20201026
L1278034-03	TTU-19-59-20201026
L1278034-04	TTU-19-73-20201026
L1278034-05	TTU-20-59-20201026
L1278034-06	TTU-20-73-20201026
L1278034-07	TRIP BLANK
L1314832-01	TTU-19-20210205
L1314832-01 MS	TTU-19-20210205 MS

Laboratory ID	Client ID
L1314832-01 MSD	TTU-19-20210205 MSD
L1314832-02	TTU-20-20210205
L1343038-01	TTU-20-20210422
L1366715-01	TTU-20-20210614
L1366715-02	TRIP BLANK
L1408450-01	TTU-20-73-20210923
L1408450-02	TRIP BLANK
L1408450-03	TTU-19-73-20210923
L1408450-04	TTU-11-73-20210923

The laboratory flagged the estimated concentrations greater than the method detection limit (MDL) and less than the reported detection limit (RDL) with “E4”. The data were changed to J in the electronic data deliverables (EDDs).

The following issues were noted on the chain of custodies (COCs):

L1408450: A sample collection date and time were not documented for the trip blank. The trip blank was logged by the laboratory with the sample collection date and time of 09/23/21 00:00.

L1408450: A blank sample ID was prefilled on the chain of custody. Sample L1408450-05 was not analyzed or reported by the laboratory.

L1278034: A sample collection date and time were not documented for the trip blank. The trip blank was logged by the laboratory with the sample collection date and time of 10/26/21 00:00.

L1278034 and L1314832: Incorrect error corrections were observed on the COCs, instead of the proper procedure of a single strike through, correction, and initials and date of person making the corrections.

L1314832: The third relinquishing signature, date and time were not documented.

L1314832: There was a discrepancy between the sample collection time on the COC and the sample collection time logged in the laboratory report for sample TTU-20-20210205. The sample collection time on the COC for sample TTU-20-20210205 was recorded as 14:30, and the sample collection time logged in the laboratory report for sample TTU-20-20210205 was 14:00.

L1366715: A sample collection time was not documented for the trip blank. The trip blank was logged by the laboratory with the sample collection time of 00:00.

1.0 VOLATILE ORGANIC COMPOUNDS

The samples were analyzed for VOCs per USEPA Method 8260B.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

⊗ Overall Assessment
✓ Holding Times
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
⊗ Laboratory Control Sample
✓ Surrogates
✓ Trip Blank
✓ Sensitivity

✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The VOC data reported in the laboratory reports are considered usable for supporting project objectives, with the following exception. The non-detect results for propene in samples TTU-11-59-20201026, TTU-11-73-20201026, TTU-19-59-20201026, TTU-19-73-20201026, TTU-20-59-20201026 and TTU-20-73-20201026 were R qualified as rejected due to less than 20% LCS recovery. The analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the sample sets is 99.4%.

The internal standard (ISTD) responses for the samples were reported in the level II reports. The ISTD responses were within the method specified acceptance criteria.

1.2 Holding Times

The holding time for the VOC analysis of a preserved water sample is 14 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Eight method blanks were reported (batches WG1691764, WG1693381, WG1569901, WG1569905, WG1570580, WG1747628, WG1749138 and WG1749293). VOCs were not detected in the method blanks above the MDLs, with the following exceptions.

L1408450: Carbon disulfide was detected in the method blank in batch WG1747628 at an estimated concentration greater than the MDL and less than the RDL. Since carbon disulfide was not detected in the associated sample, no qualifications were applied to the data.

L1408450: 1,2,3-Trichlorobenzene was detected in the method blank in batch WG1749138 at an estimated concentration greater than the MDL and less than the RDL. Since 1,2,3-trichlorobenzene was not detected in the associated sample, no qualifications were applied to the data.

1.4 Matrix Spike/Matrix Spike Duplicate

Batch MS/MSD pairs were reported. Since these were batch QC, the results did not impact the data and did not result in qualification of the data.

1.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Eight LCS/LCS duplicate (LCSD) pairs were reported. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria, with the following exceptions.

L1366715: The recoveries of acrolein in the LCS/LCSD pair in batch WG1691764 were high and outside the laboratory specified acceptance criteria. Since acrolein was not detected in the associated samples, no qualifications were applied to the data.

L1366715: The RPD results for acetone, hexacloro-1,3-butadiene, naphthalene and 1,2,3-trichlorobenzene in the LCS/LCSD pair in batch WG1691764 were high and outside the laboratory specified acceptance criteria. Since acetone, hexacloro-1,3-butadiene, naphthalene and 1,2,3-trichlorobenzene were not detected in the associated samples, no qualifications were applied to the data.

L1366715: The LCS recoveries of naphthalene and 1,2,3-trichlorobenzene in the LCS/LCSD pair in batch WG1691764 were low and outside the laboratory specified acceptance criteria. Therefore, the non-detect results for naphthalene and 1,2,3-trichlorobenzene in the associated samples were UJ qualified as estimated less than the MDLs.

L1366715: The RPD result for trichloroethene in the LCS/LCSD pair in batch WG1693381 was high and outside the laboratory specified acceptance criteria. Therefore, the trichloroethene concentration in the associated sample was J qualified as estimated.

L1278034: The RPD result for 1,2,3-tirchlorobenzene in the LCS/LCSD pair in batch WG1569905 was high and outside the laboratory specified acceptance criteria. Since 1,2,3-tirchlorobenzene was not detected in the associated sample, no qualifications were applied to the data.

L1278034: In batch WG1570580, the LCS result for propene was not detected (0% recovery), and the LCSD recovery of propene was low and outside the laboratory specified acceptance criteria. In addition, the RPD result for propene in the LCS/LCSD pair in batch WG1570580 was high and outside the laboratory specified acceptance criteria. Therefore, the non-detect results for propene in the associated samples were R qualified as rejected.

L1408450: The recoveries of acrolein and propene and the RPD result for chloroethane in the LCS/LCSD pair in batch WG1747628 were high and outside the laboratory specified acceptance criteria. Since acrolein, chloroethane and propene were not detected in the associated sample, no qualifications were applied to the data.

L1408450: The recoveries of naphthalene in the LCS/LCSD pair in batch WG1747628 were low and outside the laboratory specified acceptance criteria. In addition, the RPD result for naphthalene in the LCS/LCSD pair was high and outside the laboratory specified acceptance criteria. Therefore, the non-detect result for naphthalene in the associated sample was UJ qualified as estimated less than the MDL.

L1408450: The recoveries of hexachloro-1,3-butadiene in the LCS/LCSD pair in batch WG1749293 were high and outside the laboratory specified acceptance criteria. Since hexachloro-1,3-butadiene was not detected in the associated samples, no qualifications were applied to the data.

Sample	Analyte	Laboratory Result (µg/L)	Laboratory Flag	Validation Result (µg/L)	Validation Qualifier*	Reason Code**
TRIP BLANK	1,2,3-Trichlorobenzene	0.23	U;L2;R7	0.23	UJ	5
TRIP BLANK	Naphthalene	1.0	U;L2;R7	1.0	UJ	5
TTU-20-20210614	1,2,3-Trichlorobenzene	0.23	U;L2;R7	0.23	UJ	5
TTU-20-20210614	Naphthalene	1.0	U;L2;R7	1.0	UJ	5
TTU-20-20210614	Trichloroethene	11200	R7	11200	J	5
TRIP BLANK	Naphthalene	1.0	U;L2;R7	1.0	UJ	5

µg/L – microgram per liter
L2 – Laboratory flag indicating that the associated LCS recovery was below laboratory acceptance limits
R7 – Laboratory flag indicating that the LCS/LCSD RPD exceeded the laboratory acceptance limit
U – not detected at a concentration greater than or equal to the MDL
* Validation qualifiers are defined in Attachment 1 at the end of this report
**Reason codes are defined in Attachment 2 at the end of this report

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
TTU-11-59-20201026	Propene	0.187	U;L2;R7	0.187	R	5
TTU-11-73-20201026	Propene	0.187	U;L2;R7	0.187	R	5
TTU-19-59-20201026	Propene	0.936	U;L2;R7	0.936	R	5
TTU-19-73-20201026	Propene	0.936	U;L2;R7	0.936	R	5
TTU-20-59-20201026	Propene	0.187	U;L2;R7	0.187	R	5
TTU-20-73-20201026	Propene	0.187	U;L2;R7	0.187	R	5

mg/L – milligram per liter
L2 – Laboratory flag indicating that the associated LCS recovery was below laboratory acceptance limits
R7 – Laboratory flag indicating that the LCS/LCSD RPD exceeded the laboratory acceptance limit
U – not detected at a concentration greater than or equal to the MDL

1.6 Surrogates

Acceptable surrogate recoveries were reported for the sample analyses.

1.7 Trip Blank

Three trip blanks were submitted with the sample sets. VOCs were not detected in the trip blanks above the MDLs, with the following exception.

L1278034: Carbon disulfide was detected in the trip blank at an estimated concentration greater than the MDL and less than the RDL. Since carbon disulfide was not detected in the associated samples, no qualifications were applied to the data.

1.8 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to the dilutions analyzed.

1.9 Electronic Data Deliverables Review

Results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20%. No discrepancies were identified between the level II reports and the EDDs.

2.0 1,4-DIOXANE

The samples were analyzed for 1,4-dioxane by US EPA Modified Method 8270C.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

⊗ Overall Assessment
✓ Holding Times
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
⊗ Surrogates
✓ Sensitivity
✓ Electronic Data Deliverable Review

2.1 Overall Assessment

2.1.1 Completeness

The 1,4-dioxane data reported in the laboratory reports are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for analysis, for the sample sets is 100%.

2.1.2 Analysis Anomaly

L1366715: The 1,4-dioxane concentration in sample TTU-20-20210614 was flagged with "E1" to indicate the sample result exceeded the calibration range. Therefore, the 1,4-dioxane concentration in sample TTU-20-20210614 was J qualified as estimated, based on professional and technical judgment.

L1278034: The 1,4-dioxane concentrations in samples TTU-11-59-20201026, TTU-11-73-20201026, TTU-19-59-20201026, TTU-19-73-20201026, TTU-20-59-20201026 and TTU-20-73-20201026 were flagged with "E1" to indicate the sample results exceeded the calibration range. Therefore, the 1,4-dioxane concentrations in sample TTU-11-59-20201026, TTU-11-73-20201026, TTU-19-59-20201026, TTU-19-73-20201026, TTU-20-59-20201026 and TTU-20-73-20201026 were J qualified as estimated, based on professional and technical judgment.

L1408450: The 1,4-dioxane concentration in sample TTU-20-73-20210923 was flagged with "E1" to indicate the sample result exceeded the calibration range. Therefore, the 1,4-dioxane concentration in sample TTU-20-73-20210923 was J qualified as estimated, based on professional and technical judgment.

Sample	Analyte	Laboratory Result (µg/L)	Laboratory Flag	Validation Result (µg/L)	Validation Qualifier	Reason Code
TTU-20-73-20210923	1,4-Dioxane	841	E1	841	J	10
TTU-20-20210614	1,4-Dioxane	1450	E1	1450	J	10

µg/L - microgram per liter
E1 – laboratory flag indicating the concentration is estimated and the analyte exceeded the calibration range

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
TTU-11-59-20201026	1,4-Dioxane	0.358	E1	0.358	J	10
TTU-11-73-20201026	1,4-Dioxane	0.562	E1	0.562	J	10
TTU-19-59-20201026	1,4-Dioxane	0.915	E1	0.915	J	10

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
TTU-19-73-20201026	1,4-Dioxane	0.781	E1	0.781	J	10
TTU-20-59-20201026	1,4-Dioxane	0.567	E1	0.567	J	10
TTU-20-73-20201026	1,4-Dioxane	0.824	E1	0.824	J	10

mg/L - milligram per liter
E1 – laboratory flag indicating the concentration is estimated and the analyte exceeded the calibration range

2.2 Holding Times

The holding times for the 1,4-dioxane analysis of a water sample are 7 days from sample collection to sample preparation and 40 days from sample preparation to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four method blanks were reported (batches WG1689773, WG1746818, WG1748220 and WG1567073). 1,4-Dioxane was not detected in the method blanks above the MDL, with the following exception.

L1408450: 1,4-Dioxane was detected in the method blank in batch WG1746818 at an estimated concentration greater than the MDL and less than the RDL. Since 1,4-dioxane was detected in the associated samples at concentrations greater than the RDL, no qualifications were applied to the data, based on professional and technical judgment.

2.4 Matrix Spike/Matrix Spike Duplicate

One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS and three LCS/LCSD pairs were reported. The recovery and RPD results were within the laboratory specified acceptance criteria.

2.6 Surrogates

The surrogate recoveries were within the laboratory specified acceptance criteria, with the following exceptions.

L1408450: The recoveries of surrogate nitrobenzene-d5 in samples TTU-19-73-20210923 and TTU-11-73-20210923 were low and outside the laboratory specified acceptance criteria. Therefore, the 1,4-dioxane concentrations in samples TTU-19-73-20210923 and TTU-11-73-20210923 were J- qualified as estimated with low biases.

Sample	Analyte	Laboratory Result (µg/L)	Laboratory Flag	Validation Result (µg/L)	Validation Qualifier	Reason Code
TTU-19-73-20210923	1,4-Dioxane	70.4	NA	70.4	J-	6
TTU-11-73-20210923	1,4-Dioxane	6.95	NA	6.95	J-	6

µg/L - microgram per liter
NA-not applicable

2.7 Sensitivity

The samples were reported to the MDL. Elevated non-detect results were not reported.

2.8 Electronic Data Deliverables Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

3.0 DISSOLVED GASES

The samples were analyzed for dissolved gases (methane, ethane and ethene) per US EPA RSKSOP-175.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable or not applicable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine the impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

3.1 Overall Assessment

The dissolved gas data reported in the laboratory reports are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the sample sets is 100%.

3.2 Holding Times and Preservation

The holding time for the dissolved gas analyses of a preserved water sample is 14 days from collection to analysis. The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported (batches WG1690179, WG1568136 and WG1749792). Dissolved gases were not detected in the method blanks above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three LCS/LCSD pairs were reported. The recovery and RPD results were within the laboratory specified acceptance criteria.

3.6 Laboratory Duplicate

One sample set specific laboratory duplicate was reported, using sample TTU-11-59-20201026. The RPD results were within the laboratory specified acceptance criteria

Batch laboratory duplicates were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were not reported.

3.8 Electronic Data Deliverables Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

4.0 DISSOLVED IRON AND MANAGANESE

The samples were analyzed for dissolved iron and manganese by US EPA Method 6010D.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised over the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

4.1 Overall Assessment

The dissolved iron and manganese data reported in the laboratory reports are considered usable for supporting project objectives. The results are considered valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this sample sets is 100%.

4.2 Holding Time

The holding time for the dissolved iron and manganese analysis of a preserved water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

4.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported (batches WG1693421, WG1569016 and WG1748290). Dissolved iron and manganese were not detected in the method blanks above the MDLs.

4.4 Matrix Spike/Matrix Spike Duplicate

MS/MSD pairs were analyzed at the proper frequency for the number and types of samples analyzed (one pair per batch of 20 samples).

L1278034: One sample set specific MS/MSD pair was reported, using sample TTU-11-59-20201026. The recovery and RPD results were within the laboratory specified acceptance criteria.

Two batch MS/MSD pairs were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

4.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

4.6 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were not reported.

4.7 Electronic Data Deliverables Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

5.0 WET CHEMISTRY PARAMETERS

The samples were analyzed for perchlorate by USEPA modified Method 314.0, anions per EPA Method 300.0, bromide by US EPA Method 9056A, sulfide by SM 4500-S2 D and TOC by US EPA Method 9060A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

⊗ Overall Assessment
⊗ Holding Times
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample

- ✓ Laboratory Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

5.1 Overall Assessment

The perchlorate data reported in the laboratory reports are considered usable for supporting project objectives, with the following exception. The non-detect result for sulfide in sample TTU-20-73-20210923 was R qualified as rejected due to holding time exceedance. The analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the sample sets is 98.8%.

5.2 Holding Times

The holding times for a water sample are listed below. The holding times were met for the sample analyses, with the following exceptions.

Analysis	Holding Time
Anions (Bromide, Chloride, Fluoride and Sulfate) by US EPA Method 300.0	28 days from collection to analysis
Anions (Nitrite as N and Nitrate as N) by US EPA Method 300.0	48 hours from collection to analysis
Perchlorate by US EPA Method 314.0	28 days from collection to analysis
Bromide by US EPA Method 9056A	28 days from collection to analysis
Sulfide by SM 4500-S2 D	7 days from collection to analysis
Total Organic Carbon by US EPA Method 9060A	28 days from collection to analysis

The samples TTU-11-73-20210923, TTU-19-73-20210923 and TTU-20-73-20210923 were analyzed for sulfide outside the holding time requirement. Therefore, the sulfide concentrations in samples TTU-11-73-20210923 and TTU-19-73-20210923 were J qualified as estimated, and the non-detect result for sulfide in sample TTU-20-73-20210923 was R qualified as rejected.

Sample	Analyte	Laboratory Result (µg/L)	Laboratory Flag	Validation Result (µg/L)	Validation Qualifier	Reason Code
TTU-11-73-20210923	Sulfide	198	H1;L1	198	J	2
TTU-19-73-20210923	Sulfide	60.2	E4;H1;L1	60.2	J	2
TTU-20-73-20210923	Sulfide	32	U;H1;L1	32	R	2

µg/L - microgram per liter
H1 – laboratory flag indicating the sample analysis performed past holding time
E4 – laboratory flag indicating the concentration is estimated; greater than the MDL and less than the RDL
L1-laboratory flag indicating the LCS recovery was high and outside the laboratory specified acceptance criteria
U – not detected at a concentration greater than or equal to the MDL

5.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four method blanks for anions (batches WG1689545, WG1566084, WG1569530 and WG1745969). Two method blanks were reported for bromide (batches WG1662352 and WG1620227). Three method blanks were reported for perchlorate batches WG1690599, WG1571955 and WG1749056). Four method blanks were reported for sulfide (batches WG1692197, WG1570062, WG1570158 and WG1750234). Four method blanks were reported for TOC (batches WG1689112, WG1567576, WG1748430 and WG1748458). The wet chemistry parameters were not detected in the method blanks above the MDLs, with the following exceptions.

L1366715: TOC was detected in the method blank in batch WG1689112 at an estimated concentration greater than the MDL and less than the RDL. Since TOC was detected in the associated sample at a concentration greater than the RDL, no qualifications were applied to the data, based on professional and technical judgment.

L1278034: TOC was detected in the method blank in batch WG1567576 at an estimated concentration greater than the MDL and less than the RDL. Since TOC was detected in the associated samples at concentrations greater than the RDL, no qualifications were applied to the data, based on professional and technical judgment.

L1408450: TOC was detected in the method blanks in batches WG1748430 and WG1748458 at estimated concentrations greater than the MDLs and less than the RDLs. Since TOC was detected in the associated samples at concentrations greater than the RDL, no qualifications were applied to the data, based on professional and technical judgment.

5.4 Matrix Spike/Matrix Spike Duplicate

L1314832: One sample set specific MS/MSD pair was reported for bromide using sample TTU-19-20210205. The recovery and RPD results were within the laboratory specified acceptance criteria.

L1278034: One sample set specific MS/MSD pair was reported for TOC using sample TTU-20-59-20201026. The recovery and RPD results were within the laboratory specified acceptance criteria.

Batch MS/MSD pairs for anion, TOC, perchlorate, bromide and sulfide and batch MSs for perchlorate, bromide and anions were also reported. Since these were batch QC, the results did not impact the data and did not result in qualification of the data.

5.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). An LCS was reported for each analytical batch per method. The recoveries were within the laboratory specified acceptance criteria, with the following exception.

L1408450: The recovery of sulfide in the LCS in batch WG1750234 was high and outside the laboratory specified acceptance criteria. Therefore, the sulfide concentrations in the associated samples were J+ qualified as estimated with high biases.

Sample	Analyte	Laboratory Result (µg/L)	Laboratory Flag	Validation Result (µg/L)	Validation Qualifier	Reason Code
TTU-11-73-20210923	Sulfide	198	H1;L1	198	J+	5
TTU-19-73-20210923	Sulfide	60.2	E4;H1;L1	60.2	J+	5

µg/L - microgram per liter
H1 – laboratory flag indicating the sample analysis performed past holding time
E4 – laboratory flag indicating the concentration is estimated; greater than the MDL and less than the RDL
L1-laboratory flag indicating the LCS recovery was high and outside the laboratory specified acceptance criteria

5.6 Laboratory Duplicate

L1366715: One sample set specific laboratory duplicate was reported for sulfide, using sample TTU-20-20210614. The RPD result was within the laboratory specified acceptance criteria.

L1314832: One sample set specific laboratory duplicate was reported for bromide, using sample TTU-19-20210205. The RPD result was high and outside the laboratory specified acceptance criteria. Since the absolute difference between the sample result and laboratory duplicate result was less than the RDL, no qualifications were applied to the data.

L1278034: One sample set specific laboratory duplicate was reported for anions, using sample TTU-20-59-20201026. The RPD results were within the laboratory specified acceptance criteria.

L1278034: One sample set specific laboratory duplicate was reported for TOC, using sample TTU-19-73-20201026. The RPD result was within the laboratory specified acceptance criteria.

L1408450: Sample set specific laboratory duplicates were reported for perchlorate and sulfide, using sample TTU-20-73-20210923. The RPD results were within the laboratory specified acceptance criteria.

Batch laboratory duplicates for anions, bromide, TOC, sulfide and perchlorate were also reported. Since these were batch QC, the results did not impact the data and did not result in qualification of the data.

5.7 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to the dilutions analyzed.

5.8 Electronic Data Deliverables Review

Results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20%. No discrepancies were identified between the level II reports and the EDDs.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U — The analyte was analyzed for, but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to "not detected at or above the reported result".

J — The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ — The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

J- — The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

UJ — The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R — The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Extraction or analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS recovery outside limits or RPD outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed: no validation qualification required

LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample duplicate
RPD - Relative percent difference

ATTACHMENT 4

FIELD NOTES

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TTU Groundwater Monitoring Checklist

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	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-1	55-914440	6/6/2012	75	30 - 70	1312.73	4" PVC	33 29'59.1382"	-111 42'56.2704"	50		Date/Time: 7-29-21 1649 DTW: 33.03

	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance / Odor:
Field Parameters	TTU-1-50-20210729	7-29-21 1713	26.3	1006	2.70	7.24	135.3	Clear

Checklist	Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: Yes / (No) Size of sleeve: N/A Samples Packed: (Yes) / No

Notes

Please make a note of the well condition and any issues that arose during sampling.

Pump start @ 1649

Left running

1655	27.9	1051	3.28	7.21	125.3	
1659	27.1	1019	3.78	7.18	130.1	
~~1703~~	~~27.1~~	1012	3.40	7.21	130.8	
1706	26.5	1007	2.70	7.23	130.8	

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-2	N/A	10/17/2013	185	49.4 - 179.6	1314.44	4" PVC	33 29'55.8472"	-111 42'57.8480"	114.5		Date/Time: 7-29-21 1612 DTW: 63.40

	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance / Odor:
Field Parameters	TTU-2-114-20210729 +MS/MSD	7-29-21 1635	26.8	3378	1.52	6.92	122.6	Clear

Checklist	Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: Yes / (No) Size of sleeve: N/A Samples Packed: (Yes) / No

Notes

Please make a note of the well condition and any issues that arose during sampling.

Pump start @ 1612

~~Pump off @ RA~~

Pump left running

1618:	28.8	3409	1.77	6.86	111.1
1621	26.9	3379	2.47	6.82	109.0
1625	26.7	3369	1.95	6.83	113.8
1630	26.3	3365	1.84	6.89	115.7

~~26.8~~

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TTU Groundwater Monitoring Checklist

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	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-3	N/A	10/18/2013	143.6	78.1 - 138.1	1308.03	4" PVC	33 29'57.9845"	-111 43'00.9143"	108		Date/Time: 7-30-21 1233 DTW: 87.78

	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance / Odor:
Field Parameters	TTU-3-108-20210730	7-30-21 1238	27.4	1517	7.69	6.92	139.4	Clear

Checklist	Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: (Yes) / No Size of sleeve: 2-1L	Samples Packed (Yes) / No
Notes	Please make a note of the well condition and any issues that arose during sampling.				

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-4	N/A	10/25/2013	104.9	39.5 - 99.5	1305.12	4" PVC	33 30'01.6455"	-111 42'59.0898"	57		Date/Time: 7-30-21 1158 DTW: 52.18

	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance / Odor:
Field Parameters	TTU-4-57-20210730 +Dup	7-30-21 1205	28.1	1997	1.73	7.48	100.4	Clear

Checklist	Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: (Yes) / No Size of sleeve: 2-1L	Samples Packed (Yes) / No
Notes	Please make a note of the well condition and any issues that arose during sampling. CHECK HYDRASLEEVE DEPTH:_____				

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TTU Groundwater Monitoring Checklist

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	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-5	N/A	9/20/2014	169.5	59.5 - 164.5	1314.93	4" PVC	33 29'52.4820"	-111 42'58.3994"	110		Date/Time: 7-29-21 0925 DTW: 81.79

	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance / Odor:
Field Parameters	TTU-5-110-20210729	7-29-21 1030	~~27.5~~ 28.5	~~1249~~ 635	3.12	7.88 7.32	~~109.3~~ 125.5	Clear

Checklist	Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: (Yes) / No Size of sleeve: 2-1L	Samples Packed (Yes) / No
Notes	Please make a note of the well condition and any issues that arose during sampling.				Second set of readings taken. Initial DO too low compared to previous readings.

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-6	N/A	10/7/2014	180	110 - 175	1300.84	4" PVC	33 29'57.5698"	-111 43'04.7900"	143		Date/Time: 7-30-21 1350 DTW: 123.02

	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance / Odor:
Field Parameters	TTU-6-143-20210730	7-30-21 1355	26.2	2844	1.77	7.14	111.7	Clear

Checklist	Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: (Yes) / No Size of sleeve: 2-1L	Samples Packed : (Yes) / No
Notes	Please make a note of the well condition and any issues that arose during sampling.				

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TTU Groundwater Monitoring Checklist

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	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-7	N/A	10/8/2014	410	Open 280 - 410	1301.84	8.5" Steel	33 29'57.8355"	-111 43'05.1771"	345		Date/Time: 7-30-21 1327 DTW: 124.07

	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:
Field Parameters	TTU-7-345-2021 0730	7-30-21 1337	28.9	3591	0.61	6.51 ~~6.27~~ RA	-42.5	Clear top half, slight yellow color at top ¼. Floating blades sed bottom.

Checklist	Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: (Yes) / No Size of sleeve: 2-1L	Samples Packed: (Yes) / No
Notes	Please make a note of the well condition and any issues that arose during sampling.				

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-8	N/A	4/18/2016	190	135 - 185	1310.23	4" PVC	33 30'01.9086"	-111 43'05.3138"	164		Date/Time: 7-30-21 1137 DTW: 145.86

	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:
Field Parameters	TTU-8-164-2021 0730	7-30-21 1145	27.4	3173	2.06	6.93	-27.0	Clear, cloudy gray bottom ¼.

Checklist	Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: (Yes) / No Size of sleeve: 2-1L	Samples Packed: (Yes) / No
Notes	Please make a note of the well condition and any issues that arose during sampling.				

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	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-9A	N/A	6/16/2016	104	24 - 99	1318.04	4" PVC	33 30'04.6089"	-111 42'51.1919"	61		Date/Time: 7-29-21 1428 DTW: 27.06

	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:
Field Parameters	TTU-9A-61-20210729	7-29-21 1432	28.2	1582	7.04	7.64	102.9	Clear

Checklist	Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: (Yes) / No Size of sleeve: 2-1L	Samples Packed: (Yes) / No
Notes	Please make a note of the well condition and any issues that arose during sampling.				

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-10	N/A	4/18/2016	185	115 - 180	1302.42	4" PVC	33 29'54.5995"	-111 43'07.9037"	147		Date/Time: 7-30-21 1040 DTW: 146.37

	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:
Field Parameters	TTU-10-~~147~~ 152 -2021 0806	8-6-21 1245	28.6	1486	6.53	7.29	153.4	Cloudy, 4/5 Full

Checklist	Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: (Yes) / No Size of sleeve: 2-1L	Samples Packed (Yes) / No
Notes	Please make a note of the well condition and any issues that arose during sampling. Added 5-feet of tether to the top of line. Very little water retrieved due to high sleeve/low water levels. Will return to collect when back for PF-2.				

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	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-11	55-918534	9/11/2015	94	24-89	1339.2	4" PVC	33 29'55.28"	-111 42'51.47"	56.6		Date/Time: DTW:
Field Parameters	Sample ID:		Date and Time Sampled:		Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)		Appearance:	
	Not Sampled											
Checklist	~~Depth to Water: Yes / No~~		~~Transducer Downloaded: Yes / No~~		~~Sampled: Perchlorate / VOCs / 1,4-Dioxane~~			~~Hydraleeve Reset: Yes / No~~ ~~Size of sleeve:~~				~~Samples Packed : Yes / No~~
Notes	Please make a note of the well condition and any issues that arose during sampling.											

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-12	N/A	7/31/2018	180	Open to 180	1312.21	5"	33°29'56.0275"	-111°42'58.3788"	82		Date/Time: 7-29-21 1524 DTW: 72.75
Field Parameters	Sample ID:		Date and Time Sampled:		Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)		Appearance:	
	TTU-12-82-2021 0729		7-29-21 1527		27.7	3194	5.88	6.84	145.0		Clear	
Checklist	Depth to Water: Yes / No		~~Transducer Downloaded: Yes / No~~		Sampled: Perchlorate / VOCs / 1,4-Dioxane			Hydraleeve Reset: Yes / No	Size of sleeve: 2-1L			Samples Packed : Yes / No
Notes	Please make a note of the well condition and any issues that arose during sampling. ~~CHECK HYDRASLEEVE DEPTH:~~											

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TTU Groundwater Monitoring Checklist

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	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-13	N/A	7/20/18	80	Open to 80	1310.79	5"	33 29'58.9926"	-111 42'56.8497"	51		Date/Time: 7-29-21 1450 DTW: 38.45

Field Parameters	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:
	TTU-13-51-20210729	7-29-21 1455	27.8	1329	3.41	7.12	110.2	Clear

Checklist				
	Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: (Yes) / No Size of sleeve: 2-1L Samples Packed: (Yes) / No

Notes	
	Please make a note of the well condition and any issues that arose during sampling. ~~CHECK HYDRASLEEVE DEPTH:~~

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-14	N/A	7/19/2018	100	Open to 100	1316.8	5"	33 29'57.1962"	-111 42'57.4555"	69		Date/Time: 7-29-21 1505 DTW: 60.23

Field Parameters	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:
	TTU-14-69-20210729	7-29-21 1510	28.2	2938	3.85	6.88	135.4	Clear

Checklist				
	Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: (Yes) / No Size of sleeve: 2-1L Samples Packed: (Yes) / No

Notes	
	Please make a note of the well condition and any issues that arose during sampling. ~~CHECK HYDRASLEEVE DEPTH:~~

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TTU Groundwater Monitoring Checklist

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	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-15	55-228014	1/25/2018	100	OPEN	1350.85				75		Date/Time: 7-29-21 1321 DTW: 38.60

Field Parameters	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:
	TTU-15-75-2021 0729	7-29-21 1325	28.5	2108	1.10	7.22	-98.7	Clear, black spots on outside of bag.

Checklist				
	Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: (Yes) / No Size of sleeve: 2-1L	Samples Packed: (Yes) / No

Notes	
	Please make a note of the well condition and any issues that arose during sampling.

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-16	55-231730	1/23/2020	96.6'	Open	1338.554	8"	33°29'56.18415"	-111°42'49.59235"	80		Date/Time: 1340 7-29-21 DTW: 28.87

Field Parameters	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:
	TTU-16-80-2021 0729 TTU-16-80-20210729-Dup	7-29-21 1345	29.5	9462	0.81	6.28	112.7	Clear, slight yellow green color, odor

Checklist				
	Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: (Yes) / No Size of sleeve: 2-1L	Samples Packed: (Yes) / No

Notes	
	Please make a note of the well condition and any issues that arose during sampling.

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TTU Groundwater Monitoring Checklist

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	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-17	55-231735	1/22/2020	102*	Open	1347.489	8"	33°29'58.61092"	-111°42'45.68575"	80		Date/Time: 7-29-21 1255 DTW: 44.11

Field Parameters	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:
	TTU-17-80-20210729	7-29-21 1300	28.8	947	1.13	7.16	-98.5	Clear, floating black sed., odor

Checklist				
Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: (Yes) / No Size of sleeve: 2-1L	Samples Packed (Yes) / No

Notes
Please make a note of the well condition and any issues that arose during sampling.

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-18	55-231737	1/21/2020	104.5*	Open	1320.248	8"	33°29'47.20278"	-111°42'58.10223"	none	Dry	Date/Time: 7-29-21 0915 DTW: Dry

Field Parameters	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:
	TTU-18- NR							

Checklist				
Depth to Water: Yes / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: Yes / No Size of sleeve: _____	Samples Packed : Yes / No

Notes
Please make a note of the well condition and any issues that arose during sampling.

SP0101GW

TTU Groundwater Monitoring Checklist

Geosyntec consultants

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-19	55-232969	9/24/2020	95	25-90	1336.81	4"	33 29' 55.25498"	-111 42' 51.49762"			Date/Time: DTW:
Field Parameters	Sample ID:		Date and Time Sampled:		Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:		
	Not Sampled											
Checklist	Depth to Water: Yes / No	~~Transducer Downloaded: Yes / No~~			Sampled: On a Separate Sample Plan			Hydraleeve Reset: Yes / No Size of sleeve: _____				Samples Packed : Yes / No
Notes	Please make a note of the well condition and any issues that arose during sampling.											

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-20	55-232968	9/24/2020	95	25-90	1336.9	4"	33 29' 55.17373"	-111 42' 51.57575			Date/Time: DTW:
Field Parameters	Sample ID:		Date and Time Sampled:		Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:		
	Not Sampled											
Checklist	Depth to Water: Yes / No	~~Transducer Downloaded: Yes / No~~			Sampled: On a Separate Sample Plan			Hydraleeve Reset: Yes / No Size of sleeve: _____				Samples Packed : Yes / No
Notes	Please make a note of the well condition and any issues that arose during sampling.											

SP0101GW

TTU Groundwater Monitoring Checklist

Geosyntec consultants

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-EX-1	55-231733	1/29/2020	109*	Open	1321.694	8"	33°29'58.42103"	-111°42'52.55168"	69		Date/Time: 1235 7-29-21 DTW: 33.01

Field Parameters	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:
	TTU-EX-1-69-20210729	1240 7-29-21	28.1	2692	4.21	7.00	171.3	Clear top, Cloudy bottom

Checklist				
	Depth to Water: Yes / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: Yes / No Size of sleeve: 2-1L	Samples Packed : Yes / No

Notes
Please make a note of the well condition and any issues that arose during sampling.

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-EX-2	55-231734	1/28/2020	110*	Open	1316.401	8"	33°29'57.60791"	-111°42'53.78896"	74		Date/Time: 1148 7-29-21 DTW: 39.97

Field Parameters	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:
	TTU-EX-2-74-20210729	7-29-21 1152	27.4	2361	1.04	6.86	152.8	Light tan color throughout bottom 2/3.

Checklist				
	Depth to Water: Yes / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: Yes / No Size of sleeve: 2-1L	Samples Packed : Yes / No

Notes
Please make a note of the well condition and any issues that arose during sampling.

SP0101GW

TTU Groundwater Monitoring Checklist

Geosyntec consultants

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-EX-3	55-231731	1/24/2020	111*	Open	1316.85	8"	33°29'56.29009"	-111°42'54.11922"	76		Date/Time: 1129 7-29-21 DTW: 44.41

Field Parameters	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:
	TTU-EX-3-76-2021 0729	7-29-21 1135	27.6	5314	~~0.00~~ 1.66	6.55	157.4	Clear, 1" of sed. at bottom

Checklist				
Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: (Yes) / No Size of sleeve: 2-1L	Samples Packed (Yes) / No

Notes
Please make a note of the well condition and any issues that arose during sampling.

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-EX-4	55-231732	1/25/2020	112*	Open	1319.958	8"	33°29'55.46297"	-111°42'54.38840"	77		Date/Time: 1114 7-29-21 DTW: 47.15

Field Parameters	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:
	TTU-EX-4-77-2021 0729	7-29-21 1119	27.5	1944	1.17	7.03	132.9	Clear

Checklist				
Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: (Yes) / No Size of sleeve: 2-1L	Samples Packed (Yes) / No

Notes
Please make a note of the well condition and any issues that arose during sampling.

SP0101GW

TTU Groundwater Monitoring Checklist

Geosyntec consultants

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	TTU-EX-5	55-231736	1/24/2020	112.4*	Open	1319.499	8"	33°29'54.67649"	-111°42'54.62111"	80		Date/Time: 1048 7-29-21 DTW: 44.32

Field Parameters	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	
	TTU-EX-5-80-20210729	7-29-21 1055	27.5	1076	1.45	7.18	11.3	Clear top, 10" of cloudy silt at bottom

Checklist				
	Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate / VOCs / 1,4-Dioxane	Hydraleeve Reset: (Yes) / No Size of sleeve: 2-1L	Samples Packed : (Yes) / No

Notes: Please make a note of the well condition and any issues that arose during sampling.

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	PF-1	N/A				1295.99		33 29'56.5958"	-111 43'09.7483"	159.7		Date/Time: 8-6-21 1252 DTW: 14352

Field Parameters	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:
	PF-1-159 NA							

Checklist				
	Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate (6850)	Hydraleeve Reset: Yes (No) Size of sleeve: N/A	Samples Packed : Yes (No)

Notes: Please make a note of the well condition and any issues that arose during sampling.

SP0101GW

TTU Groundwater Monitoring Checklist

Geosyntec consultants

	Well Name	ADWR#	Date Completed	Total Depth (FT BGS)	Screened Interval (FT BGS)	Casing Elevation (FT MSL)	Casing Material/Diameter	Latitude	Longitude	Sample Depth	Previous DTW:	Current DTW:
Well Information	PF-2	N/A				1296.35		33 29'56.6487"	-111 43'09.9629"	400		Date/Time: 8-6-21 1256 DTW: 143.62

Field Parameters	Sample ID:	Date and Time Sampled:	Temp (°C)	Spec Cond (µS/cm)	DO (mg/l)	pH (S.U.)	ORP (mV)	Appearance:
	PF-2-400-20210806	8-6-21 1327	25.3	1214	5.27	7.46	138.6	Clear

Checklist			
Depth to Water: (Yes) / No	~~Transducer Downloaded: Yes / No~~	Sampled: Perchlorate (6850)-TA 1,4 + VOCs - Pace	Hydraleeve Reset: Yes / (No) Size of sleeve: N/A	Samples Packed (Yes) / No

Notes: Please make a note of the well condition and any issues that arose during sampling.
Pump start @ 1257

1307 -	26.4	1219	5.81	7.38	138.4 Clear
1310 -	25.5	1210	5.88	7.32	137.9 Clear
1313 -	25.1	1208	6.10	7.36	1359 Clear
1316 -	25.3	1212	5.73	7.38	134.9 Clear
~~1327~~					

TTU MONITORING WELL NETWORK
MONTHLY GROUNDWATER MEASUREMENTS

WELL ID	NORTHING	EASTING	TOC ELEVATION (feet AMSL)	DATE	DEPTH TO WATER (FT TOC)	NOTES
TTU-1	909420.734	761281.203	1312.734	8-24-21 1132	22.85	Not pumping, Tank is full
TTU-2	909087.852	761148.265	1314.442	8-24-21 1123	54.50	Not pumping, Tank is full
TTU-3	909303.363	760888.204	1308.033	8-24-21 1220	82.74	
TTU-4	909673.68	761041.975	1305.124	8-24-21 1213	51.46	
TTU-5	908747.636	761102.227	1314.93	8-24-21 1113	79.94	
TTU-6	909260.820	760560.096	1300.84	8-24-21 1224	123.71	
TTU-7	909287.611	760527.269	1301.84	8-24-21 1227	124.54	
TTU-8	909699.266	760514.908	1310.23	8-24-21 1217	146.19	
TTU-9A	909974.49	761710.151	1318.042	8-24-21 1139	25.70	
TTU-10	908960.114	760297.013	1302.42	8-24-21 1242	147.39	
TTU-11	909029.758	761706.47	1339.198	8-24-21 0954	43.03	Sounder came up with sludge Not pumping, pump pulled
TTU-12	909105.99	761103.28	1312.21	8-24-21 1125	69.43	
TTU-13	909405.92	761232.18	1310.79	8-24-21 1135	22.31	
TTU-14	909224.26	761181.23	1316.8	8-24-21 1128	46.68	
TTU-15	909185.1	762065.91	1350.85	8-24-21 1037	39.06	
TTU-16	909124.98	761848.851	1338.554	8-24-21 1041	22.66	
TTU-17	909370.903	762179.168	1347.489	8-24-21 1047	38.56	
TTU-18	908215.829	761130.011	1320.25	8-24-21 1109	Dry	N 150' to TD
TTU-19	909030.75	761687.70	1336.81	8-24-21 1005	38.25	Sounder came up with sludge on it.
TTU-20	909022.53	761681.99	1336.9	8-24-21 1013	39.98	
TTU-EX-1	909350.574	761597.823	1321.694	8-24-21 1052	12.24	
TTU-EX-2	909268.187	761493.214	1316.401	8-24-21 1056	18.11	
TTU-EX-3	909134.941	761465.507	1316.85	8-24-21 1059	38.31	
TTU-EX-4	909051.298	761442.876	1319.958	8-24-21 1102	46.99	
TTU-EX-5	908971.77	761423.325	1319.499	8-24-21 1105	44.14	
PF-1	909161.578	760140.434	1295.985	8-24-21 1235	144.11	
PF-2	909166.89	760122.25	1296.348	8-24-21 1238	144.19	

TTU MONITORING WELL NETWORK
MONTHLY GROUNDWATER MEASUREMENTS

WELL ID	NORTHING	EASTING	TOC ELEVATION (feet AMSL)	DATE	DEPTH TO WATER (FT TOC)	NOTES
TTU-1	909420.734	761281.203	1312.734	0956 9-23-21	29.54	Not pumping, Tank is full
TTU-2	909087.852	761148.265	1314.442	0944 9-23-21	54.33	Not pumping, Tank is full
TTU-3	909303.363	760888.204	1308.033	0846 9-23-21	85.03	
TTU-4	909673.68	761041.975	1305.124	0837 9-23-21	50.68	
TTU-5	908747.636	761102.227	1314.93	0938 9-23-21	70.90	
TTU-6	909260.820	760560.096	1300.84	0850 9-23-21	119.84	
TTU-7	909287.611	760527.269	1301.84	0853 9-23-21	125.15	
TTU-8	909699.266	760514.908	1310.23	0842 9-23-21	145.70	
TTU-9A	909974.49	761710.151	1318.042	1005 9-23-21	25.48	
TTU-10	908960.114	760297.013	1302.42	0913 9-23-21	148.80	
TTU-11	909029.758	761706.47	1339.198	1100 9-23-21	37.64	Not pumping, pump pulled
TTU-12	909105.99	761103.28	1312.21	0948 9-23-21	65.58	
TTU-13	909405.92	761232.18	1310.79	0959 9-23-21	30.19	
TTU-14	909224.26	761181.23	1316.8	0951 9-23-21	50.91	
TTU-15	909185.1	762065.91	1350.85	1035 9-23-21	37.34	
TTU-16	909124.98	761848.851	1338.554	1039 9-23-21	16.27	
TTU-17	909370.903	762179.168	1347.489	1029 9-23-21	27.88	
TTU-18	908215.829	761130.011	1320.25	0935 9-23-21	140.19	
TTU-19	909030.75	761687.70	1336.81	1053 9-23-21	30.40	
TTU-20	909022.53	761681.99	1336.9	1046 9-23-21	31.29	
TTU-EX-1	909350.574	761597.823	1321.694	1025 9-23-21	14.29	
TTU-EX-2	909268.187	761493.214	1316.401	1022 9-23-21	17.91	
TTU-EX-3	909134.941	761465.507	1316.85	1019 9-23-21	27.65	
TTU-EX-4	909051.298	761442.876	1319.958	1016 9-23-21	44.60	
TTU-EX-5	908971.77	761423.325	1319.499	1014 9-23-21	43.51	
PF-1	909161.578	760140.434	1295.985	0907 9-23-21	146.60	
PF-2	909166.89	760122.25	1296.348	0909 9-23-21	146.68	

ATTACHMENT 5

LABORATORY ANALYTICAL REPORTS

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-168580-1
Client Project/Site: NDS TTU Sampling

For:
Geosyntec Consultants, Inc.
11811 N Tatum Blvd
Ste P186
Phoenix, Arizona 85028

Attn: Fabrizio Mascioni

Rachel F. Sester

Authorized for release by:
8/17/2021 8:04:36 PM

Rachel Sester, Project Manager I
(602)659-7615
Rachel.Sester@Eurofinset.com

Table of Contents

Definitions/Glossary

Client: Geosyntec Consultants, Inc.
Project/Site: NDS TTU Sampling

Job ID: 550-168580-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Geosyntec Consultants, Inc.
Project/Site: NDS TTU Sampling

Job ID: 550-168580-1

Job ID: 550-168580-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-168580-1

Comments
No additional comments.

Receipt
The samples were received on 8/6/2021 4:07 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.3º C.

