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"QUALITY SERVICE AT AN HONEST PRICE"

July 12, 2024
Project No. 14-PSA-005 / 006

Mr. Daniel Lanners, Project Manager
NYSDEC, Div. of Env. Remediation
625 Broadway, 12th Floor
Albany, NY 12233-7014

Re: December 2023 Groundwater Monitoring Results w/DUSR
Taylor's Lane Compost Site, Mamaroneck, New York
NYSDEC Site Number 360021

Dear Mr. Lanners:

Zion Environmental, LLC (Zion) personnel conducted the groundwater sampling event at the Taylor's Lane Compost Site in Mamaroneck, New York on December 27, 2023. This Monitoring Report summarizes all activities performed and results obtained in association with the groundwater sampling, gas vent, and soil gas migration monitoring. The monitoring was completed in accordance with the NYSDEC request for further evaluation for the Taylor's Lane Compost Site and the Post Closure Operation and Maintenance Plan for the Taylor Lane Compost Site prepared by EMCON/Wehran-New York, February 1998.

FIELD PROGRAM

Groundwater Monitoring

Seven groundwater monitoring wells and two grab sample locations (MW-2S, MW-2D, MW-4S, MW-4D, MW-9S, MW-9D, MW-15D, MH-1, and CB-1) were purged and/or sampled on December 27, 2023. The groundwater wells were purged and allowed to recharge prior to sampling. The field data obtained during the process of purging and sampling can be found in Attachment 1, Table 2.

The collected samples were packed in ice, shipped via FedEx over night to ALS Group USA, Corp., in Rochester, NY on December 27, 2023. As per the request of the NYSDEC, sample locations were analyzed for the TSS screen, TAL metals, TAL Hg, TCL pesticides, TCL VOCs with TBA, PFAS, and 1,4-dioxane. In addition to laboratory groundwater analyses, the following field parameters were measured and recorded on-site: pH, temperature, conductivity, ORP, and turbidity. Field parameters pH, temperature, and ORP were measured utilizing an Oakton pH 310 Series waterproof meter. Conductivity was measured utilizing an Oakton

con 400 Series waterproof meter. Turbidity was measured utilizing a LaMotte 2020 Turbidity meter.

Landfill Gas Vent and Bar Hole Monitoring

Gas vents GV-1 through GV-8 were monitored for percent combustible gas and total organic vapors. Soil gas monitoring was also conducted at predetermined locations (BH-1 through BH-13) along the perimeter of the landfill to detect any migrating gases. A MiniRae PID was utilized to monitor VOCs and a Landtec GEM-500 was utilized to monitor percent methane gas (CH_4), carbon dioxide (CO_2), and oxygen (O_2) at gas vents GV-1 through GV-8 and bar holes BH-1 through BH-13. The soil gas monitoring was performed in accordance with the Post Closure Operation and Maintenance Plan for the Taylor Lane Compost Site prepared by EMCON/Wehran-New York, Inc. in February 1998.

Important Notations

During the sampling event on August 21, 2019, it was noted that wells MW-3S and MW-3D had a white slimy substance at the top of the water column that coated the end of the rope and bailer of these two wells. This substance is still present in these two wells since the August 2019 sampling event and continues to have a petrol odor. The white, slimy substance could be the result of the TBA aerobic biodegradation process when it is exposed to oxygen. During the sampling event on July 22, 2022, methylene chloride was detected at a concentration just below the NYSDEC Part 703 groundwater guidance values of 5 ug/l at well MW-3S at a concentration of 4 ug/l and was reported with a J flag (Detected below the Reporting Limit but greater than or equal to the Method Detection Limit; therefore, the result is an estimated concentration). This is the first-time methylene chloride historically has been detected in MW-3S. MW-3S and MW-3D were not on the list for sampling during the December 27, 2023, event.

In both wells MW-2S and MW-2D, the protective casings are rotting out of the bottom. Both are rusted through and are free moving. It is recommended that both protective casings be replaced before the inner well PVC is damaged.

RESULTS

Volatile Organic Compounds (VOCs)

During the December 27, 2023, sampling event, methyl tert-butyl ether (MTBE) was detected at a concentration below the NYSDEC Part 703 groundwater guidance values of 10 ug/l at upgradient well MW-9S at a concentration of 6.6 ug/l. There were no other volatile organic compounds (VOCs) detected during this sampling event.

Historically, MW-2S and MW-2D have had detections of vinyl chloride, MTBE, and/or tert-butyl-alcohol (TBA). These three parameters were not detected during the December 2023

sampling event. Please note that ALS Laboratories Method Reporting Limit (MRL) for TBA was 100 ug/L. Therefore, TBA may have been present in well MW-2S.

Metals

A review of the groundwater analytical results indicated an average of three to five metals in the wells that were above the NYSDEC Class GA Standards. These metals were iron, magnesium, manganese, and sodium.

Arsenic, barium, beryllium, cadmium, chromium, copper, iron, lead, magnesium, manganese, nickel, and sodium were twelve metals above the NYSDEC Class GA Standards for well MW-4S. Mercury was also detected in MW-4S but was below the established standard. All other metals were non-detected or below NYSDEC Class GA Standards.

Total Suspended Solids (TSS) Screen

MW-4S and MW-9S were the only two wells that have Total Suspended Solids (TSS).

1,4-Dioxane

1,4-Dioxane was detected above the established standard of 0.35 ug/L in sample locations CB-1, MH-1, MW-2S, MW-4D, and MW-4S. 1,4-Dioxane was detected but was below the established standard of 0.35 ug/L in sample locations MW-2D and MW-15D. MW-9D and MW-9S were the only sample locations that did not have a detection of 1,4-Dioxane.

Pesticides

CB-1 and the Field Duplicate (FD) for MW-2D were the only locations that detected pesticide gamma-chlordane but did not have an established standard. Gamma-chlordane was undetected in the well sample for MW-2D. All the other pesticides were undetected in the groundwater samples.

Per and Polyfluoroalkyl Substances (PFAS)

PFOS was detected above the established standard of 2.7 ng/l (ppt) in sample locations CB-1, MH-1, MW-2S, MW-4D, MW-9D, and MW-9S. PFOA was detected above the established standard of 6.7 ng/l (ppt) in sample locations CB-1, MH-1, MW-2D, MW-2S, MW-4D, MW-9D, MW-9S, and MW-15D. All other PFAS were either not detected, were detected but did not have an established standard, or was detected but below the established standard.

No PFAS was detected in MW-4S, but the labs MRL for this well was 25 ng/L (ppt). The MRL for the rest of the locations were between 4.4 and 4.7 ng/L (ppt).

Summary tables of the analytical results, and field data are provided in Attachment 1, Tables 1 and 2. The laboratory report is included in Attachment 2. The groundwater contour map depicts the monitoring well locations and is provided in Attachment 4.

Data Usability Summary Reports (DUSRs)

The data usability summary reports (DUSRs) and data validation reviews were completed by Alpha Geoscience and are attached to this report for the Taylor's Lane Compost Site, December 2023 ground water sampling event. The data is acceptable from ALS Group USA, Corp. Service Requests R2311985 and R2311986 had some minor issues that are identified and discussed in the validation summaries. None of the data was qualified rejected, unusable (R) in the data packs.