LCMS
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Geosyntec Consultants, Inc.
Project/Site: NDS TTU Sampling

Job ID: 550-168580-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-168580-1	PF-2-400-20210806	Water	08/06/21 13:27	08/06/21 16:07
550-168580-2	PF-2-400-20210806-DUP	Water	08/06/21 13:27	08/06/21 16:07

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: NDS TTU Sampling

Job ID: 550-168580-1

Client Sample ID: PF-2-400-20210806 — Lab Sample ID: 550-168580-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perchlorate	0.75		0.50		ug/L	1		6850	Total/NA

Client Sample ID: PF-2-400-20210806-DUP — Lab Sample ID: 550-168580-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perchlorate	0.56		0.50		ug/L	1		6850	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: NDS TTU Sampling

Job ID: 550-168580-1

Client Sample ID: PF-2-400-20210806

Lab Sample ID: 550-168580-1

Date Collected: 08/06/21 13:27

Matrix: Water

Date Received: 08/06/21 16:07

Method: 6850 - Perchlorate by LC/MS or LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	0.75		0.50		ug/L		08/09/21 20:03	08/11/21 19:18	1

Client Sample ID: PF-2-400-20210806-DUP

Lab Sample ID: 550-168580-2

Date Collected: 08/06/21 13:27

Matrix: Water

Date Received: 08/06/21 16:07

Method: 6850 - Perchlorate by LC/MS or LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	0.56		0.50		ug/L		08/09/21 20:03	08/11/21 20:02	1

Client: Geosyntec Consultants, Inc.
Project/Site: NDS TTU Sampling

Job ID: 550-168580-1

Method: 6850 - Perchlorate by LC/MS or LC/MS/MS

Lab Sample ID: MB 320-514718/1-A
Matrix: Water
Analysis Batch: 515437

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 514718

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		0.50		ug/L		08/09/21 20:03	08/11/21 17:53	1

Lab Sample ID: LCS 320-514718/2-A
Matrix: Water
Analysis Batch: 515437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 514718

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Perchlorate			5.00	5.08		ug/L		102	80 - 120		

Lab Sample ID: 550-168580-1 MS
Matrix: Water
Analysis Batch: 515437

Client Sample ID: PF-2-400-20210806
Prep Type: Total/NA
Prep Batch: 514718

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Perchlorate	0.75		5.00	5.76		ug/L		100	80 - 120		

Lab Sample ID: 550-168580-1 MSD
Matrix: Water
Analysis Batch: 515437

Client Sample ID: PF-2-400-20210806
Prep Type: Total/NA
Prep Batch: 514718

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perchlorate	0.75		5.00	6.06		ug/L		106	80 - 120	5	15

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: NDS TTU Sampling

Job ID: 550-168580-1

LCMS

Prep Batch: 514718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-168580-1	PF-2-400-20210806	Total/NA	Water	Filtration	
550-168580-2	PF-2-400-20210806-DUP	Total/NA	Water	Filtration	
MB 320-514718/1-A	Method Blank	Total/NA	Water	Filtration	
LCS 320-514718/2-A	Lab Control Sample	Total/NA	Water	Filtration	
550-168580-1 MS	PF-2-400-20210806	Total/NA	Water	Filtration	
550-168580-1 MSD	PF-2-400-20210806	Total/NA	Water	Filtration	

Analysis Batch: 515437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-168580-1	PF-2-400-20210806	Total/NA	Water	6850	514718
550-168580-2	PF-2-400-20210806-DUP	Total/NA	Water	6850	514718
MB 320-514718/1-A	Method Blank	Total/NA	Water	6850	514718
LCS 320-514718/2-A	Lab Control Sample	Total/NA	Water	6850	514718
550-168580-1 MS	PF-2-400-20210806	Total/NA	Water	6850	514718
550-168580-1 MSD	PF-2-400-20210806	Total/NA	Water	6850	514718

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: NDS TTU Sampling

Job ID: 550-168580-1

Client Sample ID: PF-2-400-20210806

Lab Sample ID: 550-168580-1

Date Collected: 08/06/21 13:27

Matrix: Water

Date Received: 08/06/21 16:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filtration			514718	08/09/21 20:03	JER	TAL SAC
Total/NA	Analysis	6850		1	515437	08/11/21 19:18	MTH	TAL SAC

Client Sample ID: PF-2-400-20210806-DUP

Lab Sample ID: 550-168580-2

Date Collected: 08/06/21 13:27

Matrix: Water

Date Received: 08/06/21 16:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filtration			514718	08/09/21 20:03	JER	TAL SAC
Total/NA	Analysis	6850		1	515437	08/11/21 20:02	MTH	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Geosyntec Consultants, Inc. Job ID: 550-168580-1
Project/Site: NDS TTU Sampling

Laboratory: Eurofins TestAmerica, Sacramento

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-24
ANAB	Dept. of Defense ELAP	L2468	01-20-24
ANAB	Dept. of Energy	L2468.01	01-20-24
ANAB	ISO/IEC 17025	L2468	01-20-24
Arizona	State	AZ0708	08-11-21
California	State	2897	01-31-22
Colorado	State	CA0004	08-31-21
Florida	NELAP	E87570	06-30-22
Georgia	State	4040	01-29-22
Hawaii	State	<cert No.>	01-29-22
Illinois	NELAP	200060	03-18-22
Kansas	NELAP	E-10375	10-31-21
Louisiana	NELAP	01944	06-30-22
Maine	State	CA00004	04-14-22
Michigan	State	9947	01-29-22
Nevada	State	CA00044	08-31-22
New Hampshire	NELAP	2997	04-18-22
New Jersey	NELAP	CA005	06-30-22
New York	NELAP	11666	04-01-22
Ohio	State	41252	01-29-22
Oregon	NELAP	4040	01-30-23
Texas	NELAP	T104704399-19-13	05-31-22
US Fish & Wildlife	US Federal Programs	58448	07-31-22
Utah	NELAP	CA000442021-12	03-01-22
Virginia	NELAP	460278	03-14-22
Washington	State	C581	05-05-22
West Virginia (DW)	State	9930C	12-31-21
Wisconsin	State	998204680	08-31-21
Wyoming	State Program	8TMS-L	01-28-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Geosyntec Consultants, Inc.
Project/Site: NDS TTU Sampling

Job ID: 550-168580-1

Method	Method Description	Protocol	Laboratory
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC
Filtration	Sample Filtration	None	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

None = None

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Chain of Custody Record

572419 eurofins | Environment Testing TestAmerica

8/17/2021

Address: _____

168580

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Fabrizio Mascioni	Site Contact:	Date:	COC No:
Company Name: Geosyntec Consultants	Tel/Email: FMascioni@geosyntec.com	Lab Contact:	Carrier:	1 of 1 COCs
Address: 11811 N Tatum Blvd P-186	Analysis Turnaround Time			Sampler: Ryan Ayala
City/State/Zip: Phoenix, AZ 85028	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 602-513-5830	TAT if different from Below _____			Walk-in Client:
Fax: N/A	☒ 2 weeks			Lab Sampling:
Project Name: WDS JTU Sampling	☐ 1 week			
Site:	☐ 2 days			Job / SDG No.:
P O # SP01016W21102	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	6850 Perchlorate	Sample Specific Notes:
PF-2-400-20210806	8-6-21	1327	Grab	GW	2	Y		X	-01
PF-2-400-20210806-Dup	8-6-21	1327	Grab	GW	2	Y		X	-02

550-168580 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

0.3°C cdo

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

	Company	Date/Time		Company	Date/Time
Relinquished by:	Geosyntec	8-6-21 1602	Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received in Laboratory by:		8-6-21 1602

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone: 602-437-3340 Fax: 602-454-9303

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sester, Rachel E	Carrier Tracking No(s):	COC No: 550-31582.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Rachel.Sester@Eurofinset.com	State of Origin: Arizona	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Arizona		Job #: 550-168580-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 8/19/2021			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: NDS TTU Sampling	Project #: 55016250			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6850/Filtration_14D Perchlorate Only	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
PF-2-400-20210806 (550-168580-1)	8/6/21	13:27 Arizona		Water			X	2	
PF-2-400-20210806-DUP (550-168580-2)	8/6/21	13:27 Arizona		Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[illegible] 08-06-21 1645			[illegible] Fedex		
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 8/7/21 9:10	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 746089	Cooler Temperature(s) °C and Other Remarks: 1.0c

Ver: 06/08/2021

8/17/2021

eurofins | Environment Testing TestAmerica

Sacramento
Sample Receiving Notes

550-168580 Field Sheet

Job: _____

Tracking # : 1835244227388

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier
GSO / OnTrac / Goldstreak / USPS / Other _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Therm. ID: LOG Corr. Factor: (+ / -) — °C

Ice 1 Wet 1 Gel _____ Other _____

Cooler Custody Seal: 174608

Cooler ID: —

Temp Observed: 1.0 °C Corrected: 1.0 °C

From: Temp Blank ☐ Sample ☐

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☑	☐
Cooler Temperature is acceptable?	☑	☐	☐
Frozen samples show signs of thaw?	☐	☐	☑

Initials: B Date: 8/7/21

Unpacking/Labeling The Samples	Yes	No	NA
CoC is complete w/o discrepancies?	☑	☐	☐
Samples compromised/tampered with?	☐	☑	☐
Sample containers have legible labels?	☑	☐	☐
Sample custody seal?	☐	☐	☑
Containers are not broken or leaking?	☑	☐	☐
Sample date/times are provided?	☑	☐	☐
Appropriate containers are used?	☑	☐	☐
Sample bottles are completely filled?	☑	☐	☐
Sample preservatives verified?	☐	☐	☑
Samples w/o discrepancies?	☑	☐	☐
Zero headspace?*	☐	☐	☑
Alkalinity has no headspace?	☐	☐	☑
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☑
Multiphasic samples are not present?	☑	☐	☐

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials: B Date: 8/7/21

Notes: _____

Trizma Lot #(s): _____

Login Completion	Yes	No	NA
Receipt Temperature on COC?	☑	☐	☐
Samples received within hold time?	☑	☐	☐
NCM Filed?	☐	☐	☑
Log Release checked in TALS?	☑	☐	☐

Initials: B Date: 8/7/21

Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 550-168580-1

Login Number: 168580
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 550-168580-1

Login Number: 168580
List Number: 2
Creator: Simmons, Jason C

List Source: Eurofins TestAmerica, Sacramento
List Creation: 08/07/21 04:20 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	1746089
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

August 13, 2021

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Is
8 Gl
9 Al
10 Sc

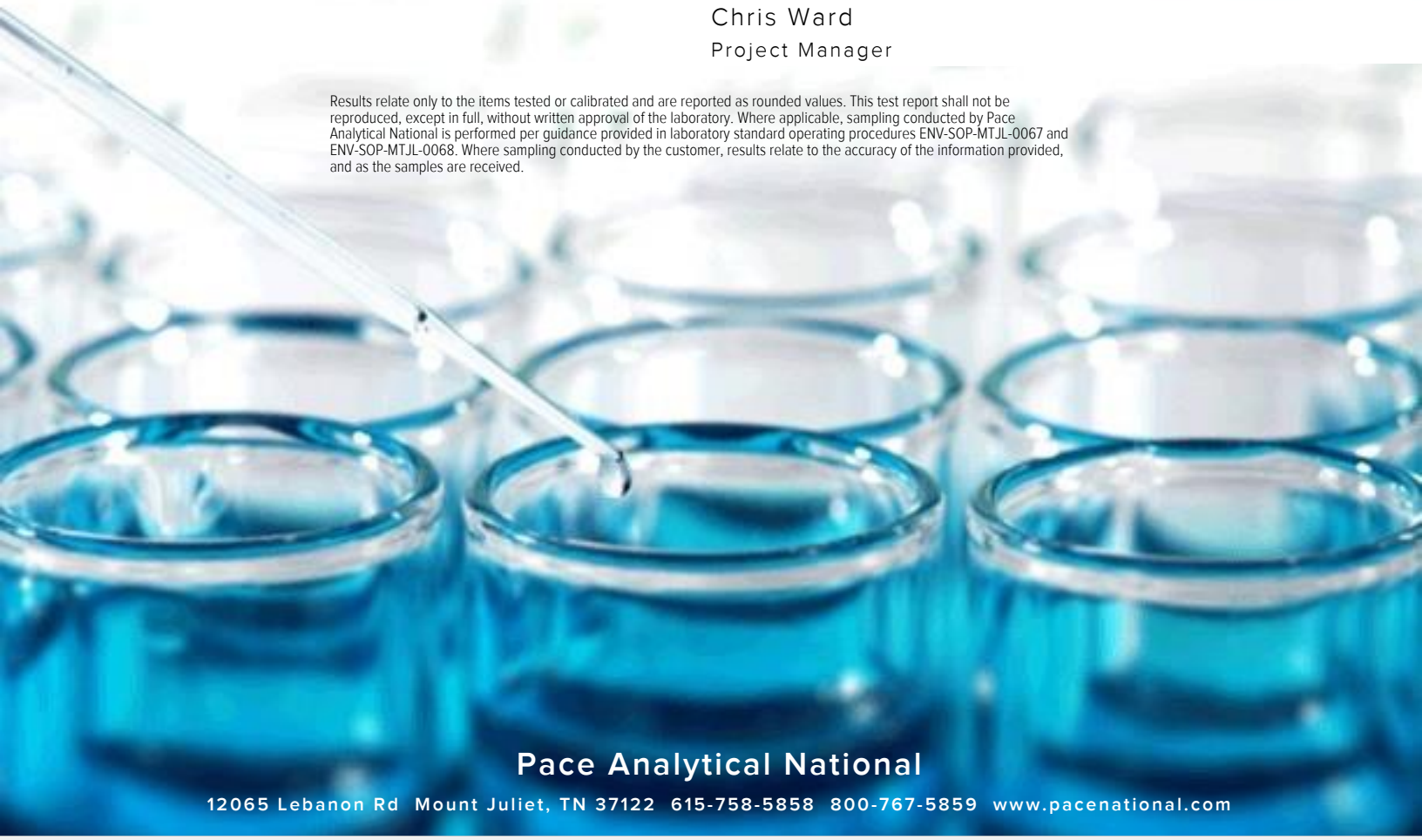
GeoSyntec, Inc. - AZ

Sample Delivery Group:	L1385143
Samples Received:	07/31/2021
Project Number:	SP0101GW21-02
Description:	Nammo Defense Systems TTU GW Sampling

Report To: Fabrizio Mascioni
11811 N Tatum Blvd, Ste P186
Phoenix, AZ 85028

Entire Report Reviewed By: Chris Ward

Chris Ward
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

TTU-5-110-20210729 L1385143-01 GW

Collected by: Ryan Ayala | Collected date/time: 07/29/21 10:30 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1716640	1	08/05/21 01:41	08/05/21 01:41	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	1	08/03/21 02:09	08/03/21 02:09	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1716576	1	08/03/21 16:58	08/03/21 16:58	DWR	Mt. Juliet, TN

TTU-EX-5-80-20210729 L1385143-02 GW

Collected by: Ryan Ayala | Collected date/time: 07/29/21 10:55 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1716640	1	08/04/21 22:42	08/04/21 22:42	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	1	08/03/21 02:28	08/03/21 02:28	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1716576	1	08/03/21 17:18	08/03/21 17:18	DWR	Mt. Juliet, TN

TTU-EX-4-77-20210729 L1385143-03 GW

Collected by: Ryan Ayala | Collected date/time: 07/29/21 11:19 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1716655	5000	08/06/21 11:59	08/06/21 11:59	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	1	08/03/21 02:47	08/03/21 02:47	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1721553	20	08/12/21 14:29	08/12/21 14:29	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1716576	1	08/03/21 17:38	08/03/21 17:38	DWR	Mt. Juliet, TN

TTU-EX-3-76-20210729 L1385143-04 GW

Collected by: Ryan Ayala | Collected date/time: 07/29/21 11:35 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1716655	5000	08/06/21 12:27	08/06/21 12:27	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	1	08/03/21 03:06	08/03/21 03:06	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1721553	100	08/12/21 14:50	08/12/21 14:50	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1717221	5	08/06/21 17:45	08/06/21 17:45	DWR	Mt. Juliet, TN

TTU-EX-2-74-20210729 L1385143-05 GW

Collected by: Ryan Ayala | Collected date/time: 07/29/21 11:52 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1716655	5000	08/06/21 12:56	08/06/21 12:56	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	1	08/03/21 03:25	08/03/21 03:25	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1721553	20	08/12/21 15:11	08/12/21 15:11	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1716576	1	08/03/21 18:18	08/03/21 18:18	DWR	Mt. Juliet, TN

TTU-EX-1-69-20210729 L1385143-06 GW

Collected by: Ryan Ayala | Collected date/time: 07/29/21 12:40 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1716655	5000	08/06/21 13:24	08/06/21 13:24	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	1	08/03/21 03:44	08/03/21 03:44	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1721553	20	08/12/21 15:32	08/12/21 15:32	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1716576	1	08/03/21 18:37	08/03/21 18:37	DWR	Mt. Juliet, TN

TTU-17-80-20210729 L1385143-07 GW

Collected by: Ryan Ayala | Collected date/time: 07/29/21 13:00 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1716655	1	08/06/21 13:53	08/06/21 13:53	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	1	08/03/21 04:03	08/03/21 04:03	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1721553	1	08/12/21 12:57	08/12/21 12:57	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1716576	1	08/03/21 18:57	08/03/21 18:57	DWR	Mt. Juliet, TN

TTU-15-75-20210729 L1385143-08 GW

Collected by: Ryan Ayala | Collected date/time: 07/29/21 13:25 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1720097	1	08/07/21 11:55	08/07/21 11:55	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	1	08/03/21 04:22	08/03/21 04:22	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1721553	1	08/12/21 13:21	08/12/21 13:21	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1716576	1	08/03/21 19:17	08/03/21 19:17	DWR	Mt. Juliet, TN

TTU-16-80-20210729 L1385143-09 GW

Collected by: Ryan Ayala | Collected date/time: 07/29/21 13:45 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1716655	10000	08/06/21 15:18	08/06/21 15:18	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	50	08/03/21 07:13	08/03/21 07:13	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1721553	2500	08/12/21 15:53	08/12/21 15:53	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1717221	50	08/06/21 18:05	08/06/21 18:05	DWR	Mt. Juliet, TN

TTU-16-80-20210729-DUP L1385143-10 GW

Collected by: Ryan Ayala | Collected date/time: 07/29/21 13:45 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1716655	10000	08/06/21 15:46	08/06/21 15:46	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	50	08/03/21 07:32	08/03/21 07:32	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1721553	2500	08/12/21 16:14	08/12/21 16:14	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1717221	50	08/06/21 18:25	08/06/21 18:25	DWR	Mt. Juliet, TN

TTU-9A-61-20210729 L1385143-11 GW

Collected by: Ryan Ayala | Collected date/time: 07/29/21 14:32 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1720097	1	08/07/21 13:23	08/07/21 13:23	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	1	08/03/21 04:41	08/03/21 04:41	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1721553	1	08/12/21 13:43	08/12/21 13:43	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1717221	1	08/06/21 17:25	08/06/21 17:25	DWR	Mt. Juliet, TN

TTU-13-51-20210729 L1385143-12 GW

Collected by: Ryan Ayala | Collected date/time: 07/29/21 14:55 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1716655	500	08/06/21 16:15	08/06/21 16:15	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	1	08/03/21 05:00	08/03/21 05:00	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1716576	1	08/03/21 20:37	08/03/21 20:37	DWR	Mt. Juliet, TN

TTU-14-69-20210729 L1385143-13 GW

Collected by: Ryan Ayala | Collected date/time: 07/29/21 15:10 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1716655	5000	08/06/21 17:40	08/06/21 17:40	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	1	08/03/21 05:19	08/03/21 05:19	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1721553	20	08/12/21 16:35	08/12/21 16:35	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1716576	1	08/03/21 20:56	08/03/21 20:56	DWR	Mt. Juliet, TN

TTU-12-82-20210729 L1385143-14 GW

Collected by: Ryan Ayala | Collected date/time: 07/29/21 15:27 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1716655	5000	08/06/21 18:08	08/06/21 18:08	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	1	08/03/21 05:38	08/03/21 05:38	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1721553	10	08/12/21 16:58	08/12/21 16:58	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1716576	1	08/03/21 21:16	08/03/21 21:16	DWR	Mt. Juliet, TN

TTU-2-114-20210729 L1385143-15 GW

Collected by: Ryan Ayala | Collected date/time: 07/29/21 16:35 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1716655	5000	08/06/21 18:37	08/06/21 18:37	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	1	08/03/21 05:57	08/03/21 05:57	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1721553	20	08/12/21 17:21	08/12/21 17:21	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1716576	1	08/03/21 21:36	08/03/21 21:36	DWR	Mt. Juliet, TN

TTU-1-50-20210729 L1385143-16 GW

Collected by: Ryan Ayala | Collected date/time: 07/29/21 17:13 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1716655	500	08/06/21 20:02	08/06/21 20:02	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	1	08/03/21 06:16	08/03/21 06:16	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1721553	1	08/12/21 14:06	08/12/21 14:06	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1716576	1	08/03/21 21:55	08/03/21 21:55	DWR	Mt. Juliet, TN

TTU-8-164-20210730 L1385143-17 GW

Collected by: Ryan Ayala | Collected date/time: 07/30/21 11:45 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1720097	1	08/07/21 13:51	08/07/21 13:51	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	1	08/03/21 06:35	08/03/21 06:35	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1716576	1	08/03/21 22:15	08/03/21 22:15	DWR	Mt. Juliet, TN

TTU-4-57-20210730 L1385143-18 GW

Collected by: Ryan Ayala | Collected date/time: 07/30/21 12:05 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1720097	1	08/07/21 14:48	08/07/21 14:48	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716129	1	08/03/21 06:54	08/03/21 06:54	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1719066	1	08/06/21 22:21	08/06/21 22:21	DWR	Mt. Juliet, TN

TTU-4-57-20210730-DUP L1385143-19 GW

Collected by: Ryan Ayala | Collected date/time: 07/30/21 12:05 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1720097	1	08/07/21 17:10	08/07/21 17:10	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716283	1	08/03/21 19:42	08/03/21 19:42	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1719066	1	08/06/21 22:40	08/06/21 22:40	DWR	Mt. Juliet, TN

TTU-3-108-20210730 L1385143-20 GW

Collected by: Ryan Ayala | Collected date/time: 07/30/21 12:38 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1720097	1	08/07/21 18:07	08/07/21 18:07	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716283	1	08/03/21 20:02	08/03/21 20:02	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1719066	1	08/06/21 23:00	08/06/21 23:00	DWR	Mt. Juliet, TN

TTU-7-345-20210730 L1385143-21 GW

Collected by: Ryan Ayala | Collected date/time: 07/30/21 13:37 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1716655	10	08/07/21 15:45	08/07/21 15:45	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716283	1	08/03/21 20:22	08/03/21 20:22	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1719066	1	08/06/21 23:20	08/06/21 23:20	DWR	Mt. Juliet, TN

TTU-6-143-20210730 L1385143-22 GW

Collected by: Ryan Ayala | Collected date/time: 07/30/21 13:55 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1720097	1	08/07/21 20:01	08/07/21 20:01	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716283	1	08/03/21 20:43	08/03/21 20:43	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1719066	1	08/06/21 23:40	08/06/21 23:40	DWR	Mt. Juliet, TN

TB-1 L1385143-23 GW

Collected by: Ryan Ayala | Collected date/time: 07/30/21 00:00 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1716283	1	08/03/21 15:37	08/03/21 15:37	BMB	Mt. Juliet, TN

TB-2 L1385143-24 GW

Collected by: Ryan Ayala | Collected date/time: 07/30/21 00:00 | Received date/time: 07/31/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1717654	1	08/07/21 07:25	08/07/21 07:25	ACG	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris Ward
Project Manager

Sample Delivery Group (SDG) Narrative

Insufficient sample volume to perform MS/MSD analyses per method QC requirements.

Lab Sample ID	Project Sample ID	Method
L1385143-03	TTU-EX-4-77-20210729	8260B
L1385143-04	TTU-EX-3-76-20210729	8260B-SIM, 8260B
L1385143-05	TTU-EX-2-74-20210729	8260B
L1385143-06	TTU-EX-1-69-20210729	8260B
L1385143-07	TTU-17-80-20210729	8260B
L1385143-08	TTU-15-75-20210729	8260B
L1385143-09	TTU-16-80-20210729	8260B-SIM, 8260B
L1385143-10	TTU-16-80-20210729-DUP	8260B-SIM, 8260B
L1385143-11	TTU-9A-61-20210729	8260B-SIM, 8260B
L1385143-13	TTU-14-69-20210729	8260B
L1385143-14	TTU-12-82-20210729	8260B
L1385143-15	TTU-2-114-20210729	8260B
L1385143-16	TTU-1-50-20210729	8260B

Analyzed from headspace vial.

Lab Sample ID	Project Sample ID	Method
L1385143-24	TB-2	8260B

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	38.7		0.300	4.00	1	08/05/2021 01:41	WG1716640

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	L1	11.3	50.0	1	08/03/2021 02:09	WG1716129
Acrolein	U		2.54	50.0	1	08/03/2021 02:09	WG1716129
Acrylonitrile	U		0.671	10.0	1	08/03/2021 02:09	WG1716129
Benzene	U		0.0941	1.00	1	08/03/2021 02:09	WG1716129
Bromobenzene	U		0.118	1.00	1	08/03/2021 02:09	WG1716129
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 02:09	WG1716129
Bromoform	U		0.129	1.00	1	08/03/2021 02:09	WG1716129
Bromomethane	U		0.605	5.00	1	08/03/2021 02:09	WG1716129
1,3-Butadiene	U		0.299	2.00	1	08/03/2021 02:09	WG1716129
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 02:09	WG1716129
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 02:09	WG1716129
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 02:09	WG1716129
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 02:09	WG1716129
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 02:09	WG1716129
Chlorobenzene	U		0.116	1.00	1	08/03/2021 02:09	WG1716129
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 02:09	WG1716129
Chloroethane	U		0.192	5.00	1	08/03/2021 02:09	WG1716129
Chloroform	U		0.111	5.00	1	08/03/2021 02:09	WG1716129
Chloromethane	U		0.960	2.50	1	08/03/2021 02:09	WG1716129
Cyclohexane	U		0.188	1.00	1	08/03/2021 02:09	WG1716129
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 02:09	WG1716129
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 02:09	WG1716129
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 02:09	WG1716129
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 02:09	WG1716129
Dibromomethane	U		0.122	1.00	1	08/03/2021 02:09	WG1716129
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 02:09	WG1716129
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 02:09	WG1716129
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 02:09	WG1716129
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 02:09	WG1716129
1,1-Dichloroethane	U		0.100	1.00	1	08/03/2021 02:09	WG1716129
1,2-Dichloroethane	U		0.0819	1.00	1	08/03/2021 02:09	WG1716129
1,1-Dichloroethene	U		0.188	1.00	1	08/03/2021 02:09	WG1716129
cis-1,2-Dichloroethene	U		0.126	1.00	1	08/03/2021 02:09	WG1716129
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/03/2021 02:09	WG1716129
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 02:09	WG1716129
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 02:09	WG1716129
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 02:09	WG1716129
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 02:09	WG1716129
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 02:09	WG1716129
2,2-Dichloropropane	U		0.161	1.00	1	08/03/2021 02:09	WG1716129
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 02:09	WG1716129
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 02:09	WG1716129
Ethylbenzene	U		0.137	1.00	1	08/03/2021 02:09	WG1716129
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 02:09	WG1716129
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 02:09	WG1716129
n-Hexane	U		0.749	10.0	1	08/03/2021 02:09	WG1716129
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 02:09	WG1716129
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 02:09	WG1716129
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 02:09	WG1716129
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 02:09	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 02:09	WG1716129
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 02:09	WG1716129
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 02:09	WG1716129
Naphthalene	U		1.00	5.00	1	08/03/2021 02:09	WG1716129
Propene	U		0.936	2.50	1	08/03/2021 02:09	WG1716129
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 02:09	WG1716129
Styrene	U		0.118	1.00	1	08/03/2021 02:09	WG1716129
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 02:09	WG1716129
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 02:09	WG1716129
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 02:09	WG1716129
Tetrachloroethene	U		0.300	1.00	1	08/03/2021 02:09	WG1716129
Toluene	U		0.278	1.00	1	08/03/2021 02:09	WG1716129
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 02:09	WG1716129
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 02:09	WG1716129
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 02:09	WG1716129
1,1,2-Trichloroethane	U		0.158	1.00	1	08/03/2021 02:09	WG1716129
Trichloroethene	U		0.190	1.00	1	08/03/2021 02:09	WG1716129
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 02:09	WG1716129
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 02:09	WG1716129
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 02:09	WG1716129
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 02:09	WG1716129
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 02:09	WG1716129
Vinyl chloride	U		0.234	1.00	1	08/03/2021 02:09	WG1716129
Xylenes, Total	U		0.174	3.00	1	08/03/2021 02:09	WG1716129
(S) Toluene-d8	*105*			*80.0-120*		*08/03/2021 02:09*	WG1716129
(S) 4-Bromofluorobenzene	*94.4*			*77.0-126*		*08/03/2021 02:09*	WG1716129
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*08/03/2021 02:09*	WG1716129

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	U		0.597	3.00	1	08/03/2021 16:58	WG1716576
(S) Toluene-d8	*103*			*77.0-127*		*08/03/2021 16:58*	WG1716576

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	U		0.300	4.00	1	08/04/2021 22:42	WG1716640

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	L1	11.3	50.0	1	08/03/2021 02:28	WG1716129
Acrolein	U		2.54	50.0	1	08/03/2021 02:28	WG1716129
Acrylonitrile	U		0.671	10.0	1	08/03/2021 02:28	WG1716129
Benzene	U		0.0941	1.00	1	08/03/2021 02:28	WG1716129
Bromobenzene	U		0.118	1.00	1	08/03/2021 02:28	WG1716129
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 02:28	WG1716129
Bromoform	U		0.129	1.00	1	08/03/2021 02:28	WG1716129
Bromomethane	U		0.605	5.00	1	08/03/2021 02:28	WG1716129
1,3-Butadiene	U		0.299	2.00	1	08/03/2021 02:28	WG1716129
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 02:28	WG1716129
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 02:28	WG1716129
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 02:28	WG1716129
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 02:28	WG1716129
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 02:28	WG1716129
Chlorobenzene	U		0.116	1.00	1	08/03/2021 02:28	WG1716129
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 02:28	WG1716129
Chloroethane	U		0.192	5.00	1	08/03/2021 02:28	WG1716129
Chloroform	U		0.111	5.00	1	08/03/2021 02:28	WG1716129
Chloromethane	U		0.960	2.50	1	08/03/2021 02:28	WG1716129
Cyclohexane	U		0.188	1.00	1	08/03/2021 02:28	WG1716129
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 02:28	WG1716129
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 02:28	WG1716129
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 02:28	WG1716129
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 02:28	WG1716129
Dibromomethane	U		0.122	1.00	1	08/03/2021 02:28	WG1716129
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 02:28	WG1716129
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 02:28	WG1716129
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 02:28	WG1716129
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 02:28	WG1716129
1,1-Dichloroethane	U		0.100	1.00	1	08/03/2021 02:28	WG1716129
1,2-Dichloroethane	U		0.0819	1.00	1	08/03/2021 02:28	WG1716129
1,1-Dichloroethene	U		0.188	1.00	1	08/03/2021 02:28	WG1716129
cis-1,2-Dichloroethene	U		0.126	1.00	1	08/03/2021 02:28	WG1716129
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/03/2021 02:28	WG1716129
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 02:28	WG1716129
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 02:28	WG1716129
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 02:28	WG1716129
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 02:28	WG1716129
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 02:28	WG1716129
2,2-Dichloropropane	U		0.161	1.00	1	08/03/2021 02:28	WG1716129
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 02:28	WG1716129
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 02:28	WG1716129
Ethylbenzene	U		0.137	1.00	1	08/03/2021 02:28	WG1716129
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 02:28	WG1716129
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 02:28	WG1716129
n-Hexane	U		0.749	10.0	1	08/03/2021 02:28	WG1716129
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 02:28	WG1716129
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 02:28	WG1716129
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 02:28	WG1716129
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 02:28	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 02:28	WG1716129
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 02:28	WG1716129
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 02:28	WG1716129
Naphthalene	U		1.00	5.00	1	08/03/2021 02:28	WG1716129
Propene	U		0.936	2.50	1	08/03/2021 02:28	WG1716129
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 02:28	WG1716129
Styrene	U		0.118	1.00	1	08/03/2021 02:28	WG1716129
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 02:28	WG1716129
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 02:28	WG1716129
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 02:28	WG1716129
Tetrachloroethene	U		0.300	1.00	1	08/03/2021 02:28	WG1716129
Toluene	U		0.278	1.00	1	08/03/2021 02:28	WG1716129
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 02:28	WG1716129
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 02:28	WG1716129
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 02:28	WG1716129
1,1,2-Trichloroethane	U		0.158	1.00	1	08/03/2021 02:28	WG1716129
Trichloroethene	5.51		0.190	1.00	1	08/03/2021 02:28	WG1716129
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 02:28	WG1716129
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 02:28	WG1716129
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 02:28	WG1716129
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 02:28	WG1716129
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 02:28	WG1716129
Vinyl chloride	U		0.234	1.00	1	08/03/2021 02:28	WG1716129
Xylenes, Total	U		0.174	3.00	1	08/03/2021 02:28	WG1716129
(S) Toluene-d8	*109*			*80.0-120*		*08/03/2021 02:28*	WG1716129
(S) 4-Bromofluorobenzene	*88.6*			*77.0-126*		*08/03/2021 02:28*	WG1716129
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*08/03/2021 02:28*	WG1716129

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	U		0.597	3.00	1	08/03/2021 17:18	WG1716576
(S) Toluene-d8	*104*			*77.0-127*		*08/03/2021 17:18*	WG1716576

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	77300		1500	20000	5000	08/06/2021 11:59	WG1716655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	L1	11.3	50.0	1	08/03/2021 02:47	WG1716129
Acrolein	U		2.54	50.0	1	08/03/2021 02:47	WG1716129
Acrylonitrile	U		0.671	10.0	1	08/03/2021 02:47	WG1716129
Benzene	0.838	E4	0.0941	1.00	1	08/03/2021 02:47	WG1716129
Bromobenzene	U		0.118	1.00	1	08/03/2021 02:47	WG1716129
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 02:47	WG1716129
Bromoform	U		0.129	1.00	1	08/03/2021 02:47	WG1716129
Bromomethane	U		0.605	5.00	1	08/03/2021 02:47	WG1716129
1,3-Butadiene	U		0.299	2.00	1	08/03/2021 02:47	WG1716129
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 02:47	WG1716129
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 02:47	WG1716129
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 02:47	WG1716129
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 02:47	WG1716129
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 02:47	WG1716129
Chlorobenzene	U		0.116	1.00	1	08/03/2021 02:47	WG1716129
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 02:47	WG1716129
Chloroethane	U		0.192	5.00	1	08/03/2021 02:47	WG1716129
Chloroform	1.14	E4	0.111	5.00	1	08/03/2021 02:47	WG1716129
Chloromethane	U		0.960	2.50	1	08/03/2021 02:47	WG1716129
Cyclohexane	U		0.188	1.00	1	08/03/2021 02:47	WG1716129
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 02:47	WG1716129
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 02:47	WG1716129
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 02:47	WG1716129
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 02:47	WG1716129
Dibromomethane	U		0.122	1.00	1	08/03/2021 02:47	WG1716129
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 02:47	WG1716129
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 02:47	WG1716129
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 02:47	WG1716129
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 02:47	WG1716129
1,1-Dichloroethane	1.05		0.100	1.00	1	08/03/2021 02:47	WG1716129
1,2-Dichloroethane	U		0.0819	1.00	1	08/03/2021 02:47	WG1716129
1,1-Dichloroethene	71.4		0.188	1.00	1	08/03/2021 02:47	WG1716129
cis-1,2-Dichloroethene	1.70		0.126	1.00	1	08/03/2021 02:47	WG1716129
trans-1,2-Dichloroethene	0.260	E4	0.149	1.00	1	08/03/2021 02:47	WG1716129
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 02:47	WG1716129
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 02:47	WG1716129
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 02:47	WG1716129
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 02:47	WG1716129
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 02:47	WG1716129
2,2-Dichloropropane	U		0.161	1.00	1	08/03/2021 02:47	WG1716129
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 02:47	WG1716129
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 02:47	WG1716129
Ethylbenzene	U		0.137	1.00	1	08/03/2021 02:47	WG1716129
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 02:47	WG1716129
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 02:47	WG1716129
n-Hexane	U		0.749	10.0	1	08/03/2021 02:47	WG1716129
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 02:47	WG1716129
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 02:47	WG1716129
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 02:47	WG1716129
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 02:47	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 02:47	WG1716129
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 02:47	WG1716129
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 02:47	WG1716129
Naphthalene	U		1.00	5.00	1	08/03/2021 02:47	WG1716129
Propene	U		0.936	2.50	1	08/03/2021 02:47	WG1716129
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 02:47	WG1716129
Styrene	U		0.118	1.00	1	08/03/2021 02:47	WG1716129
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 02:47	WG1716129
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 02:47	WG1716129
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 02:47	WG1716129
Tetrachloroethene	0.572	E4	0.300	1.00	1	08/03/2021 02:47	WG1716129
Toluene	U		0.278	1.00	1	08/03/2021 02:47	WG1716129
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 02:47	WG1716129
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 02:47	WG1716129
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 02:47	WG1716129
1,1,2-Trichloroethane	0.665	E4	0.158	1.00	1	08/03/2021 02:47	WG1716129
Trichloroethene	461		3.80	20.0	20	08/12/2021 14:29	WG1721553
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 02:47	WG1716129
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 02:47	WG1716129
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 02:47	WG1716129
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 02:47	WG1716129
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 02:47	WG1716129
Vinyl chloride	U		0.234	1.00	1	08/03/2021 02:47	WG1716129
Xylenes, Total	U		0.174	3.00	1	08/03/2021 02:47	WG1716129
(S) Toluene-d8	*106*			*80.0-120*		*08/03/2021 02:47*	WG1716129
(S) Toluene-d8	*105*			*80.0-120*		*08/12/2021 14:29*	WG1721553
(S) 4-Bromofluorobenzene	*92.6*			*77.0-126*		*08/03/2021 02:47*	WG1716129
(S) 4-Bromofluorobenzene	*97.9*			*77.0-126*		*08/12/2021 14:29*	WG1721553
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*08/03/2021 02:47*	WG1716129
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*08/12/2021 14:29*	WG1721553

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	29.0		0.597	3.00	1	08/03/2021 17:38	WG1716576
(S) Toluene-d8	*101*			*77.0-127*		*08/03/2021 17:38*	WG1716576

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	430000		1500	20000	5000	08/06/2021 12:27	WG1716655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	L1	11.3	50.0	1	08/03/2021 03:06	WG1716129
Acrolein	U		2.54	50.0	1	08/03/2021 03:06	WG1716129
Acrylonitrile	U		0.671	10.0	1	08/03/2021 03:06	WG1716129
Benzene	11.1		0.0941	1.00	1	08/03/2021 03:06	WG1716129
Bromobenzene	U		0.118	1.00	1	08/03/2021 03:06	WG1716129
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 03:06	WG1716129
Bromoform	U		0.129	1.00	1	08/03/2021 03:06	WG1716129
Bromomethane	U		0.605	5.00	1	08/03/2021 03:06	WG1716129
1,3-Butadiene	U		0.299	2.00	1	08/03/2021 03:06	WG1716129
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 03:06	WG1716129
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 03:06	WG1716129
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 03:06	WG1716129
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 03:06	WG1716129
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 03:06	WG1716129
Chlorobenzene	0.321	E4	0.116	1.00	1	08/03/2021 03:06	WG1716129
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 03:06	WG1716129
Chloroethane	U		0.192	5.00	1	08/03/2021 03:06	WG1716129
Chloroform	9.44		0.111	5.00	1	08/03/2021 03:06	WG1716129
Chloromethane	U		0.960	2.50	1	08/03/2021 03:06	WG1716129
Cyclohexane	U		0.188	1.00	1	08/03/2021 03:06	WG1716129
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 03:06	WG1716129
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 03:06	WG1716129
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 03:06	WG1716129
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 03:06	WG1716129
Dibromomethane	U		0.122	1.00	1	08/03/2021 03:06	WG1716129
1,2-Dichlorobenzene	0.557	E4	0.107	1.00	1	08/03/2021 03:06	WG1716129
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 03:06	WG1716129
1,4-Dichlorobenzene	0.371	E4	0.120	1.00	1	08/03/2021 03:06	WG1716129
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 03:06	WG1716129
1,1-Dichloroethane	8.02		0.100	1.00	1	08/03/2021 03:06	WG1716129
1,2-Dichloroethane	1.41		0.0819	1.00	1	08/03/2021 03:06	WG1716129
1,1-Dichloroethene	843		18.8	100	100	08/12/2021 14:50	WG1721553
cis-1,2-Dichloroethene	3.23		0.126	1.00	1	08/03/2021 03:06	WG1716129
trans-1,2-Dichloroethene	1.47		0.149	1.00	1	08/03/2021 03:06	WG1716129
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 03:06	WG1716129
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 03:06	WG1716129
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 03:06	WG1716129
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 03:06	WG1716129
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 03:06	WG1716129
2,2-Dichloropropane	U		0.161	1.00	1	08/03/2021 03:06	WG1716129
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 03:06	WG1716129
Di-isopropyl ether	0.155	E4	0.105	1.00	1	08/03/2021 03:06	WG1716129
Ethylbenzene	U		0.137	1.00	1	08/03/2021 03:06	WG1716129
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 03:06	WG1716129
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 03:06	WG1716129
n-Hexane	U		0.749	10.0	1	08/03/2021 03:06	WG1716129
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 03:06	WG1716129
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 03:06	WG1716129
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 03:06	WG1716129
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 03:06	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	0.711	E4	0.430	5.00	1	08/03/2021 03:06	WG1716129
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 03:06	WG1716129
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 03:06	WG1716129
Naphthalene	U		1.00	5.00	1	08/03/2021 03:06	WG1716129
Propene	U		0.936	2.50	1	08/03/2021 03:06	WG1716129
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 03:06	WG1716129
Styrene	U		0.118	1.00	1	08/03/2021 03:06	WG1716129
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 03:06	WG1716129
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 03:06	WG1716129
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 03:06	WG1716129
Tetrachloroethene	9.20		0.300	1.00	1	08/03/2021 03:06	WG1716129
Toluene	U		0.278	1.00	1	08/03/2021 03:06	WG1716129
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 03:06	WG1716129
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 03:06	WG1716129
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 03:06	WG1716129
1,1,2-Trichloroethane	10.3		0.158	1.00	1	08/03/2021 03:06	WG1716129
Trichloroethene	7260		19.0	100	100	08/12/2021 14:50	WG1721553
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 03:06	WG1716129
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 03:06	WG1716129
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 03:06	WG1716129
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 03:06	WG1716129
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 03:06	WG1716129
Vinyl chloride	0.275	E4	0.234	1.00	1	08/03/2021 03:06	WG1716129
Xylenes, Total	U		0.174	3.00	1	08/03/2021 03:06	WG1716129
(S) Toluene-d8	*108*			*80.0-120*		*08/03/2021 03:06*	WG1716129
(S) Toluene-d8	*106*			*80.0-120*		*08/12/2021 14:50*	WG1721553
(S) 4-Bromofluorobenzene	*92.0*			*77.0-126*		*08/03/2021 03:06*	WG1716129
(S) 4-Bromofluorobenzene	*98.1*			*77.0-126*		*08/12/2021 14:50*	WG1721553
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*08/03/2021 03:06*	WG1716129
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*08/12/2021 14:50*	WG1721553

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	1010		2.99	15.0	5	08/06/2021 17:45	WG1717221
(S) Toluene-d8	*103*			*77.0-127*		*08/06/2021 17:45*	WG1717221

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	106000		1500	20000	5000	08/06/2021 12:56	WG1716655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	L1	11.3	50.0	1	08/03/2021 03:25	WG1716129
Acrolein	U		2.54	50.0	1	08/03/2021 03:25	WG1716129
Acrylonitrile	U		0.671	10.0	1	08/03/2021 03:25	WG1716129
Benzene	1.07		0.0941	1.00	1	08/03/2021 03:25	WG1716129
Bromobenzene	U		0.118	1.00	1	08/03/2021 03:25	WG1716129
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 03:25	WG1716129
Bromoform	0.146	E4	0.129	1.00	1	08/03/2021 03:25	WG1716129
Bromomethane	U		0.605	5.00	1	08/03/2021 03:25	WG1716129
1,3-Butadiene	U		0.299	2.00	1	08/03/2021 03:25	WG1716129
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 03:25	WG1716129
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 03:25	WG1716129
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 03:25	WG1716129
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 03:25	WG1716129
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 03:25	WG1716129
Chlorobenzene	U		0.116	1.00	1	08/03/2021 03:25	WG1716129
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 03:25	WG1716129
Chloroethane	U		0.192	5.00	1	08/03/2021 03:25	WG1716129
Chloroform	1.59	E4	0.111	5.00	1	08/03/2021 03:25	WG1716129
Chloromethane	U		0.960	2.50	1	08/03/2021 03:25	WG1716129
Cyclohexane	U		0.188	1.00	1	08/03/2021 03:25	WG1716129
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 03:25	WG1716129
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 03:25	WG1716129
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 03:25	WG1716129
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 03:25	WG1716129
Dibromomethane	U		0.122	1.00	1	08/03/2021 03:25	WG1716129
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 03:25	WG1716129
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 03:25	WG1716129
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 03:25	WG1716129
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 03:25	WG1716129
1,1-Dichloroethane	1.00	E4	0.100	1.00	1	08/03/2021 03:25	WG1716129
1,2-Dichloroethane	0.284	E4	0.0819	1.00	1	08/03/2021 03:25	WG1716129
1,1-Dichloroethene	134		3.76	20.0	20	08/12/2021 15:11	WG1721553
cis-1,2-Dichloroethene	1.77		0.126	1.00	1	08/03/2021 03:25	WG1716129
trans-1,2-Dichloroethene	0.177	E4	0.149	1.00	1	08/03/2021 03:25	WG1716129
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 03:25	WG1716129
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 03:25	WG1716129
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 03:25	WG1716129
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 03:25	WG1716129
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 03:25	WG1716129
2,2-Dichloropropane	U		0.161	1.00	1	08/03/2021 03:25	WG1716129
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 03:25	WG1716129
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 03:25	WG1716129
Ethylbenzene	U		0.137	1.00	1	08/03/2021 03:25	WG1716129
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 03:25	WG1716129
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 03:25	WG1716129
n-Hexane	U		0.749	10.0	1	08/03/2021 03:25	WG1716129
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 03:25	WG1716129
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 03:25	WG1716129
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 03:25	WG1716129
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 03:25	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 03:25	WG1716129
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 03:25	WG1716129
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 03:25	WG1716129
Naphthalene	U		1.00	5.00	1	08/03/2021 03:25	WG1716129
Propene	U		0.936	2.50	1	08/03/2021 03:25	WG1716129
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 03:25	WG1716129
Styrene	U		0.118	1.00	1	08/03/2021 03:25	WG1716129
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 03:25	WG1716129
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 03:25	WG1716129
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 03:25	WG1716129
Tetrachloroethene	1.48		0.300	1.00	1	08/03/2021 03:25	WG1716129
Toluene	U		0.278	1.00	1	08/03/2021 03:25	WG1716129
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 03:25	WG1716129
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 03:25	WG1716129
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 03:25	WG1716129
1,1,2-Trichloroethane	2.42		0.158	1.00	1	08/03/2021 03:25	WG1716129
Trichloroethene	630		3.80	20.0	20	08/12/2021 15:11	WG1721553
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 03:25	WG1716129
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 03:25	WG1716129
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 03:25	WG1716129
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 03:25	WG1716129
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 03:25	WG1716129
Vinyl chloride	U		0.234	1.00	1	08/03/2021 03:25	WG1716129
Xylenes, Total	U		0.174	3.00	1	08/03/2021 03:25	WG1716129
(S) Toluene-d8	*105*			*80.0-120*		*08/03/2021 03:25*	WG1716129
(S) Toluene-d8	*105*			*80.0-120*		*08/12/2021 15:11*	WG1721553
(S) 4-Bromofluorobenzene	*91.5*			*77.0-126*		*08/03/2021 03:25*	WG1716129
(S) 4-Bromofluorobenzene	*94.2*			*77.0-126*		*08/12/2021 15:11*	WG1721553
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*08/03/2021 03:25*	WG1716129
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*08/12/2021 15:11*	WG1721553

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	523		0.597	3.00	1	08/03/2021 18:18	WG1716576
(S) Toluene-d8	*100*			*77.0-127*		*08/03/2021 18:18*	WG1716576

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	94700		1500	20000	5000	08/06/2021 13:24	WG1716655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	L1	11.3	50.0	1	08/03/2021 03:44	WG1716129
Acrolein	U		2.54	50.0	1	08/03/2021 03:44	WG1716129
Acrylonitrile	U		0.671	10.0	1	08/03/2021 03:44	WG1716129
Benzene	0.342	E4	0.0941	1.00	1	08/03/2021 03:44	WG1716129
Bromobenzene	U		0.118	1.00	1	08/03/2021 03:44	WG1716129
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 03:44	WG1716129
Bromoform	U		0.129	1.00	1	08/03/2021 03:44	WG1716129
Bromomethane	U		0.605	5.00	1	08/03/2021 03:44	WG1716129
1,3-Butadiene	U		0.299	2.00	1	08/03/2021 03:44	WG1716129
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 03:44	WG1716129
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 03:44	WG1716129
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 03:44	WG1716129
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 03:44	WG1716129
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 03:44	WG1716129
Chlorobenzene	U		0.116	1.00	1	08/03/2021 03:44	WG1716129
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 03:44	WG1716129
Chloroethane	U		0.192	5.00	1	08/03/2021 03:44	WG1716129
Chloroform	1.38	E4	0.111	5.00	1	08/03/2021 03:44	WG1716129
Chloromethane	U		0.960	2.50	1	08/03/2021 03:44	WG1716129
Cyclohexane	U		0.188	1.00	1	08/03/2021 03:44	WG1716129
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 03:44	WG1716129
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 03:44	WG1716129
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 03:44	WG1716129
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 03:44	WG1716129
Dibromomethane	U		0.122	1.00	1	08/03/2021 03:44	WG1716129
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 03:44	WG1716129
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 03:44	WG1716129
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 03:44	WG1716129
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 03:44	WG1716129
1,1-Dichloroethane	0.925	E4	0.100	1.00	1	08/03/2021 03:44	WG1716129
1,2-Dichloroethane	0.287	E4	0.0819	1.00	1	08/03/2021 03:44	WG1716129
1,1-Dichloroethene	169		3.76	20.0	20	08/12/2021 15:32	WG1721553
cis-1,2-Dichloroethene	0.189	E4	0.126	1.00	1	08/03/2021 03:44	WG1716129
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/03/2021 03:44	WG1716129
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 03:44	WG1716129
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 03:44	WG1716129
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 03:44	WG1716129
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 03:44	WG1716129
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 03:44	WG1716129
2,2-Dichloropropane	U		0.161	1.00	1	08/03/2021 03:44	WG1716129
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 03:44	WG1716129
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 03:44	WG1716129
Ethylbenzene	U		0.137	1.00	1	08/03/2021 03:44	WG1716129
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 03:44	WG1716129
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 03:44	WG1716129
n-Hexane	U		0.749	10.0	1	08/03/2021 03:44	WG1716129
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 03:44	WG1716129
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 03:44	WG1716129
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 03:44	WG1716129
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 03:44	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 03:44	WG1716129
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 03:44	WG1716129
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 03:44	WG1716129
Naphthalene	U		1.00	5.00	1	08/03/2021 03:44	WG1716129
Propene	U		0.936	2.50	1	08/03/2021 03:44	WG1716129
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 03:44	WG1716129
Styrene	U		0.118	1.00	1	08/03/2021 03:44	WG1716129
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 03:44	WG1716129
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 03:44	WG1716129
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 03:44	WG1716129
Tetrachloroethene	1.12		0.300	1.00	1	08/03/2021 03:44	WG1716129
Toluene	U		0.278	1.00	1	08/03/2021 03:44	WG1716129
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 03:44	WG1716129
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 03:44	WG1716129
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 03:44	WG1716129
1,1,2-Trichloroethane	2.11		0.158	1.00	1	08/03/2021 03:44	WG1716129
Trichloroethene	372		3.80	20.0	20	08/12/2021 15:32	WG1721553
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 03:44	WG1716129
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 03:44	WG1716129
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 03:44	WG1716129
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 03:44	WG1716129
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 03:44	WG1716129
Vinyl chloride	U		0.234	1.00	1	08/03/2021 03:44	WG1716129
Xylenes, Total	U		0.174	3.00	1	08/03/2021 03:44	WG1716129
(S) Toluene-d8	*109*			*80.0-120*		*08/03/2021 03:44*	WG1716129
(S) Toluene-d8	*110*			*80.0-120*		*08/12/2021 15:32*	WG1721553
(S) 4-Bromofluorobenzene	*90.4*			*77.0-126*		*08/03/2021 03:44*	WG1716129
(S) 4-Bromofluorobenzene	*94.4*			*77.0-126*		*08/12/2021 15:32*	WG1721553
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*08/03/2021 03:44*	WG1716129
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*08/12/2021 15:32*	WG1721553

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	702		0.597	3.00	1	08/03/2021 18:37	WG1716576
(S) Toluene-d8	*102*			*77.0-127*		*08/03/2021 18:37*	WG1716576

Wet Chemistry by Method 314.0 Mod

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Perchlorate	U		0.300	4.00	1	08/06/2021 13:53	WG1716655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U	L1	11.3	50.0	1	08/03/2021 04:03	WG1716129
Acrolein	U		2.54	50.0	1	08/03/2021 04:03	WG1716129
Acrylonitrile	U		0.671	10.0	1	08/03/2021 04:03	WG1716129
Benzene	U		0.0941	1.00	1	08/03/2021 04:03	WG1716129
Bromobenzene	U		0.118	1.00	1	08/03/2021 04:03	WG1716129
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 04:03	WG1716129
Bromoform	U		0.129	1.00	1	08/03/2021 04:03	WG1716129
Bromomethane	U		0.605	5.00	1	08/03/2021 04:03	WG1716129
1,3-Butadiene	U		0.299	2.00	1	08/03/2021 04:03	WG1716129
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 04:03	WG1716129
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 04:03	WG1716129
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 04:03	WG1716129
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 04:03	WG1716129
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 04:03	WG1716129
Chlorobenzene	U		0.116	1.00	1	08/03/2021 04:03	WG1716129
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 04:03	WG1716129
Chloroethane	U		0.192	5.00	1	08/03/2021 04:03	WG1716129
Chloroform	U		0.111	5.00	1	08/03/2021 04:03	WG1716129
Chloromethane	U		0.960	2.50	1	08/03/2021 04:03	WG1716129
Cyclohexane	U		0.188	1.00	1	08/03/2021 04:03	WG1716129
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 04:03	WG1716129
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 04:03	WG1716129
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 04:03	WG1716129
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 04:03	WG1716129
Dibromomethane	U		0.122	1.00	1	08/03/2021 04:03	WG1716129
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 04:03	WG1716129
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 04:03	WG1716129
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 04:03	WG1716129
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 04:03	WG1716129
1,1-Dichloroethane	U		0.100	1.00	1	08/03/2021 04:03	WG1716129
1,2-Dichloroethane	U		0.0819	1.00	1	08/03/2021 04:03	WG1716129
1,1-Dichloroethene	U		0.188	1.00	1	08/03/2021 04:03	WG1716129
cis-1,2-Dichloroethene	1.36		0.126	1.00	1	08/03/2021 04:03	WG1716129
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/03/2021 04:03	WG1716129
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 04:03	WG1716129
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 04:03	WG1716129
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 04:03	WG1716129
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 04:03	WG1716129
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 04:03	WG1716129
2,2-Dichloropropane	U		0.161	1.00	1	08/03/2021 04:03	WG1716129
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 04:03	WG1716129
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 04:03	WG1716129
Ethylbenzene	U		0.137	1.00	1	08/03/2021 04:03	WG1716129
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 04:03	WG1716129
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 04:03	WG1716129
n-Hexane	U		0.749	10.0	1	08/03/2021 04:03	WG1716129
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 04:03	WG1716129
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 04:03	WG1716129
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 04:03	WG1716129
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 04:03	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 04:03	WG1716129
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 04:03	WG1716129
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 04:03	WG1716129
Naphthalene	U		1.00	5.00	1	08/03/2021 04:03	WG1716129
Propene	U		0.936	2.50	1	08/03/2021 04:03	WG1716129
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 04:03	WG1716129
Styrene	U		0.118	1.00	1	08/03/2021 04:03	WG1716129
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 04:03	WG1716129
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 04:03	WG1716129
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 04:03	WG1716129
Tetrachloroethene	U		0.300	1.00	1	08/03/2021 04:03	WG1716129
Toluene	U		0.278	1.00	1	08/03/2021 04:03	WG1716129
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 04:03	WG1716129
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 04:03	WG1716129
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 04:03	WG1716129
1,1,2-Trichloroethane	U		0.158	1.00	1	08/03/2021 04:03	WG1716129
Trichloroethene	3.99		0.190	1.00	1	08/12/2021 12:57	WG1721553
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 04:03	WG1716129
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 04:03	WG1716129
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 04:03	WG1716129
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 04:03	WG1716129
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 04:03	WG1716129
Vinyl chloride	U		0.234	1.00	1	08/03/2021 04:03	WG1716129
Xylenes, Total	U		0.174	3.00	1	08/03/2021 04:03	WG1716129
(S) Toluene-d8	*106*			*80.0-120*		*08/03/2021 04:03*	WG1716129
(S) Toluene-d8	*106*			*80.0-120*		*08/12/2021 12:57*	WG1721553
(S) 4-Bromofluorobenzene	*91.3*			*77.0-126*		*08/03/2021 04:03*	WG1716129
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*08/12/2021 12:57*	WG1721553
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*08/03/2021 04:03*	WG1716129
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*08/12/2021 12:57*	WG1721553

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	U		0.597	3.00	1	08/03/2021 18:57	WG1716576
(S) Toluene-d8	*104*			*77.0-127*		*08/03/2021 18:57*	WG1716576

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	U		0.300	4.00	1	08/07/2021 11:55	WG1720097

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	L1	11.3	50.0	1	08/03/2021 04:22	WG1716129
Acrolein	U		2.54	50.0	1	08/03/2021 04:22	WG1716129
Acrylonitrile	U		0.671	10.0	1	08/03/2021 04:22	WG1716129
Benzene	U		0.0941	1.00	1	08/03/2021 04:22	WG1716129
Bromobenzene	U		0.118	1.00	1	08/03/2021 04:22	WG1716129
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 04:22	WG1716129
Bromoform	U		0.129	1.00	1	08/03/2021 04:22	WG1716129
Bromomethane	U		0.605	5.00	1	08/03/2021 04:22	WG1716129
1,3-Butadiene	U		0.299	2.00	1	08/03/2021 04:22	WG1716129
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 04:22	WG1716129
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 04:22	WG1716129
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 04:22	WG1716129
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 04:22	WG1716129
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 04:22	WG1716129
Chlorobenzene	U		0.116	1.00	1	08/03/2021 04:22	WG1716129
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 04:22	WG1716129
Chloroethane	U		0.192	5.00	1	08/03/2021 04:22	WG1716129
Chloroform	U		0.111	5.00	1	08/03/2021 04:22	WG1716129
Chloromethane	U		0.960	2.50	1	08/03/2021 04:22	WG1716129
Cyclohexane	U		0.188	1.00	1	08/03/2021 04:22	WG1716129
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 04:22	WG1716129
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 04:22	WG1716129
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 04:22	WG1716129
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 04:22	WG1716129
Dibromomethane	U		0.122	1.00	1	08/03/2021 04:22	WG1716129
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 04:22	WG1716129
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 04:22	WG1716129
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 04:22	WG1716129
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 04:22	WG1716129
1,1-Dichloroethane	U		0.100	1.00	1	08/03/2021 04:22	WG1716129
1,2-Dichloroethane	U		0.0819	1.00	1	08/03/2021 04:22	WG1716129
1,1-Dichloroethene	0.676	E4	0.188	1.00	1	08/03/2021 04:22	WG1716129
cis-1,2-Dichloroethene	2.38		0.126	1.00	1	08/03/2021 04:22	WG1716129
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/03/2021 04:22	WG1716129
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 04:22	WG1716129
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 04:22	WG1716129
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 04:22	WG1716129
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 04:22	WG1716129
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 04:22	WG1716129
2,2-Dichloropropane	U		0.161	1.00	1	08/03/2021 04:22	WG1716129
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 04:22	WG1716129
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 04:22	WG1716129
Ethylbenzene	U		0.137	1.00	1	08/03/2021 04:22	WG1716129
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 04:22	WG1716129
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 04:22	WG1716129
n-Hexane	U		0.749	10.0	1	08/03/2021 04:22	WG1716129
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 04:22	WG1716129
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 04:22	WG1716129
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 04:22	WG1716129
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 04:22	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 04:22	WG1716129
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 04:22	WG1716129
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 04:22	WG1716129
Naphthalene	U		1.00	5.00	1	08/03/2021 04:22	WG1716129
Propene	U		0.936	2.50	1	08/03/2021 04:22	WG1716129
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 04:22	WG1716129
Styrene	U		0.118	1.00	1	08/03/2021 04:22	WG1716129
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 04:22	WG1716129
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 04:22	WG1716129
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 04:22	WG1716129
Tetrachloroethene	U		0.300	1.00	1	08/03/2021 04:22	WG1716129
Toluene	U		0.278	1.00	1	08/03/2021 04:22	WG1716129
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 04:22	WG1716129
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 04:22	WG1716129
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 04:22	WG1716129
1,1,2-Trichloroethane	U		0.158	1.00	1	08/03/2021 04:22	WG1716129
Trichloroethene	13.0		0.190	1.00	1	08/12/2021 13:21	WG1721553
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 04:22	WG1716129
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 04:22	WG1716129
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 04:22	WG1716129
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 04:22	WG1716129
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 04:22	WG1716129
Vinyl chloride	0.239	E4	0.234	1.00	1	08/03/2021 04:22	WG1716129
Xylenes, Total	U		0.174	3.00	1	08/03/2021 04:22	WG1716129
(S) Toluene-d8	*109*			*80.0-120*		*08/03/2021 04:22*	WG1716129
(S) Toluene-d8	*107*			*80.0-120*		*08/12/2021 13:21*	WG1721553
(S) 4-Bromofluorobenzene	*88.8*			*77.0-126*		*08/03/2021 04:22*	WG1716129
(S) 4-Bromofluorobenzene	*99.1*			*77.0-126*		*08/12/2021 13:21*	WG1721553
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*08/03/2021 04:22*	WG1716129
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*08/12/2021 13:21*	WG1721553

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	6.26		0.597	3.00	1	08/03/2021 19:17	WG1716576
(S) Toluene-d8	*103*			*77.0-127*		*08/03/2021 19:17*	WG1716576

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	750000		3000	40000	10000	08/06/2021 15:18	WG1716655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	L1	565	2500	50	08/03/2021 07:13	WG1716129
Acrolein	U		127	2500	50	08/03/2021 07:13	WG1716129
Acrylonitrile	U		33.6	500	50	08/03/2021 07:13	WG1716129
Benzene	291		4.71	50.0	50	08/03/2021 07:13	WG1716129
Bromobenzene	U		5.90	50.0	50	08/03/2021 07:13	WG1716129
Bromodichloromethane	U		6.80	50.0	50	08/03/2021 07:13	WG1716129
Bromoform	U		6.45	50.0	50	08/03/2021 07:13	WG1716129
Bromomethane	U		30.3	250	50	08/03/2021 07:13	WG1716129
1,3-Butadiene	U		14.9	100	50	08/03/2021 07:13	WG1716129
n-Butylbenzene	U		7.85	50.0	50	08/03/2021 07:13	WG1716129
sec-Butylbenzene	U		6.25	50.0	50	08/03/2021 07:13	WG1716129
tert-Butylbenzene	U		6.35	50.0	50	08/03/2021 07:13	WG1716129
Carbon tetrachloride	U		6.40	50.0	50	08/03/2021 07:13	WG1716129
Carbon disulfide	U		4.81	50.0	50	08/03/2021 07:13	WG1716129
Chlorobenzene	U		5.80	50.0	50	08/03/2021 07:13	WG1716129
Chlorodibromomethane	U		7.00	50.0	50	08/03/2021 07:13	WG1716129
Chloroethane	U		9.60	250	50	08/03/2021 07:13	WG1716129
Chloroform	79.8	E4	5.55	250	50	08/03/2021 07:13	WG1716129
Chloromethane	U		48.0	125	50	08/03/2021 07:13	WG1716129
Cyclohexane	U		9.40	50.0	50	08/03/2021 07:13	WG1716129
2-Chlorotoluene	U		5.30	50.0	50	08/03/2021 07:13	WG1716129
4-Chlorotoluene	U		5.70	50.0	50	08/03/2021 07:13	WG1716129
1,2-Dibromo-3-Chloropropane	U		13.8	250	50	08/03/2021 07:13	WG1716129
1,2-Dibromoethane	U		6.30	50.0	50	08/03/2021 07:13	WG1716129
Dibromomethane	U		6.10	50.0	50	08/03/2021 07:13	WG1716129
1,2-Dichlorobenzene	U		5.35	50.0	50	08/03/2021 07:13	WG1716129
1,3-Dichlorobenzene	U		5.50	50.0	50	08/03/2021 07:13	WG1716129
1,4-Dichlorobenzene	U		6.00	50.0	50	08/03/2021 07:13	WG1716129
Dichlorodifluoromethane	U		18.7	250	50	08/03/2021 07:13	WG1716129
1,1-Dichloroethane	55.9		5.00	50.0	50	08/03/2021 07:13	WG1716129
1,2-Dichloroethane	36.8	E4	4.09	50.0	50	08/03/2021 07:13	WG1716129
1,1-Dichloroethene	3710		9.40	50.0	50	08/03/2021 07:13	WG1716129
cis-1,2-Dichloroethene	13.7	E4	6.30	50.0	50	08/03/2021 07:13	WG1716129
trans-1,2-Dichloroethene	7.65	E4	7.45	50.0	50	08/03/2021 07:13	WG1716129
1,2-Dichloropropane	U		7.45	50.0	50	08/03/2021 07:13	WG1716129
1,1-Dichloropropene	U		7.10	50.0	50	08/03/2021 07:13	WG1716129
1,3-Dichloropropane	U		5.50	50.0	50	08/03/2021 07:13	WG1716129
cis-1,3-Dichloropropene	U		5.55	50.0	50	08/03/2021 07:13	WG1716129
trans-1,3-Dichloropropene	U		5.90	50.0	50	08/03/2021 07:13	WG1716129
2,2-Dichloropropane	U		8.05	50.0	50	08/03/2021 07:13	WG1716129
Dicyclopentadiene	U		12.7	50.0	50	08/03/2021 07:13	WG1716129
Di-isopropyl ether	U		5.25	50.0	50	08/03/2021 07:13	WG1716129
Ethylbenzene	16.8	E4	6.85	50.0	50	08/03/2021 07:13	WG1716129
4-Ethyltoluene	U		10.4	50.0	50	08/03/2021 07:13	WG1716129
Hexachloro-1,3-butadiene	U		16.9	50.0	50	08/03/2021 07:13	WG1716129
n-Hexane	U		37.4	500	50	08/03/2021 07:13	WG1716129
Isopropylbenzene	U		5.25	50.0	50	08/03/2021 07:13	WG1716129
p-Isopropyltoluene	U		6.00	50.0	50	08/03/2021 07:13	WG1716129
2-Butanone (MEK)	U		59.5	500	50	08/03/2021 07:13	WG1716129
Methyl Cyclohexane	U		33.0	50.0	50	08/03/2021 07:13	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	118000		1080	12500	2500	08/12/2021 15:53	WG1721553
4-Methyl-2-pentanone (MIBK)	U		23.9	500	50	08/03/2021 07:13	WG1716129
Methyl tert-butyl ether	U		5.05	50.0	50	08/03/2021 07:13	WG1716129
Naphthalene	U		50.0	250	50	08/03/2021 07:13	WG1716129
Propene	U		46.8	125	50	08/03/2021 07:13	WG1716129
n-Propylbenzene	U		4.97	50.0	50	08/03/2021 07:13	WG1716129
Styrene	U		5.90	50.0	50	08/03/2021 07:13	WG1716129
1,1,1,2-Tetrachloroethane	U		7.35	50.0	50	08/03/2021 07:13	WG1716129
1,1,2,2-Tetrachloroethane	U		6.65	50.0	50	08/03/2021 07:13	WG1716129
1,1,2-Trichlorotrifluoroethane	U		9.00	50.0	50	08/03/2021 07:13	WG1716129
Tetrachloroethene	68.2		15.0	50.0	50	08/03/2021 07:13	WG1716129
Toluene	279		13.9	50.0	50	08/03/2021 07:13	WG1716129
1,2,3-Trichlorobenzene	U		11.5	50.0	50	08/03/2021 07:13	WG1716129
1,2,4-Trichlorobenzene	U		24.1	50.0	50	08/03/2021 07:13	WG1716129
1,1,1-Trichloroethane	U		7.45	50.0	50	08/03/2021 07:13	WG1716129
1,1,2-Trichloroethane	86.5		7.90	50.0	50	08/03/2021 07:13	WG1716129
Trichloroethene	86000		475	2500	2500	08/12/2021 15:53	WG1721553
Trichlorofluoromethane	U		8.00	250	50	08/03/2021 07:13	WG1716129
1,2,3-Trichloropropane	U		11.9	125	50	08/03/2021 07:13	WG1716129
1,2,4-Trimethylbenzene	U		16.1	50.0	50	08/03/2021 07:13	WG1716129
1,2,3-Trimethylbenzene	U		5.20	50.0	50	08/03/2021 07:13	WG1716129
1,3,5-Trimethylbenzene	U		5.20	50.0	50	08/03/2021 07:13	WG1716129
Vinyl chloride	U		11.7	50.0	50	08/03/2021 07:13	WG1716129
Xylenes, Total	114	E4	8.70	150	50	08/03/2021 07:13	WG1716129
(S) Toluene-d8	*110*			*80.0-120*		*08/03/2021 07:13*	WG1716129
(S) Toluene-d8	*104*			*80.0-120*		*08/12/2021 15:53*	WG1721553
(S) 4-Bromofluorobenzene	*87.7*			*77.0-126*		*08/03/2021 07:13*	WG1716129
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*08/12/2021 15:53*	WG1721553
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*08/03/2021 07:13*	WG1716129
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*08/12/2021 15:53*	WG1721553

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	5140		29.9	150	50	08/06/2021 18:05	WG1717221
(S) Toluene-d8	*105*			*77.0-127*		*08/06/2021 18:05*	WG1717221

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	746000		3000	40000	10000	08/06/2021 15:46	WG1716655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	L1	565	2500	50	08/03/2021 07:32	WG1716129
Acrolein	U		127	2500	50	08/03/2021 07:32	WG1716129
Acrylonitrile	U		33.6	500	50	08/03/2021 07:32	WG1716129
Benzene	275		4.71	50.0	50	08/03/2021 07:32	WG1716129
Bromobenzene	U		5.90	50.0	50	08/03/2021 07:32	WG1716129
Bromodichloromethane	U		6.80	50.0	50	08/03/2021 07:32	WG1716129
Bromoform	U		6.45	50.0	50	08/03/2021 07:32	WG1716129
Bromomethane	U		30.3	250	50	08/03/2021 07:32	WG1716129
1,3-Butadiene	U		14.9	100	50	08/03/2021 07:32	WG1716129
n-Butylbenzene	U		7.85	50.0	50	08/03/2021 07:32	WG1716129
sec-Butylbenzene	U		6.25	50.0	50	08/03/2021 07:32	WG1716129
tert-Butylbenzene	U		6.35	50.0	50	08/03/2021 07:32	WG1716129
Carbon tetrachloride	U		6.40	50.0	50	08/03/2021 07:32	WG1716129
Carbon disulfide	U		4.81	50.0	50	08/03/2021 07:32	WG1716129
Chlorobenzene	U		5.80	50.0	50	08/03/2021 07:32	WG1716129
Chlorodibromomethane	U		7.00	50.0	50	08/03/2021 07:32	WG1716129
Chloroethane	U		9.60	250	50	08/03/2021 07:32	WG1716129
Chloroform	81.1	E4	5.55	250	50	08/03/2021 07:32	WG1716129
Chloromethane	U		48.0	125	50	08/03/2021 07:32	WG1716129
Cyclohexane	U		9.40	50.0	50	08/03/2021 07:32	WG1716129
2-Chlorotoluene	U		5.30	50.0	50	08/03/2021 07:32	WG1716129
4-Chlorotoluene	U		5.70	50.0	50	08/03/2021 07:32	WG1716129
1,2-Dibromo-3-Chloropropane	U		13.8	250	50	08/03/2021 07:32	WG1716129
1,2-Dibromoethane	U		6.30	50.0	50	08/03/2021 07:32	WG1716129
Dibromomethane	U		6.10	50.0	50	08/03/2021 07:32	WG1716129
1,2-Dichlorobenzene	U		5.35	50.0	50	08/03/2021 07:32	WG1716129
1,3-Dichlorobenzene	U		5.50	50.0	50	08/03/2021 07:32	WG1716129
1,4-Dichlorobenzene	U		6.00	50.0	50	08/03/2021 07:32	WG1716129
Dichlorodifluoromethane	U		18.7	250	50	08/03/2021 07:32	WG1716129
1,1-Dichloroethane	54.3		5.00	50.0	50	08/03/2021 07:32	WG1716129
1,2-Dichloroethane	35.6	E4	4.09	50.0	50	08/03/2021 07:32	WG1716129
1,1-Dichloroethene	3720		9.40	50.0	50	08/03/2021 07:32	WG1716129
cis-1,2-Dichloroethene	12.9	E4	6.30	50.0	50	08/03/2021 07:32	WG1716129
trans-1,2-Dichloroethene	7.70	E4	7.45	50.0	50	08/03/2021 07:32	WG1716129
1,2-Dichloropropane	U		7.45	50.0	50	08/03/2021 07:32	WG1716129
1,1-Dichloropropene	U		7.10	50.0	50	08/03/2021 07:32	WG1716129
1,3-Dichloropropane	U		5.50	50.0	50	08/03/2021 07:32	WG1716129
cis-1,3-Dichloropropene	U		5.55	50.0	50	08/03/2021 07:32	WG1716129
trans-1,3-Dichloropropene	U		5.90	50.0	50	08/03/2021 07:32	WG1716129
2,2-Dichloropropane	U		8.05	50.0	50	08/03/2021 07:32	WG1716129
Dicyclopentadiene	U		12.7	50.0	50	08/03/2021 07:32	WG1716129
Di-isopropyl ether	U		5.25	50.0	50	08/03/2021 07:32	WG1716129
Ethylbenzene	18.3	E4	6.85	50.0	50	08/03/2021 07:32	WG1716129
4-Ethyltoluene	U		10.4	50.0	50	08/03/2021 07:32	WG1716129
Hexachloro-1,3-butadiene	U		16.9	50.0	50	08/03/2021 07:32	WG1716129
n-Hexane	U		37.4	500	50	08/03/2021 07:32	WG1716129
Isopropylbenzene	U		5.25	50.0	50	08/03/2021 07:32	WG1716129
p-Isopropyltoluene	U		6.00	50.0	50	08/03/2021 07:32	WG1716129
2-Butanone (MEK)	U		59.5	500	50	08/03/2021 07:32	WG1716129
Methyl Cyclohexane	U		33.0	50.0	50	08/03/2021 07:32	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	121000		1080	12500	2500	08/12/2021 16:14	WG1721553
4-Methyl-2-pentanone (MIBK)	U		23.9	500	50	08/03/2021 07:32	WG1716129
Methyl tert-butyl ether	U		5.05	50.0	50	08/03/2021 07:32	WG1716129
Naphthalene	U		50.0	250	50	08/03/2021 07:32	WG1716129
Propene	U		46.8	125	50	08/03/2021 07:32	WG1716129
n-Propylbenzene	U		4.97	50.0	50	08/03/2021 07:32	WG1716129
Styrene	U		5.90	50.0	50	08/03/2021 07:32	WG1716129
1,1,1,2-Tetrachloroethane	U		7.35	50.0	50	08/03/2021 07:32	WG1716129
1,1,2,2-Tetrachloroethane	U		6.65	50.0	50	08/03/2021 07:32	WG1716129
1,1,2-Trichlorotrifluoroethane	U		9.00	50.0	50	08/03/2021 07:32	WG1716129
Tetrachloroethene	63.6		15.0	50.0	50	08/03/2021 07:32	WG1716129
Toluene	285		13.9	50.0	50	08/03/2021 07:32	WG1716129
1,2,3-Trichlorobenzene	U		11.5	50.0	50	08/03/2021 07:32	WG1716129
1,2,4-Trichlorobenzene	U		24.1	50.0	50	08/03/2021 07:32	WG1716129
1,1,1-Trichloroethane	U		7.45	50.0	50	08/03/2021 07:32	WG1716129
1,1,2-Trichloroethane	81.2		7.90	50.0	50	08/03/2021 07:32	WG1716129
Trichloroethene	87300		475	2500	2500	08/12/2021 16:14	WG1721553
Trichlorofluoromethane	U		8.00	250	50	08/03/2021 07:32	WG1716129
1,2,3-Trichloropropane	U		11.9	125	50	08/03/2021 07:32	WG1716129
1,2,4-Trimethylbenzene	U		16.1	50.0	50	08/03/2021 07:32	WG1716129
1,2,3-Trimethylbenzene	U		5.20	50.0	50	08/03/2021 07:32	WG1716129
1,3,5-Trimethylbenzene	U		5.20	50.0	50	08/03/2021 07:32	WG1716129
Vinyl chloride	U		11.7	50.0	50	08/03/2021 07:32	WG1716129
Xylenes, Total	115	E4	8.70	150	50	08/03/2021 07:32	WG1716129
(S) Toluene-d8	*108*			*80.0-120*		*08/03/2021 07:32*	WG1716129
(S) Toluene-d8	*110*			*80.0-120*		*08/12/2021 16:14*	WG1721553
(S) 4-Bromofluorobenzene	*87.3*			*77.0-126*		*08/03/2021 07:32*	WG1716129
(S) 4-Bromofluorobenzene	*94.6*			*77.0-126*		*08/12/2021 16:14*	WG1721553
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*08/03/2021 07:32*	WG1716129
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*08/12/2021 16:14*	WG1721553

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	5710		29.9	150	50	08/06/2021 18:25	WG1717221
(S) Toluene-d8	*105*			*77.0-127*		*08/06/2021 18:25*	WG1717221

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	15.9	M1	0.300	4.00	1	08/07/2021 13:23	WG1720097

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	L1	11.3	50.0	1	08/03/2021 04:41	WG1716129
Acrolein	U		2.54	50.0	1	08/03/2021 04:41	WG1716129
Acrylonitrile	U		0.671	10.0	1	08/03/2021 04:41	WG1716129
Benzene	U		0.0941	1.00	1	08/03/2021 04:41	WG1716129
Bromobenzene	U		0.118	1.00	1	08/03/2021 04:41	WG1716129
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 04:41	WG1716129
Bromoform	U		0.129	1.00	1	08/03/2021 04:41	WG1716129
Bromomethane	U		0.605	5.00	1	08/03/2021 04:41	WG1716129
1,3-Butadiene	U		0.299	2.00	1	08/03/2021 04:41	WG1716129
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 04:41	WG1716129
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 04:41	WG1716129
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 04:41	WG1716129
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 04:41	WG1716129
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 04:41	WG1716129
Chlorobenzene	U		0.116	1.00	1	08/03/2021 04:41	WG1716129
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 04:41	WG1716129
Chloroethane	U		0.192	5.00	1	08/03/2021 04:41	WG1716129
Chloroform	U		0.111	5.00	1	08/03/2021 04:41	WG1716129
Chloromethane	U		0.960	2.50	1	08/03/2021 04:41	WG1716129
Cyclohexane	U		0.188	1.00	1	08/03/2021 04:41	WG1716129
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 04:41	WG1716129
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 04:41	WG1716129
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 04:41	WG1716129
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 04:41	WG1716129
Dibromomethane	U		0.122	1.00	1	08/03/2021 04:41	WG1716129
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 04:41	WG1716129
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 04:41	WG1716129
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 04:41	WG1716129
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 04:41	WG1716129
1,1-Dichloroethane	U		0.100	1.00	1	08/03/2021 04:41	WG1716129
1,2-Dichloroethane	U		0.0819	1.00	1	08/03/2021 04:41	WG1716129
1,1-Dichloroethene	U		0.188	1.00	1	08/03/2021 04:41	WG1716129
cis-1,2-Dichloroethene	U		0.126	1.00	1	08/03/2021 04:41	WG1716129
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/03/2021 04:41	WG1716129
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 04:41	WG1716129
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 04:41	WG1716129
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 04:41	WG1716129
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 04:41	WG1716129
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 04:41	WG1716129
2,2-Dichloropropane	U		0.161	1.00	1	08/03/2021 04:41	WG1716129
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 04:41	WG1716129
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 04:41	WG1716129
Ethylbenzene	U		0.137	1.00	1	08/03/2021 04:41	WG1716129
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 04:41	WG1716129
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 04:41	WG1716129
n-Hexane	U		0.749	10.0	1	08/03/2021 04:41	WG1716129
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 04:41	WG1716129
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 04:41	WG1716129
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 04:41	WG1716129
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 04:41	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 04:41	WG1716129
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 04:41	WG1716129
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 04:41	WG1716129
Naphthalene	U		1.00	5.00	1	08/03/2021 04:41	WG1716129
Propene	U		0.936	2.50	1	08/03/2021 04:41	WG1716129
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 04:41	WG1716129
Styrene	U		0.118	1.00	1	08/03/2021 04:41	WG1716129
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 04:41	WG1716129
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 04:41	WG1716129
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 04:41	WG1716129
Tetrachloroethene	U		0.300	1.00	1	08/03/2021 04:41	WG1716129
Toluene	U		0.278	1.00	1	08/03/2021 04:41	WG1716129
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 04:41	WG1716129
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 04:41	WG1716129
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 04:41	WG1716129
1,1,2-Trichloroethane	U		0.158	1.00	1	08/03/2021 04:41	WG1716129
Trichloroethene	2.75		0.190	1.00	1	08/12/2021 13:43	WG1721553
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 04:41	WG1716129
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 04:41	WG1716129
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 04:41	WG1716129
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 04:41	WG1716129
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 04:41	WG1716129
Vinyl chloride	U		0.234	1.00	1	08/03/2021 04:41	WG1716129
Xylenes, Total	U		0.174	3.00	1	08/03/2021 04:41	WG1716129
(S) Toluene-d8	*112*			*80.0-120*		*08/03/2021 04:41*	WG1716129
(S) Toluene-d8	*109*			*80.0-120*		*08/12/2021 13:43*	WG1721553
(S) 4-Bromofluorobenzene	*87.7*			*77.0-126*		*08/03/2021 04:41*	WG1716129
(S) 4-Bromofluorobenzene	*93.6*			*77.0-126*		*08/12/2021 13:43*	WG1721553
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*08/03/2021 04:41*	WG1716129
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*08/12/2021 13:43*	WG1721553

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	U		0.597	3.00	1	08/06/2021 17:25	WG1717221
(S) Toluene-d8	*104*			*77.0-127*		*08/06/2021 17:25*	WG1717221

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	24000		150	2000	500	08/06/2021 16:15	WG1716655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	L1	11.3	50.0	1	08/03/2021 05:00	WG1716129
Acrolein	U		2.54	50.0	1	08/03/2021 05:00	WG1716129
Acrylonitrile	U		0.671	10.0	1	08/03/2021 05:00	WG1716129
Benzene	U		0.0941	1.00	1	08/03/2021 05:00	WG1716129
Bromobenzene	U		0.118	1.00	1	08/03/2021 05:00	WG1716129
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 05:00	WG1716129
Bromoform	U		0.129	1.00	1	08/03/2021 05:00	WG1716129
Bromomethane	U		0.605	5.00	1	08/03/2021 05:00	WG1716129
1,3-Butadiene	U		0.299	2.00	1	08/03/2021 05:00	WG1716129
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 05:00	WG1716129
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 05:00	WG1716129
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 05:00	WG1716129
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 05:00	WG1716129
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 05:00	WG1716129
Chlorobenzene	U		0.116	1.00	1	08/03/2021 05:00	WG1716129
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 05:00	WG1716129
Chloroethane	U		0.192	5.00	1	08/03/2021 05:00	WG1716129
Chloroform	U		0.111	5.00	1	08/03/2021 05:00	WG1716129
Chloromethane	U		0.960	2.50	1	08/03/2021 05:00	WG1716129
Cyclohexane	U		0.188	1.00	1	08/03/2021 05:00	WG1716129
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 05:00	WG1716129
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 05:00	WG1716129
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 05:00	WG1716129
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 05:00	WG1716129
Dibromomethane	U		0.122	1.00	1	08/03/2021 05:00	WG1716129
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 05:00	WG1716129
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 05:00	WG1716129
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 05:00	WG1716129
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 05:00	WG1716129
1,1-Dichloroethane	U		0.100	1.00	1	08/03/2021 05:00	WG1716129
1,2-Dichloroethane	U		0.0819	1.00	1	08/03/2021 05:00	WG1716129
1,1-Dichloroethene	4.49		0.188	1.00	1	08/03/2021 05:00	WG1716129
cis-1,2-Dichloroethene	U		0.126	1.00	1	08/03/2021 05:00	WG1716129
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/03/2021 05:00	WG1716129
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 05:00	WG1716129
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 05:00	WG1716129
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 05:00	WG1716129
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 05:00	WG1716129
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 05:00	WG1716129
2,2-Dichloropropane	U		0.161	1.00	1	08/03/2021 05:00	WG1716129
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 05:00	WG1716129
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 05:00	WG1716129
Ethylbenzene	U		0.137	1.00	1	08/03/2021 05:00	WG1716129
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 05:00	WG1716129
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 05:00	WG1716129
n-Hexane	U		0.749	10.0	1	08/03/2021 05:00	WG1716129
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 05:00	WG1716129
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 05:00	WG1716129
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 05:00	WG1716129
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 05:00	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 05:00	WG1716129
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 05:00	WG1716129
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 05:00	WG1716129
Naphthalene	U		1.00	5.00	1	08/03/2021 05:00	WG1716129
Propene	U		0.936	2.50	1	08/03/2021 05:00	WG1716129
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 05:00	WG1716129
Styrene	U		0.118	1.00	1	08/03/2021 05:00	WG1716129
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 05:00	WG1716129
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 05:00	WG1716129
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 05:00	WG1716129
Tetrachloroethene	U		0.300	1.00	1	08/03/2021 05:00	WG1716129
Toluene	U		0.278	1.00	1	08/03/2021 05:00	WG1716129
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 05:00	WG1716129
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 05:00	WG1716129
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 05:00	WG1716129
1,1,2-Trichloroethane	U		0.158	1.00	1	08/03/2021 05:00	WG1716129
Trichloroethene	11.1		0.190	1.00	1	08/03/2021 05:00	WG1716129
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 05:00	WG1716129
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 05:00	WG1716129
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 05:00	WG1716129
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 05:00	WG1716129
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 05:00	WG1716129
Vinyl chloride	U		0.234	1.00	1	08/03/2021 05:00	WG1716129
Xylenes, Total	U		0.174	3.00	1	08/03/2021 05:00	WG1716129
(S) Toluene-d8	*106*			*80.0-120*		*08/03/2021 05:00*	WG1716129
(S) 4-Bromofluorobenzene	*91.8*			*77.0-126*		*08/03/2021 05:00*	WG1716129
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*08/03/2021 05:00*	WG1716129

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	58.6		0.597	3.00	1	08/03/2021 20:37	WG1716576
(S) Toluene-d8	*105*			*77.0-127*		*08/03/2021 20:37*	WG1716576

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Is
8 Gl
9 Al
10 Sc

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	132000		1500	20000	5000	08/06/2021 17:40	WG1716655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	L1	11.3	50.0	1	08/03/2021 05:19	WG1716129
Acrolein	U		2.54	50.0	1	08/03/2021 05:19	WG1716129
Acrylonitrile	U		0.671	10.0	1	08/03/2021 05:19	WG1716129
Benzene	1.77		0.0941	1.00	1	08/03/2021 05:19	WG1716129
Bromobenzene	U		0.118	1.00	1	08/03/2021 05:19	WG1716129
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 05:19	WG1716129
Bromoform	U		0.129	1.00	1	08/03/2021 05:19	WG1716129
Bromomethane	U		0.605	5.00	1	08/03/2021 05:19	WG1716129
1,3-Butadiene	U		0.299	2.00	1	08/03/2021 05:19	WG1716129
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 05:19	WG1716129
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 05:19	WG1716129
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 05:19	WG1716129
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 05:19	WG1716129
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 05:19	WG1716129
Chlorobenzene	U		0.116	1.00	1	08/03/2021 05:19	WG1716129
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 05:19	WG1716129
Chloroethane	U		0.192	5.00	1	08/03/2021 05:19	WG1716129
Chloroform	1.76	E4	0.111	5.00	1	08/03/2021 05:19	WG1716129
Chloromethane	U		0.960	2.50	1	08/03/2021 05:19	WG1716129
Cyclohexane	U		0.188	1.00	1	08/03/2021 05:19	WG1716129
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 05:19	WG1716129
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 05:19	WG1716129
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 05:19	WG1716129
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 05:19	WG1716129
Dibromomethane	U		0.122	1.00	1	08/03/2021 05:19	WG1716129
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 05:19	WG1716129
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 05:19	WG1716129
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 05:19	WG1716129
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 05:19	WG1716129
1,1-Dichloroethane	1.15		0.100	1.00	1	08/03/2021 05:19	WG1716129
1,2-Dichloroethane	0.275	E4	0.0819	1.00	1	08/03/2021 05:19	WG1716129
1,1-Dichloroethene	126		3.76	20.0	20	08/12/2021 16:35	WG1721553
cis-1,2-Dichloroethene	2.00		0.126	1.00	1	08/03/2021 05:19	WG1716129
trans-1,2-Dichloroethene	0.266	E4	0.149	1.00	1	08/03/2021 05:19	WG1716129
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 05:19	WG1716129
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 05:19	WG1716129
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 05:19	WG1716129
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 05:19	WG1716129
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 05:19	WG1716129
2,2-Dichloropropane	U		0.161	1.00	1	08/03/2021 05:19	WG1716129
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 05:19	WG1716129
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 05:19	WG1716129
Ethylbenzene	U		0.137	1.00	1	08/03/2021 05:19	WG1716129
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 05:19	WG1716129
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 05:19	WG1716129
n-Hexane	U		0.749	10.0	1	08/03/2021 05:19	WG1716129
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 05:19	WG1716129
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 05:19	WG1716129
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 05:19	WG1716129
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 05:19	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 05:19	WG1716129
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 05:19	WG1716129
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 05:19	WG1716129
Naphthalene	U		1.00	5.00	1	08/03/2021 05:19	WG1716129
Propene	U		0.936	2.50	1	08/03/2021 05:19	WG1716129
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 05:19	WG1716129
Styrene	U		0.118	1.00	1	08/03/2021 05:19	WG1716129
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 05:19	WG1716129
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 05:19	WG1716129
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 05:19	WG1716129
Tetrachloroethene	1.61		0.300	1.00	1	08/03/2021 05:19	WG1716129
Toluene	U		0.278	1.00	1	08/03/2021 05:19	WG1716129
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 05:19	WG1716129
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 05:19	WG1716129
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 05:19	WG1716129
1,1,2-Trichloroethane	2.37		0.158	1.00	1	08/03/2021 05:19	WG1716129
Trichloroethene	966		3.80	20.0	20	08/12/2021 16:35	WG1721553
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 05:19	WG1716129
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 05:19	WG1716129
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 05:19	WG1716129
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 05:19	WG1716129
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 05:19	WG1716129
Vinyl chloride	U		0.234	1.00	1	08/03/2021 05:19	WG1716129
Xylenes, Total	U		0.174	3.00	1	08/03/2021 05:19	WG1716129
(S) Toluene-d8	*113*			*80.0-120*		*08/03/2021 05:19*	WG1716129
(S) Toluene-d8	*108*			*80.0-120*		*08/12/2021 16:35*	WG1721553
(S) 4-Bromofluorobenzene	*88.8*			*77.0-126*		*08/03/2021 05:19*	WG1716129
(S) 4-Bromofluorobenzene	*92.4*			*77.0-126*		*08/12/2021 16:35*	WG1721553
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*08/03/2021 05:19*	WG1716129
(S) 1,2-Dichloroethane-d4	*98.9*			*70.0-130*		*08/12/2021 16:35*	WG1721553

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	493		0.597	3.00	1	08/03/2021 20:56	WG1716576
(S) Toluene-d8	*101*			*77.0-127*		*08/03/2021 20:56*	WG1716576

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	123000		1500	20000	5000	08/06/2021 18:08	WG1716655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	L1	11.3	50.0	1	08/03/2021 05:38	WG1716129
Acrolein	U		2.54	50.0	1	08/03/2021 05:38	WG1716129
Acrylonitrile	U		0.671	10.0	1	08/03/2021 05:38	WG1716129
Benzene	0.708	E4	0.0941	1.00	1	08/03/2021 05:38	WG1716129
Bromobenzene	U		0.118	1.00	1	08/03/2021 05:38	WG1716129
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 05:38	WG1716129
Bromoform	U		0.129	1.00	1	08/03/2021 05:38	WG1716129
Bromomethane	U		0.605	5.00	1	08/03/2021 05:38	WG1716129
1,3-Butadiene	U		0.299	2.00	1	08/03/2021 05:38	WG1716129
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 05:38	WG1716129
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 05:38	WG1716129
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 05:38	WG1716129
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 05:38	WG1716129
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 05:38	WG1716129
Chlorobenzene	U		0.116	1.00	1	08/03/2021 05:38	WG1716129
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 05:38	WG1716129
Chloroethane	U		0.192	5.00	1	08/03/2021 05:38	WG1716129
Chloroform	1.15	E4	0.111	5.00	1	08/03/2021 05:38	WG1716129
Chloromethane	U		0.960	2.50	1	08/03/2021 05:38	WG1716129
Cyclohexane	U		0.188	1.00	1	08/03/2021 05:38	WG1716129
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 05:38	WG1716129
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 05:38	WG1716129
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 05:38	WG1716129
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 05:38	WG1716129
Dibromomethane	U		0.122	1.00	1	08/03/2021 05:38	WG1716129
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 05:38	WG1716129
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 05:38	WG1716129
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 05:38	WG1716129
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 05:38	WG1716129
1,1-Dichloroethane	0.656	E4	0.100	1.00	1	08/03/2021 05:38	WG1716129
1,2-Dichloroethane	U		0.0819	1.00	1	08/03/2021 05:38	WG1716129
1,1-Dichloroethene	58.4		0.188	1.00	1	08/03/2021 05:38	WG1716129
cis-1,2-Dichloroethene	0.851	E4	0.126	1.00	1	08/03/2021 05:38	WG1716129
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/03/2021 05:38	WG1716129
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 05:38	WG1716129
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 05:38	WG1716129
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 05:38	WG1716129
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 05:38	WG1716129
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 05:38	WG1716129
2,2-Dichloropropane	U		0.161	1.00	1	08/03/2021 05:38	WG1716129
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 05:38	WG1716129
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 05:38	WG1716129
Ethylbenzene	U		0.137	1.00	1	08/03/2021 05:38	WG1716129
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 05:38	WG1716129
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 05:38	WG1716129
n-Hexane	U		0.749	10.0	1	08/03/2021 05:38	WG1716129
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 05:38	WG1716129
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 05:38	WG1716129
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 05:38	WG1716129
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 05:38	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 05:38	WG1716129
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 05:38	WG1716129
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 05:38	WG1716129
Naphthalene	U		1.00	5.00	1	08/03/2021 05:38	WG1716129
Propene	U		0.936	2.50	1	08/03/2021 05:38	WG1716129
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 05:38	WG1716129
Styrene	U		0.118	1.00	1	08/03/2021 05:38	WG1716129
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 05:38	WG1716129
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 05:38	WG1716129
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 05:38	WG1716129
Tetrachloroethene	0.773	E4	0.300	1.00	1	08/03/2021 05:38	WG1716129
Toluene	U		0.278	1.00	1	08/03/2021 05:38	WG1716129
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 05:38	WG1716129
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 05:38	WG1716129
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 05:38	WG1716129
1,1,2-Trichloroethane	1.36		0.158	1.00	1	08/03/2021 05:38	WG1716129
Trichloroethene	466		1.90	10.0	10	08/12/2021 16:58	WG1721553
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 05:38	WG1716129
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 05:38	WG1716129
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 05:38	WG1716129
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 05:38	WG1716129
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 05:38	WG1716129
Vinyl chloride	U		0.234	1.00	1	08/03/2021 05:38	WG1716129
Xylenes, Total	U		0.174	3.00	1	08/03/2021 05:38	WG1716129
(S) Toluene-d8	*108*			*80.0-120*		*08/03/2021 05:38*	WG1716129
(S) Toluene-d8	*108*			*80.0-120*		*08/12/2021 16:58*	WG1721553
(S) 4-Bromofluorobenzene	*88.9*			*77.0-126*		*08/03/2021 05:38*	WG1716129
(S) 4-Bromofluorobenzene	*98.9*			*77.0-126*		*08/12/2021 16:58*	WG1721553
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*08/03/2021 05:38*	WG1716129
(S) 1,2-Dichloroethane-d4	*98.6*			*70.0-130*		*08/12/2021 16:58*	WG1721553

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	176		0.597	3.00	1	08/03/2021 21:16	WG1716576
(S) Toluene-d8	*102*			*77.0-127*		*08/03/2021 21:16*	WG1716576

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Is
8 Gl
9 Al
10 Sc

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	155000	M3	1500	20000	5000	08/06/2021 18:37	WG1716655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	L1 M1	11.3	50.0	1	08/03/2021 05:57	WG1716129
Acrolein	U		2.54	50.0	1	08/03/2021 05:57	WG1716129
Acrylonitrile	U		0.671	10.0	1	08/03/2021 05:57	WG1716129
Benzene	1.21		0.0941	1.00	1	08/03/2021 05:57	WG1716129
Bromobenzene	U		0.118	1.00	1	08/03/2021 05:57	WG1716129
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 05:57	WG1716129
Bromoform	U		0.129	1.00	1	08/03/2021 05:57	WG1716129
Bromomethane	U		0.605	5.00	1	08/03/2021 05:57	WG1716129
1,3-Butadiene	U		0.299	2.00	1	08/03/2021 05:57	WG1716129
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 05:57	WG1716129
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 05:57	WG1716129
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 05:57	WG1716129
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 05:57	WG1716129
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 05:57	WG1716129
Chlorobenzene	U		0.116	1.00	1	08/03/2021 05:57	WG1716129
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 05:57	WG1716129
Chloroethane	U		0.192	5.00	1	08/03/2021 05:57	WG1716129
Chloroform	1.75	E4	0.111	5.00	1	08/03/2021 05:57	WG1716129
Chloromethane	U		0.960	2.50	1	08/03/2021 05:57	WG1716129
Cyclohexane	U		0.188	1.00	1	08/03/2021 05:57	WG1716129
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 05:57	WG1716129
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 05:57	WG1716129
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 05:57	WG1716129
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 05:57	WG1716129
Dibromomethane	U		0.122	1.00	1	08/03/2021 05:57	WG1716129
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 05:57	WG1716129
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 05:57	WG1716129
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 05:57	WG1716129
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 05:57	WG1716129
1,1-Dichloroethane	1.07		0.100	1.00	1	08/03/2021 05:57	WG1716129
1,2-Dichloroethane	0.158	E4	0.0819	1.00	1	08/03/2021 05:57	WG1716129
1,1-Dichloroethene	93.6	M3	0.188	1.00	1	08/03/2021 05:57	WG1716129
cis-1,2-Dichloroethene	1.58		0.126	1.00	1	08/03/2021 05:57	WG1716129
trans-1,2-Dichloroethene	0.217	E4	0.149	1.00	1	08/03/2021 05:57	WG1716129
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 05:57	WG1716129
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 05:57	WG1716129
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 05:57	WG1716129
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 05:57	WG1716129
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 05:57	WG1716129
2,2-Dichloropropane	U		0.161	1.00	1	08/03/2021 05:57	WG1716129
Dicyclopentadiene	U	M2 R5	0.253	1.00	1	08/03/2021 05:57	WG1716129
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 05:57	WG1716129
Ethylbenzene	U		0.137	1.00	1	08/03/2021 05:57	WG1716129
4-Ethyltoluene	U	R5	0.208	1.00	1	08/03/2021 05:57	WG1716129
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 05:57	WG1716129
n-Hexane	U		0.749	10.0	1	08/03/2021 05:57	WG1716129
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 05:57	WG1716129
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 05:57	WG1716129
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 05:57	WG1716129
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 05:57	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 05:57	WG1716129
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 05:57	WG1716129
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 05:57	WG1716129
Naphthalene	U		1.00	5.00	1	08/03/2021 05:57	WG1716129
Propene	U		0.936	2.50	1	08/03/2021 05:57	WG1716129
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 05:57	WG1716129
Styrene	U		0.118	1.00	1	08/03/2021 05:57	WG1716129
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 05:57	WG1716129
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 05:57	WG1716129
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 05:57	WG1716129
Tetrachloroethene	0.988	E4	0.300	1.00	1	08/03/2021 05:57	WG1716129
Toluene	U		0.278	1.00	1	08/03/2021 05:57	WG1716129
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 05:57	WG1716129
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 05:57	WG1716129
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 05:57	WG1716129
1,1,2-Trichloroethane	2.22		0.158	1.00	1	08/03/2021 05:57	WG1716129
Trichloroethene	654		3.80	20.0	20	08/12/2021 17:21	WG1721553
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 05:57	WG1716129
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 05:57	WG1716129
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 05:57	WG1716129
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 05:57	WG1716129
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 05:57	WG1716129
Vinyl chloride	U		0.234	1.00	1	08/03/2021 05:57	WG1716129
Xylenes, Total	U		0.174	3.00	1	08/03/2021 05:57	WG1716129
(S) Toluene-d8	*109*			*80.0-120*		*08/03/2021 05:57*	WG1716129
(S) Toluene-d8	*108*			*80.0-120*		*08/12/2021 17:21*	WG1721553
(S) 4-Bromofluorobenzene	*89.1*			*77.0-126*		*08/03/2021 05:57*	WG1716129
(S) 4-Bromofluorobenzene	*98.8*			*77.0-126*		*08/12/2021 17:21*	WG1721553
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*08/03/2021 05:57*	WG1716129
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*08/12/2021 17:21*	WG1721553

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	373	M3	0.597	3.00	1	08/03/2021 21:36	WG1716576
(S) Toluene-d8	*101*			*77.0-127*		*08/03/2021 21:36*	WG1716576

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	5640		150	2000	500	08/06/2021 20:02	WG1716655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	L1	11.3	50.0	1	08/03/2021 06:16	WG1716129
Acrolein	U		2.54	50.0	1	08/03/2021 06:16	WG1716129
Acrylonitrile	U		0.671	10.0	1	08/03/2021 06:16	WG1716129
Benzene	U		0.0941	1.00	1	08/03/2021 06:16	WG1716129
Bromobenzene	U		0.118	1.00	1	08/03/2021 06:16	WG1716129
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 06:16	WG1716129
Bromoform	U		0.129	1.00	1	08/03/2021 06:16	WG1716129
Bromomethane	U		0.605	5.00	1	08/03/2021 06:16	WG1716129
1,3-Butadiene	U		0.299	2.00	1	08/03/2021 06:16	WG1716129
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 06:16	WG1716129
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 06:16	WG1716129
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 06:16	WG1716129
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 06:16	WG1716129
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 06:16	WG1716129
Chlorobenzene	U		0.116	1.00	1	08/03/2021 06:16	WG1716129
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 06:16	WG1716129
Chloroethane	U		0.192	5.00	1	08/03/2021 06:16	WG1716129
Chloroform	0.121	E4	0.111	5.00	1	08/03/2021 06:16	WG1716129
Chloromethane	U		0.960	2.50	1	08/03/2021 06:16	WG1716129
Cyclohexane	U		0.188	1.00	1	08/03/2021 06:16	WG1716129
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 06:16	WG1716129
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 06:16	WG1716129
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 06:16	WG1716129
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 06:16	WG1716129
Dibromomethane	U		0.122	1.00	1	08/03/2021 06:16	WG1716129
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 06:16	WG1716129
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 06:16	WG1716129
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 06:16	WG1716129
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 06:16	WG1716129
1,1-Dichloroethane	U		0.100	1.00	1	08/03/2021 06:16	WG1716129
1,2-Dichloroethane	U		0.0819	1.00	1	08/03/2021 06:16	WG1716129
1,1-Dichloroethene	5.91		0.188	1.00	1	08/03/2021 06:16	WG1716129
cis-1,2-Dichloroethene	U		0.126	1.00	1	08/03/2021 06:16	WG1716129
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/03/2021 06:16	WG1716129
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 06:16	WG1716129
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 06:16	WG1716129
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 06:16	WG1716129
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 06:16	WG1716129
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 06:16	WG1716129
2,2-Dichloropropane	U		0.161	1.00	1	08/03/2021 06:16	WG1716129
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 06:16	WG1716129
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 06:16	WG1716129
Ethylbenzene	U		0.137	1.00	1	08/03/2021 06:16	WG1716129
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 06:16	WG1716129
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 06:16	WG1716129
n-Hexane	U		0.749	10.0	1	08/03/2021 06:16	WG1716129
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 06:16	WG1716129
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 06:16	WG1716129
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 06:16	WG1716129
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 06:16	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 06:16	WG1716129
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 06:16	WG1716129
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 06:16	WG1716129
Naphthalene	U		1.00	5.00	1	08/03/2021 06:16	WG1716129
Propene	U		0.936	2.50	1	08/03/2021 06:16	WG1716129
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 06:16	WG1716129
Styrene	U		0.118	1.00	1	08/03/2021 06:16	WG1716129
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 06:16	WG1716129
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 06:16	WG1716129
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 06:16	WG1716129
Tetrachloroethene	U		0.300	1.00	1	08/03/2021 06:16	WG1716129
Toluene	0.314	E4	0.278	1.00	1	08/03/2021 06:16	WG1716129
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 06:16	WG1716129
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 06:16	WG1716129
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 06:16	WG1716129
1,1,2-Trichloroethane	U		0.158	1.00	1	08/03/2021 06:16	WG1716129
Trichloroethene	14.3		0.190	1.00	1	08/12/2021 14:06	WG1721553
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 06:16	WG1716129
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 06:16	WG1716129
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 06:16	WG1716129
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 06:16	WG1716129
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 06:16	WG1716129
Vinyl chloride	U		0.234	1.00	1	08/03/2021 06:16	WG1716129
Xylenes, Total	U		0.174	3.00	1	08/03/2021 06:16	WG1716129
(S) Toluene-d8	*108*			*80.0-120*		*08/03/2021 06:16*	WG1716129
(S) Toluene-d8	*104*			*80.0-120*		*08/12/2021 14:06*	WG1721553
(S) 4-Bromofluorobenzene	*91.3*			*77.0-126*		*08/03/2021 06:16*	WG1716129
(S) 4-Bromofluorobenzene	*96.4*			*77.0-126*		*08/12/2021 14:06*	WG1721553
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*08/03/2021 06:16*	WG1716129
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*08/12/2021 14:06*	WG1721553

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	37.7		0.597	3.00	1	08/03/2021 21:55	WG1716576
(S) Toluene-d8	*104*			*77.0-127*		*08/03/2021 21:55*	WG1716576

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	U		0.300	4.00	1	08/07/2021 13:51	WG1720097