The data package contains the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appeared legible and complete. The results for the seven wells, two grab sample locations, matrix spike (MS), matrix spike duplicate (MSD), and a field duplicate (FD) were analyzed for PFAS Method 1633, TCL VOCs with TBA Method 8260C, TCL Pesticides Method 8081B, TAL Metals Method 6010C, 1,4-Dioxane Method 8270 SIM, TAL Hg Method 7470A, and a TSS Screen.

The Data Usability Summary Reports (DUSRs) are included in Attachment 3.

Gas Vent and Bar Hole Monitoring Results

As shown in the photoionization detector (PID) readings, volatile organic vapors were not detected (0.0 ppm) in any of the gas vents or perimeter bar hole monitoring locations during the December 27, 2023, sampling event. Methane was detected in GV-4 at a concentration of 1.2% methane gas and GV-5 at a concentration of 5.6% methane gas.

Gas vent and bar hole locations are depicted on the Groundwater Contour Map. Results for the December 2023 gas vent and bar hole monitoring are provided in Attachment 1, Table 3.

If you should have any questions regarding the above information, please do not hesitate to contact me at 845-649-9346.

Sincerely,

Brian Nichols,
Vice President - CPM

Attachment 1 – Tables 1-3, Sample Results, Field Data, and Gas Vent and Bar Hole Data
Attachment 2 – Laboratory Results
Attachment 3 – Data Usability Summary Reports (DUSRs)
Attachment 4 – Groundwater Contour Map

cc: Mr. Steven McCague, NYSDEC, Region 3
Mr. Charles Strome, Village of Mamaroneck
Mr. Richard Kampf, LaBella
Ms. Courtney Wong, Village of Mamaroneck
Ms. Laura Vasami, Village of Mamaroneck

Attachment 1

Tables 1-3

Table – 1

Sample Results

Table 1
Village of Mamaroneck
Taylor's Lane Compost Site
December 2023 Sample Results

CAS No.	PARAMETERS	UNIT	NYSDEC Class GA Standard	CB-1	MH-1	MW-2D	MW-2D (DUPLICATE)	MW-2S	MW-4D	MW-4S	MW-9D	MW-9S	MW-15D
	Volatile Organic Compounds (VOCs)												
71-55-6	1,1,1-Trichloroethane (TCA)	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
79-00-5	1,1,2-Trichloroethane	ug/l	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-34-3	1,1-Dichloroethane (1,1-DCA)	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-35-4	1,1-Dichloroethene (1,1-DCE)	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
95-63-6	1,2,4-Trimethylbenzene	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
107-06-2	1,2-Dichloroethane	ug/l	0.6	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
78-87-5	1,2-Dichloropropane	ug/l	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
108-67-8	1,3,5-Trimethylbenzene	ug/l	NE	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
78-93-3	2-Butanone (MEK)	ug/l	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
591-78-6	2-Hexanone	ug/l	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
75-65-0	2-Methyl-2-propanol (tert-Butyl Alcohol)	ug/l	20	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
99-87-6	4-Isopropyltoluene	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
108-10-1	4-Methyl-2-pentanone	ug/l	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
67-64-1	Acetone	ug/l	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
71-43-2	Benzene	ug/l	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-27-4	Bromodichloromethane	ug/l	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-25-2	Bromoform	ug/l	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
74-83-9	Bromomethane	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-15-0	Carbon Disulfide	ug/l	60	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
56-23-5	Carbon Tetrachloride	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
108-90-7	Chlorobenzene	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-00-3	Chloroethane	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
67-66-3	Chloroform	ug/l	7	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
74-87-3	Chloromethane	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
156-59-2	cis-1,2-Dichloroethene	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
10061-01-5	cis-1,3-Dichloropropene	ug/l	0.4	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
124-48-1	Dibromochloromethane	ug/l	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-09-2	Dichloromethane (Methylene Chloride)	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
100-41-4	Ethylbenzene	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
98-82-8	Isopropylbenzene (Cumene)	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
179601-23-1	m,p-Xylenes	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1634-04-4	Methyl tert-Butyl Ether	ug/l	10	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6.6	5 U
91-20-3	Naphthalene	ug/l	10	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
104-51-8	n-Butylbenzene	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
103-65-1	n-Propylbenzene	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
95-47-6	o-Xylene	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
135-98-8	sec-Butylbenzene	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
100-42-5	Styrene	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
98-06-6	tert-Butylbenzene	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
127-18-4	Tetrachloroethene (PCE)	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
108-88-3	Toluene	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
156-60-5	trans-1,2-Dichloroethene	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
10061-02-6	trans-1,3-Dichloropropene	ug/l	0.4	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
79-01-6	Trichloroethene (TCE)	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
75-01-4	Vinyl Chloride	ug/l	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Notes:
NE = No Established Standard.
NA = Not Analyzed.
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Bolded Results = Exceeded NYSDEC Standard

Table 1
Village of Mamaroneck
Taylor's Lane Compost Site
December 2023 Sample Results

CAS No.	PARAMETERS	UNIT	NYSDEC Class GA Standard	CB-1	MH-1	MW-2D	MW-2D (DUPLICATE)	MW-2S	MW-4D	MW-4S	MW-9D	MW-9S	MW-15D
	Metals												
7429-90-5	Aluminum	ug/l	NE	100 U	100 U	390	450	860	900	197000	100 U	4290	330
7440-36-0	Antimony	ug/l	3	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U
7440-38-2	Arsenic	ug/l	25	10 U	10 U	10 U	10 U	10 U	**37**	**81**	10 U	10 U	10 U
7440-39-3	Barium	ug/l	1000	352	466	270	270	449	851	**4980**	221	327	951
7440-41-7	Beryllium	ug/l	3	3 U	3 U	3 U	3 U	3 U	3 U	**11.6**	3 U	3 U	3 U
7440-43-9	Cadmium	ug/l	5	5 U	5 U	5 U	5 U	5 U	5 U	**10**	5 U	5 U	5 U
7440-70-2	Calcium	ug/l	NE	64000	80900	89000	88700	82600	56900	146000	121000	55200	110000
7440-47-3	Chromium	ug/l	50	10 U	10 U	10 U	10 U	10 U	10 U	**918**	**2920**	**3940**	34
7440-48-4	Cobalt	ug/l	NE	50 U	50 U	50 U	50 U	50 U	50 U	239	50 U	50 U	50 U
7440-50-8	Copper	ug/l	200	20 U	20 U	20 U	20 U	25	20 U	**839**	79	42	20 U
7439-89-6	Iron	ug/l	300	**7700**	**19300**	**1990**	**2040**	**12500**	**60300**	**767000**	**18200**	**19900**	**4030**
7439-92-1	Lead	ug/l	25	50 U	50 U	50 U	50 U	**75**	50 U	**715**	50 U	50 U	50 U
7439-95-4	Magnesium	ug/l	35000	23100	28500	**63300**	**62800**	32700	27300	**120000**	**41300**	17500	**68400**
7439-96-5	Manganese	ug/l	300	**519**	**742**	248	248	**416**	**2370**	**9250**	**376**	**2660**	**5580**
7439-97-6	Mercury	ug/l	1	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.31	0.2 U	0.2 U	0.2 U
7440-02-0	Nickel	ug/l	100	40 U	40 U	40 U	40 U	40 U	**221**	**1280**	**4030**	**105**	43
9-7-7440	Potassium	ug/l	NE	5500	5900	7500	7500	9200	5800	49000	10000	4900	9700
7782-49-2	Selenium	ug/l	10	10 U	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
7440-22-4	Silver	ug/l	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
7440-23-5	Sodium	ug/l	20000	**90100**	**122000**	**27400**	**26600**	**108000**	**162000**	**160000**	**68700**	**175000**	**47900**
7440-28-0	Thallium	ug/l	0.5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
7440-62-2	Vanadium	ug/l	NE	50 U	50 U	50 U	50 U	50 U	50 U	615	50 U	50 U	50 U
7440-66-6	Zinc	ug/l	2000	20 U	20 U	20 U	20 U	82	20 U	1910	25	20 U	62
	Total Suspended Solids (TSS Screen)												
	TSS	mg/l	NE	100 U	100 U	100 U	100 U	100 U	100 U	500	100 U	100	100 U
	1, 4 -Dioxane (SIM)												
123-91-1	1,4-Dioxane	ug/l (ppb)	0.35	**3.3**	**5.4**	0.092	0.11	**7.4**	**0.81**	**1.5**	0.1 U	0.1 U	0.13
	Field Parameters												
	Field pH	mV	6.5 - 8.5	7.74	7.78	8.33	8.33	8.19	7.56	7.94	7.91	7.11	8.46
	Field Specific Conductivity	SU		950	1280	1050	1050	1230	1340	1330	1360	1370	1300
	Field Temperature	umhos/cm		10	9.8	10.4	10.4	12	9.1	9.4	12.1	12	9.9
	Field Eh	NTU		-40.9	-44.1	-74.9	-74.9	-73.8	-32.4	-53.5	-52.6	-6.6	-80.6
	Field Turbidity	degC	50	0	0	5.8	5.8	12	**220**	**800**	45	**65**	16
	Static Water Level / Top of Casing (TOC)	degC		NA	NA	1.5	1.5	1.94	3.23	2.17	12.38	10.57	3.46