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	L1	11.3	50.0	1	08/03/2021 06:35	WG1716129
Acrolein	U		2.54	50.0	1	08/03/2021 06:35	WG1716129
Acrylonitrile	U		0.671	10.0	1	08/03/2021 06:35	WG1716129
Benzene	U		0.0941	1.00	1	08/03/2021 06:35	WG1716129
Bromobenzene	U		0.118	1.00	1	08/03/2021 06:35	WG1716129
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 06:35	WG1716129
Bromoform	U		0.129	1.00	1	08/03/2021 06:35	WG1716129
Bromomethane	U		0.605	5.00	1	08/03/2021 06:35	WG1716129
1,3-Butadiene	U		0.299	2.00	1	08/03/2021 06:35	WG1716129
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 06:35	WG1716129
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 06:35	WG1716129
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 06:35	WG1716129
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 06:35	WG1716129
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 06:35	WG1716129
Chlorobenzene	U		0.116	1.00	1	08/03/2021 06:35	WG1716129
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 06:35	WG1716129
Chloroethane	U		0.192	5.00	1	08/03/2021 06:35	WG1716129
Chloroform	U		0.111	5.00	1	08/03/2021 06:35	WG1716129
Chloromethane	U		0.960	2.50	1	08/03/2021 06:35	WG1716129
Cyclohexane	U		0.188	1.00	1	08/03/2021 06:35	WG1716129
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 06:35	WG1716129
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 06:35	WG1716129
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 06:35	WG1716129
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 06:35	WG1716129
Dibromomethane	U		0.122	1.00	1	08/03/2021 06:35	WG1716129
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 06:35	WG1716129
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 06:35	WG1716129
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 06:35	WG1716129
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 06:35	WG1716129
1,1-Dichloroethane	U		0.100	1.00	1	08/03/2021 06:35	WG1716129
1,2-Dichloroethane	U		0.0819	1.00	1	08/03/2021 06:35	WG1716129
1,1-Dichloroethene	U		0.188	1.00	1	08/03/2021 06:35	WG1716129
cis-1,2-Dichloroethene	U		0.126	1.00	1	08/03/2021 06:35	WG1716129
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/03/2021 06:35	WG1716129
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 06:35	WG1716129
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 06:35	WG1716129
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 06:35	WG1716129
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 06:35	WG1716129
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 06:35	WG1716129
2,2-Dichloropropane	U		0.161	1.00	1	08/03/2021 06:35	WG1716129
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 06:35	WG1716129
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 06:35	WG1716129
Ethylbenzene	U		0.137	1.00	1	08/03/2021 06:35	WG1716129
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 06:35	WG1716129
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 06:35	WG1716129
n-Hexane	U		0.749	10.0	1	08/03/2021 06:35	WG1716129
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 06:35	WG1716129
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 06:35	WG1716129
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 06:35	WG1716129
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 06:35	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 06:35	WG1716129
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 06:35	WG1716129
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 06:35	WG1716129
Naphthalene	U		1.00	5.00	1	08/03/2021 06:35	WG1716129
Propene	U		0.936	2.50	1	08/03/2021 06:35	WG1716129
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 06:35	WG1716129
Styrene	U		0.118	1.00	1	08/03/2021 06:35	WG1716129
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 06:35	WG1716129
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 06:35	WG1716129
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 06:35	WG1716129
Tetrachloroethene	U		0.300	1.00	1	08/03/2021 06:35	WG1716129
Toluene	U		0.278	1.00	1	08/03/2021 06:35	WG1716129
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 06:35	WG1716129
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 06:35	WG1716129
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 06:35	WG1716129
1,1,2-Trichloroethane	U		0.158	1.00	1	08/03/2021 06:35	WG1716129
Trichloroethene	U		0.190	1.00	1	08/03/2021 06:35	WG1716129
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 06:35	WG1716129
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 06:35	WG1716129
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 06:35	WG1716129
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 06:35	WG1716129
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 06:35	WG1716129
Vinyl chloride	U		0.234	1.00	1	08/03/2021 06:35	WG1716129
Xylenes, Total	U		0.174	3.00	1	08/03/2021 06:35	WG1716129
(S) Toluene-d8	*112*			*80.0-120*		*08/03/2021 06:35*	WG1716129
(S) 4-Bromofluorobenzene	*89.6*			*77.0-126*		*08/03/2021 06:35*	WG1716129
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*08/03/2021 06:35*	WG1716129

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	U		0.597	3.00	1	08/03/2021 22:15	WG1716576
(S) Toluene-d8	*104*			*77.0-127*		*08/03/2021 22:15*	WG1716576

Wet Chemistry by Method 314.0 Mod

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Perchlorate	1.97	E4	0.300	4.00	1	08/07/2021 14:48	WG1720097

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U	L1	11.3	50.0	1	08/03/2021 06:54	WG1716129
Acrolein	U		2.54	50.0	1	08/03/2021 06:54	WG1716129
Acrylonitrile	U		0.671	10.0	1	08/03/2021 06:54	WG1716129
Benzene	U		0.0941	1.00	1	08/03/2021 06:54	WG1716129
Bromobenzene	U		0.118	1.00	1	08/03/2021 06:54	WG1716129
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 06:54	WG1716129
Bromoform	U		0.129	1.00	1	08/03/2021 06:54	WG1716129
Bromomethane	U		0.605	5.00	1	08/03/2021 06:54	WG1716129
1,3-Butadiene	U		0.299	2.00	1	08/03/2021 06:54	WG1716129
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 06:54	WG1716129
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 06:54	WG1716129
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 06:54	WG1716129
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 06:54	WG1716129
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 06:54	WG1716129
Chlorobenzene	U		0.116	1.00	1	08/03/2021 06:54	WG1716129
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 06:54	WG1716129
Chloroethane	U		0.192	5.00	1	08/03/2021 06:54	WG1716129
Chloroform	U		0.111	5.00	1	08/03/2021 06:54	WG1716129
Chloromethane	U		0.960	2.50	1	08/03/2021 06:54	WG1716129
Cyclohexane	U		0.188	1.00	1	08/03/2021 06:54	WG1716129
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 06:54	WG1716129
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 06:54	WG1716129
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 06:54	WG1716129
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 06:54	WG1716129
Dibromomethane	U		0.122	1.00	1	08/03/2021 06:54	WG1716129
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 06:54	WG1716129
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 06:54	WG1716129
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 06:54	WG1716129
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 06:54	WG1716129
1,1-Dichloroethane	U		0.100	1.00	1	08/03/2021 06:54	WG1716129
1,2-Dichloroethane	U		0.0819	1.00	1	08/03/2021 06:54	WG1716129
1,1-Dichloroethene	U		0.188	1.00	1	08/03/2021 06:54	WG1716129
cis-1,2-Dichloroethene	U		0.126	1.00	1	08/03/2021 06:54	WG1716129
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/03/2021 06:54	WG1716129
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 06:54	WG1716129
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 06:54	WG1716129
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 06:54	WG1716129
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 06:54	WG1716129
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 06:54	WG1716129
2,2-Dichloropropane	U		0.161	1.00	1	08/03/2021 06:54	WG1716129
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 06:54	WG1716129
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 06:54	WG1716129
Ethylbenzene	U		0.137	1.00	1	08/03/2021 06:54	WG1716129
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 06:54	WG1716129
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 06:54	WG1716129
n-Hexane	U		0.749	10.0	1	08/03/2021 06:54	WG1716129
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 06:54	WG1716129
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 06:54	WG1716129
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 06:54	WG1716129
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 06:54	WG1716129

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 06:54	WG1716129
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 06:54	WG1716129
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 06:54	WG1716129
Naphthalene	U		1.00	5.00	1	08/03/2021 06:54	WG1716129
Propene	U		0.936	2.50	1	08/03/2021 06:54	WG1716129
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 06:54	WG1716129
Styrene	U		0.118	1.00	1	08/03/2021 06:54	WG1716129
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 06:54	WG1716129
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 06:54	WG1716129
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 06:54	WG1716129
Tetrachloroethene	U		0.300	1.00	1	08/03/2021 06:54	WG1716129
Toluene	U		0.278	1.00	1	08/03/2021 06:54	WG1716129
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 06:54	WG1716129
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 06:54	WG1716129
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 06:54	WG1716129
1,1,2-Trichloroethane	U		0.158	1.00	1	08/03/2021 06:54	WG1716129
Trichloroethene	U		0.190	1.00	1	08/03/2021 06:54	WG1716129
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 06:54	WG1716129
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 06:54	WG1716129
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 06:54	WG1716129
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 06:54	WG1716129
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 06:54	WG1716129
Vinyl chloride	U		0.234	1.00	1	08/03/2021 06:54	WG1716129
Xylenes, Total	U		0.174	3.00	1	08/03/2021 06:54	WG1716129
(S) Toluene-d8	*107*			*80.0-120*		*08/03/2021 06:54*	WG1716129
(S) 4-Bromofluorobenzene	*90.0*			*77.0-126*		*08/03/2021 06:54*	WG1716129
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*08/03/2021 06:54*	WG1716129

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	U		0.597	3.00	1	08/06/2021 22:21	WG1719066
(S) Toluene-d8	*104*			*77.0-127*		*08/06/2021 22:21*	WG1719066

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	1.75	E4	0.300	4.00	1	08/07/2021 17:10	WG1720097

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	08/03/2021 19:42	WG1716283
Acrolein	U		2.54	50.0	1	08/03/2021 19:42	WG1716283
Acrylonitrile	U		0.671	10.0	1	08/03/2021 19:42	WG1716283
Benzene	U		0.0941	1.00	1	08/03/2021 19:42	WG1716283
Bromobenzene	U		0.118	1.00	1	08/03/2021 19:42	WG1716283
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 19:42	WG1716283
Bromoform	U		0.129	1.00	1	08/03/2021 19:42	WG1716283
Bromomethane	U		0.605	5.00	1	08/03/2021 19:42	WG1716283
1,3-Butadiene	U	L2 R7	0.299	2.00	1	08/03/2021 19:42	WG1716283
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 19:42	WG1716283
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 19:42	WG1716283
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 19:42	WG1716283
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 19:42	WG1716283
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 19:42	WG1716283
Chlorobenzene	U		0.116	1.00	1	08/03/2021 19:42	WG1716283
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 19:42	WG1716283
Chloroethane	U		0.192	5.00	1	08/03/2021 19:42	WG1716283
Chloroform	U		0.111	5.00	1	08/03/2021 19:42	WG1716283
Chloromethane	U		0.960	2.50	1	08/03/2021 19:42	WG1716283
Cyclohexane	U		0.188	1.00	1	08/03/2021 19:42	WG1716283
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 19:42	WG1716283
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 19:42	WG1716283
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 19:42	WG1716283
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 19:42	WG1716283
Dibromomethane	U		0.122	1.00	1	08/03/2021 19:42	WG1716283
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 19:42	WG1716283
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 19:42	WG1716283
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 19:42	WG1716283
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 19:42	WG1716283
1,1-Dichloroethane	U		0.100	1.00	1	08/03/2021 19:42	WG1716283
1,2-Dichloroethane	U		0.0819	1.00	1	08/03/2021 19:42	WG1716283
1,1-Dichloroethene	U		0.188	1.00	1	08/03/2021 19:42	WG1716283
cis-1,2-Dichloroethene	U		0.126	1.00	1	08/03/2021 19:42	WG1716283
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/03/2021 19:42	WG1716283
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 19:42	WG1716283
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 19:42	WG1716283
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 19:42	WG1716283
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 19:42	WG1716283
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 19:42	WG1716283
2,2-Dichloropropane	U	L1	0.161	1.00	1	08/03/2021 19:42	WG1716283
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 19:42	WG1716283
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 19:42	WG1716283
Ethylbenzene	U		0.137	1.00	1	08/03/2021 19:42	WG1716283
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 19:42	WG1716283
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 19:42	WG1716283
n-Hexane	U		0.749	10.0	1	08/03/2021 19:42	WG1716283
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 19:42	WG1716283
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 19:42	WG1716283
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 19:42	WG1716283
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 19:42	WG1716283

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 19:42	WG1716283
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 19:42	WG1716283
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 19:42	WG1716283
Naphthalene	U		1.00	5.00	1	08/03/2021 19:42	WG1716283
Propene	U		0.936	2.50	1	08/03/2021 19:42	WG1716283
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 19:42	WG1716283
Styrene	U		0.118	1.00	1	08/03/2021 19:42	WG1716283
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 19:42	WG1716283
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 19:42	WG1716283
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 19:42	WG1716283
Tetrachloroethene	U		0.300	1.00	1	08/03/2021 19:42	WG1716283
Toluene	U		0.278	1.00	1	08/03/2021 19:42	WG1716283
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 19:42	WG1716283
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 19:42	WG1716283
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 19:42	WG1716283
1,1,2-Trichloroethane	U		0.158	1.00	1	08/03/2021 19:42	WG1716283
Trichloroethene	U		0.190	1.00	1	08/03/2021 19:42	WG1716283
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 19:42	WG1716283
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 19:42	WG1716283
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 19:42	WG1716283
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 19:42	WG1716283
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 19:42	WG1716283
Vinyl chloride	U		0.234	1.00	1	08/03/2021 19:42	WG1716283
Xylenes, Total	U		0.174	3.00	1	08/03/2021 19:42	WG1716283
(S) Toluene-d8	*103*			*80.0-120*		*08/03/2021 19:42*	WG1716283
(S) 4-Bromofluorobenzene	*84.4*			*77.0-126*		*08/03/2021 19:42*	WG1716283
(S) 1,2-Dichloroethane-d4	*117*			*70.0-130*		*08/03/2021 19:42*	WG1716283

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	U		0.597	3.00	1	08/06/2021 22:40	WG1719066
(S) Toluene-d8	*104*			*77.0-127*		*08/06/2021 22:40*	WG1719066

Wet Chemistry by Method 314.0 Mod

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Perchlorate	7.16		0.300	4.00	1	08/07/2021 18:07	WG1720097

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		11.3	50.0	1	08/03/2021 20:02	WG1716283
Acrolein	U		2.54	50.0	1	08/03/2021 20:02	WG1716283
Acrylonitrile	U		0.671	10.0	1	08/03/2021 20:02	WG1716283
Benzene	U		0.0941	1.00	1	08/03/2021 20:02	WG1716283
Bromobenzene	U		0.118	1.00	1	08/03/2021 20:02	WG1716283
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 20:02	WG1716283
Bromoform	U		0.129	1.00	1	08/03/2021 20:02	WG1716283
Bromomethane	U		0.605	5.00	1	08/03/2021 20:02	WG1716283
1,3-Butadiene	U	L2 R7	0.299	2.00	1	08/03/2021 20:02	WG1716283
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 20:02	WG1716283
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 20:02	WG1716283
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 20:02	WG1716283
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 20:02	WG1716283
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 20:02	WG1716283
Chlorobenzene	U		0.116	1.00	1	08/03/2021 20:02	WG1716283
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 20:02	WG1716283
Chloroethane	U		0.192	5.00	1	08/03/2021 20:02	WG1716283
Chloroform	U		0.111	5.00	1	08/03/2021 20:02	WG1716283
Chloromethane	U		0.960	2.50	1	08/03/2021 20:02	WG1716283
Cyclohexane	U		0.188	1.00	1	08/03/2021 20:02	WG1716283
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 20:02	WG1716283
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 20:02	WG1716283
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 20:02	WG1716283
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 20:02	WG1716283
Dibromomethane	U		0.122	1.00	1	08/03/2021 20:02	WG1716283
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 20:02	WG1716283
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 20:02	WG1716283
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 20:02	WG1716283
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 20:02	WG1716283
1,1-Dichloroethane	U		0.100	1.00	1	08/03/2021 20:02	WG1716283
1,2-Dichloroethane	U		0.0819	1.00	1	08/03/2021 20:02	WG1716283
1,1-Dichloroethene	U		0.188	1.00	1	08/03/2021 20:02	WG1716283
cis-1,2-Dichloroethene	U		0.126	1.00	1	08/03/2021 20:02	WG1716283
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/03/2021 20:02	WG1716283
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 20:02	WG1716283
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 20:02	WG1716283
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 20:02	WG1716283
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 20:02	WG1716283
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 20:02	WG1716283
2,2-Dichloropropane	U	L1	0.161	1.00	1	08/03/2021 20:02	WG1716283
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 20:02	WG1716283
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 20:02	WG1716283
Ethylbenzene	U		0.137	1.00	1	08/03/2021 20:02	WG1716283
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 20:02	WG1716283
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 20:02	WG1716283
n-Hexane	U		0.749	10.0	1	08/03/2021 20:02	WG1716283
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 20:02	WG1716283
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 20:02	WG1716283
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 20:02	WG1716283
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 20:02	WG1716283

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 20:02	WG1716283
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 20:02	WG1716283
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 20:02	WG1716283
Naphthalene	U		1.00	5.00	1	08/03/2021 20:02	WG1716283
Propene	U		0.936	2.50	1	08/03/2021 20:02	WG1716283
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 20:02	WG1716283
Styrene	U		0.118	1.00	1	08/03/2021 20:02	WG1716283
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 20:02	WG1716283
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 20:02	WG1716283
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 20:02	WG1716283
Tetrachloroethene	U		0.300	1.00	1	08/03/2021 20:02	WG1716283
Toluene	U		0.278	1.00	1	08/03/2021 20:02	WG1716283
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 20:02	WG1716283
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 20:02	WG1716283
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 20:02	WG1716283
1,1,2-Trichloroethane	U		0.158	1.00	1	08/03/2021 20:02	WG1716283
Trichloroethene	U		0.190	1.00	1	08/03/2021 20:02	WG1716283
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 20:02	WG1716283
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 20:02	WG1716283
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 20:02	WG1716283
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 20:02	WG1716283
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 20:02	WG1716283
Vinyl chloride	U		0.234	1.00	1	08/03/2021 20:02	WG1716283
Xylenes, Total	U		0.174	3.00	1	08/03/2021 20:02	WG1716283
(S) Toluene-d8	*102*			*80.0-120*		*08/03/2021 20:02*	WG1716283
(S) 4-Bromofluorobenzene	*83.6*			*77.0-126*		*08/03/2021 20:02*	WG1716283
(S) 1,2-Dichloroethane-d4	*116*			*70.0-130*		*08/03/2021 20:02*	WG1716283

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	U		0.597	3.00	1	08/06/2021 23:00	WG1719066
(S) Toluene-d8	*104*			*77.0-127*		*08/06/2021 23:00*	WG1719066

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	U		3.00	40.0	10	08/07/2021 15:45	WG1716655

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	08/03/2021 20:22	WG1716283
Acrolein	U		2.54	50.0	1	08/03/2021 20:22	WG1716283
Acrylonitrile	U		0.671	10.0	1	08/03/2021 20:22	WG1716283
Benzene	0.131	E4	0.0941	1.00	1	08/03/2021 20:22	WG1716283
Bromobenzene	U		0.118	1.00	1	08/03/2021 20:22	WG1716283
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 20:22	WG1716283
Bromoform	U		0.129	1.00	1	08/03/2021 20:22	WG1716283
Bromomethane	U		0.605	5.00	1	08/03/2021 20:22	WG1716283
1,3-Butadiene	U	L2 R7	0.299	2.00	1	08/03/2021 20:22	WG1716283
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 20:22	WG1716283
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 20:22	WG1716283
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 20:22	WG1716283
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 20:22	WG1716283
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 20:22	WG1716283
Chlorobenzene	U		0.116	1.00	1	08/03/2021 20:22	WG1716283
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 20:22	WG1716283
Chloroethane	U		0.192	5.00	1	08/03/2021 20:22	WG1716283
Chloroform	U		0.111	5.00	1	08/03/2021 20:22	WG1716283
Chloromethane	U		0.960	2.50	1	08/03/2021 20:22	WG1716283
Cyclohexane	U		0.188	1.00	1	08/03/2021 20:22	WG1716283
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 20:22	WG1716283
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 20:22	WG1716283
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 20:22	WG1716283
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 20:22	WG1716283
Dibromomethane	U		0.122	1.00	1	08/03/2021 20:22	WG1716283
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 20:22	WG1716283
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 20:22	WG1716283
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 20:22	WG1716283
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 20:22	WG1716283
1,1-Dichloroethane	U		0.100	1.00	1	08/03/2021 20:22	WG1716283
1,2-Dichloroethane	U		0.0819	1.00	1	08/03/2021 20:22	WG1716283
1,1-Dichloroethene	U		0.188	1.00	1	08/03/2021 20:22	WG1716283
cis-1,2-Dichloroethene	U		0.126	1.00	1	08/03/2021 20:22	WG1716283
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/03/2021 20:22	WG1716283
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 20:22	WG1716283
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 20:22	WG1716283
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 20:22	WG1716283
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 20:22	WG1716283
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 20:22	WG1716283
2,2-Dichloropropane	U	L1	0.161	1.00	1	08/03/2021 20:22	WG1716283
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 20:22	WG1716283
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 20:22	WG1716283
Ethylbenzene	U		0.137	1.00	1	08/03/2021 20:22	WG1716283
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 20:22	WG1716283
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 20:22	WG1716283
n-Hexane	U		0.749	10.0	1	08/03/2021 20:22	WG1716283
Isopropylbenzene	0.113	E4	0.105	1.00	1	08/03/2021 20:22	WG1716283
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 20:22	WG1716283
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 20:22	WG1716283
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 20:22	WG1716283

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 20:22	WG1716283
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 20:22	WG1716283
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 20:22	WG1716283
Naphthalene	U		1.00	5.00	1	08/03/2021 20:22	WG1716283
Propene	2.42	E4	0.936	2.50	1	08/03/2021 20:22	WG1716283
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 20:22	WG1716283
Styrene	U		0.118	1.00	1	08/03/2021 20:22	WG1716283
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 20:22	WG1716283
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 20:22	WG1716283
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 20:22	WG1716283
Tetrachloroethene	U		0.300	1.00	1	08/03/2021 20:22	WG1716283
Toluene	1.72		0.278	1.00	1	08/03/2021 20:22	WG1716283
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 20:22	WG1716283
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 20:22	WG1716283
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 20:22	WG1716283
1,1,2-Trichloroethane	U		0.158	1.00	1	08/03/2021 20:22	WG1716283
Trichloroethene	U		0.190	1.00	1	08/03/2021 20:22	WG1716283
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 20:22	WG1716283
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 20:22	WG1716283
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 20:22	WG1716283
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 20:22	WG1716283
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 20:22	WG1716283
Vinyl chloride	U		0.234	1.00	1	08/03/2021 20:22	WG1716283
Xylenes, Total	0.232	E4	0.174	3.00	1	08/03/2021 20:22	WG1716283
(S) Toluene-d8	*103*			*80.0-120*		*08/03/2021 20:22*	WG1716283
(S) 4-Bromofluorobenzene	*84.4*			*77.0-126*		*08/03/2021 20:22*	WG1716283
(S) 1,2-Dichloroethane-d4	*116*			*70.0-130*		*08/03/2021 20:22*	WG1716283

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	U		0.597	3.00	1	08/06/2021 23:20	WG1719066
(S) Toluene-d8	*104*			*77.0-127*		*08/06/2021 23:20*	WG1719066

Wet Chemistry by Method 314.0 Mod

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Perchlorate	U	M1	0.300	4.00	1	08/07/2021 20:01	WG1720097

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		11.3	50.0	1	08/03/2021 20:43	WG1716283
Acrolein	U		2.54	50.0	1	08/03/2021 20:43	WG1716283
Acrylonitrile	U		0.671	10.0	1	08/03/2021 20:43	WG1716283
Benzene	U		0.0941	1.00	1	08/03/2021 20:43	WG1716283
Bromobenzene	U		0.118	1.00	1	08/03/2021 20:43	WG1716283
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 20:43	WG1716283
Bromoform	U		0.129	1.00	1	08/03/2021 20:43	WG1716283
Bromomethane	U		0.605	5.00	1	08/03/2021 20:43	WG1716283
1,3-Butadiene	U	L2 R7	0.299	2.00	1	08/03/2021 20:43	WG1716283
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 20:43	WG1716283
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 20:43	WG1716283
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 20:43	WG1716283
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 20:43	WG1716283
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 20:43	WG1716283
Chlorobenzene	U		0.116	1.00	1	08/03/2021 20:43	WG1716283
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 20:43	WG1716283
Chloroethane	U		0.192	5.00	1	08/03/2021 20:43	WG1716283
Chloroform	U		0.111	5.00	1	08/03/2021 20:43	WG1716283
Chloromethane	U		0.960	2.50	1	08/03/2021 20:43	WG1716283
Cyclohexane	U		0.188	1.00	1	08/03/2021 20:43	WG1716283
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 20:43	WG1716283
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 20:43	WG1716283
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 20:43	WG1716283
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 20:43	WG1716283
Dibromomethane	U		0.122	1.00	1	08/03/2021 20:43	WG1716283
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 20:43	WG1716283
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 20:43	WG1716283
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 20:43	WG1716283
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 20:43	WG1716283
1,1-Dichloroethane	U		0.100	1.00	1	08/03/2021 20:43	WG1716283
1,2-Dichloroethane	U		0.0819	1.00	1	08/03/2021 20:43	WG1716283
1,1-Dichloroethene	U		0.188	1.00	1	08/03/2021 20:43	WG1716283
cis-1,2-Dichloroethene	U		0.126	1.00	1	08/03/2021 20:43	WG1716283
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/03/2021 20:43	WG1716283
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 20:43	WG1716283
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 20:43	WG1716283
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 20:43	WG1716283
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 20:43	WG1716283
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 20:43	WG1716283
2,2-Dichloropropane	U	L1	0.161	1.00	1	08/03/2021 20:43	WG1716283
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 20:43	WG1716283
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 20:43	WG1716283
Ethylbenzene	U		0.137	1.00	1	08/03/2021 20:43	WG1716283
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 20:43	WG1716283
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 20:43	WG1716283
n-Hexane	U		0.749	10.0	1	08/03/2021 20:43	WG1716283
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 20:43	WG1716283
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 20:43	WG1716283
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 20:43	WG1716283
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 20:43	WG1716283

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/03/2021 20:43	WG1716283
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 20:43	WG1716283
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 20:43	WG1716283
Naphthalene	U		1.00	5.00	1	08/03/2021 20:43	WG1716283
Propene	U		0.936	2.50	1	08/03/2021 20:43	WG1716283
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 20:43	WG1716283
Styrene	U		0.118	1.00	1	08/03/2021 20:43	WG1716283
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 20:43	WG1716283
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 20:43	WG1716283
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 20:43	WG1716283
Tetrachloroethene	U		0.300	1.00	1	08/03/2021 20:43	WG1716283
Toluene	U		0.278	1.00	1	08/03/2021 20:43	WG1716283
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 20:43	WG1716283
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 20:43	WG1716283
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 20:43	WG1716283
1,1,2-Trichloroethane	U		0.158	1.00	1	08/03/2021 20:43	WG1716283
Trichloroethene	U		0.190	1.00	1	08/03/2021 20:43	WG1716283
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 20:43	WG1716283
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 20:43	WG1716283
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 20:43	WG1716283
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 20:43	WG1716283
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 20:43	WG1716283
Vinyl chloride	U		0.234	1.00	1	08/03/2021 20:43	WG1716283
Xylenes, Total	U		0.174	3.00	1	08/03/2021 20:43	WG1716283
(S) Toluene-d8	*104*			*80.0-120*		*08/03/2021 20:43*	WG1716283
(S) 4-Bromofluorobenzene	*86.1*			*77.0-126*		*08/03/2021 20:43*	WG1716283
(S) 1,2-Dichloroethane-d4	*115*			*70.0-130*		*08/03/2021 20:43*	WG1716283

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	U		0.597	3.00	1	08/06/2021 23:40	WG1719066
(S) Toluene-d8	*105*			*77.0-127*		*08/06/2021 23:40*	WG1719066

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	08/03/2021 15:37	WG1716283
Acrolein	U		2.54	50.0	1	08/03/2021 15:37	WG1716283
Acrylonitrile	U		0.671	10.0	1	08/03/2021 15:37	WG1716283
Benzene	U		0.0941	1.00	1	08/03/2021 15:37	WG1716283
Bromobenzene	U		0.118	1.00	1	08/03/2021 15:37	WG1716283
Bromodichloromethane	U		0.136	1.00	1	08/03/2021 15:37	WG1716283
Bromoform	U		0.129	1.00	1	08/03/2021 15:37	WG1716283
Bromomethane	U		0.605	5.00	1	08/03/2021 15:37	WG1716283
1,3-Butadiene	U	L2 R7	0.299	2.00	1	08/03/2021 15:37	WG1716283
n-Butylbenzene	U		0.157	1.00	1	08/03/2021 15:37	WG1716283
sec-Butylbenzene	U		0.125	1.00	1	08/03/2021 15:37	WG1716283
tert-Butylbenzene	U		0.127	1.00	1	08/03/2021 15:37	WG1716283
Carbon tetrachloride	U		0.128	1.00	1	08/03/2021 15:37	WG1716283
Carbon disulfide	U		0.0962	1.00	1	08/03/2021 15:37	WG1716283
Chlorobenzene	U		0.116	1.00	1	08/03/2021 15:37	WG1716283
Chlorodibromomethane	U		0.140	1.00	1	08/03/2021 15:37	WG1716283
Chloroethane	U		0.192	5.00	1	08/03/2021 15:37	WG1716283
Chloroform	U		0.111	5.00	1	08/03/2021 15:37	WG1716283
Chloromethane	U		0.960	2.50	1	08/03/2021 15:37	WG1716283
Cyclohexane	U		0.188	1.00	1	08/03/2021 15:37	WG1716283
2-Chlorotoluene	U		0.106	1.00	1	08/03/2021 15:37	WG1716283
4-Chlorotoluene	U		0.114	1.00	1	08/03/2021 15:37	WG1716283
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/03/2021 15:37	WG1716283
1,2-Dibromoethane	U		0.126	1.00	1	08/03/2021 15:37	WG1716283
Dibromomethane	U		0.122	1.00	1	08/03/2021 15:37	WG1716283
1,2-Dichlorobenzene	U		0.107	1.00	1	08/03/2021 15:37	WG1716283
1,3-Dichlorobenzene	U		0.110	1.00	1	08/03/2021 15:37	WG1716283
1,4-Dichlorobenzene	U		0.120	1.00	1	08/03/2021 15:37	WG1716283
Dichlorodifluoromethane	U		0.374	5.00	1	08/03/2021 15:37	WG1716283
1,1-Dichloroethane	U		0.100	1.00	1	08/03/2021 15:37	WG1716283
1,2-Dichloroethane	U		0.0819	1.00	1	08/03/2021 15:37	WG1716283
1,1-Dichloroethene	U		0.188	1.00	1	08/03/2021 15:37	WG1716283
cis-1,2-Dichloroethene	U		0.126	1.00	1	08/03/2021 15:37	WG1716283
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/03/2021 15:37	WG1716283
1,2-Dichloropropane	U		0.149	1.00	1	08/03/2021 15:37	WG1716283
1,1-Dichloropropene	U		0.142	1.00	1	08/03/2021 15:37	WG1716283
1,3-Dichloropropane	U		0.110	1.00	1	08/03/2021 15:37	WG1716283
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/03/2021 15:37	WG1716283
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/03/2021 15:37	WG1716283
2,2-Dichloropropane	U	L1	0.161	1.00	1	08/03/2021 15:37	WG1716283
Dicyclopentadiene	U		0.253	1.00	1	08/03/2021 15:37	WG1716283
Di-isopropyl ether	U		0.105	1.00	1	08/03/2021 15:37	WG1716283
Ethylbenzene	U		0.137	1.00	1	08/03/2021 15:37	WG1716283
4-Ethyltoluene	U		0.208	1.00	1	08/03/2021 15:37	WG1716283
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/03/2021 15:37	WG1716283
n-Hexane	U		0.749	10.0	1	08/03/2021 15:37	WG1716283
Isopropylbenzene	U		0.105	1.00	1	08/03/2021 15:37	WG1716283
p-Isopropyltoluene	U		0.120	1.00	1	08/03/2021 15:37	WG1716283
2-Butanone (MEK)	U		1.19	10.0	1	08/03/2021 15:37	WG1716283
Methyl Cyclohexane	U		0.660	1.00	1	08/03/2021 15:37	WG1716283
Methylene Chloride	U		0.430	5.00	1	08/03/2021 15:37	WG1716283
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/03/2021 15:37	WG1716283
Methyl tert-butyl ether	U		0.101	1.00	1	08/03/2021 15:37	WG1716283
Naphthalene	U		1.00	5.00	1	08/03/2021 15:37	WG1716283
Propene	U		0.936	2.50	1	08/03/2021 15:37	WG1716283
n-Propylbenzene	U		0.0993	1.00	1	08/03/2021 15:37	WG1716283

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Styrene	U		0.118	1.00	1	08/03/2021 15:37	WG1716283
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/03/2021 15:37	WG1716283
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/03/2021 15:37	WG1716283
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/03/2021 15:37	WG1716283
Tetrachloroethene	U		0.300	1.00	1	08/03/2021 15:37	WG1716283
Toluene	U		0.278	1.00	1	08/03/2021 15:37	WG1716283
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/03/2021 15:37	WG1716283
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/03/2021 15:37	WG1716283
1,1,1-Trichloroethane	U		0.149	1.00	1	08/03/2021 15:37	WG1716283
1,1,2-Trichloroethane	U		0.158	1.00	1	08/03/2021 15:37	WG1716283
Trichloroethene	U		0.190	1.00	1	08/03/2021 15:37	WG1716283
Trichlorofluoromethane	U		0.160	5.00	1	08/03/2021 15:37	WG1716283
1,2,3-Trichloropropane	U		0.237	2.50	1	08/03/2021 15:37	WG1716283
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/03/2021 15:37	WG1716283
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 15:37	WG1716283
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/03/2021 15:37	WG1716283
Vinyl chloride	U		0.234	1.00	1	08/03/2021 15:37	WG1716283
Xylenes, Total	U		0.174	3.00	1	08/03/2021 15:37	WG1716283
(S) Toluene-d8	*103*			*80.0-120*		*08/03/2021 15:37*	WG1716283
(S) 4-Bromofluorobenzene	*86.4*			*77.0-126*		*08/03/2021 15:37*	WG1716283
(S) 1,2-Dichloroethane-d4	*116*			*70.0-130*		*08/03/2021 15:37*	WG1716283

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	08/07/2021 07:25	WG1717654
Acrolein	U		2.54	50.0	1	08/07/2021 07:25	WG1717654
Acrylonitrile	U		0.671	10.0	1	08/07/2021 07:25	WG1717654
Benzene	U		0.0941	1.00	1	08/07/2021 07:25	WG1717654
Bromobenzene	U		0.118	1.00	1	08/07/2021 07:25	WG1717654
Bromodichloromethane	U		0.136	1.00	1	08/07/2021 07:25	WG1717654
Bromoform	U		0.129	1.00	1	08/07/2021 07:25	WG1717654
Bromomethane	U		0.605	5.00	1	08/07/2021 07:25	WG1717654
1,3-Butadiene	U		0.299	2.00	1	08/07/2021 07:25	WG1717654
n-Butylbenzene	U		0.157	1.00	1	08/07/2021 07:25	WG1717654
sec-Butylbenzene	U		0.125	1.00	1	08/07/2021 07:25	WG1717654
tert-Butylbenzene	U		0.127	1.00	1	08/07/2021 07:25	WG1717654
Carbon tetrachloride	U		0.128	1.00	1	08/07/2021 07:25	WG1717654
Carbon disulfide	U		0.0962	1.00	1	08/07/2021 07:25	WG1717654
Chlorobenzene	U		0.116	1.00	1	08/07/2021 07:25	WG1717654
Chlorodibromomethane	U		0.140	1.00	1	08/07/2021 07:25	WG1717654
Chloroethane	U		0.192	5.00	1	08/07/2021 07:25	WG1717654
Chloroform	U		0.111	5.00	1	08/07/2021 07:25	WG1717654
Chloromethane	U		0.960	2.50	1	08/07/2021 07:25	WG1717654
Cyclohexane	U		0.188	1.00	1	08/07/2021 07:25	WG1717654
2-Chlorotoluene	U		0.106	1.00	1	08/07/2021 07:25	WG1717654
4-Chlorotoluene	U		0.114	1.00	1	08/07/2021 07:25	WG1717654
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/07/2021 07:25	WG1717654
1,2-Dibromoethane	U		0.126	1.00	1	08/07/2021 07:25	WG1717654
Dibromomethane	U		0.122	1.00	1	08/07/2021 07:25	WG1717654
1,2-Dichlorobenzene	U		0.107	1.00	1	08/07/2021 07:25	WG1717654
1,3-Dichlorobenzene	U		0.110	1.00	1	08/07/2021 07:25	WG1717654
1,4-Dichlorobenzene	U		0.120	1.00	1	08/07/2021 07:25	WG1717654
Dichlorodifluoromethane	U		0.374	5.00	1	08/07/2021 07:25	WG1717654
1,1-Dichloroethane	U		0.100	1.00	1	08/07/2021 07:25	WG1717654
1,2-Dichloroethane	U		0.0819	1.00	1	08/07/2021 07:25	WG1717654
1,1-Dichloroethene	U		0.188	1.00	1	08/07/2021 07:25	WG1717654
cis-1,2-Dichloroethene	U		0.126	1.00	1	08/07/2021 07:25	WG1717654
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/07/2021 07:25	WG1717654
1,2-Dichloropropane	U		0.149	1.00	1	08/07/2021 07:25	WG1717654
1,1-Dichloropropene	U		0.142	1.00	1	08/07/2021 07:25	WG1717654
1,3-Dichloropropane	U		0.110	1.00	1	08/07/2021 07:25	WG1717654
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/07/2021 07:25	WG1717654
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/07/2021 07:25	WG1717654
2,2-Dichloropropane	U		0.161	1.00	1	08/07/2021 07:25	WG1717654
Dicyclopentadiene	U		0.253	1.00	1	08/07/2021 07:25	WG1717654
Di-isopropyl ether	U		0.105	1.00	1	08/07/2021 07:25	WG1717654
Ethylbenzene	U		0.137	1.00	1	08/07/2021 07:25	WG1717654
4-Ethyltoluene	U		0.208	1.00	1	08/07/2021 07:25	WG1717654
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/07/2021 07:25	WG1717654
n-Hexane	U		0.749	10.0	1	08/07/2021 07:25	WG1717654
Isopropylbenzene	U		0.105	1.00	1	08/07/2021 07:25	WG1717654
p-Isopropyltoluene	U		0.120	1.00	1	08/07/2021 07:25	WG1717654
2-Butanone (MEK)	U		1.19	10.0	1	08/07/2021 07:25	WG1717654
Methyl Cyclohexane	U		0.660	1.00	1	08/07/2021 07:25	WG1717654
Methylene Chloride	U		0.430	5.00	1	08/07/2021 07:25	WG1717654
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/07/2021 07:25	WG1717654
Methyl tert-butyl ether	U		0.101	1.00	1	08/07/2021 07:25	WG1717654
Naphthalene	U		1.00	5.00	1	08/07/2021 07:25	WG1717654
Propene	U		0.936	2.50	1	08/07/2021 07:25	WG1717654
n-Propylbenzene	U		0.0993	1.00	1	08/07/2021 07:25	WG1717654

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Styrene	U		0.118	1.00	1	08/07/2021 07:25	WG1717654
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/07/2021 07:25	WG1717654
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/07/2021 07:25	WG1717654
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/07/2021 07:25	WG1717654
Tetrachloroethene	U		0.300	1.00	1	08/07/2021 07:25	WG1717654
Toluene	U		0.278	1.00	1	08/07/2021 07:25	WG1717654
1,2,3-Trichlorobenzene	U	R7	0.230	1.00	1	08/07/2021 07:25	WG1717654
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/07/2021 07:25	WG1717654
1,1,1-Trichloroethane	U		0.149	1.00	1	08/07/2021 07:25	WG1717654
1,1,2-Trichloroethane	U		0.158	1.00	1	08/07/2021 07:25	WG1717654
Trichloroethene	U		0.190	1.00	1	08/07/2021 07:25	WG1717654
Trichlorofluoromethane	U		0.160	5.00	1	08/07/2021 07:25	WG1717654
1,2,3-Trichloropropane	U		0.237	2.50	1	08/07/2021 07:25	WG1717654
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/07/2021 07:25	WG1717654
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/07/2021 07:25	WG1717654
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/07/2021 07:25	WG1717654
Vinyl chloride	U		0.234	1.00	1	08/07/2021 07:25	WG1717654
Xylenes, Total	U		0.174	3.00	1	08/07/2021 07:25	WG1717654
(S) Toluene-d8	*112*			*80.0-120*		*08/07/2021 07:25*	WG1717654
(S) 4-Bromofluorobenzene	*110*			*77.0-126*		*08/07/2021 07:25*	WG1717654
(S) 1,2-Dichloroethane-d4	*99.9*			*70.0-130*		*08/07/2021 07:25*	WG1717654

QUALITY CONTROL SUMMARY

L1385143-01,02

Method Blank (MB)

(MB) R3687817-1 08/04/21 09:38

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Perchlorate	U		0.300	4.00

L1383909-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1383909-02 08/04/21 17:58 • (DUP) R3687817-3 08/04/21 18:26

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Perchlorate	14.6	13.6	1	6.80		15

L1384658-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1384658-01 08/04/21 19:52 • (DUP) R3687817-4 08/04/21 20:20

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Perchlorate	2.88	2.51	1	13.9	E4	15

Laboratory Control Sample (LCS)

(LCS) R3687817-2 08/04/21 10:35

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Perchlorate	10.0	9.99	99.9	90.0-110	

L1384698-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1384698-01 08/04/21 23:16 • (MS) R3687817-5 08/04/21 23:48 • (MSD) R3687817-6 08/05/21 00:16

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Perchlorate	10.0	U	10.4	10.9	104	109	1	80.0-120			4.34	15

Method Blank (MB)

(MB) R3689791-1 08/05/21 18:56

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Perchlorate	U		0.300	4.00

L1385143-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1385143-07 08/06/21 13:53 • (DUP) R3689791-3 08/06/21 14:21

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Perchlorate	U	U	1	0.000		15

L1385143-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1385143-16 08/06/21 20:02 • (DUP) R3689791-6 08/06/21 21:27

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Perchlorate	5640	5470	500	3.02		15

Laboratory Control Sample (LCS)

(LCS) R3689791-2 08/05/21 19:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Perchlorate	10.0	10.4	104	90.0-110	

L1385143-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1385143-15 08/06/21 18:37 • (MS) R3689791-4 08/06/21 19:05 • (MSD) R3689791-5 08/06/21 19:34

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Perchlorate	10.0	155000	154000	152000	0.000	0.000	5000	80.0-120	M3	M3	1.04	15

QUALITY CONTROL SUMMARY

L1385143-08,11,17,18,19,20,22

Method Blank (MB)

(MB) R3689792-2 08/06/21 20:30

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Perchlorate	U		150	2000

Method Blank (MB)

(MB) R3689792-3 08/07/21 11:05

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Perchlorate	U		0.300	4.00

Laboratory Control Sample (LCS)

(LCS) R3689792-1 08/05/21 19:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Perchlorate	10.0	10.4	104	90.0-110	

L1385143-08 Original Sample (OS) • Matrix Spike (MS)

(OS) L1385143-08 08/07/21 11:55 • (MS) R3689792-4 08/07/21 12:26

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Perchlorate	10.0	U	8.77	87.7	1	80.0-120	

L1385143-11 Original Sample (OS) • Matrix Spike (MS)

(OS) L1385143-11 08/07/21 13:23 • (MS) R3689792-5 08/07/21 12:55

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Perchlorate	10.0	15.9	32.1	162	1	80.0-120	M1

L1385143-17 Original Sample (OS) • Matrix Spike (MS)

(OS) L1385143-17 08/07/21 13:51 • (MS) R3689792-6 08/07/21 14:20

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Perchlorate	10.0	U	9.18	91.8	1	80.0-120	

L1385143-18 Original Sample (OS) • Matrix Spike (MS)

(OS) L1385143-18 08/07/21 14:48 • (MS) R3689792-7 08/07/21 15:17

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Perchlorate	10.0	1.97	10.4	84.4	1	80.0-120	

L1385143-19 Original Sample (OS) • Matrix Spike (MS)

(OS) L1385143-19 08/07/21 17:10 • (MS) R3689792-8 08/07/21 17:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Perchlorate	10.0	1.75	10.4	86.8	1	80.0-120	

L1385143-20 Original Sample (OS) • Matrix Spike (MS)

(OS) L1385143-20 08/07/21 18:07 • (MS) R3689792-9 08/07/21 18:36

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Perchlorate	10.0	7.16	15.8	86.7	1	80.0-120	

L1385143-22 Original Sample (OS) • Matrix Spike (MS)

(OS) L1385143-22 08/07/21 20:01 • (MS) R3689792-10 08/07/21 20:29

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Perchlorate	10.0	U	16.5	165	1	80.0-120	M1

Method Blank (MB)

(MB) R3690767-3 08/02/21 22:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
1,3-Butadiene	U		0.299	2.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon disulfide	U		0.0962	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
Cyclohexane	U		0.188	1.00
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00

Method Blank (MB)

(MB) R3690767-3 08/02/21 22:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dicyclopentadiene	U		0.253	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00
4-Ethyltoluene	U		0.208	1.00
Hexachloro-1,3-butadiene	U		0.337	1.00
n-Hexane	U		0.749	10.0
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	8.89	E4	1.19	10.0
Methyl Cyclohexane	U		0.660	1.00
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
Propene	U		0.936	2.50
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,3-Trimethylbenzene	U		0.104	1.00
1,2,4-Trimethylbenzene	U		0.322	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*111*			*80.0-120*
(S) 4-Bromofluorobenzene	*89.9*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3690767-1 08/02/21 20:55 • (LCSD) R3690767-2 08/02/21 21:14

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	34.2	43.9	137	176	19.0-160		L1	24.8	27
Acrolein	25.0	9.06	9.38	36.2	37.5	30.0-160			3.47	26
Acrylonitrile	25.0	26.0	31.0	104	124	55.0-149			17.5	20
Benzene	5.00	4.56	4.49	91.2	89.8	70.0-123			1.55	20
Bromobenzene	5.00	4.96	4.92	99.2	98.4	73.0-121			0.810	20
Bromodichloromethane	5.00	4.75	4.69	95.0	93.8	75.0-120			1.27	20
Bromoform	5.00	4.10	4.34	82.0	86.8	68.0-132			5.69	20
Bromomethane	5.00	5.04	4.61	101	92.2	30.0-160			8.91	25
1,3-Butadiene	5.00	5.24	5.23	105	105	45.0-147			0.191	20
n-Butylbenzene	5.00	5.37	5.68	107	114	73.0-125			5.61	20
sec-Butylbenzene	5.00	5.35	5.54	107	111	75.0-125			3.49	20
tert-Butylbenzene	5.00	5.36	5.28	107	106	76.0-124			1.50	20
Carbon disulfide	5.00	4.01	4.19	80.2	83.8	61.0-128			4.39	20
Carbon tetrachloride	5.00	4.48	4.45	89.6	89.0	68.0-126			0.672	20
Chlorobenzene	5.00	4.95	4.93	99.0	98.6	80.0-121			0.405	20
Chlorodibromomethane	5.00	4.78	4.72	95.6	94.4	77.0-125			1.26	20
Chloroethane	5.00	4.40	4.61	88.0	92.2	47.0-150			4.66	20
Chloroform	5.00	4.02	4.27	80.4	85.4	73.0-120			6.03	20
Chloromethane	5.00	4.78	5.06	95.6	101	41.0-142			5.69	20
Cyclohexane	5.00	4.21	4.38	84.2	87.6	71.0-124			3.96	20
2-Chlorotoluene	5.00	5.33	5.33	107	107	76.0-123			0.000	20
4-Chlorotoluene	5.00	5.57	5.53	111	111	75.0-122			0.721	20
1,2-Dibromo-3-Chloropropane	5.00	5.28	5.81	106	116	58.0-134			9.56	20
1,2-Dibromoethane	5.00	5.17	5.04	103	101	80.0-122			2.55	20
Dibromomethane	5.00	4.76	4.92	95.2	98.4	80.0-120			3.31	20
1,2-Dichlorobenzene	5.00	5.18	5.34	104	107	79.0-121			3.04	20
1,3-Dichlorobenzene	5.00	5.06	5.13	101	103	79.0-120			1.37	20
1,4-Dichlorobenzene	5.00	5.25	5.25	105	105	79.0-120			0.000	20
Dichlorodifluoromethane	5.00	4.76	4.93	95.2	98.6	51.0-149			3.51	20
1,1-Dichloroethane	5.00	4.27	4.37	85.4	87.4	70.0-126			2.31	20
1,2-Dichloroethane	5.00	5.06	5.10	101	102	70.0-128			0.787	20
1,1-Dichloroethene	5.00	4.12	4.32	82.4	86.4	71.0-124			4.74	20
cis-1,2-Dichloroethene	5.00	4.05	4.27	81.0	85.4	73.0-120			5.29	20
trans-1,2-Dichloroethene	5.00	4.12	4.25	82.4	85.0	73.0-120			3.11	20
1,2-Dichloropropane	5.00	4.76	4.63	95.2	92.6	77.0-125			2.77	20
1,1-Dichloropropene	5.00	4.69	4.71	93.8	94.2	74.0-126			0.426	20
1,3-Dichloropropane	5.00	5.43	5.22	109	104	80.0-120			3.94	20
cis-1,3-Dichloropropene	5.00	4.74	4.63	94.8	92.6	80.0-123			2.35	20
trans-1,3-Dichloropropene	5.00	5.07	5.07	101	101	78.0-124			0.000	20
2,2-Dichloropropane	5.00	4.38	4.28	87.6	85.6	58.0-130			2.31	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3690767-1 08/02/21 20:55 • (LCSD) R3690767-2 08/02/21 21:14

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dicyclopentadiene	5.00	5.75	5.80	115	116	74.0-126			0.866	20
Di-isopropyl ether	5.00	4.86	4.87	97.2	97.4	58.0-138			0.206	20
Ethylbenzene	5.00	4.94	4.90	98.8	98.0	79.0-123			0.813	20
4-Ethyltoluene	5.00	5.28	5.25	106	105	74.0-127			0.570	20
Hexachloro-1,3-butadiene	5.00	4.26	4.90	85.2	98.0	54.0-138			14.0	20
n-Hexane	5.00	4.50	4.35	90.0	87.0	57.0-133			3.39	20
Isopropylbenzene	5.00	4.65	4.66	93.0	93.2	76.0-127			0.215	20
p-Isopropyltoluene	5.00	5.14	5.29	103	106	76.0-125			2.88	20
2-Butanone (MEK)	25.0	31.4	33.1	126	132	44.0-160			5.27	20
Methyl Cyclohexane	5.00	4.68	4.61	93.6	92.2	68.0-126			1.51	20
Methylene Chloride	5.00	4.03	4.35	80.6	87.0	67.0-120			7.64	20
4-Methyl-2-pentanone (MIBK)	25.0	30.4	30.4	122	122	68.0-142			0.000	20
Methyl tert-butyl ether	5.00	4.07	4.25	81.4	85.0	68.0-125			4.33	20
Naphthalene	5.00	4.70	5.52	94.0	110	54.0-135			16.0	20
Propene	5.00	4.55	4.10	91.0	82.0	30.0-160			10.4	20
n-Propylbenzene	5.00	5.68	5.72	114	114	77.0-124			0.702	20
Styrene	5.00	4.55	4.60	91.0	92.0	73.0-130			1.09	20
1,1,1,2-Tetrachloroethane	5.00	4.71	4.59	94.2	91.8	75.0-125			2.58	20
1,1,2,2-Tetrachloroethane	5.00	5.90	6.06	118	121	65.0-130			2.68	20
Tetrachloroethene	5.00	4.59	4.39	91.8	87.8	72.0-132			4.45	20
Toluene	5.00	5.07	4.86	101	97.2	79.0-120			4.23	20
1,1,2-Trichlorotrifluoroethane	5.00	4.02	4.11	80.4	82.2	69.0-132			2.21	20
1,2,3-Trichlorobenzene	5.00	3.52	3.98	70.4	79.6	50.0-138			12.3	20
1,2,4-Trichlorobenzene	5.00	4.53	5.23	90.6	105	57.0-137			14.3	20
1,1,1-Trichloroethane	5.00	4.57	4.48	91.4	89.6	73.0-124			1.99	20
1,1,2-Trichloroethane	5.00	5.28	5.21	106	104	80.0-120			1.33	20
Trichloroethene	5.00	4.63	4.41	92.6	88.2	78.0-124			4.87	20
Trichlorofluoromethane	5.00	3.89	4.19	77.8	83.8	59.0-147			7.43	20
1,2,3-Trichloropropane	5.00	5.61	5.89	112	118	73.0-130			4.87	20
1,2,3-Trimethylbenzene	5.00	5.26	5.37	105	107	77.0-120			2.07	20
1,2,4-Trimethylbenzene	5.00	5.10	5.25	102	105	76.0-121			2.90	20
1,3,5-Trimethylbenzene	5.00	5.24	5.25	105	105	76.0-122			0.191	20
Vinyl chloride	5.00	4.69	4.85	93.8	97.0	67.0-131			3.35	20
Xylenes, Total	15.0	14.2	13.9	94.7	92.7	79.0-123			2.14	20
(S) Toluene-d8				*108*	*106*	*80.0-120*				
(S) 4-Bromofluorobenzene				*89.1*	*89.8*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*106*	*109*	*70.0-130*				