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Table 1
Village of Mamaroneck
Taylor's Lane Compost Site
December 2023 Sample Results

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	Pesticides												
72-54-8	4,4'-DDD	µg/L	0.3	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
72-55-9	4,4'-DDE	µg/L	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
50-29-3	4,4'-DDT	µg/L	0.2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
309-00-2	Aldrin	µg/L	NE	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
319-84-6	alpha-BHC	µg/L	0.01	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
5103-71-9	alpha-Chlordane	µg/L	0.09	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
319-85-7	beta-BHC	µg/L	0.04	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
319-86-8	delta-BHC	µg/L	0.04	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
60-57-1	Dieldrin	µg/L	0.004	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
959-98-8	Endosulfan I	µg/L	NE	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
33213-65-9	Endosulfan II	µg/L	NE	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
1031-07-8	Endosulfan Sulfate	µg/L	NE	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
72-20-8	Endrin	µg/L	NE	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
7421-93-4	Endrin Aldehyde	µg/L	5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
53494-70-5	Endrin Ketone	µg/L	5	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
58-89-9	gamma-BHC (Lindane)	µg/L	0.05	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
5566-34-7	gamma-Chlordane	µg/L	NE	0.062	0.05 U	0.05 U	0.07	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
76-44-8	Heptachlor	µg/L	0.04	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
1024-57-3	Heptachlor Epoxide	µg/L	0.03	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
72-43-5	Methoxychlor	µg/L	35	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.048 U
8001-35-2	Toxaphene	µg/L	0.06	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Notes:
NE = No Established Standard.
NA = Not Analyzed.
ND = Not Detected.
U = Not detected. Reporting limit provided.
J = Estimated
Bolded Results = Exceeded NYSDEC Standard

Table 1
Village of Mamaroneck
Taylor's Lane Compost Site
December 2023 Sample Results

CAS No.	PARAMETERS	UNIT	NYSDEC Class GA Standard	CB-1	MH-1	MW-2D	MW-2D (DUPLICATE)	MW-2S	MW-4D	MW-4S	MW-9D	MW-9S	MW-15D
	Per and Polyfluoroalkyl Substances (PFAS)												
763051-92-9	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
39108-34-4	1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
757124-72-4	1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
27619-97-2	1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
812-70-4	2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	ng/l (ppt)	NE	180 U	190 U	180 U	180 U	180 U	180 U	1000 U	180 U	180 U	180 U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	ng/l (ppt)	NE	180 U	190 U	180 U	180 U	180 U	180 U	1000 U	180 U	180 U	180 U
356-02-5	4,4,5,5,6,6,6-Heptafluorohexanoic acid (3:3 FTCA)	ng/l (ppt)	NE	180 U	190 U	180 U	180 U	180 U	180 U	1000 U	180 U	180 U	180 U
919005-14-4	4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
756426-58-1	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
13252-13-6	Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
4151-50-2	N-Ethylperfluorooctane sulfonamide (EtFOSAm)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
2991-50-6	N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
1691-99-2	N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
31506-32-8	N-Methylperfluorooctane sulfonamide (MeFOSA)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
2355-31-9	N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
24448-09-7	N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
151772-58-6	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
113507-82-7	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
377-73-1	Perfluoro-3-methoxypropanoic acid (PFMPA)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
863090-89-5	Perfluoro-4-methoxybutanoic acid (PFMBA)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
375-73-5	Perfluorobutanesulfonic Acid	ng/l (ppt)	NE	12	7.2	4.6 U	4.5 U	6.3	8.5	25 U	7.6	4.6 U	12
375-22-4	Perfluorobutanoic Acid	ng/l (ppt)	NE	9.1	9.1	12	13	9.1	8.8	25 U	9.3	5.2	9.7
335-77-3	Perfluorodecane Sulfonate	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
335-76-2	Perfluorodecanoic Acid	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
79780-39-5	Perfluorododecane sulfonic acid (PFDoS)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
307-55-1	Perfluorododecanoic acid (PFDOA)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
375-92-8	Perfluoroheptane sulfonate	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
375-85-9	Perfluoroheptanoic Acid	ng/l (ppt)	NE	5.2	4.7	4.6 U	4.5 U	4.6	5.9	25 U	5.8	4.6 U	6.2
355-46-4	Perfluorohexanesulfonic Acid	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
307-24-4	Perfluorohexanoic Acid	ng/l (ppt)	NE	9.8	7.7	4.6 U	4.5 U	8.8	13	25 U	12	4.6 U	13
68259-12-1	Perfluorononane sulfonic acid (PFNS)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
375-95-1	Perfluorononanoic Acid	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
72629-94-8	Perfluoro-n-tridecanoic acid	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
754-91-6	Perfluorooctane sulfonamide (PFOSAm)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
1763-23-1	Perfluorooctanesulfonic Acid (**PFOS**)	ng/l (ppt)	2.7	**26**	**12**	4.6 U	4.5 U	**16**	**7.9**	25 U	**5**	**19**	4.4 U
335-67-1	Perfluorooctanoic Acid (**PFOA**)	ng/l (ppt)	6.7	**20**	**23**	**8.1**	**7.9**	**25**	**17**	25 U	**20**	**20**	**18**
2706-91-4	Perfluoropentane sulfonic acid (PFPeS)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
2706-90-3	Perfluoropentanoic Acid	ng/l (ppt)	NE	13	9.6	4.6 U	4.5 U	12	19	25 U	18	7.3	24
376-06-7	Perfluorotetradecanoic acid (PFTDA)	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U
2058-94-8	Perfluoroundecanoic Acid	ng/l (ppt)	NE	4.4 U	4.7 U	4.6 U	4.5 U	4.5 U	4.5 U	25 U	4.5 U	4.6 U	4.4 U

Notes:
NE = No Established Standard.
NA = Not Analyzed.
ND = Not Detected.
U = Not detected. Reporting limit provided.
J = Estimated
Bolded Results = Exceeded NYSDEC Standard

Table – 2

Field Data

Table 2

TAYLOR LANE, MAMARONECK - FIELD DATA - 12/27/2023

Groundwater Sampling Data

MW #	Well Survey Elevation	Well Size	Metal or PVC	TPVC (in ft) (Top of PVC)	TOC (in ft) (Top of Casing)	BPVC (in ft) (Bottom of PVC)	BOC (in ft) (Bottom of Casing)	ELEVATION
2S	**16.71**	**2"**	**PVC**	1.63	1.94	16.30	16.65	14.77
2D	**17.05**	**2"**	**PVC**	1.33	1.50	68.06	68.34	15.55
4S	**17.66**	**2"**	**PVC**	1.80	2.17	12.47	12.73	15.49
4D	**18.50**	**2"**	**PVC**	2.46	3.23	16.87	17.84	15.27
9S	**32.61**	**2"**	**Steel**	10.39	10.57	18.49	18.69	22.04
9D	**32.85**	**4"**	**Steel**	11.64	12.38	69.41	70.18	20.47
15D	**17.23**	**2"**	**Steel**	2.88	3.46	38.25	38.83	13.77

Water Quality Parameters

MW #	Sampling Time	Gallons Purged	pH (SU)	Conductivity (mS/cm2)	Temp. (oC)	ORP (mv)	Turbidity (NTU)
2S	820	10	8.19	1230	12.0	-73.8	12
2D	800	30	8.33	1050	10.4	-74.9	5.8
4S	1315	20	7.94	1330	9.4	-53.5	800
4D	920	8	7.56	1340	9.1	-32.4	220
9S	1130	4	7.11	1370	12.0	-6.6	65
9D	1028	40	7.91	1360	12.1	-52.6	45
15D	910	7	8.46	1300	9.9	-80.6	16
MH-1	1438	NA	7.78	1280	9.8	-44.1	0
CB-1	1457	NA	7.74	950	10.0	-40.9	0

Well Notes For Sampling

2S	Clear, black particles, sulfur odors ****Bottom of protective casing rotted out****
2D	Clear, black particles, sulfur odors ****Bottom of protective casing rotted out****
4S	Dark brown tint, odors, cloudy, turbid
4D	Orange tint, cloudy, turbid
9S	Orange tint, cloudy, slightly turbid, odors
9D	Slight ornage tint, cloudy, slightly turbid, no odors
15D	Clear, some small black partilces, no odors
MH-1	Clear, slight orange tint, no odors
CB-1	yellow tint, orange paticles, no odors

Water Levels and Elevations

ID	Elevation	Size	Type	TPVC	TOC	BPVC	BOC	ELEVATION
14D	**18.78**	**2"**	**Metal**	1.74	2.16	79.05	79.45	16.62
14S	**18.39**	**2"**	**Metal**		2.85	15.30	15.24	15.54
14M	**18.67**	**2"**	**Metal**	3.00	3.00	30.05	30.22	15.67
4M	**20.53**	**6"**	**Metal**	3.24	4.05	18.49	19.27	16.48
1D	**18.99**	**2"**	**PVC**	2.95	3.24	65.52	65.78	15.75
1S	**18.28**	**2"**	**PVC**	2.28	2.55	19.17	19.44	15.73
3D	**13.25**	**2"**	**PVC**	2.90	3.14	31.31	31.52	10.11
3S	**13.35**	**2"**	**PVC**	2.59	2.92	21.08	21.41	10.43
#2-PZ-A	**19.04**	**2"**	**PVC**	NA	NA	14.63	14.81	NA
#1-PZ-B	**17.22**	**2"**	**PVC**	2.67	3.28	14.63	14.81	13.94
#3-PZ-C	**19.33**	**2"**	**PVC**	3.91	4.01	15.27	15.42	15.32
PZ-D	**17.49**	**2"**	**PVC**	Damaged	Damaged	7.18	7.20	NA
LEACH	**17.03**	**14"**	**Metal**	NO PVC	5.56	NA	16.55	11.47
MW-6	**14.97**	**6"**	**PVC**	PVC Cap Stuck	N/A			NA

Notes: **N/F** : Not found due to high grass or deep snow.
N/S : No sample due to dry well or frozen well from extreme cold temps.
*PVC 0.07 ABOVE TOC

Table - 3

Gas Vent & Bar Hole Monitoring Data

Table 3

Gas Vent & Bar Hole Monitoring Data
Village of Mamaroneck
Taylor's Lane Compost Site
December 27, 2023

GAS VENT MONITORING						
Gas Vent (GV) #	PID (ppm)	CH4 (%)	CO2 (%)	O2 (%)	Balance (%)	Remarks
1	0.0	0.0	7.3	19.2	73.5	
2	0.0	0.0	7.2	19.0	73.8	
3	0.0	0.0	4.8	17.9	77.3	
4	0.0	1.2	14.2	17.5	68.3	
5	0.0	5.6	17.5	8.8	73.7	
6	0.0	0.0	6.7	18.7	74.6	
7	0.0	0.0	4.0	19.2	76.8	Bees nest
8	0.0	0.0	2.7	19.4	77.9	

BAR HOLE MONITORING						
Bar Hole (BH) #	PID (ppm)	CH4 (%)	CO2 (%)	O2 (%)	Balance (%)	Remarks
1	0.0	0.0	1.1	17.8	81.1	
2	0.0	0.0	1.5	17.5	81.0	
3	0.0	0.0	1.8	18.3	79.9	
4	0.0	0.0	4.1	17.8	78.1	
5	0.0	0.0	8.3	17.9	73.8	
6	0.0	0.0	10.7	17.1	72.2	
7	0.0	0.0	4.8	18.1	77.1	
8	0.0	0.0	2.3	18.2	79.5	
9	0.0	0.0	4.2	17.8	78.0	
10	0.0	0.0	3.4	17.2	79.4	
11	0.0	0.0	2.5	17.1	80.4	
12	0.0	0.0	2.1	16.8	81.1	
13	0.0	0.0	1.8	17.6	80.6	

Note: See drawing entitled "Drawing No. 1 - Site Map with Shallow Groundwater Flow Contours" for monitoring locations.
Equipment used: GEM 500 and MiniRae PID

ZION ENVIRONMENTAL, LLC.

Attachment 2

Laboratory Results

Attachment 3

Data Usability Summary Reports (DUSRs)

ALPHA GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

June 24, 2024

Mr. Brian Nichols, VP/CPM
Environmental Forensics
Zion Environmental, LLC
PO Box 162
Otisville, New York 10963

Re: Data Validation Reports
Taylor's Lane Composite Site
December 2023 Ground Water Sampling Event

Dear Mr. Nichols:

The data usability summary reports (DUSRs) and data validation reviews are attached to this letter for the Taylor's Lane project, December 2023 ground water sampling event. The data were acceptable for ALS Group USA, Corp., Service Requests R2311985 and R2311986 with some minor issues that are identified and discussed in the validation summaries. There were no data that were qualified rejected, unusable (R) in the data packs.