L1385143-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1385143-15 08/03/21 05:57 • (MS) R3690767-4 08/03/21 07:51 • (MSD) R3690767-5 08/03/21 08:23

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	U	41.6	36.8	166	147	1	10.0-160	M1		12.2	35
Acrolein	25.0	U	23.1	18.7	92.4	74.8	1	10.0-160			21.1	39
Acrylonitrile	25.0	U	34.1	32.5	136	130	1	21.0-160			4.80	32
Benzene	5.00	1.21	6.04	5.61	96.6	88.0	1	17.0-158			7.38	27
Bromobenzene	5.00	U	5.38	4.71	108	94.2	1	30.0-149			13.3	28
Bromodichloromethane	5.00	U	5.27	4.85	105	97.0	1	31.0-150			8.30	27
Bromoform	5.00	U	4.49	4.06	89.8	81.2	1	29.0-150			10.1	29
Bromomethane	5.00	U	5.39	5.26	108	105	1	10.0-160			2.44	38
1,3-Butadiene	5.00	U	6.38	5.56	128	111	1	10.0-160			13.7	22
n-Butylbenzene	5.00	U	6.52	5.12	130	102	1	31.0-150			24.1	30
sec-Butylbenzene	5.00	U	6.35	4.95	127	99.0	1	33.0-155			24.8	29
tert-Butylbenzene	5.00	U	6.04	4.84	121	96.8	1	34.0-153			22.1	28
Carbon disulfide	5.00	U	4.27	3.92	85.4	78.4	1	10.0-156			8.55	28
Carbon tetrachloride	5.00	U	5.19	4.51	104	90.2	1	23.0-159			14.0	28
Chlorobenzene	5.00	U	5.45	4.85	109	97.0	1	33.0-152			11.7	27
Chlorodibromomethane	5.00	U	5.12	4.68	102	93.6	1	37.0-149			8.98	27
Chloroethane	5.00	U	5.01	4.65	100	93.0	1	10.0-160			7.45	30
Chloroform	5.00	1.75	6.23	5.92	89.6	83.4	1	29.0-154			5.10	28
Chloromethane	5.00	U	5.38	5.05	108	101	1	10.0-160			6.33	29
Cyclohexane	5.00	U	4.96	4.35	99.2	87.0	1	19.0-160			13.1	23
2-Chlorotoluene	5.00	U	5.95	4.89	119	97.8	1	32.0-153			19.6	28
4-Chlorotoluene	5.00	U	6.17	5.12	123	102	1	32.0-150			18.6	28
1,2-Dibromo-3-Chloropropane	5.00	U	6.16	5.00	123	100	1	22.0-151			20.8	34
1,2-Dibromoethane	5.00	U	5.59	5.18	112	104	1	34.0-147			7.61	27
Dibromomethane	5.00	U	4.87	4.83	97.4	96.6	1	30.0-151			0.825	27
1,2-Dichlorobenzene	5.00	U	5.77	4.88	115	97.6	1	34.0-149			16.7	28
1,3-Dichlorobenzene	5.00	U	5.56	4.68	111	93.6	1	36.0-146			17.2	27
1,4-Dichlorobenzene	5.00	U	5.70	4.81	114	96.2	1	35.0-142			16.9	27
Dichlorodifluoromethane	5.00	U	5.72	5.27	114	105	1	10.0-160			8.19	29
1,1-Dichloroethane	5.00	1.07	5.71	5.48	92.8	88.2	1	25.0-158			4.11	27
1,2-Dichloroethane	5.00	0.158	5.47	5.44	106	106	1	29.0-151			0.550	27
1,1-Dichloroethene	5.00	93.6	93.2	86.2	0.000	0.000	1	11.0-160	M3	M3	7.80	29
cis-1,2-Dichloroethene	5.00	1.58	5.90	5.66	86.4	81.6	1	10.0-160			4.15	27
trans-1,2-Dichloroethene	5.00	0.217	4.64	4.34	88.5	82.5	1	17.0-153			6.68	27
1,2-Dichloropropane	5.00	U	5.22	4.76	104	95.2	1	30.0-156			9.22	27
1,1-Dichloropropene	5.00	U	5.36	4.67	107	93.4	1	25.0-158			13.8	27
1,3-Dichloropropane	5.00	U	5.84	5.20	117	104	1	38.0-147			11.6	27
cis-1,3-Dichloropropene	5.00	U	5.08	4.62	102	92.4	1	34.0-149			9.48	28
trans-1,3-Dichloropropene	5.00	U	5.60	4.93	112	98.6	1	32.0-149			12.7	28
2,2-Dichloropropane	5.00	U	5.05	4.79	101	95.8	1	24.0-152			5.28	29

L1385143-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1385143-15 08/03/21 05:57 • (MS) R3690767-4 08/03/21 07:51 • (MSD) R3690767-5 08/03/21 08:23

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dicyclopentadiene	5.00	U	2.02	1.42	40.4	28.4	1	51.0-139	M2	M2 R5	34.9	20
Di-isopropyl ether	5.00	U	5.14	4.96	103	99.2	1	21.0-160			3.56	28
Ethylbenzene	5.00	U	5.50	4.71	110	94.2	1	30.0-155			15.5	27
4-Ethyltoluene	5.00	U	5.92	4.81	118	96.2	1	10.0-160		R5	20.7	20
Hexachloro-1,3-butadiene	5.00	U	5.37	4.21	107	84.2	1	20.0-154			24.2	34
n-Hexane	5.00	U	5.70	4.73	114	94.6	1	10.0-153			18.6	28
Isopropylbenzene	5.00	U	5.18	4.42	104	88.4	1	28.0-157			15.8	27
p-Isopropyltoluene	5.00	U	5.94	4.72	119	94.4	1	30.0-154			22.9	29
2-Butanone (MEK)	25.0	U	39.4	32.8	158	131	1	10.0-160			18.3	32
Methyl Cyclohexane	5.00	U	6.15	5.15	123	103	1	11.0-160			17.7	24
Methylene Chloride	5.00	U	5.53	5.47	111	109	1	23.0-144			1.09	28
4-Methyl-2-pentanone (MIBK)	25.0	U	35.3	31.4	141	126	1	29.0-160			11.7	29
Methyl tert-butyl ether	5.00	U	4.44	4.31	88.8	86.2	1	28.0-150			2.97	29
Naphthalene	5.00	U	5.63	4.31	113	86.2	1	12.0-156			26.6	35
Propene	5.00	U	3.93	3.72	78.6	74.4	1	10.0-160			5.49	29
n-Propylbenzene	5.00	U	6.67	5.18	133	104	1	31.0-154			25.1	28
Styrene	5.00	U	4.67	4.17	93.4	83.4	1	33.0-155			11.3	28
1,1,1,2-Tetrachloroethane	5.00	U	5.13	4.60	103	92.0	1	36.0-151			10.9	29
1,1,2,2-Tetrachloroethane	5.00	U	7.06	6.10	141	122	1	33.0-150			14.6	28
Tetrachloroethene	5.00	0.988	6.11	5.10	102	82.2	1	10.0-160			18.0	27
Toluene	5.00	U	5.79	5.66	116	113	1	26.0-154			2.27	28
1,1,2-Trichlorotrifluoroethane	5.00	U	5.19	4.72	104	94.4	1	23.0-160			9.49	30
1,2,3-Trichlorobenzene	5.00	U	3.99	3.05	79.8	61.0	1	17.0-150			26.7	36
1,2,4-Trichlorobenzene	5.00	U	5.29	3.99	106	79.8	1	24.0-150			28.0	33
1,1,1-Trichloroethane	5.00	U	5.08	4.55	102	91.0	1	23.0-160			11.0	28
1,1,2-Trichloroethane	5.00	2.22	7.73	7.16	110	98.8	1	35.0-147			7.66	27
Trichloroethene	5.00	554	540	513	0.000	0.000	1	10.0-160	E1 M3	E1 M3	5.13	25
Trichlorofluoromethane	5.00	U	3.19	2.40	63.8	48.0	1	17.0-160			28.3	31
1,2,3-Trichloropropane	5.00	U	6.08	5.58	122	112	1	34.0-151			8.58	29
1,2,3-Trimethylbenzene	5.00	U	5.83	4.82	117	96.4	1	32.0-149			19.0	28
1,2,4-Trimethylbenzene	5.00	U	5.81	4.60	116	92.0	1	26.0-154			23.2	27
1,3,5-Trimethylbenzene	5.00	U	5.83	4.67	117	93.4	1	28.0-153			22.1	27
Vinyl chloride	5.00	U	5.23	5.10	105	102	1	10.0-160			2.52	27
Xylenes, Total	15.0	U	15.1	13.8	101	92.0	1	29.0-154			9.00	28
(S) Toluene-d8					*109*	*105*		*80.0-120*				
(S) 4-Bromofluorobenzene					*88.3*	*91.3*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*109*	*112*		*70.0-130*				

Method Blank (MB)

(MB) R3688542-3 08/03/21 10:44

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
1,3-Butadiene	U		0.299	2.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon disulfide	U		0.0962	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
Cyclohexane	U		0.188	1.00
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00

Method Blank (MB)

(MB) R3688542-3 08/03/21 10:44

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dicyclopentadiene	U		0.253	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00
4-Ethyltoluene	U		0.208	1.00
Hexachloro-1,3-butadiene	U		0.337	1.00
n-Hexane	U		0.749	10.0
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methyl Cyclohexane	U		0.660	1.00
Methylene Chloride	0.455	E4	0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
Propene	U		0.936	2.50
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,3-Trimethylbenzene	U		0.104	1.00
1,2,4-Trimethylbenzene	U		0.322	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*103*			*80.0-120*
(S) 4-Bromofluorobenzene	*84.9*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3688542-1 08/03/21 09:22 • (LCSD) R3688542-2 08/03/21 09:42

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	26.5	26.3	106	105	19.0-160			0.758	27
Acrolein	25.0	7.77	7.99	31.1	32.0	30.0-160			2.79	26
Acrylonitrile	25.0	24.6	25.1	98.4	100	55.0-149			2.01	20
Benzene	5.00	5.02	5.55	100	111	70.0-123			10.0	20
Bromobenzene	5.00	5.34	5.35	107	107	73.0-121			0.187	20
Bromodichloromethane	5.00	5.02	5.37	100	107	75.0-120			6.74	20
Bromoform	5.00	4.27	4.47	85.4	89.4	68.0-132			4.58	20
Bromomethane	5.00	6.13	6.26	123	125	30.0-160			2.10	25
1,3-Butadiene	5.00	1.84	1.45	36.8	29.0	45.0-147	L2	L2 R7	23.7	20
n-Butylbenzene	5.00	5.59	6.04	112	121	73.0-125			7.74	20
sec-Butylbenzene	5.00	5.13	5.51	103	110	75.0-125			7.14	20
tert-Butylbenzene	5.00	4.68	4.94	93.6	98.8	76.0-124			5.41	20
Carbon disulfide	5.00	5.37	5.86	107	117	61.0-128			8.73	20
Carbon tetrachloride	5.00	4.71	4.95	94.2	99.0	68.0-126			4.97	20
Chlorobenzene	5.00	5.09	5.36	102	107	80.0-121			5.17	20
Chlorodibromomethane	5.00	4.33	4.55	86.6	91.0	77.0-125			4.95	20
Chloroethane	5.00	5.28	5.37	106	107	47.0-150			1.69	20
Chloroform	5.00	5.41	5.96	108	119	73.0-120			9.67	20
Chloromethane	5.00	5.26	5.39	105	108	41.0-142			2.44	20
Cyclohexane	5.00	4.25	4.39	85.0	87.8	71.0-124			3.24	20
2-Chlorotoluene	5.00	5.43	5.75	109	115	76.0-123			5.72	20
4-Chlorotoluene	5.00	5.75	5.93	115	119	75.0-122			3.08	20
1,2-Dibromo-3-Chloropropane	5.00	4.49	4.54	89.8	90.8	58.0-134			1.11	20
1,2-Dibromoethane	5.00	4.65	4.91	93.0	98.2	80.0-122			5.44	20
Dibromomethane	5.00	4.99	5.15	99.8	103	80.0-120			3.16	20
1,2-Dichlorobenzene	5.00	5.30	5.23	106	105	79.0-121			1.33	20
1,3-Dichlorobenzene	5.00	5.35	5.54	107	111	79.0-120			3.49	20
1,4-Dichlorobenzene	5.00	5.11	5.21	102	104	79.0-120			1.94	20
Dichlorodifluoromethane	5.00	5.41	5.50	108	110	51.0-149			1.65	20
1,1-Dichloroethane	5.00	5.52	5.92	110	118	70.0-126			6.99	20
1,2-Dichloroethane	5.00	5.74	6.00	115	120	70.0-128			4.43	20
1,1-Dichloroethene	5.00	4.51	4.94	90.2	98.8	71.0-124			9.10	20
cis-1,2-Dichloroethene	5.00	4.89	5.37	97.8	107	73.0-120			9.36	20
trans-1,2-Dichloroethene	5.00	4.66	5.26	93.2	105	73.0-120			12.1	20
1,2-Dichloropropane	5.00	5.19	5.59	104	112	77.0-125			7.42	20
1,1-Dichloropropene	5.00	5.04	5.60	101	112	74.0-126			10.5	20
1,3-Dichloropropane	5.00	5.12	5.41	102	108	80.0-120			5.51	20
cis-1,3-Dichloropropene	5.00	5.24	5.66	105	113	80.0-123			7.71	20
trans-1,3-Dichloropropene	5.00	4.90	5.03	98.0	101	78.0-124			2.62	20
2,2-Dichloropropane	5.00	6.63	6.59	133	132	58.0-130	L1	L1	0.605	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3688542-1 08/03/21 09:22 • (LCSD) R3688542-2 08/03/21 09:42

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dicyclopentadiene	5.00	5.70	6.12	114	122	74.0-126			7.11	20
Di-isopropyl ether	5.00	5.02	5.27	100	105	58.0-138			4.86	20
Ethylbenzene	5.00	4.51	5.09	90.2	102	79.0-123			12.1	20
4-Ethyltoluene	5.00	5.02	5.39	100	108	74.0-127			7.11	20
Hexachloro-1,3-butadiene	5.00	3.14	3.55	62.8	71.0	54.0-138			12.3	20
n-Hexane	5.00	5.02	5.09	100	102	57.0-133			1.38	20
Isopropylbenzene	5.00	3.96	4.40	79.2	88.0	76.0-127			10.5	20
p-Isopropyltoluene	5.00	4.68	5.02	93.6	100	76.0-125			7.01	20
2-Butanone (MEK)	25.0	26.0	27.7	104	111	44.0-160			6.33	20
Methyl Cyclohexane	5.00	4.28	4.48	85.6	89.6	68.0-126			4.57	20
Methylene Chloride	5.00	5.91	5.55	118	111	67.0-120			6.28	20
4-Methyl-2-pentanone (MIBK)	25.0	25.6	26.7	102	107	68.0-142			4.21	20
Methyl tert-butyl ether	5.00	4.89	5.07	97.8	101	68.0-125			3.61	20
Naphthalene	5.00	3.94	4.10	78.8	82.0	54.0-135			3.98	20
Propene	5.00	2.69	2.59	53.8	51.8	30.0-160			3.79	20
n-Propylbenzene	5.00	4.92	5.30	98.4	106	77.0-124			7.44	20
Styrene	5.00	3.72	4.15	74.4	83.0	73.0-130			10.9	20
1,1,1,2-Tetrachloroethane	5.00	4.66	5.02	93.2	100	75.0-125			7.44	20
1,1,2,2-Tetrachloroethane	5.00	6.09	6.17	122	123	65.0-130			1.31	20
Tetrachloroethene	5.00	4.53	5.14	90.6	103	72.0-132			12.6	20
Toluene	5.00	4.92	5.64	98.4	113	79.0-120			13.6	20
1,1,2-Trichlorotrifluoroethane	5.00	4.33	4.96	86.6	99.2	69.0-132			13.6	20
1,2,3-Trichlorobenzene	5.00	3.14	3.24	62.8	64.8	50.0-138			3.13	20
1,2,4-Trichlorobenzene	5.00	3.25	3.27	65.0	65.4	57.0-137			0.613	20
1,1,1-Trichloroethane	5.00	5.01	5.62	100	112	73.0-124			11.5	20
1,1,2-Trichloroethane	5.00	4.94	5.12	98.8	102	80.0-120			3.58	20
Trichloroethene	5.00	4.81	5.27	96.2	105	78.0-124			9.13	20
Trichlorofluoromethane	5.00	4.97	5.28	99.4	106	59.0-147			6.05	20
1,2,3-Trichloropropane	5.00	5.96	6.07	119	121	73.0-130			1.83	20
1,2,3-Trimethylbenzene	5.00	5.32	5.37	106	107	77.0-120			0.935	20
1,2,4-Trimethylbenzene	5.00	5.27	5.59	105	112	76.0-121			5.89	20
1,3,5-Trimethylbenzene	5.00	5.10	5.36	102	107	76.0-122			4.97	20
Vinyl chloride	5.00	5.01	5.33	100	107	67.0-131			6.19	20
Xylenes, Total	15.0	13.4	14.7	89.3	98.0	79.0-123			9.25	20
(S) Toluene-d8				*99.4*	*100*	*80.0-120*				
(S) 4-Bromofluorobenzene				*87.9*	*88.7*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*114*	*115*	*70.0-130*				

L1385041-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1385041-02 08/03/21 21:03 • (MS) R3688542-4 08/03/21 21:44 • (MSD) R3688542-5 08/03/21 22:04

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	125	U	201	198	161	158	5	10.0-160	M1		1.50	35
Acrolein	125	U	129	132	103	106	5	10.0-160			2.30	39
Acrylonitrile	125	U	132	136	106	109	5	21.0-160			2.99	32
Benzene	25.0	921	901	872	0.000	0.000	5	17.0-158	E1 M3	E1 M3	3.27	27
Bromobenzene	25.0	U	42.7	33.6	171	134	5	30.0-149	M1		23.9	28
Bromodichloromethane	25.0	U	29.7	23.2	119	92.8	5	31.0-150			24.6	27
Bromoform	25.0	U	24.4	21.9	97.6	87.6	5	29.0-150			10.8	29
Bromomethane	25.0	U	32.6	24.9	130	99.6	5	10.0-160			26.8	38
1,3-Butadiene	25.0	U	6.62	7.18	26.5	28.7	5	10.0-160			8.12	22
n-Butylbenzene	25.0	8.11	44.7	36.7	146	114	5	31.0-150			19.7	30
sec-Butylbenzene	25.0	5.49	38.2	29.9	131	97.6	5	33.0-155			24.4	29
tert-Butylbenzene	25.0	U	30.1	21.8	120	87.2	5	34.0-153		R5	32.0	28
Carbon disulfide	25.0	U	30.6	22.0	122	88.0	5	10.0-156		R5	32.7	28
Carbon tetrachloride	25.0	U	27.9	20.4	112	81.6	5	23.0-159		R5	31.1	28
Chlorobenzene	25.0	U	29.5	22.5	118	90.0	5	33.0-152			26.9	27
Chlorodibromomethane	25.0	U	24.7	21.2	98.8	84.8	5	37.0-149			15.3	27
Chloroethane	25.0	U	30.9	22.3	124	89.2	5	10.0-160		R5	32.3	30
Chloroform	25.0	U	34.1	26.5	136	106	5	29.0-154			25.1	28
Chloromethane	25.0	U	29.7	22.1	119	88.4	5	10.0-160		R5	29.3	29
Cyclohexane	25.0	39.9	66.6	59.9	107	80.0	5	19.0-160			10.6	23
2-Chlorotoluene	25.0	U	59.4	49.5	238	198	5	32.0-153	M1	M1	18.2	28
4-Chlorotoluene	25.0	U	35.0	26.5	140	106	5	32.0-150			27.6	28
1,2-Dibromo-3-Chloropropane	25.0	U	25.1	26.1	100	104	5	22.0-151			3.91	34
1,2-Dibromoethane	25.0	U	28.2	23.6	113	94.4	5	34.0-147			17.8	27
Dibromomethane	25.0	U	28.8	25.5	115	102	5	30.0-151			12.2	27
1,2-Dichlorobenzene	25.0	U	30.9	24.6	124	98.4	5	34.0-149			22.7	28
1,3-Dichlorobenzene	25.0	U	31.8	25.2	127	101	5	36.0-146			23.2	27
1,4-Dichlorobenzene	25.0	U	30.2	23.8	121	95.2	5	35.0-142			23.7	27
Dichlorodifluoromethane	25.0	U	36.5	26.9	146	108	5	10.0-160		R5	30.3	29
1,1-Dichloroethane	25.0	U	32.5	24.7	130	98.8	5	25.0-158		R5	27.3	27
1,2-Dichloroethane	25.0	U	34.0	28.7	136	115	5	29.0-151			16.9	27
1,1-Dichloroethene	25.0	U	28.5	19.8	114	79.2	5	11.0-160		R5	36.0	29
cis-1,2-Dichloroethene	25.0	U	28.5	22.0	114	88.0	5	10.0-160			25.7	27
trans-1,2-Dichloroethene	25.0	U	28.1	20.4	112	81.6	5	17.0-153		R5	31.8	27
1,2-Dichloropropane	25.0	U	31.7	24.9	127	99.6	5	30.0-156			24.0	27
1,1-Dichloropropene	25.0	U	31.4	22.7	126	90.8	5	25.0-158		R5	32.2	27
1,3-Dichloropropane	25.0	U	29.2	25.1	117	100	5	38.0-147			15.1	27
cis-1,3-Dichloropropene	25.0	U	29.9	24.3	120	97.2	5	34.0-149			20.7	28
trans-1,3-Dichloropropene	25.0	U	28.3	23.2	113	92.8	5	32.0-149			19.8	28
2,2-Dichloropropane	25.0	U	39.2	30.4	157	122	5	24.0-152	M1		25.3	29

L1385041-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1385041-02 08/03/21 21:03 • (MS) R3688542-4 08/03/21 21:44 • (MSD) R3688542-5 08/03/21 22:04

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dicyclopentadiene	25.0	U	1.75	26.3	7.00	105	5	51.0-139	M2	R5	175	20
Di-isopropyl ether	25.0	U	31.1	27.2	124	109	5	21.0-160			13.4	28
Ethylbenzene	25.0	542	540	519	0.000	0.000	5	30.0-155	M3	M3	3.97	27
4-Ethyltoluene	25.0	506	548	510	168	16.0	5	10.0-160	E1 M3	E1	7.18	20
Hexachloro-1,3-butadiene	25.0	U	20.1	16.1	80.4	64.4	5	20.0-154			22.1	34
n-Hexane	25.0	U	214	207	856	828	5	10.0-153	M1	M1	3.33	28
Isopropylbenzene	25.0	26.3	50.4	45.2	96.4	75.6	5	28.0-157			10.9	27
p-Isopropyltoluene	25.0	1.91	44.1	36.5	169	138	5	30.0-154	M1		18.9	29
2-Butanone (MEK)	125	U	179	174	143	139	5	10.0-160			2.83	32
Methyl Cyclohexane	25.0	31.5	54.8	48.8	93.2	69.2	5	11.0-160			11.6	24
Methylene Chloride	25.0	U	28.8	23.6	115	94.4	5	23.0-144			19.8	28
4-Methyl-2-pentanone (MIBK)	125	U	157	151	126	121	5	29.0-160			3.90	29
Methyl tert-butyl ether	25.0	855	850	837	0.000	0.000	5	28.0-150	E1 M3	E1 M3	1.54	29
Naphthalene	25.0	142	191	203	196	244	5	12.0-156	M3	M3	6.09	35
Propene	25.0	U	23.7	18.0	94.8	72.0	5	10.0-160			27.3	29
n-Propylbenzene	25.0	82.5	116	103	134	82.0	5	31.0-154			11.9	28
Styrene	25.0	U	24.3	19.0	97.2	76.0	5	33.0-155			24.5	28
1,1,1,2-Tetrachloroethane	25.0	U	26.3	21.3	105	85.2	5	36.0-151			21.0	29
1,1,2,2-Tetrachloroethane	25.0	U	37.6	33.8	150	135	5	33.0-150			10.6	28
Tetrachloroethene	25.0	U	26.9	20.0	108	80.0	5	10.0-160		R5	29.4	27
Toluene	25.0	715	704	671	0.000	0.000	5	26.0-154	E1 M3	E1 M3	4.80	28
1,1,2-Trichlorotrifluoroethane	25.0	U	31.5	23.6	126	94.4	5	23.0-160			28.7	30
1,2,3-Trichlorobenzene	25.0	U	18.5	16.5	74.0	66.0	5	17.0-150			11.4	36
1,2,4-Trichlorobenzene	25.0	U	19.6	16.6	78.4	66.4	5	24.0-150			16.6	33
1,1,1-Trichloroethane	25.0	U	30.1	22.0	120	88.0	5	23.0-160		R5	31.1	28
1,1,2-Trichloroethane	25.0	U	29.4	25.5	118	102	5	35.0-147			14.2	27
Trichloroethene	25.0	U	27.9	20.8	112	83.2	5	10.0-160		R5	29.2	25
Trichlorofluoromethane	25.0	U	31.3	22.1	125	88.4	5	17.0-160		R5	34.5	31
1,2,3-Trichloropropane	25.0	U	33.7	30.9	135	124	5	34.0-151			8.67	29
1,2,3-Trimethylbenzene	25.0	247	289	275	168	112	5	32.0-149	M3		4.96	28
1,2,4-Trimethylbenzene	25.0	543	581	544	152	4.00	5	26.0-154	E1	E1 M3	6.58	27
1,3,5-Trimethylbenzene	25.0	200	235	216	140	64.0	5	28.0-153			8.43	27
Vinyl chloride	25.0	U	30.5	22.1	122	88.4	5	10.0-160		R5	31.9	27
Xylenes, Total	75.0	2300	2230	2170	0.000	0.000	5	29.0-154	M3	M3	2.73	28
(S) Toluene-d8					*98.6*	*97.6*		*80.0-120*				
(S) 4-Bromofluorobenzene					*91.3*	*92.3*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*114*	*114*		*70.0-130*				

Method Blank (MB)

(MB) R3689932-3 08/07/21 07:05

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
1,3-Butadiene	U		0.299	2.00
n-Butylbenzene	0.214	E4	0.157	1.00
sec-Butylbenzene	0.148	E4	0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon disulfide	U		0.0962	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
Cyclohexane	U		0.188	1.00
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00

Method Blank (MB)

(MB) R3689932-3 08/07/21 07:05

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dicyclopentadiene	U		0.253	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00
4-Ethyltoluene	U		0.208	1.00
Hexachloro-1,3-butadiene	U		0.337	1.00
n-Hexane	U		0.749	10.0
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	0.139	E4	0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methyl Cyclohexane	U		0.660	1.00
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
Propene	U		0.936	2.50
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
1,2,3-Trichlorobenzene	0.499	E4	0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,3-Trimethylbenzene	U		0.104	1.00
1,2,4-Trimethylbenzene	U		0.322	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*111*			*80.0-120*
(S) 4-Bromofluorobenzene	*111*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3689932-1 08/07/21 06:03 • (LCSD) R3689932-2 08/07/21 06:23

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	23.9	25.7	95.6	103	19.0-160			7.26	27
Acrolein	25.0	23.6	23.2	94.4	92.8	30.0-160			1.71	26
Acrylonitrile	25.0	26.5	26.8	106	107	55.0-149			1.13	20
Benzene	5.00	4.76	4.77	95.2	95.4	70.0-123			0.210	20
Bromobenzene	5.00	4.91	5.09	98.2	102	73.0-121			3.60	20
Bromodichloromethane	5.00	4.98	4.92	99.6	98.4	75.0-120			1.21	20
Bromoform	5.00	4.52	4.62	90.4	92.4	68.0-132			2.19	20
Bromomethane	5.00	3.91	3.91	78.2	78.2	30.0-160			0.000	25
1,3-Butadiene	5.00	5.61	5.60	112	112	45.0-147			0.178	20
n-Butylbenzene	5.00	4.90	5.26	98.0	105	73.0-125			7.09	20
sec-Butylbenzene	5.00	4.80	5.18	96.0	104	75.0-125			7.62	20
tert-Butylbenzene	5.00	4.81	5.14	96.2	103	76.0-124			6.63	20
Carbon disulfide	5.00	4.42	4.52	88.4	90.4	61.0-128			2.24	20
Carbon tetrachloride	5.00	5.10	5.07	102	101	68.0-126			0.590	20
Chlorobenzene	5.00	4.80	4.92	96.0	98.4	80.0-121			2.47	20
Chlorodibromomethane	5.00	5.02	5.17	100	103	77.0-125			2.94	20
Chloroethane	5.00	4.27	4.40	85.4	88.0	47.0-150			3.00	20
Chloroform	5.00	4.97	4.98	99.4	99.6	73.0-120			0.201	20
Chloromethane	5.00	4.98	5.70	99.6	114	41.0-142			13.5	20
Cyclohexane	5.00	4.51	4.57	90.2	91.4	71.0-124			1.32	20
2-Chlorotoluene	5.00	4.89	5.02	97.8	100	76.0-123			2.62	20
4-Chlorotoluene	5.00	5.02	5.08	100	102	75.0-122			1.19	20
1,2-Dibromo-3-Chloropropane	5.00	5.33	5.05	107	101	58.0-134			5.39	20
1,2-Dibromoethane	5.00	5.38	5.50	108	110	80.0-122			2.21	20
Dibromomethane	5.00	5.19	5.02	104	100	80.0-120			3.33	20
1,2-Dichlorobenzene	5.00	4.99	5.19	99.8	104	79.0-121			3.93	20
1,3-Dichlorobenzene	5.00	4.65	4.98	93.0	99.6	79.0-120			6.85	20
1,4-Dichlorobenzene	5.00	4.71	4.94	94.2	98.8	79.0-120			4.77	20
Dichlorodifluoromethane	5.00	4.46	4.35	89.2	87.0	51.0-149			2.50	20
1,1-Dichloroethane	5.00	5.04	4.94	101	98.8	70.0-126			2.00	20
1,2-Dichloroethane	5.00	4.90	4.96	98.0	99.2	70.0-128			1.22	20
1,1-Dichloroethene	5.00	4.85	4.81	97.0	96.2	71.0-124			0.828	20
cis-1,2-Dichloroethene	5.00	5.37	5.44	107	109	73.0-120			1.30	20
trans-1,2-Dichloroethene	5.00	4.86	4.76	97.2	95.2	73.0-120			2.08	20
1,2-Dichloropropane	5.00	5.08	5.15	102	103	77.0-125			1.37	20
1,1-Dichloropropene	5.00	5.09	5.15	102	103	74.0-126			1.17	20
1,3-Dichloropropane	5.00	5.29	5.46	106	109	80.0-120			3.16	20
cis-1,3-Dichloropropene	5.00	4.56	4.71	91.2	94.2	80.0-123			3.24	20
trans-1,3-Dichloropropene	5.00	4.57	4.55	91.4	91.0	78.0-124			0.439	20
2,2-Dichloropropane	5.00	5.17	5.05	103	101	58.0-130			2.35	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3689932-1 08/07/21 06:03 • (LCSD) R3689932-2 08/07/21 06:23

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dicyclopentadiene	5.00	5.05	5.32	101	106	74.0-126			5.21	20
Di-isopropyl ether	5.00	4.94	4.90	98.8	98.0	58.0-138			0.813	20
Ethylbenzene	5.00	4.85	4.93	97.0	98.6	79.0-123			1.64	20
4-Ethyltoluene	5.00	4.90	5.13	98.0	103	74.0-127			4.59	20
Hexachloro-1,3-butadiene	5.00	4.34	4.81	86.8	96.2	54.0-138			10.3	20
n-Hexane	5.00	4.59	4.56	91.8	91.2	57.0-133			0.656	20
Isopropylbenzene	5.00	5.06	5.33	101	107	76.0-127			5.20	20
p-Isopropyltoluene	5.00	4.82	5.20	96.4	104	76.0-125			7.58	20
2-Butanone (MEK)	25.0	22.4	25.1	89.6	100	44.0-160			11.4	20
Methyl Cyclohexane	5.00	4.30	4.17	86.0	83.4	68.0-126			3.07	20
Methylene Chloride	5.00	4.14	4.35	82.8	87.0	67.0-120			4.95	20
4-Methyl-2-pentanone (MIBK)	25.0	25.2	26.8	101	107	68.0-142			6.15	20
Methyl tert-butyl ether	5.00	4.88	4.83	97.6	96.6	68.0-125			1.03	20
Naphthalene	5.00	4.68	5.43	93.6	109	54.0-135			14.8	20
Propene	5.00	4.56	5.06	91.2	101	30.0-160			10.4	20
n-Propylbenzene	5.00	4.78	5.01	95.6	100	77.0-124			4.70	20
Styrene	5.00	5.00	5.04	100	101	73.0-130			0.797	20
1,1,1,2-Tetrachloroethane	5.00	4.88	5.02	97.6	100	75.0-125			2.83	20
1,1,2,2-Tetrachloroethane	5.00	5.02	5.27	100	105	65.0-130			4.86	20
Tetrachloroethene	5.00	4.81	4.74	96.2	94.8	72.0-132			1.47	20
Toluene	5.00	5.38	5.31	108	106	79.0-120			1.31	20
1,1,2-Trichlorotrifluoroethane	5.00	4.40	4.41	88.0	88.2	69.0-132			0.227	20
1,2,3-Trichlorobenzene	5.00	4.34	5.46	86.8	109	50.0-138		R7	22.9	20
1,2,4-Trichlorobenzene	5.00	4.44	5.28	88.8	106	57.0-137			17.3	20
1,1,1-Trichloroethane	5.00	5.31	5.34	106	107	73.0-124			0.563	20
1,1,2-Trichloroethane	5.00	4.89	5.13	97.8	103	80.0-120			4.79	20
Trichloroethene	5.00	5.22	5.14	104	103	78.0-124			1.54	20
Trichlorofluoromethane	5.00	3.90	4.57	78.0	91.4	59.0-147			15.8	20
1,2,3-Trichloropropane	5.00	5.23	5.53	105	111	73.0-130			5.58	20
1,2,3-Trimethylbenzene	5.00	4.84	4.85	96.8	97.0	77.0-120			0.206	20
1,2,4-Trimethylbenzene	5.00	4.94	5.10	98.8	102	76.0-121			3.19	20
1,3,5-Trimethylbenzene	5.00	4.78	4.93	95.6	98.6	76.0-122			3.09	20
Vinyl chloride	5.00	5.13	5.11	103	102	67.0-131			0.391	20
Xylenes, Total	15.0	14.9	15.2	99.3	101	79.0-123			1.99	20
(S) Toluene-d8				*109*	*110*	*80.0-120*				
(S) 4-Bromofluorobenzene				*110*	*111*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*102*	*98.7*	*70.0-130*				

L1385497-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1385497-13 08/07/21 12:11 • (MS) R3689932-4 08/07/21 14:14 • (MSD) R3689932-5 08/07/21 14:34

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	U	25.4	22.7	102	90.8	1	10.0-160			11.2	35
Acrolein	25.0	U	24.5	20.8	98.0	83.2	1	10.0-160			16.3	39
Acrylonitrile	25.0	U	28.9	24.6	116	98.4	1	21.0-160			16.1	32
Benzene	5.00	U	4.63	4.06	92.6	81.2	1	17.0-158			13.1	27
Bromobenzene	5.00	U	4.58	4.23	91.6	84.6	1	30.0-149			7.95	28
Bromodichloromethane	5.00	U	5.32	4.51	106	90.2	1	31.0-150			16.5	27
Bromoform	5.00	U	5.06	4.19	101	83.8	1	29.0-150			18.8	29
Bromomethane	5.00	U	3.16	2.86	63.2	57.2	1	10.0-160			9.97	38
1,3-Butadiene	5.00	U	4.80	4.06	96.0	81.2	1	10.0-160			16.7	22
n-Butylbenzene	5.00	U	3.90	4.09	78.0	81.8	1	31.0-150			4.76	30
sec-Butylbenzene	5.00	U	4.19	4.31	83.8	86.2	1	33.0-155			2.82	29
tert-Butylbenzene	5.00	U	4.41	4.63	88.2	92.6	1	34.0-153			4.87	28
Carbon disulfide	5.00	U	3.66	3.43	73.2	68.6	1	10.0-156			6.49	28
Carbon tetrachloride	5.00	U	4.69	4.53	93.8	90.6	1	23.0-159			3.47	28
Chlorobenzene	5.00	U	4.49	4.30	89.8	86.0	1	33.0-152			4.32	27
Chlorodibromomethane	5.00	U	5.42	4.77	108	95.4	1	37.0-149			12.8	27
Chloroethane	5.00	U	4.18	3.74	83.6	74.8	1	10.0-160			11.1	30
Chloroform	5.00	U	4.83	4.36	96.6	87.2	1	29.0-154			10.2	28
Chloromethane	5.00	U	5.71	5.17	114	103	1	10.0-160			9.93	29
Cyclohexane	5.00	U	3.79	3.99	75.8	79.8	1	19.0-160			5.14	23
2-Chlorotoluene	5.00	U	4.28	4.22	85.6	84.4	1	32.0-153			1.41	28
4-Chlorotoluene	5.00	U	4.35	4.26	87.0	85.2	1	32.0-150			2.09	28
1,2-Dibromo-3-Chloropropane	5.00	U	5.47	5.16	109	103	1	22.0-151			5.83	34
1,2-Dibromoethane	5.00	U	5.70	5.03	114	101	1	34.0-147			12.5	27
Dibromomethane	5.00	U	5.31	4.47	106	89.4	1	30.0-151			17.2	27
1,2-Dichlorobenzene	5.00	U	4.67	4.44	93.4	88.8	1	34.0-149			5.05	28
1,3-Dichlorobenzene	5.00	U	4.20	4.10	84.0	82.0	1	36.0-146			2.41	27
1,4-Dichlorobenzene	5.00	U	3.98	4.08	79.6	81.6	1	35.0-142			2.48	27
Dichlorodifluoromethane	5.00	U	4.46	4.26	89.2	85.2	1	10.0-160			4.59	29
1,1-Dichloroethane	5.00	U	5.14	4.39	103	87.8	1	25.0-158			15.7	27
1,2-Dichloroethane	5.00	U	5.08	4.18	102	83.6	1	29.0-151			19.4	27
1,1-Dichloroethene	5.00	0.738	5.36	5.25	92.4	90.2	1	11.0-160			2.07	29
cis-1,2-Dichloroethene	5.00	U	5.30	4.36	106	87.2	1	10.0-160			19.5	27
trans-1,2-Dichloroethene	5.00	U	4.24	3.96	84.8	79.2	1	17.0-153			6.83	27
1,2-Dichloropropane	5.00	U	5.32	4.46	106	89.2	1	30.0-156			17.6	27
1,1-Dichloropropene	5.00	U	4.60	4.40	92.0	88.0	1	25.0-158			4.44	27
1,3-Dichloropropane	5.00	U	5.87	5.11	117	102	1	38.0-147			13.8	27
cis-1,3-Dichloropropene	5.00	U	4.55	3.85	91.0	77.0	1	34.0-149			16.7	28
trans-1,3-Dichloropropene	5.00	U	4.35	3.94	87.0	78.8	1	32.0-149			9.89	28
2,2-Dichloropropane	5.00	U	2.72	2.36	54.4	47.2	1	24.0-152			14.2	29

L1385497-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1385497-13 08/07/21 12:11 • (MS) R3689932-4 08/07/21 14:14 • (MSD) R3689932-5 08/07/21 14:34

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dicyclopentadiene	5.00	U	4.00	3.15	80.0	63.0	1	51.0-139		R5	23.8	20
Di-isopropyl ether	5.00	U	5.39	4.50	108	90.0	1	21.0-160			18.0	28
Ethylbenzene	5.00	U	4.25	4.14	85.0	82.8	1	30.0-155			2.62	27
4-Ethyltoluene	5.00	U	4.04	4.21	80.8	84.2	1	10.0-160			4.12	20
Hexachloro-1,3-butadiene	5.00	U	3.58	4.28	71.6	85.6	1	20.0-154			17.8	34
n-Hexane	5.00	U	4.16	3.86	83.2	77.2	1	10.0-153			7.48	28
Isopropylbenzene	5.00	U	4.20	4.42	84.0	88.4	1	28.0-157			5.10	27
p-Isopropyltoluene	5.00	U	4.02	4.21	80.4	84.2	1	30.0-154			4.62	29
2-Butanone (MEK)	25.0	U	27.7	23.7	111	94.8	1	10.0-160			15.6	32
Methyl Cyclohexane	5.00	U	3.49	3.66	69.8	73.2	1	11.0-160			4.76	24
Methylene Chloride	5.00	U	3.59	2.85	71.8	57.0	1	23.0-144			23.0	28
4-Methyl-2-pentanone (MIBK)	25.0	U	28.1	24.5	112	98.0	1	29.0-160			13.7	29
Methyl tert-butyl ether	5.00	U	5.04	4.24	101	84.8	1	28.0-150			17.2	29
Naphthalene	5.00	U	4.15	4.61	83.0	92.2	1	12.0-156			10.5	35
Propene	5.00	U	4.23	3.45	84.6	69.0	1	10.0-160			20.3	29
n-Propylbenzene	5.00	U	4.18	4.19	83.6	83.8	1	31.0-154			0.239	28
Styrene	5.00	U	4.30	4.01	86.0	80.2	1	33.0-155			6.98	28
1,1,1,2-Tetrachloroethane	5.00	U	4.85	4.40	97.0	88.0	1	36.0-151			9.73	29
1,1,2,2-Tetrachloroethane	5.00	U	5.87	5.02	117	100	1	33.0-150			15.6	28
Tetrachloroethene	5.00	U	4.22	4.18	84.4	83.6	1	10.0-160			0.952	27
Toluene	5.00	U	4.67	4.38	93.4	87.6	1	26.0-154			6.41	28
1,1,2-Trichlorotrifluoroethane	5.00	U	4.09	4.19	81.8	83.8	1	23.0-160			2.42	30
1,2,3-Trichlorobenzene	5.00	U	4.13	4.82	82.6	96.4	1	17.0-150			15.4	36
1,2,4-Trichlorobenzene	5.00	U	4.02	4.48	80.4	89.6	1	24.0-150			10.8	33
1,1,1-Trichloroethane	5.00	U	4.99	4.63	99.8	92.6	1	23.0-160			7.48	28
1,1,2-Trichloroethane	5.00	U	5.58	4.65	112	93.0	1	35.0-147			18.2	27
Trichloroethene	5.00	1.17	5.99	5.73	96.4	91.2	1	10.0-160			4.44	25
Trichlorofluoromethane	5.00	U	3.89	4.32	77.8	86.4	1	17.0-160			10.5	31
1,2,3-Trichloropropane	5.00	U	6.05	5.23	121	105	1	34.0-151			14.5	29
1,2,3-Trimethylbenzene	5.00	U	4.19	3.99	83.8	79.8	1	32.0-149			4.89	28
1,2,4-Trimethylbenzene	5.00	U	4.07	4.04	81.4	80.8	1	26.0-154			0.740	27
1,3,5-Trimethylbenzene	5.00	U	4.03	4.13	80.6	82.6	1	28.0-153			2.45	27
Vinyl chloride	5.00	U	5.20	4.77	104	95.4	1	10.0-160			8.63	27
Xylenes, Total	15.0	U	12.5	12.4	83.3	82.7	1	29.0-154			0.803	28
(S) Toluene-d8					*108*	*112*		*80.0-120*				
(S) 4-Bromofluorobenzene					*104*	*106*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*96.5*	*95.6*		*70.0-130*				

Method Blank (MB)

(MB) R3691420-3 08/12/21 11:26

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
1,1-Dichloroethene	U		0.188	1.00
Methylene Chloride	U		0.430	5.00
Trichloroethene	U		0.190	1.00
(S) Toluene-d8	*102*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.9*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3691420-1 08/12/21 08:57 • (LCSD) R3691420-2 08/12/21 09:17

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
1,1-Dichloroethene	5.00	4.66	4.97	93.2	99.4	71.0-124			6.44	20
Methylene Chloride	5.00	4.98	4.86	99.6	97.2	67.0-120			2.44	20
Trichloroethene	5.00	5.26	5.18	105	104	78.0-124			1.53	20
(S) Toluene-d8				*107*	*102*	*80.0-120*				
(S) 4-Bromofluorobenzene				*84.9*	*95.9*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*111*	*106*	*70.0-130*				

Method Blank (MB)

(MB) R3687646-3 08/03/21 14:21

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
1,4-Dioxane	U		0.597	3.00
(S) Toluene-d8	*104*			*77.0-127*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3687646-1 08/03/21 13:22 • (LCSD) R3687646-2 08/03/21 13:42

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
1,4-Dioxane	50.0	51.8	45.8	104	91.6	55.0-138			12.3	24
(S) Toluene-d8				*103*	*103*	*77.0-127*				

L1385143-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1385143-15 08/03/21 21:36 • (MS) R3687646-4 08/03/21 22:35 • (MSD) R3687646-5 08/03/21 22:55

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
1,4-Dioxane	50.0	373	479	471	212	196	1	13.0-160	M3	M3	1.68	31
(S) Toluene-d8					*101*	*101*		*77.0-127*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Is
8 Gl
9 Al
10 Sc

Method Blank (MB)

(MB) R3690231-2 08/06/21 16:11

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
1,4-Dioxane	U		0.597	3.00
(S) Toluene-d8	*104*			*77.0-127*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3690231-1 08/06/21 15:31 • (LCSD) R3690231-3 08/06/21 16:46

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,4-Dioxane	50.0	66.9	62.9	134	126	55.0-138			6.16	24
(S) Toluene-d8				*104*	*104*	*77.0-127*				

Method Blank (MB)

(MB) R3690232-2 08/06/21 16:11

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
1,4-Dioxane	U		0.597	3.00
(S) Toluene-d8	*104*			*77.0-127*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3690232-1 08/06/21 15:31 • (LCSD) R3690232-3 08/06/21 16:46

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
1,4-Dioxane	50.0	66.9	62.9	134	126	55.0-138			6.16	24
(S) Toluene-d8				*104*	*104*	*77.0-127*				

L1385493-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1385493-02 08/07/21 00:19 • (MS) R3690232-4 08/07/21 09:29 • (MSD) R3690232-5 08/07/21 09:49

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
1,4-Dioxane	50.0	U	65.2	53.6	130	107	1	13.0-160			19.5	31
(S) Toluene-d8					*111*	*103*		*77.0-127*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS26 • File ID: 0806_58

08/07/21 06:03

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0806_58	353761	171269	190800
Upper Limit		707522	342538	381600
Lower Limit		176881	85635	95400
LCS R3689932-1 WG1717654 1x	0806_58LCS	353761	171269	190800
LCSD R3689932-2 WG1717654 1x	0806_59	350725	170443	193085
BLANK R3689932-3 WG1717654 1x	0806_61	333915	158030	174231
L1385143-24 WG1717654 1x	0806_62	327296	152077	172264
MS R3689932-4 WG1717654 1x	0806_82	362468	184263	190977
MSD R3689932-5 WG1717654 1x	0806_83	378310	183964	197834

Instrument: VOCMS32 • File ID: 0803_02

08/03/21 09:22

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0803_02	268680	119212	56044
Upper Limit		537360	238424	112088
Lower Limit		134340	59606	28022
LCS R3688542-1 WG1716283 1x	0803_02LCS	268680	119212	56044
LCSD R3688542-2 WG1716283 1x	0803_03	270238	119047	57606
BLANK R3688542-3 WG1716283 1x	0803_06	253005	107081	52290
L1385143-23 WG1716283 1x	0803_17	234213	100634	49509
L1385143-19 WG1716283 1x	0803_29	235647	100380	46691
L1385143-20 WG1716283 1x	0803_30	238170	102873	48674
L1385143-21 WG1716283 1x	0803_31	239218	101645	45992
L1385143-22 WG1716283 1x	0803_32	236950	101335	48707
MS R3688542-4 WG1716283 5x	0803_35	264420	117227	52487
MSD R3688542-5 WG1716283 5x	0803_36	270488	121295	57297

INTERNAL STANDARD SUMMARY

Instrument: VOCMS33 • File ID: 0812_02

08/12/21 08:57

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0812_02	211239	86473	61421
Upper Limit		422478	172946	122842
Lower Limit		105620	43237	30711
LCS R3691420-1 WG1721553 1x	0812_02LCS	211239	86473	61421
LCSD R3691420-2 WG1721553 1x	0812_03	221672	95811	80754
BLANK R3691420-3 WG1721553 1x	0812_06	236223	99865	102041
L1385143-07 WG1721553 1x	0812_07	231246	94370	95905
L1385143-08 WG1721553 1x	0812_08	222752	91675	86241
L1385143-11 WG1721553 1x	0812_09	210733	84560	71663
L1385143-16 WG1721553 1x	0812_10	213854	90468	82990
L1385143-03 WG1721553 20x	0812_11	212100	84605	77319
L1385143-04 WG1721553 100x	0812_12	206023	83660	73656
L1385143-05 WG1721553 20x	0812_13	212836	88023	79798
L1385143-06 WG1721553 20x	0812_14	210677	82660	73765
L1385143-09 WG1721553 2500x	0812_15	213325	87714	84394
L1385143-10 WG1721553 2500x	0812_16	212551	84680	72065
L1385143-13 WG1721553 20x	0812_17	202901	82488	66614
L1385143-14 WG1721553 10x	0812_18	216282	86019	76939
L1385143-15 WG1721553 20x	0812_19	216737	84591	80628