A list of common data validation acronyms is attached to this letter to assist you interpreting the validation summaries. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for the opportunity to assist Zion Environmental, LLC.

Sincerely,
Alpha Geoscience

Donald Anné
Senior Chemist

DCA/bms
Via email

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679 Plank Road ● Clifton Park, New York 12065 ● (518) 348-6995 ● Fax (518) 348-6966
www.alphageoscience.com

Alpha Geoscience: Acronyms and Definitions

Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

U	=	Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.
R	=	Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.
N	=	Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.
J	=	Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.
J-	=	Analyte is present. Reported value may be biased low and associated with a higher level of uncertainty than is normally expected with the analytical method.
J+	=	Analyte is present. Reported value may be biased high andassociated with a higher level of uncertainty than is normally expected with the analytical method.
UJ	=	Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

Polyfluorinated Alkyl Substances (PFAS) Acronyms

PFBA	Perfluorobutanoic acid
PFPeA	Perfluoropentanoic acid
PFHxA	Perfluorohexanoic acid
PFHpA	Perfluoroheptanoic acid
PFOA	Perfluorooctanoic acid
PFNA	Perfluorononanoic acid
PFDA	Perfluorodecanoic acid
PFUnA	Perfluoroundecanoic acid
PFDoA	Perfluorododecanoic acid
PFTriA or PFTrDA	Perfluorotridecanoic acid
PFTeA or PFTA	Perfluorotetradecanoic acid
PFBS	Perfluorobutanesulfonic acid
PFPeS	Perfluoropentanesulfonic acid
PFHxS	Perfluorohexanesulfonic acid
PFHpS	Perfluoroheptanesulfonic acid
PFOS	Perfluorooctanesulfonic acid
PFNS	Perfluorononanesulfonic acid
PFDS	Perfluorodecanesulfonic acid
FOSA	Perfluorooctane Sulfonamide
NMeFOSAA	N-methyl perfluorooctane sulfonamidoacetic acid
NEtFOSAA	N-ethyl perfluorooctane sulfonamidoacetic acid
4:2 FTS or 4:2	1H, 1H, 2H, 2H-perfluorohexanesulfonic acid
6:2 FTS or 6:2	1H, 1H, 2H, 2H-perfluorooctanesulfonic acid or 6:2 Fluorotelomersulfonate
8:2 FTS or 8:2	1H, 1H, 2H, 2H-perfluorodecanesulfonic acid or 8:2 Fluorotelomersulfonate

R2311985

ALPHA GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

Data Usability Summary Report for
for ALS Group USA, Corp.
Service Request: R2311985

9 Ground Water Samples, 1 Field Duplicate,
and 1 Field Blank
Collected December 27, 2023

Prepared by: Donald Anné
June 24, 2024

The data package contains the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appeared legible and complete. The results for 9 ground water sample samples, 1 field duplicate, and 1 field blank was analyzed for PFAS by method 1633.

The overall performance of the analysis is acceptable. ALS Group USA, Corp. did fulfill the requirements of the analytical method.

The data are mostly acceptable with some minor issues that are identified in the accompanying data validation reviews. The following data were qualified:

- The "not detected" PFAS result for PFOA was qualified as "estimated, biased high" (J+) for sampleMW-9D because 2 of 2 percent recoveries for PFOA were above QC limits in the aqueous MS/MSD sample.

- The "not detected" PFAS results for 9-Cl-PF3ONS and 11-Cl-PF3OUdS were qualified as "estimated" (UJ) for sample MW-9D because 1 or 2 percent recoveries for 9-Cl-PF3ONS and 11-Cl-PF3OUdS were below QC limits, but not below 30% in the aqueous MS/MSD sample.

All data are considered usable with estimated (J+ or UJ) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation review.

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Qualified Data Section

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:00
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-2D	**Units:**	ng/L
Lab Code:	R2311985-001	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFSAs)						
Perfluorobutane sulfonic acid (PFBS)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluoropentane sulfonic acid (PFPeS)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluorohexane sulfonic acid (PFHxS)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluoroheptane sulfonic acid (PFHpS)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluorooctane sulfonic acid (PFOS)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluorononane sulfonic acid (PFNS)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluorodecane sulfonic acid (PFDS)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluorododecane sulfonic acid (PFDoS)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluoroalkyl Carboxylic Acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	**12**	4.6	1	01/24/24 23:13	1/9/24	
Perfluoropentanoic acid (PFPeA)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluorohexanoic acid (PFHxA)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluoroheptanoic acid (PFHpA)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluorooctanoic acid (PFOA)	**8.1**	4.6	1	01/24/24 23:13	1/9/24	
Perfluorononanoic acid (PFNA)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluorodecanoic acid (PFDA)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluoroundecanoic acid (PFUnDA)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluorododecanoic acid (PFDOA)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluorotridecanoic acid (PFTrDA)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluorotetradecanoic acid (PFTDA)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluoroalkyl Sulfonamido Substances						
Perfluorooctane sulfonamide (PFOSAm)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
N-Methylperfluorooctane sulfonamide (MeFOSA)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	*

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:00
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-2D	**Units:**	ng/L
Lab Code:	R2311985-001	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Fluorotelomer Sulfonic Acids (FTSAs)						
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Fluorotelomer Carboxylic Acids (FTCAs)						
4,4,5,5,6,6,6-Heptafluorohexanoic acid (3:3 FTCA)	180 U	180	1	01/24/24 23:13	1/9/24	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	180 U	180	1	01/24/24 23:13	1/9/24	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	180 U	180	1	01/24/24 23:13	1/9/24	
Perfluoroalkyl Ether Sulfonic Acids (PFESAs)						
Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Perfluoroalkyl Ether Carboxylic Acids (PFECAs)						
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	*
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	4.6 U	4.6	1	01/24/24 23:13	1/9/24	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:00
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-2D	**Units:**	ng/L
Lab Code:	R2311985-001	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	81	40 - 135	01/24/24 23:13	
13C3-PFHxS	83	40 - 130	01/24/24 23:13	
13C8-PFOS	63	40 - 130	01/24/24 23:13	
13C4-PFBA	69	5 - 130	01/24/24 23:13	
13C5-PFPeA	69	40 - 130	01/24/24 23:13	
13C5-PFHxA	79	40 - 130	01/24/24 23:13	
13C4-PFHpA	101	40 - 130	01/24/24 23:13	
13C8-PFOA	81	40 - 130	01/24/24 23:13	
13C9-PFNA	78	40 - 130	01/24/24 23:13	
13C6-PFDA	81	40 - 130	01/24/24 23:13	
13C7-PFUnDA	75	30 - 130	01/24/24 23:13	
13C2-PFDoDA	64	10 - 130	01/24/24 23:13	
13C2-PFTeDA	65	10 - 130	01/24/24 23:13	
13C8-FOSA	69	40 - 130	01/24/24 23:13	
D3-MeFOSA	63	10 - 130	01/24/24 23:13	
D5-EtFOSA	64	10 - 130	01/24/24 23:13	
D7-MeFOSE	73	10 - 130	01/24/24 23:13	
D9-EtFOSE	72	10 - 130	01/24/24 23:13	
D3-MeFOSAA	74	40 - 170	01/24/24 23:13	
D5-EtFOSAA	64	25 - 135	01/24/24 23:13	
13C2-4:2 FTS	104	40 - 200	01/24/24 23:13	
13C2-6:2 FTS	112	40 - 200	01/24/24 23:13	
13C2-8:2 FTS	82	40 - 300	01/24/24 23:13	
13C3-HFPO-DA	95	40 - 130	01/24/24 23:13	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:20
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-2S	**Units:**	ng/L
Lab Code:	R2311985-002	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFSAs)						
Perfluorobutane sulfonic acid (PFBS)	**6.3**	4.5	1	01/24/24 23:36	1/9/24	
Perfluoropentane sulfonic acid (PFPeS)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
Perfluorohexane sulfonic acid (PFHxS)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
Perfluoroheptane sulfonic acid (PFHpS)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
Perfluorooctane sulfonic acid (PFOS)	**16**	4.5	1	01/24/24 23:36	1/9/24	
Perfluorononane sulfonic acid (PFNS)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
Perfluorodecane sulfonic acid (PFDS)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
Perfluorododecane sulfonic acid (PFDoS)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
Perfluoroalkyl Carboxylic Acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	**9.1**	4.5	1	01/24/24 23:36	1/9/24	
Perfluoropentanoic acid (PFPeA)	**12**	4.5	1	01/24/24 23:36	1/9/24	
Perfluorohexanoic acid (PFHxA)	**8.8**	4.5	1	01/24/24 23:36	1/9/24	
Perfluoroheptanoic acid (PFHpA)	**4.6**	4.5	1	01/24/24 23:36	1/9/24	
Perfluorooctanoic acid (PFOA)	**25**	4.5	1	01/24/24 23:36	1/9/24	
Perfluorononanoic acid (PFNA)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
Perfluorodecanoic acid (PFDA)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
Perfluoroundecanoic acid (PFUnDA)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
Perfluorododecanoic acid (PFDOA)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
Perfluorotridecanoic acid (PFTrDA)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
Perfluorotetradecanoic acid (PFTDA)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
Perfluoroalkyl Sulfonamido Substances						
Perfluorooctane sulfonamide (PFOSAm)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
N-Methylperfluorooctane sulfonamide (MeFOSA)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	*

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:20
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-2S	**Units:**	ng/L
Lab Code:	R2311985-002	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Fluorotelomer Sulfonic Acids (FTSAs)						
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
Fluorotelomer Carboxylic Acids (FTCAs)						
4,4,5,5,6,6,6-Heptafluorohexanoic acid (3:3 FTCA)	180 U	180	1	01/24/24 23:36	1/9/24	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	180 U	180	1	01/24/24 23:36	1/9/24	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	180 U	180	1	01/24/24 23:36	1/9/24	
Perfluoroalkyl Ether Sulfonic Acids (PFESAs)						
Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
Perfluoroalkyl Ether Carboxylic Acids (PFECAs)						
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	*
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	4.5 U	4.5	1	01/24/24 23:36	1/9/24	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:20
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-2S	**Units:**	ng/L
Lab Code:	R2311985-002	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	80	40 - 135	01/24/24 23:36	
13C3-PFHxS	78	40 - 130	01/24/24 23:36	
13C8-PFOS	71	40 - 130	01/24/24 23:36	
13C4-PFBA	74	5 - 130	01/24/24 23:36	
13C5-PFPeA	69	40 - 130	01/24/24 23:36	
13C5-PFHxA	78	40 - 130	01/24/24 23:36	
13C4-PFHpA	101	40 - 130	01/24/24 23:36	
13C8-PFOA	76	40 - 130	01/24/24 23:36	
13C9-PFNA	78	40 - 130	01/24/24 23:36	
13C6-PFDA	84	40 - 130	01/24/24 23:36	
13C7-PFUnDA	76	30 - 130	01/24/24 23:36	
13C2-PFDoDA	63	10 - 130	01/24/24 23:36	
13C2-PFTeDA	63	10 - 130	01/24/24 23:36	
13C8-FOSA	70	40 - 130	01/24/24 23:36	
D3-MeFOSA	68	10 - 130	01/24/24 23:36	
D5-EtFOSA	66	10 - 130	01/24/24 23:36	
D7-MeFOSE	73	10 - 130	01/24/24 23:36	
D9-EtFOSE	74	10 - 130	01/24/24 23:36	
D3-MeFOSAA	71	40 - 170	01/24/24 23:36	
D5-EtFOSAA	62	25 - 135	01/24/24 23:36	
13C2-4:2 FTS	103	40 - 200	01/24/24 23:36	
13C2-6:2 FTS	128	40 - 200	01/24/24 23:36	
13C2-8:2 FTS	75	40 - 300	01/24/24 23:36	
13C3-HFPO-DA	90	40 - 130	01/24/24 23:36	

ALS Group USA, Corp.
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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 09:10
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-15D	**Units:**	ng/L
Lab Code:	R2311985-003	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFSAs)						
Perfluorobutane sulfonic acid (PFBS)	**12**	4.4	1	01/24/24 23:59	1/9/24	
Perfluoropentane sulfonic acid (PFPeS)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
Perfluorohexane sulfonic acid (PFHxS)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
Perfluoroheptane sulfonic acid (PFHpS)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
Perfluorooctane sulfonic acid (PFOS)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
Perfluorononane sulfonic acid (PFNS)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
Perfluorodecane sulfonic acid (PFDS)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
Perfluorododecane sulfonic acid (PFDoS)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
Perfluoroalkyl Carboxylic Acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	**9.7**	4.4	1	01/24/24 23:59	1/9/24	
Perfluoropentanoic acid (PFPeA)	**24**	4.4	1	01/24/24 23:59	1/9/24	
Perfluorohexanoic acid (PFHxA)	**13**	4.4	1	01/24/24 23:59	1/9/24	
Perfluoroheptanoic acid (PFHpA)	**6.2**	4.4	1	01/24/24 23:59	1/9/24	
Perfluorooctanoic acid (PFOA)	**18**	4.4	1	01/24/24 23:59	1/9/24	
Perfluorononanoic acid (PFNA)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
Perfluorodecanoic acid (PFDA)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
Perfluoroundecanoic acid (PFUnDA)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
Perfluorododecanoic acid (PFDOA)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
Perfluorotridecanoic acid (PFTrDA)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
Perfluorotetradecanoic acid (PFTDA)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
Perfluoroalkyl Sulfonamido Substances						
Perfluorooctane sulfonamide (PFOSAm)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
N-Methylperfluorooctane sulfonamide (MeFOSA)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	*