Instrument: VOCMS56 • File ID: 0802_26

08/02/21 20:55

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0802_26	853069.10	361520.40	398679.60
Upper Limit		1706138	723041	797359
Lower Limit		426535	180760	199340
LCS R3690767-1 WG1716129 1x	0802_26LCSA	853069.10	361520.40	398679.60
LCSD R3690767-2 WG1716129 1x	0802_27A	806966.70	351741.20	395652
BLANK R3690767-3 WG1716129 1x	0802_30A	854538.50	346232.30	387636.50
L1385143-01 WG1716129 1x	0802_36	1133040	480295	567540.90
L1385143-02 WG1716129 1x	0802_37	965098.30	403966.20	426412
L1385143-03 WG1716129 1x	0802_38	877045.60	379257.30	428088.30
L1385143-04 WG1716129 1x	0802_39	935969	382154.10	432112.10
L1385143-05 WG1716129 1x	0802_40	873263.10	376192.30	425061.20

INTERNAL STANDARD SUMMARY

Instrument: VOCMS56 • File ID: 0802_26

08/02/21 20:55

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
L1385143-06 WG1716129 1x	0802_41	915180.70	380778.20	417477.80
L1385143-07 WG1716129 1x	0802_42	838239.10	361797	409783.40
L1385143-08 WG1716129 1x	0802_43	910953.40	384805.70	416367
L1385143-11 WG1716129 1x	0802_44	899973.30	365659.90	396556.10
L1385143-12 WG1716129 1x	0802_45	825448	357114.90	402069.20
L1385143-13 WG1716129 1x	0802_46	885354.40	355886.60	388705
L1385143-14 WG1716129 1x	0802_47	846019.50	350188.60	387946.40
L1385143-15 WG1716129 1x	0802_48	815822.90	339240.80	372250.20
L1385143-16 WG1716129 1x	0802_49	790497.10	334221.70	375336.40
L1385143-17 WG1716129 1x	0802_50	854542.20	350419	385099.80
L1385143-18 WG1716129 1x	0802_51	771818.20	331141	371054.20
L1385143-09 WG1716129 50x	0802_52	831509	342448.10	367414
L1385143-10 WG1716129 50x	0802_53	795706.50	332248.50	361494.90
MS R3690767-4 WG1716129 1x	0802_54	791061	328319.40	358084.80
MSD R3690767-5 WG1716129 1x	0802_55	756465.10	331949.50	388441.10

INTERNAL STANDARD SUMMARY

Instrument: VOCMS27 • File ID: 0803_06

08/03/21 13:02

Sample ID	File ID	8260-1,4-DIFLUOROBENZENE Response
Standard	0803_06	881677
Upper Limit		1763354
Lower Limit		440839
LCS R3687646-1 WG1716576 1x	0803_07	814530
LCSD R3687646-2 WG1716576 1x	0803_08	930194
BLANK R3687646-3 WG1716576 1x	0803_10	687590
L1385143-01 WG1716576 1x	0803_14	757379
L1385143-02 WG1716576 1x	0803_15	655884
L1385143-03 WG1716576 1x	0803_16	629067
L1385143-05 WG1716576 1x	0803_18	768149
L1385143-06 WG1716576 1x	0803_19	677980
L1385143-07 WG1716576 1x	0803_20	638991
L1385143-08 WG1716576 1x	0803_21	683145
L1385143-12 WG1716576 1x	0803_25	599343
L1385143-13 WG1716576 1x	0803_26	745947
L1385143-14 WG1716576 1x	0803_27	727709
L1385143-15 WG1716576 1x	0803_28	720184
L1385143-16 WG1716576 1x	0803_29	695474
L1385143-17 WG1716576 1x	0803_30	672305
MS R3687646-4 WG1716576 1x	0803_31	669182
MSD R3687646-5 WG1716576 1x	0803_32	706115

Instrument: VOCMS27 • File ID: 0806_05

08/06/21 14:51

Sample ID	File ID	8260-1,4-DIFLUOROBENZENE Response
Standard	0806_05	780548
Upper Limit		1561096
Lower Limit		390274
LCS R3690232-1 WG1719066 1x	0806_07	713776
LCS R3690231-1 WG1717221 1x	0806_07A	713776
BLANK R3690232-2 WG1719066 1x	0806_09	689189
BLANK R3690231-2 WG1717221 1x	0806_09A	689189
LCSD R3690232-3 WG1719066 1x	0806_10	620689
LCSD R3690231-3 WG1717221 1x	0806_10A	620689

INTERNAL STANDARD SUMMARY

Instrument: VOCMS27 • File ID: 0806_05

08/06/21 14:51

Sample ID	File ID	8260-1,4-DIFLUOROBENZENE Response
L1385143-11 WG1717221 1x	0806_12	730692
L1385143-04 WG1717221 5x	0806_13	738082
L1385143-09 WG1717221 50x	0806_14	819771
L1385143-10 WG1717221 50x	0806_15	767417
L1385143-18 WG1719066 1x	0806_23	706264
L1385143-19 WG1719066 1x	0806_24	788969
L1385143-20 WG1719066 1x	0806_25	883692
L1385143-21 WG1719066 1x	0806_26	668984
L1385143-22 WG1719066 1x	0806_27	495849
MS R3690232-4 WG1719066 1x	0806_38	831624
MSD R3690232-5 WG1719066 1x	0806_39	746727

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
L1	The associated blank spike recovery was above laboratory acceptance limits.
L2	The associated blank spike recovery was below laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

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11811 N. Tatum Blvd.,
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CC: tluttermoser@geosyntec.com

Pres Chk

Report to:
Tory Luttermoser; Fabrizio Mascioni

Email To:
FMascioni@Geosyntec.com

Project Description: **Nammo Defense Systems, Inc.** **NDS TTU Sampling**

City/State Collected: **Mesa, AZ**

Phone: **602.513.5830**
Fax:

Client Project # **SP0101GW21/02**

Lab Project #

Collected by (print): Ryan Ayala

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote # **GEOSYNPAZ052019S**

Date Results Needed: Standard

Analysis / Container / Preservative

Chain of Custody Page 1 of 3

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12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 1385143

Table # E100

Acctnum: **GEOSYNPAZ**
Template:
Prelogin:
TSR: **Chris Ward**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Perchlorate 314.0/ 125mL HDPE/ No Pres	VOC 8260B/ 40mL amber/ HCl	1,4 Dioxane V8260LL14D/40mL amb/ HCl	Remarks	Sample # (lab only)
TTU-5-110-20210729	Grab	GW	110	7-29-21	1030	5	X	X	X		-01
TTU-EX-5-80-20210729			80		1055	5	X	X	X		-02
TTU-EX-4-77-20210729			77		1119	5	X	X	X		-03
TTU-EX-3-76-20210729			76		1135	5	X	X	X		-04
TTU-EX-2-74-20210729			74		1152	5	X	X	X		-05
TTU-EX-1-69-20210729			69		1240	5	X	X	X		-06
~~TTU-EX1~~ TTU-17-80-20210729 (24 7-29-21)			80		1300	5	X	X	X		-07
TTU-15-75-20210729			75		1325	5	X	X	X		-08
TTU-16-80-20210729			80		1345	5	X	X	X		-09
TTU-16-80-20210729-Dup			80		1345	5	X	X	X		-10

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N

	Date:	Time:	
Relinquished by: (Signature)	7-30-21	1512	Received by: (Signature)
Relinquished by: (Signature)	7-30-21	1700	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCl / MeoH
TBR

Temp: 4.7 °C
1.0 ±0 = 1.0

Bottles Received: 15

Date: 7/31/21 Time: 9:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PNPAZ

Geosyntec
11811 N. Tatum Blvd.,
Suite P186
Phoenix, AZ 85028

Billing Information:
Accounts Payable
11811 N Tatum Blvd, Ste P186,
Phoenix, Arizona 85028

CC: tluttermoser@geosyntec.com

Pres Chk

Report to: **Tory Luttermoser; Fabrizio Mascioni**

Email To: **FMascioni@Geosyntec.com**

Project Description: **Nammo Defense Systems, Inc.** **NDS TTU Sampling**

City/State Collected: **Mesa, AZ**

Phone: **602.513.5830**
Fax:

Client Project # **SP0101GW21/02**

Lab Project #

Collected by (print): Ryan Ayala

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote # **GEOSYNPAZ052019S**

Date Results Needed: Standard

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Perchlorate 314.0/ 125mL HDPE/ No Pres	VOC 8260B/ 40mL amber/ HCl	1,4 Dioxane V8260LL14D/40mL amb/ HCl	Remarks	Sample # (lab only)
TTU-9A-61-20210729	Grab	GW	61	7-29-21	1432	5	X	X	X		-11
TTU-13-51-20210729			51		1455	5	X	X	X		-12
TTU-14-69-20210729			69		1510	5	X	X	X		-13
TTU-12-82-20210729			82		1527	5	X	X	X		-14
TTU-2-114-20210729			114		1635	10	X	X	X	MS/MSD	-15
TTU-1-50-20210729			50		1713	5	X	X	X		-16
TTU-8-164-20210730			164	7-30-21	1145	5	X	X	X		-17
TTU-4-57-20210730			57		~~1205~~ 1205	5	X	X	X		-18
TTU-4-57-20210730Dup			57		1205	5	X	X	X		-19
TTU-3-108-20210730			108		1238	5	X	X	X		-20

Chain of Custody Page 2 of 3

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
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Phone: 800-767-5859
Fax: 615-758-5859

L # 1385143

Table #

Acctnum: **GEOSYNPAZ**

Template:

Prelogin:

TSR: **Chris Ward**

PB:

Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	7-30-21	1512	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	7-30-21	1900	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: A7 °C
1.0+0=1.0

Bottles Received: 115

Date: 7/31/21 Time: 9:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PM: AZ

Geosyntec
11811 N. Tatum Blvd.,
Suite P186
Phoenix, AZ 85028

Billing Information:
Accounts Payable
11811 N Tatum Blvd, Ste P186,
Phoenix, Arizona 85028

CC: tluttermoser@geosyntec.com

Pres Chk

Report to: **Tory Luttermoser; Fabrizio Mascioni**

Email To: **FMascioni@Geosyntec.com**

Project Description: **Nammo Defense Systems, Inc.** **NDS TTU Sampling**

City/State Collected: **Mesa, AZ**

Phone: **602.513.5830**
Fax:

Client Project # **SP0101GW21/02**

Lab Project #

Collected by (print): Ryan Ayala

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote # GEOSYNPAZ052019S

Date Results Needed: Standard

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Perchlorate 314.0/ 125mL HDPE/ No Pres	VOC 8260B/ 40mL amber/ HCl	1,4 Dioxane V8260LL14D/40mL amb/ HCl	Remarks	Sample # (lab only)
TTU-7-345-20210730	Grab	GW	345	7-30-21	1337	5	X	X	X		-21
TTU-6-143-20210730	Grab	GW	143	7-30-21	1355	5	X	X	X		-22
TB-1				7-30-21		1		X			-27
TB-2				7-30-21		1		X			-28

Chain of Custody Page 3 of 3

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L# 1385143

Table #

Acctnum: **GEOSYNPAZ**

Template:

Prelogin:

TSR: **Chris Ward**

PB:

Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	7-30-21	1512	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	7-30-21	1800	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCl / MeoH
TBR

Temp: 1.0 +0.1 -1.0 °C Bottles Received: 15

Date: 7/31/21 Time: 9:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

LIP AZ

ANALYTICAL REPORT

August 17, 2021

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Is
8 Gl
9 Al
10 Sc

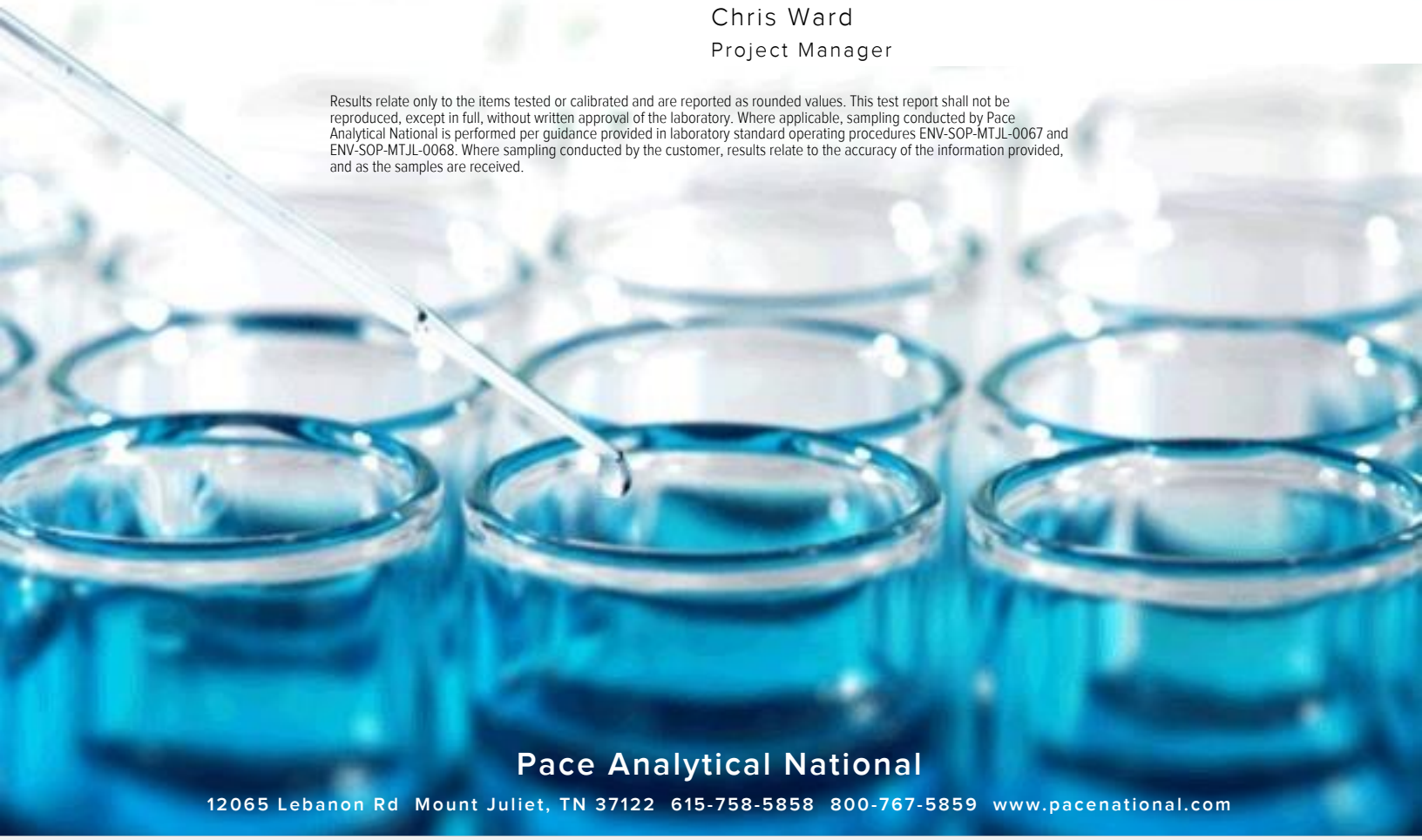
GeoSyntec, Inc. - AZ

Sample Delivery Group:	L1387887
Samples Received:	08/07/2021
Project Number:	SP0101GW21/02
Description:	Nammo Defense Systems, Inc. NDS Sampling

Report To: Fabrizio Mascioni
11811 N Tatum Blvd, Ste P186
Phoenix, AZ 85028

Entire Report Reviewed By: Chris Ward

Chris Ward
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

SAMPLE SUMMARY

PF-2-400-20210806 L1387887-01 GW

Collected by: Ryan Ayala
Collected date/time: 08/06/21 13:27
Received date/time: 08/07/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1720957	1	08/11/21 03:56	08/11/21 03:56	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1723598	1	08/16/21 17:00	08/16/21 17:00	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1720335	1	08/12/21 03:25	08/12/21 03:25	ACG	Mt. Juliet, TN

TB L1387887-02 GW

Collected by: Ryan Ayala
Collected date/time: 08/06/21 00:00
Received date/time: 08/07/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1720957	1	08/11/21 00:53	08/11/21 00:53	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1723598	1	08/16/21 16:20	08/16/21 16:20	ACG	Mt. Juliet, TN

TTU-10-152-20210806 L1387887-03 GW

Collected by: Ryan Ayala
Collected date/time: 08/06/21 12:45
Received date/time: 08/07/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG1721302	1	08/13/21 14:51	08/13/21 14:51	GB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1720957	1	08/11/21 04:16	08/11/21 04:16	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1723598	1	08/16/21 17:21	08/16/21 17:21	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG1720335	1	08/12/21 03:45	08/12/21 03:45	ACG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris Ward
Project Manager

Sample Delivery Group (SDG) Narrative

Insufficient sample volume to perform MS/MSD analyses per method QC requirements.

Lab Sample ID	Project Sample ID	Method
L1387887-01	PF-2-400-20210806	8260B
L1387887-02	TB	8260B
L1387887-03	TTU-10-152-20210806	8260B

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	08/11/2021 03:56	WG1720957
Acrolein	U		2.54	50.0	1	08/11/2021 03:56	WG1720957
Acrylonitrile	U		0.671	10.0	1	08/11/2021 03:56	WG1720957
Benzene	U		0.0941	1.00	1	08/16/2021 17:00	WG1723598
Bromobenzene	U		0.118	1.00	1	08/11/2021 03:56	WG1720957
Bromodichloromethane	U		0.136	1.00	1	08/11/2021 03:56	WG1720957
Bromoform	U		0.129	1.00	1	08/11/2021 03:56	WG1720957
Bromomethane	U		0.605	5.00	1	08/11/2021 03:56	WG1720957
1,3-Butadiene	U		0.299	2.00	1	08/11/2021 03:56	WG1720957
n-Butylbenzene	U		0.157	1.00	1	08/11/2021 03:56	WG1720957
sec-Butylbenzene	U		0.125	1.00	1	08/11/2021 03:56	WG1720957
tert-Butylbenzene	U		0.127	1.00	1	08/11/2021 03:56	WG1720957
Carbon tetrachloride	U		0.128	1.00	1	08/11/2021 03:56	WG1720957
Carbon disulfide	U		0.0962	1.00	1	08/11/2021 03:56	WG1720957
Chlorobenzene	U		0.116	1.00	1	08/11/2021 03:56	WG1720957
Chlorodibromomethane	U		0.140	1.00	1	08/11/2021 03:56	WG1720957
Chloroethane	U		0.192	5.00	1	08/11/2021 03:56	WG1720957
Chloroform	U		0.111	5.00	1	08/11/2021 03:56	WG1720957
Chloromethane	U		0.960	2.50	1	08/11/2021 03:56	WG1720957
Cyclohexane	U		0.188	1.00	1	08/11/2021 03:56	WG1720957
2-Chlorotoluene	U		0.106	1.00	1	08/11/2021 03:56	WG1720957
4-Chlorotoluene	U		0.114	1.00	1	08/11/2021 03:56	WG1720957
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/11/2021 03:56	WG1720957
1,2-Dibromoethane	U	L1	0.126	1.00	1	08/11/2021 03:56	WG1720957
Dibromomethane	U		0.122	1.00	1	08/11/2021 03:56	WG1720957
1,2-Dichlorobenzene	U		0.107	1.00	1	08/11/2021 03:56	WG1720957
1,3-Dichlorobenzene	U		0.110	1.00	1	08/11/2021 03:56	WG1720957
1,4-Dichlorobenzene	U		0.120	1.00	1	08/11/2021 03:56	WG1720957
Dichlorodifluoromethane	U		0.374	5.00	1	08/11/2021 03:56	WG1720957
1,1-Dichloroethane	U		0.100	1.00	1	08/11/2021 03:56	WG1720957
1,2-Dichloroethane	U		0.0819	1.00	1	08/11/2021 03:56	WG1720957
1,1-Dichloroethene	U		0.188	1.00	1	08/11/2021 03:56	WG1720957
cis-1,2-Dichloroethene	U		0.126	1.00	1	08/11/2021 03:56	WG1720957
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/11/2021 03:56	WG1720957
1,2-Dichloropropane	U		0.149	1.00	1	08/11/2021 03:56	WG1720957
1,1-Dichloropropene	U		0.142	1.00	1	08/11/2021 03:56	WG1720957
1,3-Dichloropropane	U	L1	0.110	1.00	1	08/11/2021 03:56	WG1720957
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/11/2021 03:56	WG1720957
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/11/2021 03:56	WG1720957
2,2-Dichloropropane	U		0.161	1.00	1	08/11/2021 03:56	WG1720957
Dicyclopentadiene	U		0.253	1.00	1	08/11/2021 03:56	WG1720957
Di-isopropyl ether	U		0.105	1.00	1	08/11/2021 03:56	WG1720957
Ethylbenzene	U		0.137	1.00	1	08/16/2021 17:00	WG1723598
4-Ethyltoluene	U		0.208	1.00	1	08/11/2021 03:56	WG1720957
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/11/2021 03:56	WG1720957
n-Hexane	U		0.749	10.0	1	08/11/2021 03:56	WG1720957
Isopropylbenzene	0.218	E4	0.105	1.00	1	08/11/2021 03:56	WG1720957
p-Isopropyltoluene	U		0.120	1.00	1	08/11/2021 03:56	WG1720957
2-Butanone (MEK)	U		1.19	10.0	1	08/11/2021 03:56	WG1720957
Methyl Cyclohexane	0.793	E4	0.660	1.00	1	08/11/2021 03:56	WG1720957
Methylene Chloride	U		0.430	5.00	1	08/11/2021 03:56	WG1720957
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/11/2021 03:56	WG1720957
Methyl tert-butyl ether	U		0.101	1.00	1	08/11/2021 03:56	WG1720957
Naphthalene	U		1.00	5.00	1	08/16/2021 17:00	WG1723598
Propene	U		0.936	2.50	1	08/11/2021 03:56	WG1720957
n-Propylbenzene	0.750	E4	0.0993	1.00	1	08/11/2021 03:56	WG1720957

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Styrene	U		0.118	1.00	1	08/11/2021 03:56	WG1720957
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/11/2021 03:56	WG1720957
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/11/2021 03:56	WG1720957
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/11/2021 03:56	WG1720957
Tetrachloroethene	U		0.300	1.00	1	08/11/2021 03:56	WG1720957
Toluene	U		0.278	1.00	1	08/11/2021 03:56	WG1720957
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/11/2021 03:56	WG1720957
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/11/2021 03:56	WG1720957
1,1,1-Trichloroethane	U		0.149	1.00	1	08/11/2021 03:56	WG1720957
1,1,2-Trichloroethane	U		0.158	1.00	1	08/11/2021 03:56	WG1720957
Trichloroethene	U	L1	0.190	1.00	1	08/11/2021 03:56	WG1720957
Trichlorofluoromethane	U		0.160	5.00	1	08/11/2021 03:56	WG1720957
1,2,3-Trichloropropane	U		0.237	2.50	1	08/11/2021 03:56	WG1720957
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/16/2021 17:00	WG1723598
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/16/2021 17:00	WG1723598
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/11/2021 03:56	WG1720957
Vinyl chloride	U		0.234	1.00	1	08/11/2021 03:56	WG1720957
Xylenes, Total	0.215	E4	0.174	3.00	1	08/11/2021 03:56	WG1720957
(S) Toluene-d8	*111*			*80.0-120*		*08/11/2021 03:56*	WG1720957
(S) Toluene-d8	*107*			*80.0-120*		*08/16/2021 17:00*	WG1723598
(S) 4-Bromofluorobenzene	*112*			*77.0-126*		*08/11/2021 03:56*	WG1720957
(S) 4-Bromofluorobenzene	*111*			*77.0-126*		*08/16/2021 17:00*	WG1723598
(S) 1,2-Dichloroethane-d4	*91.9*			*70.0-130*		*08/11/2021 03:56*	WG1720957
(S) 1,2-Dichloroethane-d4	*97.2*			*70.0-130*		*08/16/2021 17:00*	WG1723598

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U	R7	0.597	3.00	1	08/12/2021 03:25	WG1720335
(S) Toluene-d8	*98.5*			*77.0-127*		*08/12/2021 03:25*	WG1720335

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	08/11/2021 00:53	WG1720957
Acrolein	U		2.54	50.0	1	08/11/2021 00:53	WG1720957
Acrylonitrile	U		0.671	10.0	1	08/11/2021 00:53	WG1720957
Benzene	U		0.0941	1.00	1	08/11/2021 00:53	WG1720957
Bromobenzene	U		0.118	1.00	1	08/11/2021 00:53	WG1720957
Bromodichloromethane	U		0.136	1.00	1	08/11/2021 00:53	WG1720957
Bromoform	U		0.129	1.00	1	08/11/2021 00:53	WG1720957
Bromomethane	U		0.605	5.00	1	08/11/2021 00:53	WG1720957
1,3-Butadiene	U		0.299	2.00	1	08/11/2021 00:53	WG1720957
n-Butylbenzene	U		0.157	1.00	1	08/11/2021 00:53	WG1720957
sec-Butylbenzene	U		0.125	1.00	1	08/11/2021 00:53	WG1720957
tert-Butylbenzene	U		0.127	1.00	1	08/11/2021 00:53	WG1720957
Carbon tetrachloride	U		0.128	1.00	1	08/11/2021 00:53	WG1720957
Carbon disulfide	0.201	E4	0.0962	1.00	1	08/11/2021 00:53	WG1720957
Chlorobenzene	U		0.116	1.00	1	08/11/2021 00:53	WG1720957
Chlorodibromomethane	U		0.140	1.00	1	08/11/2021 00:53	WG1720957
Chloroethane	U		0.192	5.00	1	08/11/2021 00:53	WG1720957
Chloroform	U		0.111	5.00	1	08/11/2021 00:53	WG1720957
Chloromethane	U		0.960	2.50	1	08/11/2021 00:53	WG1720957
Cyclohexane	U		0.188	1.00	1	08/11/2021 00:53	WG1720957
2-Chlorotoluene	U		0.106	1.00	1	08/11/2021 00:53	WG1720957
4-Chlorotoluene	U		0.114	1.00	1	08/11/2021 00:53	WG1720957
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/11/2021 00:53	WG1720957
1,2-Dibromoethane	U	L1	0.126	1.00	1	08/11/2021 00:53	WG1720957
Dibromomethane	U		0.122	1.00	1	08/11/2021 00:53	WG1720957
1,2-Dichlorobenzene	U		0.107	1.00	1	08/11/2021 00:53	WG1720957
1,3-Dichlorobenzene	U		0.110	1.00	1	08/11/2021 00:53	WG1720957
1,4-Dichlorobenzene	U		0.120	1.00	1	08/11/2021 00:53	WG1720957
Dichlorodifluoromethane	U		0.374	5.00	1	08/11/2021 00:53	WG1720957
1,1-Dichloroethane	U		0.100	1.00	1	08/11/2021 00:53	WG1720957
1,2-Dichloroethane	U		0.0819	1.00	1	08/11/2021 00:53	WG1720957
1,1-Dichloroethene	U		0.188	1.00	1	08/11/2021 00:53	WG1720957
cis-1,2-Dichloroethene	U		0.126	1.00	1	08/11/2021 00:53	WG1720957
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/11/2021 00:53	WG1720957
1,2-Dichloropropane	U		0.149	1.00	1	08/11/2021 00:53	WG1720957
1,1-Dichloropropene	U		0.142	1.00	1	08/11/2021 00:53	WG1720957
1,3-Dichloropropane	U	L1	0.110	1.00	1	08/11/2021 00:53	WG1720957
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/11/2021 00:53	WG1720957
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/11/2021 00:53	WG1720957
2,2-Dichloropropane	U		0.161	1.00	1	08/11/2021 00:53	WG1720957
Dicyclopentadiene	U		0.253	1.00	1	08/11/2021 00:53	WG1720957
Di-isopropyl ether	U		0.105	1.00	1	08/11/2021 00:53	WG1720957
Ethylbenzene	U		0.137	1.00	1	08/11/2021 00:53	WG1720957
4-Ethyltoluene	U		0.208	1.00	1	08/11/2021 00:53	WG1720957
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/11/2021 00:53	WG1720957
n-Hexane	U		0.749	10.0	1	08/11/2021 00:53	WG1720957
Isopropylbenzene	U		0.105	1.00	1	08/11/2021 00:53	WG1720957
p-Isopropyltoluene	U		0.120	1.00	1	08/11/2021 00:53	WG1720957
2-Butanone (MEK)	U		1.19	10.0	1	08/11/2021 00:53	WG1720957
Methyl Cyclohexane	U		0.660	1.00	1	08/11/2021 00:53	WG1720957
Methylene Chloride	U		0.430	5.00	1	08/11/2021 00:53	WG1720957
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/11/2021 00:53	WG1720957
Methyl tert-butyl ether	U		0.101	1.00	1	08/11/2021 00:53	WG1720957
Naphthalene	U		1.00	5.00	1	08/11/2021 00:53	WG1720957
Propene	U		0.936	2.50	1	08/11/2021 00:53	WG1720957
n-Propylbenzene	U		0.0993	1.00	1	08/11/2021 00:53	WG1720957

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Styrene	U		0.118	1.00	1	08/11/2021 00:53	WG1720957
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/11/2021 00:53	WG1720957
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/11/2021 00:53	WG1720957
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/11/2021 00:53	WG1720957
Tetrachloroethene	U		0.300	1.00	1	08/11/2021 00:53	WG1720957
Toluene	U		0.278	1.00	1	08/11/2021 00:53	WG1720957
1,2,3-Trichlorobenzene	U	R7	0.230	1.00	1	08/16/2021 16:20	WG1723598
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/11/2021 00:53	WG1720957
1,1,1-Trichloroethane	U		0.149	1.00	1	08/11/2021 00:53	WG1720957
1,1,2-Trichloroethane	U		0.158	1.00	1	08/11/2021 00:53	WG1720957
Trichloroethene	0.251	E4 L1	0.190	1.00	1	08/11/2021 00:53	WG1720957
Trichlorofluoromethane	U		0.160	5.00	1	08/11/2021 00:53	WG1720957
1,2,3-Trichloropropane	U		0.237	2.50	1	08/11/2021 00:53	WG1720957
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/11/2021 00:53	WG1720957
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/11/2021 00:53	WG1720957
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/11/2021 00:53	WG1720957
Vinyl chloride	U		0.234	1.00	1	08/11/2021 00:53	WG1720957
Xylenes, Total	0.220	E4	0.174	3.00	1	08/11/2021 00:53	WG1720957
(S) Toluene-d8	*111*			*80.0-120*		*08/11/2021 00:53*	WG1720957
(S) Toluene-d8	*107*			*80.0-120*		*08/16/2021 16:20*	WG1723598
(S) 4-Bromofluorobenzene	*113*			*77.0-126*		*08/11/2021 00:53*	WG1720957
(S) 4-Bromofluorobenzene	*112*			*77.0-126*		*08/16/2021 16:20*	WG1723598
(S) 1,2-Dichloroethane-d4	*92.6*			*70.0-130*		*08/11/2021 00:53*	WG1720957
(S) 1,2-Dichloroethane-d4	*97.8*			*70.0-130*		*08/16/2021 16:20*	WG1723598

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	U		0.300	4.00	1	08/13/2021 14:51	WG1721302

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	08/11/2021 04:16	WG1720957
Acrolein	U		2.54	50.0	1	08/11/2021 04:16	WG1720957
Acrylonitrile	U		0.671	10.0	1	08/11/2021 04:16	WG1720957
Benzene	U		0.0941	1.00	1	08/11/2021 04:16	WG1720957
Bromobenzene	U		0.118	1.00	1	08/11/2021 04:16	WG1720957
Bromodichloromethane	U		0.136	1.00	1	08/11/2021 04:16	WG1720957
Bromoform	U		0.129	1.00	1	08/11/2021 04:16	WG1720957
Bromomethane	U		0.605	5.00	1	08/11/2021 04:16	WG1720957
1,3-Butadiene	U		0.299	2.00	1	08/11/2021 04:16	WG1720957
n-Butylbenzene	U		0.157	1.00	1	08/11/2021 04:16	WG1720957
sec-Butylbenzene	U		0.125	1.00	1	08/11/2021 04:16	WG1720957
tert-Butylbenzene	U		0.127	1.00	1	08/11/2021 04:16	WG1720957
Carbon tetrachloride	U		0.128	1.00	1	08/11/2021 04:16	WG1720957
Carbon disulfide	U		0.0962	1.00	1	08/11/2021 04:16	WG1720957
Chlorobenzene	U		0.116	1.00	1	08/11/2021 04:16	WG1720957
Chlorodibromomethane	U		0.140	1.00	1	08/11/2021 04:16	WG1720957
Chloroethane	U		0.192	5.00	1	08/11/2021 04:16	WG1720957
Chloroform	U		0.111	5.00	1	08/11/2021 04:16	WG1720957
Chloromethane	U		0.960	2.50	1	08/11/2021 04:16	WG1720957
Cyclohexane	U		0.188	1.00	1	08/11/2021 04:16	WG1720957
2-Chlorotoluene	U		0.106	1.00	1	08/11/2021 04:16	WG1720957
4-Chlorotoluene	U		0.114	1.00	1	08/11/2021 04:16	WG1720957
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	08/11/2021 04:16	WG1720957
1,2-Dibromoethane	U	L1	0.126	1.00	1	08/11/2021 04:16	WG1720957
Dibromomethane	U		0.122	1.00	1	08/11/2021 04:16	WG1720957
1,2-Dichlorobenzene	U		0.107	1.00	1	08/11/2021 04:16	WG1720957
1,3-Dichlorobenzene	U		0.110	1.00	1	08/11/2021 04:16	WG1720957
1,4-Dichlorobenzene	U		0.120	1.00	1	08/11/2021 04:16	WG1720957
Dichlorodifluoromethane	U		0.374	5.00	1	08/11/2021 04:16	WG1720957
1,1-Dichloroethane	U		0.100	1.00	1	08/11/2021 04:16	WG1720957
1,2-Dichloroethane	U		0.0819	1.00	1	08/11/2021 04:16	WG1720957
1,1-Dichloroethene	U		0.188	1.00	1	08/11/2021 04:16	WG1720957
cis-1,2-Dichloroethene	U		0.126	1.00	1	08/11/2021 04:16	WG1720957
trans-1,2-Dichloroethene	U		0.149	1.00	1	08/11/2021 04:16	WG1720957
1,2-Dichloropropane	U		0.149	1.00	1	08/11/2021 04:16	WG1720957
1,1-Dichloropropene	U		0.142	1.00	1	08/11/2021 04:16	WG1720957
1,3-Dichloropropane	U	L1	0.110	1.00	1	08/11/2021 04:16	WG1720957
cis-1,3-Dichloropropene	U		0.111	1.00	1	08/11/2021 04:16	WG1720957
trans-1,3-Dichloropropene	U		0.118	1.00	1	08/11/2021 04:16	WG1720957
2,2-Dichloropropane	U		0.161	1.00	1	08/11/2021 04:16	WG1720957
Dicyclopentadiene	U		0.253	1.00	1	08/11/2021 04:16	WG1720957
Di-isopropyl ether	U		0.105	1.00	1	08/11/2021 04:16	WG1720957
Ethylbenzene	U		0.137	1.00	1	08/16/2021 17:21	WG1723598
4-Ethyltoluene	U		0.208	1.00	1	08/11/2021 04:16	WG1720957
Hexachloro-1,3-butadiene	U		0.337	1.00	1	08/11/2021 04:16	WG1720957
n-Hexane	U		0.749	10.0	1	08/11/2021 04:16	WG1720957
Isopropylbenzene	U		0.105	1.00	1	08/11/2021 04:16	WG1720957
p-Isopropyltoluene	U		0.120	1.00	1	08/11/2021 04:16	WG1720957
2-Butanone (MEK)	U		1.19	10.0	1	08/11/2021 04:16	WG1720957
Methyl Cyclohexane	0.689	E4	0.660	1.00	1	08/11/2021 04:16	WG1720957

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methylene Chloride	U		0.430	5.00	1	08/11/2021 04:16	WG1720957
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	08/11/2021 04:16	WG1720957
Methyl tert-butyl ether	U		0.101	1.00	1	08/11/2021 04:16	WG1720957
Naphthalene	U		1.00	5.00	1	08/16/2021 17:21	WG1723598
Propene	U		0.936	2.50	1	08/11/2021 04:16	WG1720957
n-Propylbenzene	0.198	E4	0.0993	1.00	1	08/11/2021 04:16	WG1720957
Styrene	U		0.118	1.00	1	08/11/2021 04:16	WG1720957
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	08/11/2021 04:16	WG1720957
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	08/11/2021 04:16	WG1720957
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	08/11/2021 04:16	WG1720957
Tetrachloroethene	U		0.300	1.00	1	08/11/2021 04:16	WG1720957
Toluene	U		0.278	1.00	1	08/11/2021 04:16	WG1720957
1,2,3-Trichlorobenzene	U		0.230	1.00	1	08/11/2021 04:16	WG1720957
1,2,4-Trichlorobenzene	U		0.481	1.00	1	08/11/2021 04:16	WG1720957
1,1,1-Trichloroethane	U		0.149	1.00	1	08/11/2021 04:16	WG1720957
1,1,2-Trichloroethane	U		0.158	1.00	1	08/11/2021 04:16	WG1720957
Trichloroethene	U	L1	0.190	1.00	1	08/11/2021 04:16	WG1720957
Trichlorofluoromethane	U		0.160	5.00	1	08/11/2021 04:16	WG1720957
1,2,3-Trichloropropane	U		0.237	2.50	1	08/11/2021 04:16	WG1720957
1,2,4-Trimethylbenzene	U		0.322	1.00	1	08/16/2021 17:21	WG1723598
1,2,3-Trimethylbenzene	U		0.104	1.00	1	08/16/2021 17:21	WG1723598
1,3,5-Trimethylbenzene	U		0.104	1.00	1	08/11/2021 04:16	WG1720957
Vinyl chloride	U		0.234	1.00	1	08/11/2021 04:16	WG1720957
Xylenes, Total	U		0.174	3.00	1	08/11/2021 04:16	WG1720957
(S) Toluene-d8	*113*			*80.0-120*		*08/11/2021 04:16*	WG1720957
(S) Toluene-d8	*108*			*80.0-120*		*08/16/2021 17:21*	WG1723598
(S) 4-Bromofluorobenzene	*114*			*77.0-126*		*08/11/2021 04:16*	WG1720957
(S) 4-Bromofluorobenzene	*110*			*77.0-126*		*08/16/2021 17:21*	WG1723598
(S) 1,2-Dichloroethane-d4	*93.1*			*70.0-130*		*08/11/2021 04:16*	WG1720957
(S) 1,2-Dichloroethane-d4	*96.1*			*70.0-130*		*08/16/2021 17:21*	WG1723598

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	U	R7	0.597	3.00	1	08/12/2021 03:45	WG1720335
(S) Toluene-d8	*98.8*			*77.0-127*		*08/12/2021 03:45*	WG1720335

Method Blank (MB)

(MB) R3692020-1 08/12/21 13:58

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Perchlorate	U		0.300	4.00

Original Sample (OS) • Duplicate (DUP)

(OS) • (DUP) R3692020-3 08/12/21 15:52

Analyte	Original Result	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Perchlorate		5.36	1	2.65		15

L1387605-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1387605-03 08/12/21 21:33 • (DUP) R3692020-4 08/12/21 22:01

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Perchlorate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3692020-2 08/12/21 14:55

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Perchlorate	10.0	9.63	96.3	90.0-110	

L1387626-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1387626-03 08/13/21 01:20 • (MS) R3692020-5 08/13/21 01:48 • (MSD) R3692020-6 08/13/21 02:17

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Perchlorate	10.0	1.47	11.8	11.6	104	102	1	80.0-120			1.66	15

Method Blank (MB)

(MB) R3692155-3 08/10/21 23:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
1,3-Butadiene	U		0.299	2.00
n-Butylbenzene	0.234	E4	0.157	1.00
sec-Butylbenzene	0.185	E4	0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon disulfide	U		0.0962	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
Cyclohexane	U		0.188	1.00
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00

Method Blank (MB)

(MB) R3692155-3 08/10/21 23:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dicyclopentadiene	U		0.253	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00
4-Ethyltoluene	U		0.208	1.00
Hexachloro-1,3-butadiene	0.440	E4	0.337	1.00
n-Hexane	U		0.749	10.0
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	0.161	E4	0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methyl Cyclohexane	U		0.660	1.00
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
Propene	U		0.936	2.50
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
1,2,3-Trichlorobenzene	0.626	E4	0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,3-Trimethylbenzene	U		0.104	1.00
1,2,4-Trimethylbenzene	U		0.322	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*112*			*80.0-120*
(S) 4-Bromofluorobenzene	*112*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*90.6*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3692155-1 08/10/21 22:48 • (LCSD) R3692155-2 08/10/21 23:09

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	30.6	31.3	122	125	19.0-160			2.26	27
Acrolein	25.0	16.9	17.0	67.6	68.0	30.0-160			0.590	26
Acrylonitrile	25.0	30.1	30.2	120	121	55.0-149			0.332	20
Benzene	5.00	5.20	5.53	104	111	70.0-123			6.15	20
Bromobenzene	5.00	5.12	5.42	102	108	73.0-121			5.69	20
Bromodichloromethane	5.00	5.40	5.64	108	113	75.0-120			4.35	20
Bromoform	5.00	5.49	5.79	110	116	68.0-132			5.32	20
Bromomethane	5.00	4.00	4.08	80.0	81.6	30.0-160			1.98	25
1,3-Butadiene	5.00	5.74	6.13	115	123	45.0-147			6.57	20
n-Butylbenzene	5.00	5.25	5.81	105	116	73.0-125			10.1	20
sec-Butylbenzene	5.00	5.19	5.77	104	115	75.0-125			10.6	20
tert-Butylbenzene	5.00	5.14	5.85	103	117	76.0-124			12.9	20
Carbon disulfide	5.00	5.41	5.66	108	113	61.0-128			4.52	20
Carbon tetrachloride	5.00	5.65	5.94	113	119	68.0-126			5.00	20
Chlorobenzene	5.00	5.34	5.63	107	113	80.0-121			5.29	20
Chlorodibromomethane	5.00	5.90	6.15	118	123	77.0-125			4.15	20
Chloroethane	5.00	4.29	4.45	85.8	89.0	47.0-150			3.66	20
Chloroform	5.00	5.21	5.39	104	108	73.0-120			3.40	20
Chloromethane	5.00	5.57	5.71	111	114	41.0-142			2.48	20
Cyclohexane	5.00	5.12	5.44	102	109	71.0-124			6.06	20
2-Chlorotoluene	5.00	4.93	5.64	98.6	113	76.0-123			13.4	20
4-Chlorotoluene	5.00	5.17	5.64	103	113	75.0-122			8.70	20
1,2-Dibromo-3-Chloropropane	5.00	5.87	6.48	117	130	58.0-134			9.88	20
1,2-Dibromoethane	5.00	6.11	6.25	122	125	80.0-122		L1	2.27	20
Dibromomethane	5.00	5.72	5.83	114	117	80.0-120			1.90	20
1,2-Dichlorobenzene	5.00	5.44	5.86	109	117	79.0-121			7.43	20
1,3-Dichlorobenzene	5.00	5.13	5.73	103	115	79.0-120			11.0	20
1,4-Dichlorobenzene	5.00	4.93	5.69	98.6	114	79.0-120			14.3	20
Dichlorodifluoromethane	5.00	5.70	5.98	114	120	51.0-149			4.79	20
1,1-Dichloroethane	5.00	5.31	5.49	106	110	70.0-126			3.33	20
1,2-Dichloroethane	5.00	5.12	5.28	102	106	70.0-128			3.08	20
1,1-Dichloroethene	5.00	5.35	5.92	107	118	71.0-124			10.1	20
cis-1,2-Dichloroethene	5.00	5.73	5.93	115	119	73.0-120			3.43	20
trans-1,2-Dichloroethene	5.00	5.15	5.59	103	112	73.0-120			8.19	20
1,2-Dichloropropane	5.00	5.49	5.87	110	117	77.0-125			6.69	20
1,1-Dichloropropene	5.00	5.77	6.07	115	121	74.0-126			5.07	20
1,3-Dichloropropane	5.00	6.03	6.16	121	123	80.0-120	L1	L1	2.13	20
cis-1,3-Dichloropropene	5.00	5.66	5.89	113	118	80.0-123			3.98	20
trans-1,3-Dichloropropene	5.00	5.33	5.52	107	110	78.0-124			3.50	20
2,2-Dichloropropane	5.00	5.00	5.29	100	106	58.0-130			5.64	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3692155-1 08/10/21 22:48 • (LCSD) R3692155-2 08/10/21 23:09

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dicyclopentadiene	5.00	5.05	5.79	101	116	74.0-126			13.7	20
Di-isopropyl ether	5.00	5.25	5.38	105	108	58.0-138			2.45	20
Ethylbenzene	5.00	5.24	5.53	105	111	79.0-123			5.39	20
4-Ethyltoluene	5.00	4.94	5.51	98.8	110	74.0-127			10.9	20
Hexachloro-1,3-butadiene	5.00	5.58	6.67	112	133	54.0-138			17.8	20
n-Hexane	5.00	5.60	5.67	112	113	57.0-133			1.24	20
Isopropylbenzene	5.00	5.37	5.99	107	120	76.0-127			10.9	20
p-Isopropyltoluene	5.00	5.32	6.03	106	121	76.0-125			12.5	20
2-Butanone (MEK)	25.0	29.1	30.3	116	121	44.0-160			4.04	20
Methyl Cyclohexane	5.00	4.67	5.02	93.4	100	68.0-126			7.22	20
Methylene Chloride	5.00	3.94	4.06	78.8	81.2	67.0-120			3.00	20
4-Methyl-2-pentanone (MIBK)	25.0	28.0	28.9	112	116	68.0-142			3.16	20
Methyl tert-butyl ether	5.00	5.16	5.18	103	104	68.0-125			0.387	20
Naphthalene	5.00	5.28	6.09	106	122	54.0-135			14.2	20
Propene	5.00	4.04	4.02	80.8	80.4	30.0-160			0.496	20
n-Propylbenzene	5.00	4.82	5.39	96.4	108	77.0-124			11.2	20
Styrene	5.00	5.44	5.71	109	114	73.0-130			4.84	20
1,1,1,2-Tetrachloroethane	5.00	5.71	5.77	114	115	75.0-125			1.05	20
1,1,2,2-Tetrachloroethane	5.00	5.20	5.40	104	108	65.0-130			3.77	20
Tetrachloroethene	5.00	5.61	5.94	112	119	72.0-132			5.71	20
Toluene	5.00	5.48	5.96	110	119	79.0-120			8.39	20
1,1,2-Trichlorotrifluoroethane	5.00	4.97	5.18	99.4	104	69.0-132			4.14	20
1,2,3-Trichlorobenzene	5.00	5.70	6.89	114	138	50.0-138			18.9	20
1,2,4-Trichlorobenzene	5.00	5.92	6.66	118	133	57.0-137			11.8	20
1,1,1-Trichloroethane	5.00	5.64	6.03	113	121	73.0-124			6.68	20
1,1,2-Trichloroethane	5.00	5.64	5.82	113	116	80.0-120			3.14	20
Trichloroethene	5.00	6.06	6.32	121	126	78.0-124		L1	4.20	20
Trichlorofluoromethane	5.00	4.31	4.21	86.2	84.2	59.0-147			2.35	20
1,2,3-Trichloropropane	5.00	5.87	6.13	117	123	73.0-130			4.33	20
1,2,3-Trimethylbenzene	5.00	4.99	5.33	99.8	107	77.0-120			6.59	20
1,2,4-Trimethylbenzene	5.00	5.12	5.60	102	112	76.0-121			8.96	20
1,3,5-Trimethylbenzene	5.00	4.86	5.44	97.2	109	76.0-122			11.3	20
Vinyl chloride	5.00	5.37	5.74	107	115	67.0-131			6.66	20
Xylenes, Total	15.0	16.3	17.3	109	115	79.0-123			5.95	20
(S) Toluene-d8				*108*	*110*	*80.0-120*				
(S) 4-Bromofluorobenzene				*111*	*112*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*93.1*	*92.9*	*70.0-130*				

L1387687-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1387687-09 08/11/21 01:34 • (MS) R3692155-4 08/11/21 07:41 • (MSD) R3692155-5 08/11/21 08:02

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	U	28.7	32.9	115	132	1	10.0-160			13.6	35
Acrolein	25.0	U	25.3	20.4	101	81.6	1	10.0-160			21.4	39
Acrylonitrile	25.0	U	33.4	33.1	134	132	1	21.0-160			0.902	32
Benzene	5.00	0.190	6.67	5.99	130	116	1	17.0-158			10.7	27
Bromobenzene	5.00	U	5.84	4.97	117	99.4	1	30.0-149			16.1	28
Bromodichloromethane	5.00	U	6.33	5.79	127	116	1	31.0-150			8.91	27
Bromoform	5.00	U	6.40	5.71	128	114	1	29.0-150			11.4	29
Bromomethane	5.00	U	4.70	4.10	94.0	82.0	1	10.0-160			13.6	38
1,3-Butadiene	5.00	U	7.91	6.52	158	130	1	10.0-160			19.3	22
n-Butylbenzene	5.00	U	5.73	4.13	115	82.6	1	31.0-150		R5	32.5	30
sec-Butylbenzene	5.00	U	6.17	4.89	123	97.8	1	33.0-155			23.1	29
tert-Butylbenzene	5.00	U	6.30	5.21	126	104	1	34.0-153			18.9	28
Carbon disulfide	5.00	0.107	6.62	5.70	130	112	1	10.0-156			14.9	28
Carbon tetrachloride	5.00	U	7.27	6.08	145	122	1	23.0-159			17.8	28
Chlorobenzene	5.00	U	6.40	5.39	128	108	1	33.0-152			17.1	27
Chlorodibromomethane	5.00	U	6.85	6.32	137	126	1	37.0-149			8.05	27
Chloroethane	5.00	U	5.16	5.00	103	100	1	10.0-160			3.15	30
Chloroform	5.00	U	6.15	5.67	123	113	1	29.0-154			8.12	28
Chloromethane	5.00	U	5.79	5.47	116	109	1	10.0-160			5.68	29
Cyclohexane	5.00	U	7.89	5.53	158	111	1	19.0-160		R5	35.2	23
2-Chlorotoluene	5.00	U	5.86	4.85	117	97.0	1	32.0-153			18.9	28
4-Chlorotoluene	5.00	U	5.93	4.71	119	94.2	1	32.0-150			22.9	28
1,2-Dibromo-3-Chloropropane	5.00	U	6.49	5.94	130	119	1	22.0-151			8.85	34
1,2-Dibromoethane	5.00	U	6.96	6.58	139	132	1	34.0-147			5.61	27
Dibromomethane	5.00	U	6.66	6.01	133	120	1	30.0-151			10.3	27
1,2-Dichlorobenzene	5.00	U	5.99	4.99	120	99.8	1	34.0-149			18.2	28
1,3-Dichlorobenzene	5.00	U	5.67	4.67	113	93.4	1	36.0-146			19.3	27
1,4-Dichlorobenzene	5.00	U	5.59	4.45	112	89.0	1	35.0-142			22.7	27
Dichlorodifluoromethane	5.00	U	8.11	6.64	162	133	1	10.0-160	M1		19.9	29
1,1-Dichloroethane	5.00	U	6.34	5.86	127	117	1	25.0-158			7.87	27
1,2-Dichloroethane	5.00	U	5.91	5.39	118	108	1	29.0-151			9.20	27
1,1-Dichloroethene	5.00	U	7.02	6.07	140	121	1	11.0-160			14.5	29
cis-1,2-Dichloroethene	5.00	U	6.87	6.21	137	124	1	10.0-160			10.1	27
trans-1,2-Dichloroethene	5.00	U	6.36	5.69	127	114	1	17.0-153			11.1	27
1,2-Dichloropropane	5.00	U	6.53	6.15	131	123	1	30.0-156			5.99	27
1,1-Dichloropropene	5.00	U	7.31	5.96	146	119	1	25.0-158			20.3	27
1,3-Dichloropropane	5.00	U	7.02	6.54	140	131	1	38.0-147			7.08	27
cis-1,3-Dichloropropene	5.00	U	6.57	5.83	131	117	1	34.0-149			11.9	28
trans-1,3-Dichloropropene	5.00	U	6.12	5.68	122	114	1	32.0-149			7.46	28
2,2-Dichloropropane	5.00	U	6.04	5.20	121	104	1	24.0-152			14.9	29