ALS Group USA, Corp.
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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 09:10
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-15D	**Units:**	ng/L
Lab Code:	R2311985-003	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Fluorotelomer Sulfonic Acids (FTSAs)						
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
Fluorotelomer Carboxylic Acids (FTCAs)						
4,4,5,5,6,6,6-Heptafluorohexanoic acid (3:3 FTCA)	180 U	180	1	01/24/24 23:59	1/9/24	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	180 U	180	1	01/24/24 23:59	1/9/24	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	180 U	180	1	01/24/24 23:59	1/9/24	
Perfluoroalkyl Ether Sulfonic Acids (PFESAs)						
Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
Perfluoroalkyl Ether Carboxylic Acids (PFECAs)						
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	*
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	4.4 U	4.4	1	01/24/24 23:59	1/9/24	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 09:10
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-15D	**Units:**	ng/L
Lab Code:	R2311985-003	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	77	40 - 135	01/24/24 23:59	
13C3-PFHxS	74	40 - 130	01/24/24 23:59	
13C8-PFOS	67	40 - 130	01/24/24 23:59	
13C4-PFBA	61	5 - 130	01/24/24 23:59	
13C5-PFPeA	70	40 - 130	01/24/24 23:59	
13C5-PFHxA	82	40 - 130	01/24/24 23:59	
13C4-PFHpA	102	40 - 130	01/24/24 23:59	
13C8-PFOA	91	40 - 130	01/24/24 23:59	
13C9-PFNA	80	40 - 130	01/24/24 23:59	
13C6-PFDA	88	40 - 130	01/24/24 23:59	
13C7-PFUnDA	86	30 - 130	01/24/24 23:59	
13C2-PFDoDA	78	10 - 130	01/24/24 23:59	
13C2-PFTeDA	80	10 - 130	01/24/24 23:59	
13C8-FOSA	74	40 - 130	01/24/24 23:59	
D3-MeFOSA	74	10 - 130	01/24/24 23:59	
D5-EtFOSA	74	10 - 130	01/24/24 23:59	
D7-MeFOSE	81	10 - 130	01/24/24 23:59	
D9-EtFOSE	84	10 - 130	01/24/24 23:59	
D3-MeFOSAA	84	40 - 170	01/24/24 23:59	
D5-EtFOSAA	70	25 - 135	01/24/24 23:59	
13C2-4:2 FTS	99	40 - 200	01/24/24 23:59	
13C2-6:2 FTS	123	40 - 200	01/24/24 23:59	
13C2-8:2 FTS	94	40 - 300	01/24/24 23:59	
13C3-HFPO-DA	97	40 - 130	01/24/24 23:59	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 09:20
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-4D	**Units:**	ng/L
Lab Code:	R2311985-004	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFSAs)						
Perfluorobutane sulfonic acid (PFBS)	**8.5**	4.5	1	01/25/24 00:23	1/9/24	
Perfluoropentane sulfonic acid (PFPeS)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
Perfluorohexane sulfonic acid (PFHxS)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
Perfluoroheptane sulfonic acid (PFHpS)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
Perfluorooctane sulfonic acid (PFOS)	**7.9**	4.5	1	01/25/24 00:23	1/9/24	
Perfluorononane sulfonic acid (PFNS)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
Perfluorodecane sulfonic acid (PFDS)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
Perfluorododecane sulfonic acid (PFDoS)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
Perfluoroalkyl Carboxylic Acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	**8.8**	4.5	1	01/25/24 00:23	1/9/24	
Perfluoropentanoic acid (PFPeA)	**19**	4.5	1	01/25/24 00:23	1/9/24	
Perfluorohexanoic acid (PFHxA)	**13**	4.5	1	01/25/24 00:23	1/9/24	
Perfluoroheptanoic acid (PFHpA)	**5.9**	4.5	1	01/25/24 00:23	1/9/24	
Perfluorooctanoic acid (PFOA)	**17**	4.5	1	01/25/24 00:23	1/9/24	
Perfluorononanoic acid (PFNA)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
Perfluorodecanoic acid (PFDA)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
Perfluoroundecanoic acid (PFUnDA)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
Perfluorododecanoic acid (PFDOA)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
Perfluorotridecanoic acid (PFTrDA)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
Perfluorotetradecanoic acid (PFTDA)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
Perfluoroalkyl Sulfonamido Substances						
Perfluorooctane sulfonamide (PFOSAm)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
N-Methylperfluorooctane sulfonamide (MeFOSA)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	*

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 09:20
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-4D	**Units:**	ng/L
Lab Code:	R2311985-004	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Fluorotelomer Sulfonic Acids (FTSAs)						
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
Fluorotelomer Carboxylic Acids (FTCAs)						
4,4,5,5,6,6,6-Heptafluorohexanoic acid (3:3 FTCA)	180 U	180	1	01/25/24 00:23	1/9/24	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	180 U	180	1	01/25/24 00:23	1/9/24	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	180 U	180	1	01/25/24 00:23	1/9/24	
Perfluoroalkyl Ether Sulfonic Acids (PFESAs)						
Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
Perfluoroalkyl Ether Carboxylic Acids (PFECAs)						
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	*
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	4.5 U	4.5	1	01/25/24 00:23	1/9/24	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 09:20
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-4D	**Units:**	ng/L
Lab Code:	R2311985-004	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	85	40 - 135	01/25/24 00:23	
13C3-PFHxS	74	40 - 130	01/25/24 00:23	
13C8-PFOS	62	40 - 130	01/25/24 00:23	
13C4-PFBA	82	5 - 130	01/25/24 00:23	
13C5-PFPeA	66	40 - 130	01/25/24 00:23	
13C5-PFHxA	74	40 - 130	01/25/24 00:23	
13C4-PFHpA	85	40 - 130	01/25/24 00:23	
13C8-PFOA	77	40 - 130	01/25/24 00:23	
13C9-PFNA	79	40 - 130	01/25/24 00:23	
13C6-PFDA	83	40 - 130	01/25/24 00:23	
13C7-PFUnDA	72	30 - 130	01/25/24 00:23	
13C2-PFDoDA	69	10 - 130	01/25/24 00:23	
13C2-PFTeDA	59	10 - 130	01/25/24 00:23	
13C8-FOSA	62	40 - 130	01/25/24 00:23	
D3-MeFOSA	54	10 - 130	01/25/24 00:23	
D5-EtFOSA	52	10 - 130	01/25/24 00:23	
D7-MeFOSE	52	10 - 130	01/25/24 00:23	
D9-EtFOSE	53	10 - 130	01/25/24 00:23	
D3-MeFOSAA	73	40 - 170	01/25/24 00:23	
D5-EtFOSAA	58	25 - 135	01/25/24 00:23	
13C2-4:2 FTS	110	40 - 200	01/25/24 00:23	
13C2-6:2 FTS	101	40 - 200	01/25/24 00:23	
13C2-8:2 FTS	101	40 - 300	01/25/24 00:23	
13C3-HFPO-DA	83	40 - 130	01/25/24 00:23	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 13:15
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-4S	**Units:**	ng/L
Lab Code:	R2311985-005	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFSAs)						
Perfluorobutane sulfonic acid (PFBS)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluoropentane sulfonic acid (PFPeS)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluorohexane sulfonic acid (PFHxS)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluoroheptane sulfonic acid (PFHpS)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluorooctane sulfonic acid (PFOS)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluorononane sulfonic acid (PFNS)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluorodecane sulfonic acid (PFDS)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluorododecane sulfonic acid (PFDoS)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluoroalkyl Carboxylic Acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluoropentanoic acid (PFPeA)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluorohexanoic acid (PFHxA)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluoroheptanoic acid (PFHpA)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluorooctanoic acid (PFOA)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluorononanoic acid (PFNA)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluorodecanoic acid (PFDA)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluoroundecanoic acid (PFUnDA)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluorododecanoic acid (PFDOA)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluorotridecanoic acid (PFTrDA)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluorotetradecanoic acid (PFTDA)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluoroalkyl Sulfonamido Substances						
Perfluorooctane sulfonamide (PFOSAm)	25 U	25	1	01/25/24 00:46	1/9/24	
N-Methylperfluorooctane sulfonamide (MeFOSA)	25 U	25	1	01/25/24 00:46	1/9/24	
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	25 U	25	1	01/25/24 00:46	1/9/24	
N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)	25 U	25	1	01/25/24 00:46	1/9/24	
N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)	25 U	25	1	01/25/24 00:46	1/9/24	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	25 U	25	1	01/25/24 00:46	1/9/24	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	25 U	25	1	01/25/24 00:46	1/9/24	*