L1387687-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1387687-09 08/11/21 01:34 • (MS) R3692155-4 08/11/21 07:41 • (MSD) R3692155-5 08/11/21 08:02

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dicyclopentadiene	5.00	U	5.91	5.17	118	103	1	51.0-139			13.4	20
Di-isopropyl ether	5.00	U	6.17	5.83	123	117	1	21.0-160			5.67	28
Ethylbenzene	5.00	0.208	6.91	5.58	134	107	1	30.0-155			21.3	27
4-Ethyltoluene	5.00	U	6.14	4.68	123	93.6	1	10.0-160		R5	27.0	20
Hexachloro-1,3-butadiene	5.00	U	6.06	4.28	121	85.6	1	20.0-154		R5	34.4	34
n-Hexane	5.00	U	6.65	4.16	133	83.2	1	10.0-153		R5	46.1	28
Isopropylbenzene	5.00	U	7.51	5.47	150	109	1	28.0-157		R5	31.4	27
p-Isopropyltoluene	5.00	U	6.09	4.64	122	92.8	1	30.0-154			27.0	29
2-Butanone (MEK)	25.0	1.60	31.7	34.5	120	132	1	10.0-160			8.46	32
Methyl Cyclohexane	5.00	U	6.24	4.31	125	86.2	1	11.0-160		R5	36.6	24
Methylene Chloride	5.00	U	4.85	4.40	97.0	88.0	1	23.0-144			9.73	28
4-Methyl-2-pentanone (MIBK)	25.0	U	32.1	32.3	128	129	1	29.0-160			0.621	29
Methyl tert-butyl ether	5.00	0.120	5.73	5.55	112	109	1	28.0-150			3.19	29
Naphthalene	5.00	U	6.71	6.02	134	120	1	12.0-156			10.8	35
Propene	5.00	U	6.15	5.90	114	109	1	10.0-160			4.15	29
n-Propylbenzene	5.00	U	8.02	4.97	160	99.4	1	31.0-154	M1	R5	47.0	28
Styrene	5.00	U	6.46	5.42	129	108	1	33.0-155			17.5	28
1,1,1,2-Tetrachloroethane	5.00	U	6.40	5.67	128	113	1	36.0-151			12.1	29
1,1,2,2-Tetrachloroethane	5.00	U	6.06	5.56	121	111	1	33.0-150			8.61	28
Tetrachloroethene	5.00	U	6.96	5.44	139	109	1	10.0-160			24.5	27
Toluene	5.00	U	6.93	5.94	139	119	1	26.0-154			15.4	28
1,1,2-Trichlorotrifluoroethane	5.00	U	6.43	4.88	129	97.6	1	23.0-160			27.4	30
1,2,3-Trichlorobenzene	5.00	U	5.89	5.40	118	108	1	17.0-150			8.68	36
1,2,4-Trichlorobenzene	5.00	U	5.93	4.84	119	96.8	1	24.0-150			20.2	33
1,1,1-Trichloroethane	5.00	U	7.23	6.36	145	127	1	23.0-160			12.8	28
1,1,2-Trichloroethane	5.00	U	6.54	5.98	131	120	1	35.0-147			8.95	27
Trichloroethene	5.00	U	7.15	5.86	143	117	1	10.0-160			19.8	25
Trichlorofluoromethane	5.00	U	5.59	4.33	112	86.6	1	17.0-160			25.4	31
1,2,3-Trichloropropane	5.00	U	6.36	5.80	127	116	1	34.0-151			9.21	29
1,2,3-Trimethylbenzene	5.00	0.120	7.17	4.98	141	97.2	1	32.0-149		R5	36.0	28
1,2,4-Trimethylbenzene	5.00	U	6.38	5.30	128	106	1	26.0-154			18.5	27
1,3,5-Trimethylbenzene	5.00	U	6.15	4.91	123	98.2	1	28.0-153			22.4	27
Vinyl chloride	5.00	U	6.90	6.65	138	133	1	10.0-160			3.69	27
Xylenes, Total	15.0	0.487	20.2	16.5	131	107	1	29.0-154			20.2	28
(S) Toluene-d8					*112*	*111*		*80.0-120*				
(S) 4-Bromofluorobenzene					*114*	*113*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*91.8*	*90.5*		*70.0-130*				

L1387687-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1387687-10 08/11/21 01:55 • (MS) R3692155-6 08/11/21 08:22 • (MSD) R3692155-7 08/11/21 08:43

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	U	23.7	29.2	94.8	117	1	10.0-160			20.8	35
Acrolein	25.0	U	19.9	27.0	79.6	108	1	10.0-160			30.3	39
Acrylonitrile	25.0	U	25.6	33.9	102	136	1	21.0-160			27.9	32
Benzene	5.00	U	4.60	6.49	92.0	130	1	17.0-158		R5	34.1	27
Bromobenzene	5.00	U	4.30	6.13	86.0	123	1	30.0-149		R5	35.1	28
Bromodichloromethane	5.00	0.145	4.86	6.58	94.3	129	1	31.0-150		R5	30.1	27
Bromoform	5.00	U	4.48	6.33	89.6	127	1	29.0-150		R5	34.2	29
Bromomethane	5.00	U	2.84	3.95	56.8	79.0	1	10.0-160			32.7	38
1,3-Butadiene	5.00	U	5.75	7.87	115	157	1	10.0-160		R5	31.1	22
n-Butylbenzene	5.00	U	3.92	6.49	78.4	130	1	31.0-150		R5	49.4	30
sec-Butylbenzene	5.00	0.361	5.10	7.30	94.8	139	1	33.0-155		R5	35.5	29
tert-Butylbenzene	5.00	U	5.04	7.27	101	145	1	34.0-153		R5	36.2	28
Carbon disulfide	5.00	U	5.69	6.99	114	140	1	10.0-156			20.5	28
Carbon tetrachloride	5.00	U	5.23	7.47	105	149	1	23.0-159		R5	35.3	28
Chlorobenzene	5.00	U	4.51	6.40	90.2	128	1	33.0-152		R5	34.6	27
Chlorodibromomethane	5.00	U	4.75	6.76	95.0	135	1	37.0-149		R5	34.9	27
Chloroethane	5.00	U	3.83	5.09	76.6	102	1	10.0-160			28.3	30
Chloroform	5.00	U	4.40	6.10	88.0	122	1	29.0-154		R5	32.4	28
Chloromethane	5.00	U	3.25	5.07	65.0	101	1	10.0-160		R5	43.7	29
Cyclohexane	5.00	U	5.08	7.16	102	143	1	19.0-160		R5	34.0	23
2-Chlorotoluene	5.00	U	4.37	6.18	87.4	124	1	32.0-153		R5	34.3	28
4-Chlorotoluene	5.00	U	4.27	6.47	85.4	129	1	32.0-150		R5	41.0	28
1,2-Dibromo-3-Chloropropane	5.00	U	5.08	7.10	102	142	1	22.0-151			33.2	34
1,2-Dibromoethane	5.00	U	5.13	7.31	103	146	1	34.0-147		R5	35.0	27
Dibromomethane	5.00	U	4.88	6.63	97.6	133	1	30.0-151		R5	30.4	27
1,2-Dichlorobenzene	5.00	U	4.63	6.38	92.6	128	1	34.0-149		R5	31.8	28
1,3-Dichlorobenzene	5.00	U	4.22	6.24	84.4	125	1	36.0-146		R5	38.6	27
1,4-Dichlorobenzene	5.00	U	4.20	5.88	84.0	118	1	35.0-142		R5	33.3	27
Dichlorodifluoromethane	5.00	U	5.55	8.02	111	160	1	10.0-160		R5	36.4	29
1,1-Dichloroethane	5.00	U	4.63	6.32	92.6	126	1	25.0-158		R5	30.9	27
1,2-Dichloroethane	5.00	U	4.22	5.79	84.4	116	1	29.0-151		R5	31.4	27
1,1-Dichloroethene	5.00	U	5.14	7.19	103	144	1	11.0-160		R5	33.3	29
cis-1,2-Dichloroethene	5.00	U	4.96	6.90	99.2	138	1	10.0-160		R5	32.7	27
trans-1,2-Dichloroethene	5.00	U	4.64	6.52	92.8	130	1	17.0-153		R5	33.7	27
1,2-Dichloropropane	5.00	U	4.80	6.91	96.0	138	1	30.0-156		R5	36.0	27
1,1-Dichloropropene	5.00	U	5.19	7.43	104	149	1	25.0-158		R5	35.5	27
1,3-Dichloropropane	5.00	U	4.93	7.14	98.6	143	1	38.0-147		R5	36.6	27
cis-1,3-Dichloropropene	5.00	U	4.49	6.52	89.8	130	1	34.0-149		R5	36.9	28
trans-1,3-Dichloropropene	5.00	U	4.14	6.07	82.8	121	1	32.0-149		R5	37.8	28
2,2-Dichloropropane	5.00	U	4.10	5.59	82.0	112	1	24.0-152		R5	30.8	29

L1387687-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1387687-10 08/11/21 01:55 • (MS) R3692155-6 08/11/21 08:22 • (MSD) R3692155-7 08/11/21 08:43

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dicyclopentadiene	5.00	U	4.82	6.69	96.4	134	1	51.0-139		R5	32.5	20
Di-isopropyl ether	5.00	U	4.58	6.08	91.6	122	1	21.0-160		R5	28.1	28
Ethylbenzene	5.00	U	4.69	6.65	93.8	133	1	30.0-155		R5	34.6	27
4-Ethyltoluene	5.00	U	4.29	6.47	85.8	129	1	10.0-160		R5	40.5	20
Hexachloro-1,3-butadiene	5.00	U	4.46	6.82	89.2	136	1	20.0-154		R5	41.8	34
n-Hexane	5.00	U	4.06	6.58	81.2	132	1	10.0-153		R5	47.4	28
Isopropylbenzene	5.00	0.118	4.96	7.08	96.8	139	1	28.0-157		R5	35.2	27
p-Isopropyltoluene	5.00	U	4.57	6.77	91.4	135	1	30.0-154		R5	38.8	29
2-Butanone (MEK)	25.0	U	26.1	33.7	104	135	1	10.0-160			25.4	32
Methyl Cyclohexane	5.00	0.829	4.36	6.24	70.6	108	1	11.0-160		R5	35.5	24
Methylene Chloride	5.00	U	3.22	4.77	64.4	95.4	1	23.0-144		R5	38.8	28
4-Methyl-2-pentanone (MIBK)	25.0	U	23.9	32.2	95.6	129	1	29.0-160		R5	29.6	29
Methyl tert-butyl ether	5.00	0.305	4.60	6.00	85.9	114	1	28.0-150			26.4	29
Naphthalene	5.00	U	5.24	6.82	105	136	1	12.0-156			26.2	35
Propene	5.00	U	4.95	7.26	99.0	145	1	10.0-160		R5	37.8	29
n-Propylbenzene	5.00	U	4.39	6.49	87.8	130	1	31.0-154		R5	38.6	28
Styrene	5.00	U	4.56	6.62	91.2	132	1	33.0-155		R5	36.9	28
1,1,1,2-Tetrachloroethane	5.00	U	4.60	6.54	92.0	131	1	36.0-151		R5	34.8	29
1,1,2,2-Tetrachloroethane	5.00	U	4.72	6.40	94.4	128	1	33.0-150		R5	30.2	28
Tetrachloroethene	5.00	U	4.71	7.11	94.2	142	1	10.0-160		R5	40.6	27
Toluene	5.00	U	4.80	6.92	96.0	138	1	26.0-154		R5	36.2	28
1,1,2-Trichlorotrifluoroethane	5.00	U	4.55	6.67	91.0	133	1	23.0-160		R5	37.8	30
1,2,3-Trichlorobenzene	5.00	U	5.20	7.07	104	141	1	17.0-150			30.5	36
1,2,4-Trichlorobenzene	5.00	U	4.74	6.82	94.8	136	1	24.0-150		R5	36.0	33
1,1,1-Trichloroethane	5.00	U	5.31	7.40	106	148	1	23.0-160		R5	32.9	28
1,1,2-Trichloroethane	5.00	U	4.87	6.76	97.4	135	1	35.0-147		R5	32.5	27
Trichloroethene	5.00	U	5.00	7.11	100	142	1	10.0-160		R5	34.8	25
Trichlorofluoromethane	5.00	U	4.27	5.68	85.4	114	1	17.0-160			28.3	31
1,2,3-Trichloropropane	5.00	U	4.95	6.75	99.0	135	1	34.0-151		R5	30.8	29
1,2,3-Trimethylbenzene	5.00	U	4.49	5.99	89.8	120	1	32.0-149		R5	28.6	28
1,2,4-Trimethylbenzene	5.00	U	4.61	6.41	92.2	128	1	26.0-154		R5	32.7	27
1,3,5-Trimethylbenzene	5.00	U	4.35	6.29	87.0	126	1	28.0-153		R5	36.5	27
Vinyl chloride	5.00	U	5.23	7.42	105	148	1	10.0-160		R5	34.6	27
Xylenes, Total	15.0	U	14.0	20.0	93.3	133	1	29.0-154		R5	35.3	28
(S) Toluene-d8					*107*	*109*		*80.0-120*				
(S) 4-Bromofluorobenzene					*110*	*112*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*91.1*	*90.2*		*70.0-130*				

Method Blank (MB)

(MB) R3692545-2 08/16/21 11:56

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Ethylbenzene	U		0.137	1.00
Naphthalene	U		1.00	5.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,3-Trimethylbenzene	U		0.104	1.00
1,2,4-Trimethylbenzene	U		0.322	1.00
(S) Toluene-d8	*95.7*			*80.0-120*
(S) 4-Bromofluorobenzene	*110*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*96.5*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3692545-1 08/16/21 10:55 • (LCSD) R3692545-3 08/16/21 13:16

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	5.01	5.12	100	102	70.0-123			2.17	20
Ethylbenzene	5.00	4.90	4.92	98.0	98.4	79.0-123			0.407	20
Naphthalene	5.00	4.71	4.39	94.2	87.8	54.0-135			7.03	20
1,2,3-Trichlorobenzene	5.00	5.70	4.37	114	87.4	50.0-138		R7	26.4	20
1,2,3-Trimethylbenzene	5.00	4.40	4.15	88.0	83.0	77.0-120			5.85	20
1,2,4-Trimethylbenzene	5.00	4.54	4.30	90.8	86.0	76.0-121			5.43	20
(S) Toluene-d8				*106*	*104*	*80.0-120*				
(S) 4-Bromofluorobenzene				*108*	*111*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*94.9*	*95.8*	*70.0-130*				

Method Blank (MB)

(MB) R3691315-1 08/11/21 21:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
1,4-Dioxane	U		0.597	3.00
(S) Toluene-d8	*98.9*			*77.0-127*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3691315-2 08/12/21 09:25 • (LCSD) R3691315-3 08/12/21 09:45

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
1,4-Dioxane	50.0	48.7	37.7	97.4	75.4	55.0-138		R7	25.5	24
(S) Toluene-d8				*98.8*	*98.7*	*77.0-127*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS26 • File ID: 0810_35

08/10/21 22:48

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0810_35	403336	206454	242723
Upper Limit		806672	412908	485446
Lower Limit		201668	103227	121362
LCS R3692155-1 WG1720957 1x	0810_35LCS	403336	206454	242723
LCSD R3692155-2 WG1720957 1x	0810_36	406309	208540	240445
BLANK R3692155-3 WG1720957 1x	0810_38	395444	195648	219786
L1387887-02 WG1720957 1x	0810_39	393527	194751	224421
L1387887-01 WG1720957 1x	0810_48	406625	203402	232409
L1387887-03 WG1720957 1x	0810_49	395836	194325	232841
MS R3692155-4 WG1720957 1x	0810_59	424503	217939	256214
MSD R3692155-5 WG1720957 1x	0810_60	413091	212054	243879
MS R3692155-6 WG1720957 1x	0810_61	418306	218474	246758
MSD R3692155-7 WG1720957 1x	0810_62	427419	223874	251450

Instrument: VOCMS26 • File ID: 0816_03

08/16/21 10:55

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0816_03	390053	227077	263655
Upper Limit		780106	454154	527310
Lower Limit		195027	113539	131828
LCS R3692545-1 WG1723598 1x	0816_03LCS	390053	227077	263655
BLANK R3692545-2 WG1723598 1x	0816_06	378346	247449	281493
LCSD R3692545-3 WG1723598 1x	0816_09A	389917	221506	277108
L1387887-02 WG1723598 1x	0816_18	372010	205892	255639
L1387887-01 WG1723598 1x	0816_20	367473	204413	233292
L1387887-03 WG1723598 1x	0816_21	364962	199963	232882

INTERNAL STANDARD SUMMARY

Instrument: VOCMS27 • File ID: 0811_25

08/11/21 19:30

Sample ID	File ID	8260-1,4-DIFLUOROBENZENE Response
Standard	0811_25	1111832
Upper Limit		1974630
Lower Limit		493658
BLANK R3691315-1 WG1720335 1x	0811_27B	1150700
L1387887-01 WG1720335 1x	0811_45	1234977
L1387887-03 WG1720335 1x	0811_46	1006556

Instrument: VOCMS27 • File ID: 0811_50

08/12/21 09:06

Sample ID	File ID	8260-1,4-DIFLUOROBENZENE Response
Standard	0811_50	1085025
Upper Limit		2170050
Lower Limit		542513
LCS R3691315-2 WG1720335 1x	0811_51	996604
LCSD R3691315-3 WG1720335 1x	0811_52	1331575

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
L1	The associated blank spike recovery was above laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Geosyntec
11811 N. Tatum Blvd.,
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Phoenix, AZ 85028

Billing Information:
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Phoenix, Arizona 85028

CC: tluttermoser@geosyntec.com

Pres Chk

Report to: **Tory Luttermoser; Fabrizio Mascioni**

Email To: **FMascioni@Geosyntec.com**

Project Description: **Nammo Defense Systems, Inc.** **NDS WBO Sampling**

City/State Collected: **Mesa, AZ**

Phone: **602.513.5830**
Fax:

Client Project # **SP0101GW21/01RA 02**

Lab Project #

Collected by (print): **Ryan Ayala**

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote # **GEOSYNPAZ052019S**

Date Results Needed: Standard

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Perchlorate 314.0/ 125mL HDPE/ No Pres	VOC 8260B/ 40mL amber/ HCl	1,4 Dioxane V8260LL14D/40mL amb/ HCl	Remarks	Sample # (lab only)
PF-2-400-20210806	Grab	GW	400	8-6-21	1327	4 5M		X	X		-01
TB						1		X			-02
TTU-10-152-20210806	Grab	GW	152		1245	5	X	X	X		-03

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical®
National Center for Testing & Innovation

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Phone: 800-767-5859
Fax: 615-758-5859

L # L1387887
C218

Acctnum: **GEOSYNPAZ**
Template:
Prelogin:
TSR: **Chris Ward**
PB:
Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	8-6-21	1543			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.6 °C 2.7-1.5-2.6 Bottles Received: 4	
	8/6/21	1800			
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 8/7 Time: 0945	Hold: Condition: NCF / OK

PNPAZ

ANALYTICAL REPORT

October 06, 2021

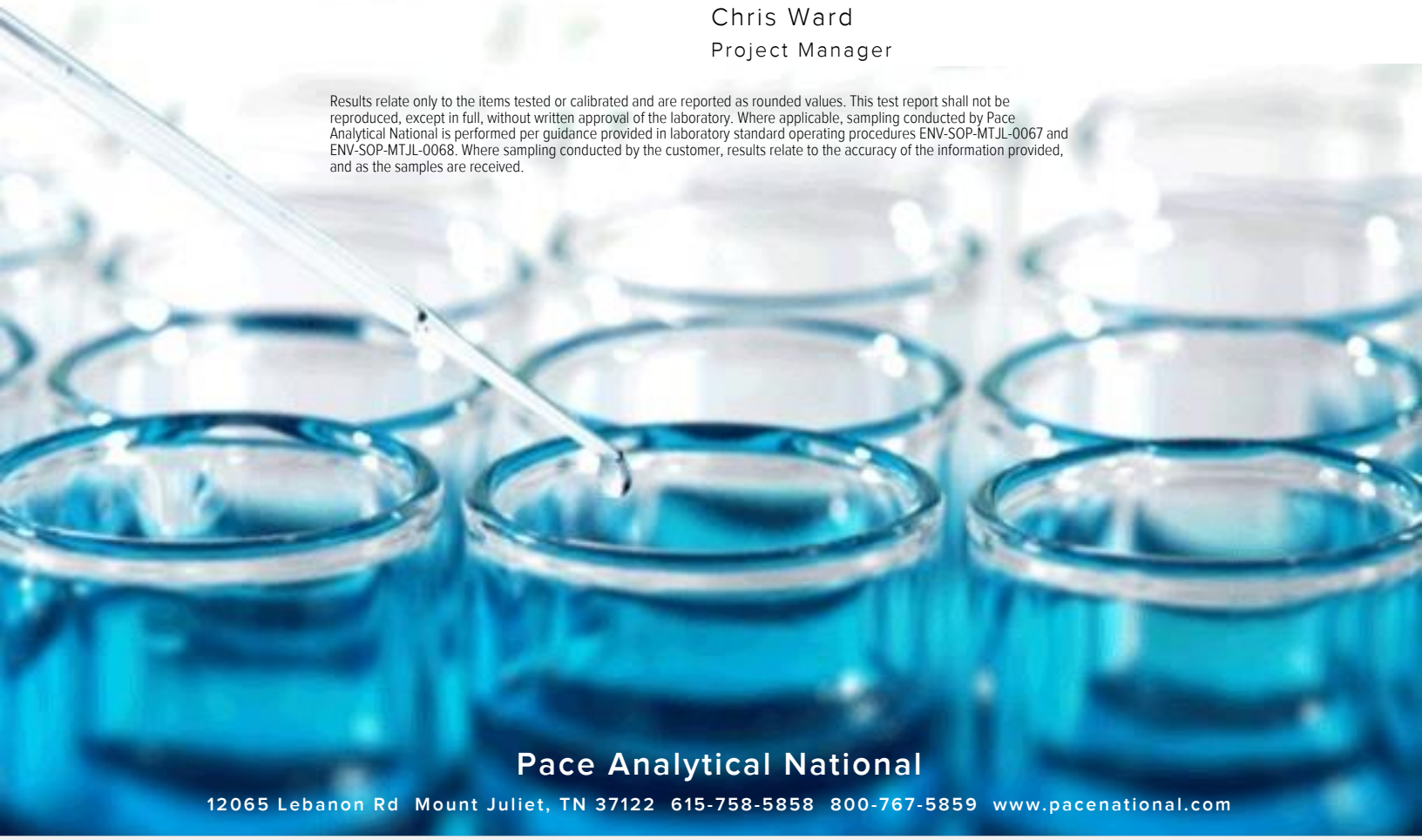
GeoSyntec, Inc. - AZ

Sample Delivery Group:	L1408450
Samples Received:	09/24/2021
Project Number:	DE0437
Description:	Nammo TTU Injection Pilot

Report To: Fabrizio Mascioni
11811 N Tatum Blvd, Ste P186
Phoenix, AZ 85028

Entire Report Reviewed By: Chris Ward

Chris Ward
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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TTU-20-73-20210923 L1408450-01 GW

Collected by: Ryan Ayala | Collected date/time: 09/23/21 11:25 | Received date/time: 09/24/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1745969	10	09/24/21 17:19	09/24/21 17:19	MCG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1745969	100	09/24/21 17:30	09/24/21 17:30	MCG	Mt. Juliet, TN
Wet Chemistry by Method 314.0 Mod	WG1749056	10000	10/06/21 09:21	10/06/21 09:21	GB	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG1750234	1.28	10/03/21 19:32	10/03/21 19:32	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1748430	1	09/29/21 21:38	09/29/21 21:38	MJA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1748290	1	09/30/21 18:33	10/02/21 02:19	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1749792	1	10/01/21 11:50	10/01/21 11:50	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1749293	250	09/30/21 16:40	09/30/21 16:40	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270 C-mod	WG1746818	1.08	09/27/21 15:20	09/28/21 02:48	AGW	Mt. Juliet, TN

TRIP BLANK L1408450-02 GW

Collected by: Ryan Ayala | Collected date/time: 09/23/21 00:00 | Received date/time: 09/24/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1747628	1	09/29/21 20:14	09/29/21 20:14	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1749138	1	10/01/21 01:05	10/01/21 01:05	ADM	Mt. Juliet, TN

TTU-19-73-20210923 L1408450-03 GW

Collected by: Ryan Ayala | Collected date/time: 09/23/21 11:55 | Received date/time: 09/24/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1745969	1	09/24/21 17:42	09/24/21 17:42	MCG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1745969	5	09/24/21 18:36	09/24/21 18:36	MCG	Mt. Juliet, TN
Wet Chemistry by Method 314.0 Mod	WG1749056	50	10/06/21 10:17	10/06/21 10:17	GB	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG1750234	1.28	10/03/21 19:33	10/03/21 19:33	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1748430	50	09/29/21 22:00	09/29/21 22:00	MJA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1748290	1	09/30/21 18:33	10/02/21 02:22	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1749792	1	10/01/21 11:54	10/01/21 11:54	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1749293	10	09/30/21 17:01	09/30/21 17:01	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270 C-mod	WG1748220	1	09/30/21 03:22	09/30/21 10:09	JNJ	Mt. Juliet, TN

TTU-11-73-20210923 L1408450-04 GW

Collected by: Ryan Ayala | Collected date/time: 09/23/21 12:25 | Received date/time: 09/24/21 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1745969	1	09/24/21 17:53	09/24/21 17:53	MCG	Mt. Juliet, TN
Wet Chemistry by Method 314.0 Mod	WG1749056	50	10/06/21 12:20	10/06/21 12:20	GB	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG1750234	1.28	10/03/21 19:33	10/03/21 19:33	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1748458	50	09/29/21 12:52	09/29/21 12:52	MJA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1748290	1	09/30/21 18:33	10/02/21 02:31	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1749792	1	10/01/21 11:58	10/01/21 11:58	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1749293	5	09/30/21 17:21	09/30/21 17:21	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270 C-mod	WG1746818	1.15	09/27/21 15:20	09/28/21 04:43	AGW	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Is
8 Gl
9 Al
10 Sc

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris Ward
Project Manager

Sample Delivery Group (SDG) Narrative

Insufficient sample volume to perform MS/MSD analyses per method QC requirements.

Lab Sample ID	Project Sample ID	Method
L1408450-01	TTU-20-73-20210923	8270 C-mod, 8260B
L1408450-03	TTU-19-73-20210923	8270 C-mod, 8260B
L1408450-04	TTU-11-73-20210923	8270 C-mod, 8260B

Analyzed from headspace vial.

Lab Sample ID	Project Sample ID	Method
L1408450-02	TRIP BLANK	8260B

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Bromide	4980	E4	3530	10000	10	09/24/2021 17:19	WG1745969
Chloride	570000		3790	10000	10	09/24/2021 17:19	WG1745969
Nitrate as (N)	502000		4800	10000	100	09/24/2021 17:30	WG1745969
Nitrite as (N)	U		420	1000	10	09/24/2021 17:19	WG1745969
Sulfate	290000		5940	50000	10	09/24/2021 17:19	WG1745969

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	455000		3000	40000	10000	10/06/2021 09:21	WG1749056

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Sulfide	U	H1 L1	32.0	64.0	1.28	10/03/2021 19:32	WG1750234

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	10500		102	1000	1	09/29/2021 21:38	WG1748430

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron,Dissolved	1950		18.0	100	1	10/02/2021 02:19	WG1748290
Manganese,Dissolved	776		0.934	10.0	1	10/02/2021 02:19	WG1748290

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	U		2.91	10.0	1	10/01/2021 11:50	WG1749792
Ethane	U		4.07	13.0	1	10/01/2021 11:50	WG1749792
Ethene	U		4.26	13.0	1	10/01/2021 11:50	WG1749792

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		2820	12500	250	09/30/2021 16:40	WG1749293
Acrolein	U		635	12500	250	09/30/2021 16:40	WG1749293
Acrylonitrile	U		168	2500	250	09/30/2021 16:40	WG1749293
Benzene	81.9	E4	23.5	250	250	09/30/2021 16:40	WG1749293
Bromobenzene	U		29.5	250	250	09/30/2021 16:40	WG1749293
Bromodichloromethane	U		34.0	250	250	09/30/2021 16:40	WG1749293
Bromoform	U		32.3	250	250	09/30/2021 16:40	WG1749293
Bromomethane	U		151	1250	250	09/30/2021 16:40	WG1749293
1,3-Butadiene	U		74.8	500	250	09/30/2021 16:40	WG1749293
n-Butylbenzene	U		39.3	250	250	09/30/2021 16:40	WG1749293
sec-Butylbenzene	U		31.3	250	250	09/30/2021 16:40	WG1749293
tert-Butylbenzene	U		31.8	250	250	09/30/2021 16:40	WG1749293
Carbon tetrachloride	U		32.0	250	250	09/30/2021 16:40	WG1749293
Carbon disulfide	U		24.1	250	250	09/30/2021 16:40	WG1749293
Chlorobenzene	U		29.0	250	250	09/30/2021 16:40	WG1749293
Chlorodibromomethane	U		35.0	250	250	09/30/2021 16:40	WG1749293

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloroethane	U		48.0	1250	250	09/30/2021 16:40	WG1749293
Chloroform	U		27.8	1250	250	09/30/2021 16:40	WG1749293
Chloromethane	U		240	625	250	09/30/2021 16:40	WG1749293
Cyclohexane	U		47.0	250	250	09/30/2021 16:40	WG1749293
2-Chlorotoluene	U		26.5	250	250	09/30/2021 16:40	WG1749293
4-Chlorotoluene	U		28.5	250	250	09/30/2021 16:40	WG1749293
1,2-Dibromo-3-Chloropropane	U		69.0	1250	250	09/30/2021 16:40	WG1749293
1,2-Dibromoethane	U		31.5	250	250	09/30/2021 16:40	WG1749293
Dibromomethane	U		30.5	250	250	09/30/2021 16:40	WG1749293
1,2-Dichlorobenzene	U		26.8	250	250	09/30/2021 16:40	WG1749293
1,3-Dichlorobenzene	U		27.5	250	250	09/30/2021 16:40	WG1749293
1,4-Dichlorobenzene	U		30.0	250	250	09/30/2021 16:40	WG1749293
Dichlorodifluoromethane	U		93.5	1250	250	09/30/2021 16:40	WG1749293
1,1-Dichloroethane	U		25.0	250	250	09/30/2021 16:40	WG1749293
1,2-Dichloroethane	U		20.5	250	250	09/30/2021 16:40	WG1749293
1,1-Dichloroethene	2200		47.0	250	250	09/30/2021 16:40	WG1749293
cis-1,2-Dichloroethene	U		31.5	250	250	09/30/2021 16:40	WG1749293
trans-1,2-Dichloroethene	U		37.3	250	250	09/30/2021 16:40	WG1749293
1,2-Dichloropropane	U		37.3	250	250	09/30/2021 16:40	WG1749293
1,1-Dichloropropene	U		35.5	250	250	09/30/2021 16:40	WG1749293
1,3-Dichloropropane	U		27.5	250	250	09/30/2021 16:40	WG1749293
cis-1,3-Dichloropropene	U		27.8	250	250	09/30/2021 16:40	WG1749293
trans-1,3-Dichloropropene	U		29.5	250	250	09/30/2021 16:40	WG1749293
2,2-Dichloropropane	U		40.3	250	250	09/30/2021 16:40	WG1749293
Dicyclopentadiene	U		63.3	250	250	09/30/2021 16:40	WG1749293
Di-isopropyl ether	U		26.3	250	250	09/30/2021 16:40	WG1749293
Ethylbenzene	U		34.3	250	250	09/30/2021 16:40	WG1749293
4-Ethyltoluene	U		52.0	250	250	09/30/2021 16:40	WG1749293
Hexachloro-1,3-butadiene	U	L1	84.3	250	250	09/30/2021 16:40	WG1749293
n-Hexane	U		187	2500	250	09/30/2021 16:40	WG1749293
Isopropylbenzene	U		26.3	250	250	09/30/2021 16:40	WG1749293
p-Isopropyltoluene	U		30.0	250	250	09/30/2021 16:40	WG1749293
2-Butanone (MEK)	U		298	2500	250	09/30/2021 16:40	WG1749293
Methyl Cyclohexane	U		165	250	250	09/30/2021 16:40	WG1749293
Methylene Chloride	230	E4	108	1250	250	09/30/2021 16:40	WG1749293
4-Methyl-2-pentanone (MIBK)	U		120	2500	250	09/30/2021 16:40	WG1749293
Methyl tert-butyl ether	U		25.3	250	250	09/30/2021 16:40	WG1749293
Naphthalene	U		250	1250	250	09/30/2021 16:40	WG1749293
Propene	U		234	625	250	09/30/2021 16:40	WG1749293
n-Propylbenzene	U		24.8	250	250	09/30/2021 16:40	WG1749293
Styrene	U		29.5	250	250	09/30/2021 16:40	WG1749293
1,1,1,2-Tetrachloroethane	U		36.8	250	250	09/30/2021 16:40	WG1749293
1,1,2,2-Tetrachloroethane	U		33.3	250	250	09/30/2021 16:40	WG1749293
1,1,2-Trichlorotrifluoroethane	U		45.0	250	250	09/30/2021 16:40	WG1749293
Tetrachloroethene	U		75.0	250	250	09/30/2021 16:40	WG1749293
Toluene	U		69.5	250	250	09/30/2021 16:40	WG1749293
1,2,3-Trichlorobenzene	U		57.5	250	250	09/30/2021 16:40	WG1749293
1,2,4-Trichlorobenzene	U		120	250	250	09/30/2021 16:40	WG1749293
1,1,1-Trichloroethane	U		37.3	250	250	09/30/2021 16:40	WG1749293
1,1,2-Trichloroethane	U		39.5	250	250	09/30/2021 16:40	WG1749293
Trichloroethene	14300		47.5	250	250	09/30/2021 16:40	WG1749293
Trichlorofluoromethane	U		40.0	1250	250	09/30/2021 16:40	WG1749293
1,2,3-Trichloropropane	U		59.3	625	250	09/30/2021 16:40	WG1749293
1,2,4-Trimethylbenzene	U		80.5	250	250	09/30/2021 16:40	WG1749293
1,2,3-Trimethylbenzene	U		26.0	250	250	09/30/2021 16:40	WG1749293
1,3,5-Trimethylbenzene	U		26.0	250	250	09/30/2021 16:40	WG1749293

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Is
8 Gl
9 Al
10 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Vinyl chloride	U		58.5	250	250	09/30/2021 16:40	WG1749293
Xylenes, Total	U		43.5	750	250	09/30/2021 16:40	WG1749293
(S) Toluene-d8	*106*			*80.0-120*		*09/30/2021 16:40*	WG1749293
(S) 4-Bromofluorobenzene	*99.6*			*77.0-126*		*09/30/2021 16:40*	WG1749293
(S) 1,2-Dichloroethane-d4	*89.8*			*70.0-130*		*09/30/2021 16:40*	WG1749293

Semi Volatile Organic Compounds (GC/MS) by Method 8270 C-mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	841	E1	0.0483	0.432	1.08	09/28/2021 02:48	WG1746818
(S) Nitrobenzene-d5	*46.6*			*10.0-120*		*09/28/2021 02:48*	WG1746818

Sample Narrative:

L1408450-01 WG1746818: Dilution due to sample volume.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	09/29/2021 20:14	WG1747628
Acrolein	U	L1	2.54	50.0	1	09/29/2021 20:14	WG1747628
Acrylonitrile	U		0.671	10.0	1	09/29/2021 20:14	WG1747628
Benzene	U		0.0941	1.00	1	09/29/2021 20:14	WG1747628
Bromobenzene	U		0.118	1.00	1	09/29/2021 20:14	WG1747628
Bromodichloromethane	U		0.136	1.00	1	09/29/2021 20:14	WG1747628
Bromoform	U		0.129	1.00	1	09/29/2021 20:14	WG1747628
Bromomethane	U		0.605	5.00	1	09/29/2021 20:14	WG1747628
1,3-Butadiene	U		0.299	2.00	1	09/29/2021 20:14	WG1747628
n-Butylbenzene	U		0.157	1.00	1	09/29/2021 20:14	WG1747628
sec-Butylbenzene	U		0.125	1.00	1	09/29/2021 20:14	WG1747628
tert-Butylbenzene	U		0.127	1.00	1	09/29/2021 20:14	WG1747628
Carbon tetrachloride	U		0.128	1.00	1	09/29/2021 20:14	WG1747628
Carbon disulfide	U		0.0962	1.00	1	09/29/2021 20:14	WG1747628
Chlorobenzene	U		0.116	1.00	1	09/29/2021 20:14	WG1747628
Chlorodibromomethane	U		0.140	1.00	1	09/29/2021 20:14	WG1747628
Chloroethane	U	R7	0.192	5.00	1	09/29/2021 20:14	WG1747628
Chloroform	U		0.111	5.00	1	09/29/2021 20:14	WG1747628
Chloromethane	U		0.960	2.50	1	09/29/2021 20:14	WG1747628
Cyclohexane	U		0.188	1.00	1	09/29/2021 20:14	WG1747628
2-Chlorotoluene	U		0.106	1.00	1	09/29/2021 20:14	WG1747628
4-Chlorotoluene	U		0.114	1.00	1	09/29/2021 20:14	WG1747628
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	09/29/2021 20:14	WG1747628
1,2-Dibromoethane	U		0.126	1.00	1	09/29/2021 20:14	WG1747628
Dibromomethane	U		0.122	1.00	1	09/29/2021 20:14	WG1747628
1,2-Dichlorobenzene	U		0.107	1.00	1	09/29/2021 20:14	WG1747628
1,3-Dichlorobenzene	U		0.110	1.00	1	09/29/2021 20:14	WG1747628
1,4-Dichlorobenzene	U		0.120	1.00	1	09/29/2021 20:14	WG1747628
Dichlorodifluoromethane	U		0.374	5.00	1	09/29/2021 20:14	WG1747628
1,1-Dichloroethane	U		0.100	1.00	1	09/29/2021 20:14	WG1747628
1,2-Dichloroethane	U		0.0819	1.00	1	09/29/2021 20:14	WG1747628
1,1-Dichloroethene	U		0.188	1.00	1	09/29/2021 20:14	WG1747628
cis-1,2-Dichloroethene	U		0.126	1.00	1	09/29/2021 20:14	WG1747628
trans-1,2-Dichloroethene	U		0.149	1.00	1	09/29/2021 20:14	WG1747628
1,2-Dichloropropane	U		0.149	1.00	1	09/29/2021 20:14	WG1747628
1,1-Dichloropropene	U		0.142	1.00	1	09/29/2021 20:14	WG1747628
1,3-Dichloropropane	U		0.110	1.00	1	09/29/2021 20:14	WG1747628
cis-1,3-Dichloropropene	U		0.111	1.00	1	09/29/2021 20:14	WG1747628
trans-1,3-Dichloropropene	U		0.118	1.00	1	09/29/2021 20:14	WG1747628
2,2-Dichloropropane	U		0.161	1.00	1	09/29/2021 20:14	WG1747628
Dicyclopentadiene	U		0.253	1.00	1	09/29/2021 20:14	WG1747628
Di-isopropyl ether	U		0.105	1.00	1	09/29/2021 20:14	WG1747628
Ethylbenzene	U		0.137	1.00	1	09/29/2021 20:14	WG1747628
4-Ethyltoluene	U		0.208	1.00	1	09/29/2021 20:14	WG1747628
Hexachloro-1,3-butadiene	U		0.337	1.00	1	09/29/2021 20:14	WG1747628
n-Hexane	U		0.749	10.0	1	09/29/2021 20:14	WG1747628
Isopropylbenzene	U		0.105	1.00	1	09/29/2021 20:14	WG1747628
p-Isopropyltoluene	U		0.120	1.00	1	09/29/2021 20:14	WG1747628
2-Butanone (MEK)	U		1.19	10.0	1	09/29/2021 20:14	WG1747628
Methyl Cyclohexane	U		0.660	1.00	1	09/29/2021 20:14	WG1747628
Methylene Chloride	U		0.430	5.00	1	09/29/2021 20:14	WG1747628
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	09/29/2021 20:14	WG1747628
Methyl tert-butyl ether	U		0.101	1.00	1	09/29/2021 20:14	WG1747628
Naphthalene	U	L2 R7	1.00	5.00	1	09/29/2021 20:14	WG1747628
Propene	U	L1	0.936	2.50	1	09/29/2021 20:14	WG1747628
n-Propylbenzene	U		0.0993	1.00	1	09/29/2021 20:14	WG1747628

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Styrene	U		0.118	1.00	1	09/29/2021 20:14	WG1747628
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	09/29/2021 20:14	WG1747628
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	09/29/2021 20:14	WG1747628
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	09/29/2021 20:14	WG1747628
Tetrachloroethene	U		0.300	1.00	1	09/29/2021 20:14	WG1747628
Toluene	U		0.278	1.00	1	09/29/2021 20:14	WG1747628
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/01/2021 01:05	WG1749138
1,2,4-Trichlorobenzene	U		0.481	1.00	1	09/29/2021 20:14	WG1747628
1,1,1-Trichloroethane	U		0.149	1.00	1	09/29/2021 20:14	WG1747628
1,1,2-Trichloroethane	U		0.158	1.00	1	09/29/2021 20:14	WG1747628
Trichloroethene	U		0.190	1.00	1	09/29/2021 20:14	WG1747628
Trichlorofluoromethane	U		0.160	5.00	1	09/29/2021 20:14	WG1747628
1,2,3-Trichloropropane	U		0.237	2.50	1	09/29/2021 20:14	WG1747628
1,2,4-Trimethylbenzene	U		0.322	1.00	1	09/29/2021 20:14	WG1747628
1,2,3-Trimethylbenzene	U		0.104	1.00	1	09/29/2021 20:14	WG1747628
1,3,5-Trimethylbenzene	U		0.104	1.00	1	09/29/2021 20:14	WG1747628
Vinyl chloride	U		0.234	1.00	1	09/29/2021 20:14	WG1747628
Xylenes, Total	U		0.174	3.00	1	09/29/2021 20:14	WG1747628
(S) Toluene-d8	*97.4*			*80.0-120*		*09/29/2021 20:14*	WG1747628
(S) Toluene-d8	*104*			*80.0-120*		*10/01/2021 01:05*	WG1749138
(S) 4-Bromofluorobenzene	*90.9*			*77.0-126*		*09/29/2021 20:14*	WG1747628
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/01/2021 01:05*	WG1749138
(S) 1,2-Dichloroethane-d4	*120*			*70.0-130*		*09/29/2021 20:14*	WG1747628
(S) 1,2-Dichloroethane-d4	*98.2*			*70.0-130*		*10/01/2021 01:05*	WG1749138

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Bromide	11300		353	1000	1	09/24/2021 17:42	WG1745969
Chloride	108000		1900	5000	5	09/24/2021 18:36	WG1745969
Nitrate as (N)	U		48.0	100	1	09/24/2021 17:42	WG1745969
Nitrite as (N)	340		42.0	100	1	09/24/2021 17:42	WG1745969
Sulfate	728	E4	594	5000	1	09/24/2021 17:42	WG1745969

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	U		15.0	200	50	10/06/2021 10:17	WG1749056

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Sulfide	60.2	E4 H1 L1	32.0	64.0	1.28	10/03/2021 19:33	WG1750234

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	933000		5100	50000	50	09/29/2021 22:00	WG1748430

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron,Dissolved	163000		18.0	100	1	10/02/2021 02:22	WG1748290
Manganese,Dissolved	11100		0.934	10.0	1	10/02/2021 02:22	WG1748290

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	1560		2.91	10.0	1	10/01/2021 11:54	WG1749792
Ethane	U		4.07	13.0	1	10/01/2021 11:54	WG1749792
Ethene	U		4.26	13.0	1	10/01/2021 11:54	WG1749792

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		113	500	10	09/30/2021 17:01	WG1749293
Acrolein	U		25.4	500	10	09/30/2021 17:01	WG1749293
Acrylonitrile	U		6.71	100	10	09/30/2021 17:01	WG1749293
Benzene	2.99	E4	0.941	10.0	10	09/30/2021 17:01	WG1749293
Bromobenzene	U		1.18	10.0	10	09/30/2021 17:01	WG1749293
Bromodichloromethane	U		1.36	10.0	10	09/30/2021 17:01	WG1749293
Bromoform	U		1.29	10.0	10	09/30/2021 17:01	WG1749293
Bromomethane	U		6.05	50.0	10	09/30/2021 17:01	WG1749293
1,3-Butadiene	U		2.99	20.0	10	09/30/2021 17:01	WG1749293
n-Butylbenzene	U		1.57	10.0	10	09/30/2021 17:01	WG1749293
sec-Butylbenzene	U		1.25	10.0	10	09/30/2021 17:01	WG1749293
tert-Butylbenzene	U		1.27	10.0	10	09/30/2021 17:01	WG1749293
Carbon tetrachloride	U		1.28	10.0	10	09/30/2021 17:01	WG1749293
Carbon disulfide	U		0.962	10.0	10	09/30/2021 17:01	WG1749293
Chlorobenzene	U		1.16	10.0	10	09/30/2021 17:01	WG1749293
Chlorodibromomethane	U		1.40	10.0	10	09/30/2021 17:01	WG1749293

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloroethane	U		1.92	50.0	10	09/30/2021 17:01	WG1749293
Chloroform	6.00	E4	1.11	50.0	10	09/30/2021 17:01	WG1749293
Chloromethane	U		9.60	25.0	10	09/30/2021 17:01	WG1749293
Cyclohexane	U		1.88	10.0	10	09/30/2021 17:01	WG1749293
2-Chlorotoluene	U		1.06	10.0	10	09/30/2021 17:01	WG1749293
4-Chlorotoluene	U		1.14	10.0	10	09/30/2021 17:01	WG1749293
1,2-Dibromo-3-Chloropropane	U		2.76	50.0	10	09/30/2021 17:01	WG1749293
1,2-Dibromoethane	U		1.26	10.0	10	09/30/2021 17:01	WG1749293
Dibromomethane	U		1.22	10.0	10	09/30/2021 17:01	WG1749293
1,2-Dichlorobenzene	U		1.07	10.0	10	09/30/2021 17:01	WG1749293
1,3-Dichlorobenzene	U		1.10	10.0	10	09/30/2021 17:01	WG1749293
1,4-Dichlorobenzene	U		1.20	10.0	10	09/30/2021 17:01	WG1749293
Dichlorodifluoromethane	U		3.74	50.0	10	09/30/2021 17:01	WG1749293
1,1-Dichloroethane	U		1.00	10.0	10	09/30/2021 17:01	WG1749293
1,2-Dichloroethane	U		0.819	10.0	10	09/30/2021 17:01	WG1749293
1,1-Dichloroethene	46.4		1.88	10.0	10	09/30/2021 17:01	WG1749293
cis-1,2-Dichloroethene	4.47	E4	1.26	10.0	10	09/30/2021 17:01	WG1749293
trans-1,2-Dichloroethene	U		1.49	10.0	10	09/30/2021 17:01	WG1749293
1,2-Dichloropropane	U		1.49	10.0	10	09/30/2021 17:01	WG1749293
1,1-Dichloropropene	U		1.42	10.0	10	09/30/2021 17:01	WG1749293
1,3-Dichloropropane	U		1.10	10.0	10	09/30/2021 17:01	WG1749293
cis-1,3-Dichloropropene	U		1.11	10.0	10	09/30/2021 17:01	WG1749293
trans-1,3-Dichloropropene	U		1.18	10.0	10	09/30/2021 17:01	WG1749293
2,2-Dichloropropane	U		1.61	10.0	10	09/30/2021 17:01	WG1749293
Dicyclopentadiene	U		2.53	10.0	10	09/30/2021 17:01	WG1749293
Di-isopropyl ether	U		1.05	10.0	10	09/30/2021 17:01	WG1749293
Ethylbenzene	U		1.37	10.0	10	09/30/2021 17:01	WG1749293
4-Ethyltoluene	U		2.08	10.0	10	09/30/2021 17:01	WG1749293
Hexachloro-1,3-butadiene	U	L1	3.37	10.0	10	09/30/2021 17:01	WG1749293
n-Hexane	U		7.49	100	10	09/30/2021 17:01	WG1749293
Isopropylbenzene	U		1.05	10.0	10	09/30/2021 17:01	WG1749293
p-Isopropyltoluene	U		1.20	10.0	10	09/30/2021 17:01	WG1749293
2-Butanone (MEK)	56.2	E4	11.9	100	10	09/30/2021 17:01	WG1749293
Methyl Cyclohexane	U		6.60	10.0	10	09/30/2021 17:01	WG1749293
Methylene Chloride	6.78	E4	4.30	50.0	10	09/30/2021 17:01	WG1749293
4-Methyl-2-pentanone (MIBK)	U		4.78	100	10	09/30/2021 17:01	WG1749293
Methyl tert-butyl ether	U		1.01	10.0	10	09/30/2021 17:01	WG1749293
Naphthalene	U		10.0	50.0	10	09/30/2021 17:01	WG1749293
Propene	24.5	E4	9.36	25.0	10	09/30/2021 17:01	WG1749293
n-Propylbenzene	U		0.993	10.0	10	09/30/2021 17:01	WG1749293
Styrene	U		1.18	10.0	10	09/30/2021 17:01	WG1749293
1,1,1,2-Tetrachloroethane	U		1.47	10.0	10	09/30/2021 17:01	WG1749293
1,1,2,2-Tetrachloroethane	U		1.33	10.0	10	09/30/2021 17:01	WG1749293
1,1,2-Trichlorotrifluoroethane	U		1.80	10.0	10	09/30/2021 17:01	WG1749293
Tetrachloroethene	U		3.00	10.0	10	09/30/2021 17:01	WG1749293
Toluene	U		2.78	10.0	10	09/30/2021 17:01	WG1749293
1,2,3-Trichlorobenzene	U		2.30	10.0	10	09/30/2021 17:01	WG1749293
1,2,4-Trichlorobenzene	U		4.81	10.0	10	09/30/2021 17:01	WG1749293
1,1,1-Trichloroethane	U		1.49	10.0	10	09/30/2021 17:01	WG1749293
1,1,2-Trichloroethane	U		1.58	10.0	10	09/30/2021 17:01	WG1749293
Trichloroethene	478		1.90	10.0	10	09/30/2021 17:01	WG1749293
Trichlorofluoromethane	U		1.60	50.0	10	09/30/2021 17:01	WG1749293
1,2,3-Trichloropropane	U		2.37	25.0	10	09/30/2021 17:01	WG1749293
1,2,4-Trimethylbenzene	U		3.22	10.0	10	09/30/2021 17:01	WG1749293
1,2,3-Trimethylbenzene	U		1.04	10.0	10	09/30/2021 17:01	WG1749293
1,3,5-Trimethylbenzene	U		1.04	10.0	10	09/30/2021 17:01	WG1749293

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Vinyl chloride	U		2.34	10.0	10	09/30/2021 17:01	WG1749293
Xylenes, Total	U		1.74	30.0	10	09/30/2021 17:01	WG1749293
(S) Toluene-d8	*101*			*80.0-120*		*09/30/2021 17:01*	WG1749293
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*09/30/2021 17:01*	WG1749293
(S) 1,2-Dichloroethane-d4	*91.7*			*70.0-130*		*09/30/2021 17:01*	WG1749293

Semi Volatile Organic Compounds (GC/MS) by Method 8270 C-mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	70.4		0.0447	0.400	1	09/30/2021 10:09	WG1748220
(S) Nitrobenzene-d5	*1.29*	S6		*10.0-120*		*09/30/2021 10:09*	WG1748220

Sample Narrative:

L1408450-03 WG1748220: Duplicate Analysis performed due to surrogate failure. Results confirm.

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Bromide	50600		353	1000	1	09/24/2021 17:53	WG1745969
Chloride	99200		379	1000	1	09/24/2021 17:53	WG1745969
Nitrate as (N)	683		48.0	100	1	09/24/2021 17:53	WG1745969
Nitrite as (N)	U		42.0	100	1	09/24/2021 17:53	WG1745969
Sulfate	40800		594	5000	1	09/24/2021 17:53	WG1745969

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	U		15.0	200	50	10/06/2021 12:20	WG1749056

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Sulfide	198	H1 L1	32.0	64.0	1.28	10/03/2021 19:33	WG1750234

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	2140000		5100	50000	50	09/29/2021 12:52	WG1748458

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron,Dissolved	191000		18.0	100	1	10/02/2021 02:31	WG1748290
Manganese,Dissolved	3380		0.934	10.0	1	10/02/2021 02:31	WG1748290

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	1140		2.91	10.0	1	10/01/2021 11:58	WG1749792
Ethane	U		4.07	13.0	1	10/01/2021 11:58	WG1749792
Ethene	U		4.26	13.0	1	10/01/2021 11:58	WG1749792

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	232	E4	56.5	250	5	09/30/2021 17:21	WG1749293
Acrolein	U		12.7	250	5	09/30/2021 17:21	WG1749293
Acrylonitrile	U		3.36	50.0	5	09/30/2021 17:21	WG1749293
Benzene	0.652	E4	0.471	5.00	5	09/30/2021 17:21	WG1749293
Bromobenzene	U		0.590	5.00	5	09/30/2021 17:21	WG1749293
Bromodichloromethane	U		0.680	5.00	5	09/30/2021 17:21	WG1749293
Bromoform	U		0.645	5.00	5	09/30/2021 17:21	WG1749293
Bromomethane	U		3.03	25.0	5	09/30/2021 17:21	WG1749293
1,3-Butadiene	U		1.49	10.0	5	09/30/2021 17:21	WG1749293
n-Butylbenzene	U		0.785	5.00	5	09/30/2021 17:21	WG1749293
sec-Butylbenzene	U		0.625	5.00	5	09/30/2021 17:21	WG1749293
tert-Butylbenzene	U		0.635	5.00	5	09/30/2021 17:21	WG1749293
Carbon tetrachloride	U		0.640	5.00	5	09/30/2021 17:21	WG1749293
Carbon disulfide	U		0.481	5.00	5	09/30/2021 17:21	WG1749293
Chlorobenzene	U		0.580	5.00	5	09/30/2021 17:21	WG1749293
Chlorodibromomethane	U		0.700	5.00	5	09/30/2021 17:21	WG1749293

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloroethane	U		0.960	25.0	5	09/30/2021 17:21	WG1749293
Chloroform	U		0.555	25.0	5	09/30/2021 17:21	WG1749293
Chloromethane	U		4.80	12.5	5	09/30/2021 17:21	WG1749293
Cyclohexane	U		0.940	5.00	5	09/30/2021 17:21	WG1749293
2-Chlorotoluene	U		0.530	5.00	5	09/30/2021 17:21	WG1749293
4-Chlorotoluene	U		0.570	5.00	5	09/30/2021 17:21	WG1749293
1,2-Dibromo-3-Chloropropane	U		1.38	25.0	5	09/30/2021 17:21	WG1749293
1,2-Dibromoethane	U		0.630	5.00	5	09/30/2021 17:21	WG1749293
Dibromomethane	U		0.610	5.00	5	09/30/2021 17:21	WG1749293
1,2-Dichlorobenzene	U		0.535	5.00	5	09/30/2021 17:21	WG1749293
1,3-Dichlorobenzene	U		0.550	5.00	5	09/30/2021 17:21	WG1749293
1,4-Dichlorobenzene	U		0.600	5.00	5	09/30/2021 17:21	WG1749293
Dichlorodifluoromethane	U		1.87	25.0	5	09/30/2021 17:21	WG1749293
1,1-Dichloroethane	U		0.500	5.00	5	09/30/2021 17:21	WG1749293
1,2-Dichloroethane	U		0.409	5.00	5	09/30/2021 17:21	WG1749293
1,1-Dichloroethene	9.84		0.940	5.00	5	09/30/2021 17:21	WG1749293
cis-1,2-Dichloroethene	4.48	E4	0.630	5.00	5	09/30/2021 17:21	WG1749293
trans-1,2-Dichloroethene	U		0.745	5.00	5	09/30/2021 17:21	WG1749293
1,2-Dichloropropane	U		0.745	5.00	5	09/30/2021 17:21	WG1749293
1,1-Dichloropropene	U		0.710	5.00	5	09/30/2021 17:21	WG1749293
1,3-Dichloropropane	U		0.550	5.00	5	09/30/2021 17:21	WG1749293
cis-1,3-Dichloropropene	U		0.555	5.00	5	09/30/2021 17:21	WG1749293
trans-1,3-Dichloropropene	U		0.590	5.00	5	09/30/2021 17:21	WG1749293
2,2-Dichloropropane	U		0.805	5.00	5	09/30/2021 17:21	WG1749293
Dicyclopentadiene	U		1.27	5.00	5	09/30/2021 17:21	WG1749293
Di-isopropyl ether	U		0.525	5.00	5	09/30/2021 17:21	WG1749293
Ethylbenzene	U		0.685	5.00	5	09/30/2021 17:21	WG1749293
4-Ethyltoluene	U		1.04	5.00	5	09/30/2021 17:21	WG1749293
Hexachloro-1,3-butadiene	U	L1	1.69	5.00	5	09/30/2021 17:21	WG1749293
n-Hexane	U		3.74	50.0	5	09/30/2021 17:21	WG1749293
Isopropylbenzene	U		0.525	5.00	5	09/30/2021 17:21	WG1749293
p-Isopropyltoluene	U		0.600	5.00	5	09/30/2021 17:21	WG1749293
2-Butanone (MEK)	221		5.95	50.0	5	09/30/2021 17:21	WG1749293
Methyl Cyclohexane	U		3.30	5.00	5	09/30/2021 17:21	WG1749293
Methylene Chloride	6.62	E4	2.15	25.0	5	09/30/2021 17:21	WG1749293
4-Methyl-2-pentanone (MIBK)	19.0	E4	2.39	50.0	5	09/30/2021 17:21	WG1749293
Methyl tert-butyl ether	U		0.505	5.00	5	09/30/2021 17:21	WG1749293
Naphthalene	U		5.00	25.0	5	09/30/2021 17:21	WG1749293
Propene	11.9	E4	4.68	12.5	5	09/30/2021 17:21	WG1749293
n-Propylbenzene	U		0.497	5.00	5	09/30/2021 17:21	WG1749293
Styrene	U		0.590	5.00	5	09/30/2021 17:21	WG1749293
1,1,1,2-Tetrachloroethane	U		0.735	5.00	5	09/30/2021 17:21	WG1749293
1,1,2,2-Tetrachloroethane	U		0.665	5.00	5	09/30/2021 17:21	WG1749293
1,1,2-Trichlorotrifluoroethane	U		0.900	5.00	5	09/30/2021 17:21	WG1749293
Tetrachloroethene	U		1.50	5.00	5	09/30/2021 17:21	WG1749293
Toluene	U		1.39	5.00	5	09/30/2021 17:21	WG1749293
1,2,3-Trichlorobenzene	U		1.15	5.00	5	09/30/2021 17:21	WG1749293
1,2,4-Trichlorobenzene	U		2.41	5.00	5	09/30/2021 17:21	WG1749293
1,1,1-Trichloroethane	U		0.745	5.00	5	09/30/2021 17:21	WG1749293
1,1,2-Trichloroethane	U		0.790	5.00	5	09/30/2021 17:21	WG1749293
Trichloroethene	69.8		0.950	5.00	5	09/30/2021 17:21	WG1749293
Trichlorofluoromethane	U		0.800	25.0	5	09/30/2021 17:21	WG1749293
1,2,3-Trichloropropane	U		1.19	12.5	5	09/30/2021 17:21	WG1749293
1,2,4-Trimethylbenzene	U		1.61	5.00	5	09/30/2021 17:21	WG1749293
1,2,3-Trimethylbenzene	U		0.520	5.00	5	09/30/2021 17:21	WG1749293
1,3,5-Trimethylbenzene	U		0.520	5.00	5	09/30/2021 17:21	WG1749293

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Vinyl chloride	2.11	E4	1.17	5.00	5	09/30/2021 17:21	WG1749293
Xylenes, Total	U		0.870	15.0	5	09/30/2021 17:21	WG1749293
(S) Toluene-d8	*104*			*80.0-120*		*09/30/2021 17:21*	WG1749293
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*09/30/2021 17:21*	WG1749293
(S) 1,2-Dichloroethane-d4	*89.4*			*70.0-130*		*09/30/2021 17:21*	WG1749293

Semi Volatile Organic Compounds (GC/MS) by Method 8270 C-mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,4-Dioxane	6.95		0.0514	0.460	1.15	09/28/2021 04:43	WG1746818
(S) Nitrobenzene-d5	*1.28*	S6		*10.0-120*		*09/28/2021 04:43*	WG1746818

Sample Narrative:

L1408450-04 WG1746818: Sample produced total emulsion during Extraction process, low surr/spike recoveries due to matrix

Method Blank (MB)

(MB) R3709337-1 09/24/21 07:42

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Bromide	U		353	1000
Chloride	U		379	1000
Nitrate	U		48.0	100
Nitrite	U		42.0	100
Sulfate	U		594	5000

L1408444-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1408444-02 09/24/21 13:42 • (DUP) R3709337-3 09/24/21 16:10

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Bromide	U	U	1	0.000		20
Nitrate	U	U	1	0.000		20
Nitrite	U	43.8	1	200	E4 R8	20
Sulfate	U	U	1	0.000		20

L1408444-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1408444-06 09/24/21 14:40 • (DUP) R3709337-5 09/24/21 19:22

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Bromide	U	U	10	0.000		20
Chloride	669000	670000	10	0.171		20
Nitrate	25200	25500	10	1.45		20
Nitrite	U	U	10	0.000		20
Sulfate	184000	185000	10	0.196		20

Laboratory Control Sample (LCS)

(LCS) R3709337-2 09/24/21 07:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromide	40000	40200	101	90.0-110	
Chloride	40000	40100	100	90.0-110	
Nitrate	8000	7920	99.0	90.0-110	
Nitrite	8000	8030	100	90.0-110	
Sulfate	40000	40700	102	90.0-110	

L1408444-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1408444-02 09/24/21 13:42 • (MS) R3709337-4 09/24/21 16:21

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Bromide	50000	U	47700	95.3	1	80.0-120	
Nitrate	5000	U	4790	95.9	1	80.0-120	
Nitrite	5000	U	5180	104	1	80.0-120	
Sulfate	50000	U	50300	101	1	80.0-120	

L1408493-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1408493-01 09/24/21 19:57 • (MS) R3709337-6 09/24/21 20:08 • (MSD) R3709337-7 09/24/21 20:20

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromide	50000	U	49400	49400	98.7	98.8	1	80.0-120			0.0919	20
Chloride	50000	34400	84200	84200	99.7	99.7	1	80.0-120			0.00582	20
Nitrate	5000	U	5080	5090	102	102	1	80.0-120			0.181	20
Nitrite	5000	U	5240	5240	105	105	1	80.0-120			0.0706	20

Method Blank (MB)

(MB) R3712735-1 10/04/21 10:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Perchlorate	U		0.300	4.00

L1407570-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1407570-01 10/05/21 12:42 • (DUP) R3712735-3 10/05/21 13:09

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Perchlorate	U	U	1	0.000		15

L1408450-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1408450-01 10/06/21 09:21 • (DUP) R3712735-5 10/06/21 09:49

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Perchlorate	455000	447000	10000	1.79		15

Laboratory Control Sample (LCS)

(LCS) R3712735-2 10/04/21 11:11

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Perchlorate	10.0	9.53	95.3	90.0-110	

QUALITY CONTROL SUMMARY

L1408450-01,03,04

Method Blank (MB)

(MB) R3711841-7 10/03/21 19:31

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Sulfide	U		25.0	50.0

L1408450-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1408450-01 10/03/21 19:32 • (DUP) R3711841-8 10/03/21 19:33

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfide	U	U	1.28	0.000		20

L1409000-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1409000-03 10/03/21 19:40 • (DUP) R3711841-11 10/03/21 19:41

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfide	U	U	1.28	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3711841-2 10/03/21 19:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfide	500	723	145	85.0-115	L1

L1408720-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1408720-06 10/03/21 19:37 • (MS) R3711841-9 10/03/21 19:37 • (MSD) R3711841-10 10/03/21 19:37

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfide	640	U	548	576	85.6	90.0	1.28	80.0-120			5.01	20

QUALITY CONTROL SUMMARY

L1408450-01,03

Method Blank (MB)

(MB) R3710687-2 09/29/21 12:13

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	438	E4	102	1000

L1408227-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1408227-03 09/29/21 17:48 • (DUP) R3710687-7 09/29/21 18:03

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC	1960	1850	1	5.56		20

L1408422-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1408422-01 09/29/21 20:55 • (DUP) R3710687-8 09/29/21 21:18

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC	16800	16400	1	2.41		20

Laboratory Control Sample (LCS)

(LCS) R3710687-1 09/29/21 11:56

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TOC	75000	76900	103	85.0-115	

L1407566-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1407566-02 09/29/21 13:58 • (MS) R3710687-3 09/29/21 14:20 • (MSD) R3710687-4 09/29/21 14:44

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC	50000	741	53900	50600	106	99.6	1	80.0-120			6.32	20

L1408222-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1408222-01 09/29/21 16:14 • (MS) R3710687-5 09/29/21 16:35 • (MSD) R3710687-6 09/29/21 16:59

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC	50000	13300	62100	60900	97.5	95.2	1	80.0-120			1.90	20

QUALITY CONTROL SUMMARY

L1408450-04

Method Blank (MB)

(MB) R3710681-2 09/29/21 11:53

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	238	E4	102	1000

L1408526-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1408526-01 09/29/21 15:14 • (DUP) R3710681-5 09/29/21 15:26

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC	796	914	1	13.8	E4	20

L1408526-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1408526-05 09/29/21 16:15 • (DUP) R3710681-6 09/29/21 16:27

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC	527	443	1	17.3	E4	20

Laboratory Control Sample (LCS)

(LCS) R3710681-1 09/29/21 11:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TOC	75000	74400	99.1	85.0-115	

L1408515-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1408515-04 09/29/21 13:37 • (MS) R3710681-3 09/29/21 13:56 • (MSD) R3710681-4 09/29/21 14:14

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC	50000	4050	52200	52900	96.3	97.6	1	80.0-120			1.29	20

L1408720-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1408720-01 09/29/21 18:24 • (MS) R3710681-7 09/29/21 18:42 • (MSD) R3710681-8 09/29/21 19:00

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC	50000	2800	52200	51600	98.8	97.5	1	80.0-120			1.20	20

Method Blank (MB)

(MB) R3711588-1 10/02/21 01:54

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Iron,Dissolved	U		18.0	100
Manganese,Dissolved	U		0.934	10.0

Laboratory Control Sample (LCS)

(LCS) R3711588-2 10/02/21 01:56

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron,Dissolved	10000	9240	92.4	80.0-120	
Manganese,Dissolved	1000	924	92.4	80.0-120	

L1408411-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1408411-03 10/02/21 02:00 • (MS) R3711588-4 10/02/21 02:06 • (MSD) R3711588-5 10/02/21 02:09

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Iron,Dissolved	10000	U	9250	9130	92.5	91.3	1	75.0-125			1.32	20
Manganese,Dissolved	1000	224	1130	1130	91.0	90.5	1	75.0-125			0.392	20

Method Blank (MB)

(MB) R3711389-2 10/01/21 11:13

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Methane	U		2.91	10.0
Ethane	U		4.07	13.0
Ethene	U		4.26	13.0

L1408515-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1408515-02 10/01/21 12:11 • (DUP) R3711389-3 10/01/21 12:16

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	U	U	1	0.000		20
Ethane	U	U	1	0.000		20
Ethene	U	U	1	0.000		20

L1408515-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1408515-04 10/01/21 13:43 • (DUP) R3711389-4 10/01/21 14:24

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	U	U	1	0.000		20
Ethane	U	U	1	0.000		20
Ethene	U	U	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3711389-1 10/01/21 11:09 • (LCSD) R3711389-7 10/01/21 14:56

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	67.8	73.0	73.9	108	109	85.0-115			1.23	20
Ethane	129	139	136	108	105	85.0-115			2.18	20
Ethene	127	138	137	109	108	85.0-115			0.727	20

L1408515-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1408515-04 10/01/21 13:43 • (MS) R3711389-5 10/01/21 14:47 • (MSD) R3711389-6 10/01/21 14:52

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Methane	67.8	U	77.8	75.0	115	111	1	50.0-150			3.66	20
Ethane	129	U	146	144	113	112	1	50.0-150			1.38	20
Ethene	127	U	144	142	113	112	1	50.0-150			1.40	20

Method Blank (MB)

(MB) R3710604-4 09/29/21 13:57

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
1,3-Butadiene	U		0.299	2.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon disulfide	0.131	E4	0.0962	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
Cyclohexane	U		0.188	1.00
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00

Method Blank (MB)

(MB) R3710604-4 09/29/21 13:57

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dicyclopentadiene	U		0.253	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00
4-Ethyltoluene	U		0.208	1.00
Hexachloro-1,3-butadiene	U		0.337	1.00
n-Hexane	U		0.749	10.0
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methyl Cyclohexane	U		0.660	1.00
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
Propene	U		0.936	2.50
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,3-Trimethylbenzene	U		0.104	1.00
1,2,4-Trimethylbenzene	U		0.322	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*97.4*			*80.0-120*
(S) 4-Bromofluorobenzene	*90.6*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*122*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3710604-1 09/29/21 12:35 • (LCSD) R3710604-2 09/29/21 12:56

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	29.5	30.2	118	121	19.0-160			2.35	27
Acrolein	25.0	42.4	46.5	170	186	30.0-160	L1	L1	9.22	26
Acrylonitrile	25.0	27.9	29.0	112	116	55.0-149			3.87	20
Benzene	5.00	5.08	5.09	102	102	70.0-123			0.197	20
Bromobenzene	5.00	5.15	5.22	103	104	73.0-121			1.35	20
Bromodichloromethane	5.00	5.24	5.54	105	111	75.0-120			5.57	20
Bromoform	5.00	4.95	5.14	99.0	103	68.0-132			3.77	20
Bromomethane	5.00	2.80	2.70	56.0	54.0	30.0-160			3.64	25
1,3-Butadiene	5.00	5.66	6.20	113	124	45.0-147			9.11	20
n-Butylbenzene	5.00	4.19	4.39	83.8	87.8	73.0-125			4.66	20
sec-Butylbenzene	5.00	4.41	4.63	88.2	92.6	75.0-125			4.87	20
tert-Butylbenzene	5.00	4.68	4.72	93.6	94.4	76.0-124			0.851	20
Carbon disulfide	5.00	4.78	5.07	95.6	101	61.0-128			5.89	20
Carbon tetrachloride	5.00	4.41	4.48	88.2	89.6	68.0-126			1.57	20
Chlorobenzene	5.00	5.00	5.08	100	102	80.0-121			1.59	20
Chlorodibromomethane	5.00	4.46	4.73	89.2	94.6	77.0-125			5.88	20
Chloroethane	5.00	4.44	5.61	88.8	112	47.0-150		R7	23.3	20
Chloroform	5.00	5.35	5.32	107	106	73.0-120			0.562	20
Chloromethane	5.00	5.52	5.69	110	114	41.0-142			3.03	20
Cyclohexane	5.00	4.71	4.53	94.2	90.6	71.0-124			3.90	20
2-Chlorotoluene	5.00	4.93	4.95	98.6	99.0	76.0-123			0.405	20
4-Chlorotoluene	5.00	4.84	5.03	96.8	101	75.0-122			3.85	20
1,2-Dibromo-3-Chloropropane	5.00	3.82	4.65	76.4	93.0	58.0-134			19.6	20
1,2-Dibromoethane	5.00	4.86	4.80	97.2	96.0	80.0-122			1.24	20
Dibromomethane	5.00	5.07	5.24	101	105	80.0-120			3.30	20
1,2-Dichlorobenzene	5.00	4.77	4.98	95.4	99.6	79.0-121			4.31	20
1,3-Dichlorobenzene	5.00	4.89	4.99	97.8	99.8	79.0-120			2.02	20
1,4-Dichlorobenzene	5.00	4.87	4.68	97.4	93.6	79.0-120			3.98	20
Dichlorodifluoromethane	5.00	4.58	4.30	91.6	86.0	51.0-149			6.31	20
1,1-Dichloroethane	5.00	5.33	5.78	107	116	70.0-126			8.10	20
1,2-Dichloroethane	5.00	6.18	5.74	124	115	70.0-128			7.38	20
1,1-Dichloroethene	5.00	4.81	4.61	96.2	92.2	71.0-124			4.25	20
cis-1,2-Dichloroethene	5.00	4.83	5.24	96.6	105	73.0-120			8.14	20
trans-1,2-Dichloroethene	5.00	4.94	4.99	98.8	99.8	73.0-120			1.01	20
1,2-Dichloropropane	5.00	5.42	5.33	108	107	77.0-125			1.67	20
1,1-Dichloropropene	5.00	5.15	5.12	103	102	74.0-126			0.584	20
1,3-Dichloropropane	5.00	5.11	5.33	102	107	80.0-120			4.21	20
cis-1,3-Dichloropropene	5.00	5.02	5.23	100	105	80.0-123			4.10	20
trans-1,3-Dichloropropene	5.00	5.09	5.23	102	105	78.0-124			2.71	20
2,2-Dichloropropane	5.00	5.17	5.08	103	102	58.0-130			1.76	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3710604-1 09/29/21 12:35 • (LCSD) R3710604-2 09/29/21 12:56

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dicyclopentadiene	5.00	4.81	4.88	96.2	97.6	74.0-126			1.44	20
Di-isopropyl ether	5.00	5.50	5.52	110	110	58.0-138			0.363	20
Ethylbenzene	5.00	4.86	4.99	97.2	99.8	79.0-123			2.64	20
4-Ethyltoluene	5.00	4.90	4.92	98.0	98.4	74.0-127			0.407	20
Hexachloro-1,3-butadiene	5.00	3.69	3.91	73.8	78.2	54.0-138			5.79	20
n-Hexane	5.00	5.00	5.38	100	108	57.0-133			7.32	20
Isopropylbenzene	5.00	4.70	4.97	94.0	99.4	76.0-127			5.58	20
p-Isopropyltoluene	5.00	4.40	4.76	88.0	95.2	76.0-125			7.86	20
2-Butanone (MEK)	25.0	29.3	30.2	117	121	44.0-160			3.03	20
Methyl Cyclohexane	5.00	4.07	4.26	81.4	85.2	68.0-126			4.56	20
Methylene Chloride	5.00	4.91	4.89	98.2	97.8	67.0-120			0.408	20
4-Methyl-2-pentanone (MIBK)	25.0	30.0	31.0	120	124	68.0-142			3.28	20
Methyl tert-butyl ether	5.00	5.19	5.47	104	109	68.0-125			5.25	20
Naphthalene	5.00	2.07	2.60	41.4	52.0	54.0-135	L2	L2 R7	22.7	20
Propene	5.00	12.8	12.5	256	250	30.0-160	L1	L1	2.37	20
n-Propylbenzene	5.00	4.66	4.72	93.2	94.4	77.0-124			1.28	20
Styrene	5.00	4.74	4.98	94.8	99.6	73.0-130			4.94	20
1,1,1,2-Tetrachloroethane	5.00	4.58	4.68	91.6	93.6	75.0-125			2.16	20
1,1,2,2-Tetrachloroethane	5.00	5.16	5.18	103	104	65.0-130			0.387	20
Tetrachloroethene	5.00	5.10	5.60	102	112	72.0-132			9.35	20
Toluene	5.00	4.62	4.67	92.4	93.4	79.0-120			1.08	20
1,1,2-Trichlorotrifluoroethane	5.00	4.76	4.74	95.2	94.8	69.0-132			0.421	20
1,2,4-Trichlorobenzene	5.00	2.95	3.21	59.0	64.2	57.0-137			8.44	20
1,1,1-Trichloroethane	5.00	5.27	5.38	105	108	73.0-124			2.07	20
1,1,2-Trichloroethane	5.00	5.05	5.15	101	103	80.0-120			1.96	20
Trichloroethene	5.00	5.32	5.57	106	111	78.0-124			4.59	20
Trichlorofluoromethane	5.00	5.43	5.20	109	104	59.0-147			4.33	20
1,2,3-Trichloropropane	5.00	5.10	4.77	102	95.4	73.0-130			6.69	20
1,2,3-Trimethylbenzene	5.00	4.61	4.61	92.2	92.2	77.0-120			0.000	20
1,2,4-Trimethylbenzene	5.00	4.74	4.73	94.8	94.6	76.0-121			0.211	20
1,3,5-Trimethylbenzene	5.00	4.98	5.04	99.6	101	76.0-122			1.20	20
Vinyl chloride	5.00	4.93	4.98	98.6	99.6	67.0-131			1.01	20
Xylenes, Total	15.0	14.6	15.3	97.3	102	79.0-123			4.68	20
(S) Toluene-d8				*96.9*	*98.3*	*80.0-120*				
(S) 4-Bromofluorobenzene				*92.6*	*97.7*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*120*	*120*	*70.0-130*				

L1408089-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1408089-20 09/29/21 20:55 • (MS) R3710604-5 09/30/21 02:25 • (MSD) R3710604-6 09/30/21 02:46

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	50.0	U	50.2	46.5	100	93.0	1	10.0-160			7.65	35
Acrolein	50.0	U	82.2	77.7	164	155	1	10.0-160	M1		5.63	39
Acrylonitrile	50.0	U	54.5	50.3	109	101	1	21.0-160			8.02	32
Benzene	10.0	U	5.86	8.48	58.6	84.8	1	17.0-158		R5	36.5	27
Bromobenzene	10.0	U	5.93	8.18	59.3	81.8	1	30.0-149		R5	31.9	28
Bromodichloromethane	10.0	U	7.36	9.29	73.6	92.9	1	31.0-150			23.2	27
Bromoform	10.0	U	8.29	8.65	82.9	86.5	1	29.0-150			4.25	29
Bromomethane	10.0	U	2.79	4.36	27.9	43.6	1	10.0-160		R5	43.9	38
1,3-Butadiene	10.0	U	4.73	8.36	47.3	83.6	1	10.0-160		R5	55.5	22
n-Butylbenzene	10.0	U	3.31	6.37	33.1	63.7	1	31.0-150		R5	63.2	30
sec-Butylbenzene	10.0	U	3.70	7.07	37.0	70.7	1	33.0-155		R5	62.6	29
tert-Butylbenzene	10.0	U	3.91	7.13	39.1	71.3	1	34.0-153		R5	58.3	28
Carbon disulfide	10.0	0.218	4.46	7.66	42.4	74.4	1	10.0-156		R5	52.8	28
Carbon tetrachloride	10.0	U	3.56	7.55	35.6	75.5	1	23.0-159		R5	71.8	28
Chlorobenzene	10.0	U	5.61	7.84	56.1	78.4	1	33.0-152		R5	33.2	27
Chlorodibromomethane	10.0	U	7.19	7.90	71.9	79.0	1	37.0-149			9.41	27
Chloroethane	10.0	U	6.72	8.66	67.2	86.6	1	10.0-160			25.2	30
Chloroform	10.0	U	7.01	9.52	70.1	95.2	1	29.0-154		R5	30.4	28
Chloromethane	10.0	U	5.14	2.89	51.4	28.9	1	10.0-160		R5	56.0	29
Cyclohexane	10.0	U	3.57	7.47	35.7	74.7	1	19.0-160		R5	70.7	23
2-Chlorotoluene	10.0	U	4.85	7.85	48.5	78.5	1	32.0-153		R5	47.2	28
4-Chlorotoluene	10.0	U	4.95	7.71	49.5	77.1	1	32.0-150		R5	43.6	28
1,2-Dibromo-3-Chloropropane	10.0	U	8.13	7.14	81.3	71.4	1	22.0-151			13.0	34
1,2-Dibromoethane	10.0	U	8.10	8.34	81.0	83.4	1	34.0-147			2.92	27
Dibromomethane	10.0	U	8.23	8.58	82.3	85.8	1	30.0-151			4.16	27
1,2-Dichlorobenzene	10.0	U	5.71	7.79	57.1	77.9	1	34.0-149		R5	30.8	28
1,3-Dichlorobenzene	10.0	U	5.05	7.56	50.5	75.6	1	36.0-146		R5	39.8	27
1,4-Dichlorobenzene	10.0	U	5.06	7.49	50.6	74.9	1	35.0-142		R5	38.7	27
Dichlorodifluoromethane	10.0	U	3.63	7.97	36.3	79.7	1	10.0-160		R5	74.8	29
1,1-Dichloroethane	10.0	U	6.75	9.82	67.5	98.2	1	25.0-158		R5	37.1	27
1,2-Dichloroethane	10.0	U	9.30	10.2	93.0	102	1	29.0-151			9.23	27
1,1-Dichloroethene	10.0	U	4.53	7.77	45.3	77.7	1	11.0-160		R5	52.7	29
cis-1,2-Dichloroethene	10.0	U	6.33	8.55	63.3	85.5	1	10.0-160		R5	29.8	27
trans-1,2-Dichloroethene	10.0	U	5.03	8.26	50.3	82.6	1	17.0-153		R5	48.6	27
1,2-Dichloropropane	10.0	U	6.84	9.63	68.4	96.3	1	30.0-156		R5	33.9	27
1,1-Dichloropropene	10.0	U	4.73	8.03	47.3	80.3	1	25.0-158		R5	51.7	27
1,3-Dichloropropane	10.0	U	8.09	8.57	80.9	85.7	1	38.0-147			5.76	27
cis-1,3-Dichloropropene	10.0	U	6.56	8.20	65.6	82.0	1	34.0-149			22.2	28
trans-1,3-Dichloropropene	10.0	U	7.35	8.04	73.5	80.4	1	32.0-149			8.97	28
2,2-Dichloropropane	10.0	U	4.97	8.32	49.7	83.2	1	24.0-152		R5	50.4	29

L1408089-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1408089-20 09/29/21 20:55 • (MS) R3710604-5 09/30/21 02:25 • (MSD) R3710604-6 09/30/21 02:46

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dicyclopentadiene	10.0	U	3.77	6.95	37.7	69.5	1	51.0-139	M2	R5	59.3	20
Di-isopropyl ether	10.0	U	8.18	9.89	81.8	98.9	1	21.0-160			18.9	28
Ethylbenzene	10.0	U	4.44	7.55	44.4	75.5	1	30.0-155		R5	51.9	27
4-Ethyltoluene	10.0	U	4.11	7.40	41.1	74.0	1	10.0-160		R5	57.2	20
Hexachloro-1,3-butadiene	10.0	U	2.44	4.97	24.4	49.7	1	20.0-154		R5	68.3	34
n-Hexane	10.0	U	4.17	7.49	41.7	74.9	1	10.0-153		R5	56.9	28
Isopropylbenzene	10.0	U	4.24	7.52	42.4	75.2	1	28.0-157		R5	55.8	27
p-Isopropyltoluene	10.0	U	3.74	6.99	37.4	69.9	1	30.0-154		R5	60.6	29
2-Butanone (MEK)	50.0	U	55.6	51.4	111	103	1	10.0-160			7.85	32
Methyl Cyclohexane	10.0	U	3.07	6.56	30.7	65.6	1	11.0-160		R5	72.5	24
Methylene Chloride	10.0	U	6.61	8.13	66.1	81.3	1	23.0-144			20.6	28
4-Methyl-2-pentanone (MIBK)	50.0	U	59.2	52.3	118	105	1	29.0-160			12.4	29
Methyl tert-butyl ether	10.0	0.447	9.21	9.64	87.6	91.9	1	28.0-150			4.56	29
Naphthalene	10.0	U	3.76	4.38	37.6	43.8	1	12.0-156			15.2	35
Propene	10.0	U	6.02	11.9	60.2	119	1	10.0-160		R5	65.6	29
n-Propylbenzene	10.0	U	3.88	7.29	38.8	72.9	1	31.0-154		R5	61.1	28
Styrene	10.0	U	5.32	7.69	53.2	76.9	1	33.0-155		R5	36.4	28
1,1,1,2-Tetrachloroethane	10.0	U	6.06	7.60	60.6	76.0	1	36.0-151			22.5	29
1,1,2,2-Tetrachloroethane	10.0	U	9.24	9.10	92.4	91.0	1	33.0-150			1.53	28
Tetrachloroethene	10.0	U	4.27	7.98	42.7	79.8	1	10.0-160		R5	60.6	27
Toluene	10.0	U	4.86	7.33	48.6	73.3	1	26.0-154		R5	40.5	28
1,1,2-Trichlorotrifluoroethane	10.0	U	3.45	7.19	34.5	71.9	1	23.0-160		R5	70.3	30
1,2,4-Trichlorobenzene	10.0	U	3.56	4.92	35.6	49.2	1	24.0-150			32.1	33
1,1,1-Trichloroethane	10.0	U	5.44	8.77	54.4	87.7	1	23.0-160		R5	46.9	28
1,1,2-Trichloroethane	10.0	U	7.98	8.23	79.8	82.3	1	35.0-147			3.08	27
Trichloroethene	10.0	U	5.98	9.09	59.8	90.9	1	10.0-160		R5	41.3	25
Trichlorofluoromethane	10.0	U	4.12	9.11	41.2	91.1	1	17.0-160		R5	75.4	31
1,2,3-Trichloropropane	10.0	U	8.79	9.06	87.9	90.6	1	34.0-151			3.03	29
1,2,3-Trimethylbenzene	10.0	U	5.14	7.55	51.4	75.5	1	32.0-149		R5	38.0	28
1,2,4-Trimethylbenzene	10.0	U	4.50	7.30	45.0	73.0	1	26.0-154		R5	47.5	27
1,3,5-Trimethylbenzene	10.0	U	4.46	7.70	44.6	77.0	1	28.0-153		R5	53.3	27
Vinyl chloride	10.0	U	5.17	9.06	51.7	90.6	1	10.0-160		R5	54.7	27
Xylenes, Total	30.0	U	14.7	22.9	49.0	76.3	1	29.0-154		R5	43.6	28
(S) Toluene-d8					*96.5*	*95.8*		*80.0-120*				
(S) 4-Bromofluorobenzene					*96.9*	*95.6*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*121*	*121*		*70.0-130*				

Method Blank (MB)

(MB) R3711441-1 09/30/21 12:02

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
1,2,3-Trichlorobenzene	0.281	E4	0.230	1.00
(S) Toluene-d8	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*103*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*93.9*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3711441-2 09/30/21 12:22 • (LCSD) R3711441-3 09/30/21 12:43

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,2,3-Trichlorobenzene	5.00	4.85	5.78	97.0	116	50.0-138			17.5	20
(S) Toluene-d8				*103*	*105*	*80.0-120*				
(S) 4-Bromofluorobenzene				*105*	*104*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*95.3*	*96.8*	*70.0-130*				

Method Blank (MB)

(MB) R3710893-3 09/30/21 12:47

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
1,3-Butadiene	U		0.299	2.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon disulfide	U		0.0962	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
Cyclohexane	U		0.188	1.00
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00

Method Blank (MB)

(MB) R3710893-3 09/30/21 12:47

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dicyclopentadiene	U		0.253	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00
4-Ethyltoluene	U		0.208	1.00
Hexachloro-1,3-butadiene	U		0.337	1.00
n-Hexane	U		0.749	10.0
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methyl Cyclohexane	U		0.660	1.00
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
Propene	U		0.936	2.50
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,3-Trimethylbenzene	U		0.104	1.00
1,2,4-Trimethylbenzene	U		0.322	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*91.3*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3710893-1 09/30/21 11:46 • (LCSD) R3710893-2 09/30/21 12:06

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	25.9	30.5	104	122	19.0-160			16.3	27
Acrolein	25.0	25.3	30.3	101	121	30.0-160			18.0	26
Acrylonitrile	25.0	27.8	28.7	111	115	55.0-149			3.19	20
Benzene	5.00	5.24	4.96	105	99.2	70.0-123			5.49	20
Bromobenzene	5.00	4.48	4.38	89.6	87.6	73.0-121			2.26	20
Bromodichloromethane	5.00	4.54	4.36	90.8	87.2	75.0-120			4.04	20
Bromoform	5.00	4.81	4.45	96.2	89.0	68.0-132			7.78	20
Bromomethane	5.00	6.11	5.26	122	105	30.0-160			15.0	25
1,3-Butadiene	5.00	3.34	3.40	66.8	68.0	45.0-147			1.78	20
n-Butylbenzene	5.00	4.62	4.40	92.4	88.0	73.0-125			4.88	20
sec-Butylbenzene	5.00	4.74	4.58	94.8	91.6	75.0-125			3.43	20
tert-Butylbenzene	5.00	4.62	4.48	92.4	89.6	76.0-124			3.08	20
Carbon disulfide	5.00	4.44	4.33	88.8	86.6	61.0-128			2.51	20
Carbon tetrachloride	5.00	4.37	4.30	87.4	86.0	68.0-126			1.61	20
Chlorobenzene	5.00	5.24	5.13	105	103	80.0-121			2.12	20
Chlorodibromomethane	5.00	4.69	4.30	93.8	86.0	77.0-125			8.68	20
Chloroethane	5.00	5.18	5.07	104	101	47.0-150			2.15	20
Chloroform	5.00	5.07	4.88	101	97.6	73.0-120			3.82	20
Chloromethane	5.00	4.08	3.95	81.6	79.0	41.0-142			3.24	20
Cyclohexane	5.00	4.38	4.19	87.6	83.8	71.0-124			4.43	20
2-Chlorotoluene	5.00	4.87	4.73	97.4	94.6	76.0-123			2.92	20
4-Chlorotoluene	5.00	4.39	4.43	87.8	88.6	75.0-122			0.907	20
1,2-Dibromo-3-Chloropropane	5.00	4.13	3.96	82.6	79.2	58.0-134			4.20	20
1,2-Dibromoethane	5.00	4.84	4.85	96.8	97.0	80.0-122			0.206	20
Dibromomethane	5.00	5.06	4.85	101	97.0	80.0-120			4.24	20
1,2-Dichlorobenzene	5.00	5.55	5.34	111	107	79.0-121			3.86	20
1,3-Dichlorobenzene	5.00	5.60	5.28	112	106	79.0-120			5.88	20
1,4-Dichlorobenzene	5.00	5.34	5.35	107	107	79.0-120			0.187	20
Dichlorodifluoromethane	5.00	4.43	4.32	88.6	86.4	51.0-149			2.51	20
1,1-Dichloroethane	5.00	4.26	4.22	85.2	84.4	70.0-126			0.943	20
1,2-Dichloroethane	5.00	4.96	4.80	99.2	96.0	70.0-128			3.28	20
1,1-Dichloroethene	5.00	4.58	4.37	91.6	87.4	71.0-124			4.69	20
cis-1,2-Dichloroethene	5.00	4.97	4.93	99.4	98.6	73.0-120			0.808	20
trans-1,2-Dichloroethene	5.00	4.81	4.77	96.2	95.4	73.0-120			0.835	20
1,2-Dichloropropane	5.00	5.27	4.92	105	98.4	77.0-125			6.87	20
1,1-Dichloropropene	5.00	4.85	4.74	97.0	94.8	74.0-126			2.29	20
1,3-Dichloropropane	5.00	5.23	4.96	105	99.2	80.0-120			5.30	20
cis-1,3-Dichloropropene	5.00	5.19	4.90	104	98.0	80.0-123			5.75	20
trans-1,3-Dichloropropene	5.00	4.73	4.53	94.6	90.6	78.0-124			4.32	20
2,2-Dichloropropane	5.00	6.32	6.12	126	122	58.0-130			3.22	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3710893-1 09/30/21 11:46 • (LCSD) R3710893-2 09/30/21 12:06

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dicyclopentadiene	5.00	4.44	4.39	88.8	87.8	74.0-126			1.13	20
Di-isopropyl ether	5.00	4.55	4.38	91.0	87.6	58.0-138			3.81	20
Ethylbenzene	5.00	5.41	5.04	108	101	79.0-123			7.08	20
4-Ethyltoluene	5.00	4.81	4.59	96.2	91.8	74.0-127			4.68	20
Hexachloro-1,3-butadiene	5.00	8.33	8.36	167	167	54.0-138	L1	L1	0.360	20
n-Hexane	5.00	4.97	4.83	99.4	96.6	57.0-133			2.86	20
Isopropylbenzene	5.00	4.93	4.72	98.6	94.4	76.0-127			4.35	20
p-Isopropyltoluene	5.00	4.60	4.47	92.0	89.4	76.0-125			2.87	20
2-Butanone (MEK)	25.0	28.9	29.6	116	118	44.0-160			2.39	20
Methyl Cyclohexane	5.00	4.59	4.42	91.8	88.4	68.0-126			3.77	20
Methylene Chloride	5.00	5.37	5.14	107	103	67.0-120			4.38	20
4-Methyl-2-pentanone (MIBK)	25.0	24.7	24.4	98.8	97.6	68.0-142			1.22	20
Methyl tert-butyl ether	5.00	4.91	4.59	98.2	91.8	68.0-125			6.74	20
Naphthalene	5.00	4.12	4.21	82.4	84.2	54.0-135			2.16	20
Propene	5.00	4.40	4.75	88.0	95.0	30.0-160			7.65	20
n-Propylbenzene	5.00	4.54	4.41	90.8	88.2	77.0-124			2.91	20
Styrene	5.00	4.92	4.73	98.4	94.6	73.0-130			3.94	20
1,1,1,2-Tetrachloroethane	5.00	4.99	4.67	99.8	93.4	75.0-125			6.63	20
1,1,2,2-Tetrachloroethane	5.00	4.67	4.58	93.4	91.6	65.0-130			1.95	20
Tetrachloroethene	5.00	5.83	5.56	117	111	72.0-132			4.74	20
Toluene	5.00	5.08	4.72	102	94.4	79.0-120			7.35	20
1,1,2-Trichlorotrifluoroethane	5.00	4.51	4.39	90.2	87.8	69.0-132			2.70	20
1,2,3-Trichlorobenzene	5.00	3.05	3.11	61.0	62.2	50.0-138			1.95	20
1,2,4-Trichlorobenzene	5.00	5.13	5.02	103	100	57.0-137			2.17	20
1,1,1-Trichloroethane	5.00	4.69	4.46	93.8	89.2	73.0-124			5.03	20
1,1,2-Trichloroethane	5.00	4.84	4.78	96.8	95.6	80.0-120			1.25	20
Trichloroethene	5.00	5.36	4.95	107	99.0	78.0-124			7.95	20
Trichlorofluoromethane	5.00	4.56	4.57	91.2	91.4	59.0-147			0.219	20
1,2,3-Trichloropropane	5.00	4.82	4.75	96.4	95.0	73.0-130			1.46	20
1,2,3-Trimethylbenzene	5.00	4.61	4.43	92.2	88.6	77.0-120			3.98	20
1,2,4-Trimethylbenzene	5.00	4.63	4.40	92.6	88.0	76.0-121			5.09	20
1,3,5-Trimethylbenzene	5.00	4.63	4.49	92.6	89.8	76.0-122			3.07	20
Vinyl chloride	5.00	4.22	4.25	84.4	85.0	67.0-131			0.708	20
Xylenes, Total	15.0	15.7	14.8	105	98.7	79.0-123			5.90	20
(S) Toluene-d8				*103*	*101*	*80.0-120*				
(S) 4-Bromofluorobenzene				*97.8*	*97.9*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*92.4*	*90.5*	*70.0-130*				

Method Blank (MB)

(MB) R3709504-3 09/27/21 22:19

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
1,4-Dioxane	0.167	E4	0.0447	0.400
(S) Nitrobenzene-d5	*67.6*			*10.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3709504-1 09/27/21 21:41 • (LCSD) R3709504-2 09/27/21 22:00

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
1,4-Dioxane	50.0	45.1	45.1	90.2	90.2	73.0-146			0.000	20
(S) Nitrobenzene-d5				*67.5*	*68.8*	*10.0-120*				

Method Blank (MB)

(MB) R3710690-3 09/30/21 08:52

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
1,4-Dioxane	U		0.0447	0.400
(S) Nitrobenzene-d5	*60.0*			*10.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3710690-1 09/30/21 08:13 • (LCSD) R3710690-2 09/30/21 08:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,4-Dioxane	50.0	50.5	51.6	101	103	73.0-146			2.15	20
(S) Nitrobenzene-d5				*62.1*	*59.4*	*10.0-120*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Is
8 Gl
9 Al
10 Sc

INTERNAL STANDARD SUMMARY

Instrument: VOCMS26 • File ID: 0930_03

09/30/21 11:00

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0930_03	297817	148465	133748
Upper Limit		595634	296930	267496
Lower Limit		148909	74233	66874
BLANK R3711441-1 WG1749138 1x	0930_06B	301360	149120	132654
LCS R3711441-2 WG1749138 1x	0930_07B	295569	148017	132333
LCSD R3711441-3 WG1749138 1x	0930_08B	295498	147329	133888

Instrument: VOCMS26 • File ID: 0930_37

09/30/21 23:23

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0930_37	280690	142454	125410
Upper Limit		595634	296930	267496
Lower Limit		148909	74233	66874
L1408450-02 WG1749138 1x	0930_42	277954	142781	123664

Instrument: VOCMS33 • File ID: 0930_02

09/30/21 11:46

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0930_02	234522	104042	110194
Upper Limit		469044	208084	220388
Lower Limit		117261	52021	55097
LCS R3710893-1 WG1749293 1x	0930_02LCS	234522	104042	110194
LCSD R3710893-2 WG1749293 1x	0930_03	239619	107470	112614
BLANK R3710893-3 WG1749293 1x	0930_05	231314	99186	102189
L1408450-01 WG1749293 250x	0930_14	227081	96075	102361
L1408450-03 WG1749293 10x	0930_15	218290	98727	109189
L1408450-04 WG1749293 5x	0930_16	221660	97805	109831

Instrument: BNAMS20 • File ID: 0927_03

09/27/21 21:19

Sample ID	File ID	N-NITROSODIMETHYLAMINE-D6	1,4-DIOXANE-D8	1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0927_03	95491	59252	3865955
Upper Limit		190982	118504	7731910
Lower Limit		9549	5925	1932978
LCS R3709504-1 WG1746818 1x	0927_04	34975	19245	4228646
LCSD R3709504-2 WG1746818 1x	0927_05	34505	22447	4396897
BLANK R3709504-3 WG1746818 1x	0927_06	40093	24318	4383249
L1408450-01 WG1746818 1.08x	0927_20	38472	45725	4699104
L1408450-04 WG1746818 1.15x	0927_26	36674	19973	4450092

Instrument: BNAMS20 • File ID: 0930_03

09/30/21 07:48

Sample ID	File ID	N-NITROSODIMETHYLAMINE-D6	1,4-DIOXANE-D8	1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0930_03	90393	55937	3876556
Upper Limit		180786	111874	7753112
Lower Limit		9039	5594	1938278
LCS R3710690-1 WG1748220 1x	0930_04	25473	12877	3414100
LCSD R3710690-2 WG1748220 1x	0930_05	27075	13854	3747528
BLANK R3710690-3 WG1748220 1x	0930_06	32223	18266	4062998
L1408450-03 WG1748220 1x	0930_10	21599	9722	3751712

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H1	Sample analysis performed past holding time.
L1	The associated blank spike recovery was above laboratory acceptance limits.
L2	The associated blank spike recovery was below laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R8	Sample RPD exceeded the method acceptance limit.
S6	Surrogate recovery was below laboratory and method acceptance limits. Reextraction and/or reanalysis confirms low recovery caused by matrix effect.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
GeoSyntec, Inc. - AZ

11811 N Tatum Blvd, Ste P186
Phoenix, AZ 85028

Billing Information:
Attn: Accounts Payable
11811 N Tatum Blvd, Ste P186
Phoenix, AZ 85028

Pres Chk

Report to: **Fabrizio Mascioni**

Email To: **rayala@geosyntec.com;FMascioni@Geosyntec.c**

Project Description: **Nammo TTU Injection Pilot**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **602-513-5812**

Client Project # **DE0437**

Lab Project # **GEOSYNPAZ-NAMMO**

Collected by (print): Ryan Ayala

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical®

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

L141 08450

J064

Acctnum: **GEOSYNPAZ**
Template: **T175266**
Prelogin: **P873171**
PM: **824 - Chris Ward**
PB:
Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	8270DIOXANE 100ml Amb-NoPres	BROMIDE 250mlHDPE-NoPres	Cl,NO2,NO3,SO4 250mlHDPE-NoPres	FF Diss Metals 250mlHDPE-HNO3	PERCHLORATE 250mlHDPE-NoPres	RSK175 40mlAmb HCl	SULFIDE 250mlAmb-S-NaOH+ZnAc	TOC 250mlHDPE-HCl	V8260AZ 40mlAmb-HCl	V8260AZ 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
TTU-20-73-20210923	Grab	GW	73	9-23-21	1125	13	X	X	X	X	X	X	X	X	X			-01
Trip Blank		GW				1										X		02
TTU-19-73-20210923	Grab	GW	73	9-23-21	1155	13	X	X	X	X	X	X	X	X	X			03
TTU-11-73-20210923	Grab	GW	73	9-23-21	1225	13	X	X	X	X	X	X	X	X	X			04
		GW				13	X	X	X	X	X	X	X	X	X			05

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:~~~~~~~~~~~~~~~~SHORT HOLDS PRESENT~~~~~~~~~~~~~~~~

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
	9-23-21	1330	FedEx	1	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.2 °C Bottles Received: 40	
				1.7-1.1-1.6	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9-24-21 Time: 0915	Hold: Condition: NCF / OK