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 13:15
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-4S	**Units:**	ng/L
Lab Code:	R2311985-005	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Fluorotelomer Sulfonic Acids (FTSAs)						
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	25 U	25	1	01/25/24 00:46	1/9/24	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	25 U	25	1	01/25/24 00:46	1/9/24	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	25 U	25	1	01/25/24 00:46	1/9/24	
Fluorotelomer Carboxylic Acids (FTCAs)						
4,4,5,5,6,6,6-Heptafluorohexanoic acid (3:3 FTCA)	1000 U	1000	1	01/25/24 00:46	1/9/24	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	1000 U	1000	1	01/25/24 00:46	1/9/24	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	1000 U	1000	1	01/25/24 00:46	1/9/24	
Perfluoroalkyl Ether Sulfonic Acids (PFESAs)						
Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	25 U	25	1	01/25/24 00:46	1/9/24	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	25 U	25	1	01/25/24 00:46	1/9/24	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	25 U	25	1	01/25/24 00:46	1/9/24	
Perfluoroalkyl Ether Carboxylic Acids (PFECAs)						
Perfluoro-3-methoxypropanoic acid (PFMPA)	25 U	25	1	01/25/24 00:46	1/9/24	*
Perfluoro-4-methoxybutanoic acid (PFMBA)	25 U	25	1	01/25/24 00:46	1/9/24	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	25 U	25	1	01/25/24 00:46	1/9/24	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	25 U	25	1	01/25/24 00:46	1/9/24	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	25 U	25	1	01/25/24 00:46	1/9/24	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 13:15
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-4S	**Units:**	ng/L
Lab Code:	R2311985-005	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	67	40 - 135	01/25/24 00:46	
13C3-PFHxS	71	40 - 130	01/25/24 00:46	
13C8-PFOS	65	40 - 130	01/25/24 00:46	
13C4-PFBA	84	5 - 130	01/25/24 00:46	
13C5-PFPeA	66	40 - 130	01/25/24 00:46	
13C5-PFHxA	79	40 - 130	01/25/24 00:46	
13C4-PFHpA	98	40 - 130	01/25/24 00:46	
13C8-PFOA	81	40 - 130	01/25/24 00:46	
13C9-PFNA	76	40 - 130	01/25/24 00:46	
13C6-PFDA	85	40 - 130	01/25/24 00:46	
13C7-PFUnDA	67	30 - 130	01/25/24 00:46	
13C2-PFDoDA	63	10 - 130	01/25/24 00:46	
13C2-PFTeDA	69	10 - 130	01/25/24 00:46	
13C8-FOSA	73	40 - 130	01/25/24 00:46	
D3-MeFOSA	69	10 - 130	01/25/24 00:46	
D5-EtFOSA	67	10 - 130	01/25/24 00:46	
D7-MeFOSE	77	10 - 130	01/25/24 00:46	
D9-EtFOSE	81	10 - 130	01/25/24 00:46	
D3-MeFOSAA	82	40 - 170	01/25/24 00:46	
D5-EtFOSAA	65	25 - 135	01/25/24 00:46	
13C2-4:2 FTS	95	40 - 200	01/25/24 00:46	
13C2-6:2 FTS	106	40 - 200	01/25/24 00:46	
13C2-8:2 FTS	84	40 - 300	01/25/24 00:46	
13C3-HFPO-DA	85	40 - 130	01/25/24 00:46	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 10:28
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-9D	**Units:**	ng/L
Lab Code:	R2311985-006	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result		MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFSAs)							
Perfluorobutane sulfonic acid (PFBS)	**7.6**		4.5	1	01/25/24 01:09	1/9/24	
Perfluoropentane sulfonic acid (PFPeS)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
Perfluorohexane sulfonic acid (PFHxS)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
Perfluoroheptane sulfonic acid (PFHpS)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
Perfluorooctane sulfonic acid (PFOS)	**5.0**		4.5	1	01/25/24 01:09	1/9/24	
Perfluorononane sulfonic acid (PFNS)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
Perfluorodecane sulfonic acid (PFDS)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
Perfluorododecane sulfonic acid (PFDoS)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
Perfluoroalkyl Carboxylic Acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	**9.3**		4.5	1	01/25/24 01:09	1/9/24	
Perfluoropentanoic acid (PFPeA)	**18**		4.5	1	01/25/24 01:09	1/9/24	
Perfluorohexanoic acid (PFHxA)	**12**		4.5	1	01/25/24 01:09	1/9/24	
Perfluoroheptanoic acid (PFHpA)	**5.8**		4.5	1	01/25/24 01:09	1/9/24	
Perfluorooctanoic acid (PFOA)	**20**	J+	4.5	1	01/25/24 01:09	1/9/24	
Perfluorononanoic acid (PFNA)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
Perfluorodecanoic acid (PFDA)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
Perfluoroundecanoic acid (PFUnDA)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
Perfluorododecanoic acid (PFDOA)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
Perfluorotridecanoic acid (PFTrDA)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
Perfluorotetradecanoic acid (PFTDA)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
Perfluoroalkyl Sulfonamido Substances							
Perfluorooctane sulfonamide (PFOSAm)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
N-Methylperfluorooctane sulfonamide (MeFOSA)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	*

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 10:28
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-9D	**Units:**	ng/L
Lab Code:	R2311985-006	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result		MRL	Dil.	Date Analyzed	Date Extracted	Q
Fluorotelomer Sulfonic Acids (FTSAs)							
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
Fluorotelomer Carboxylic Acids (FTCAs)							
4,4,5,5,6,6,6-Heptafluorohexanoic acid (3:3 FTCA)	180 U		180	1	01/25/24 01:09	1/9/24	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	180 U		180	1	01/25/24 01:09	1/9/24	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	180 U		180	1	01/25/24 01:09	1/9/24	
Perfluoroalkyl Ether Sulfonic Acids (PFESAs)							
Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	4.5 U	UJ	4.5	1	01/25/24 01:09	1/9/24	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	4.5 U	UJ	4.5	1	01/25/24 01:09	1/9/24	
Perfluoroalkyl Ether Carboxylic Acids (PFECAs)							
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	*
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	4.5 U		4.5	1	01/25/24 01:09	1/9/24	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 10:28
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-9D	**Units:**	ng/L
Lab Code:	R2311985-006	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	76	40 - 135	01/25/24 01:09	
13C3-PFHxS	76	40 - 130	01/25/24 01:09	
13C8-PFOS	64	40 - 130	01/25/24 01:09	
13C4-PFBA	75	5 - 130	01/25/24 01:09	
13C5-PFPeA	61	40 - 130	01/25/24 01:09	
13C5-PFHxA	78	40 - 130	01/25/24 01:09	
13C4-PFHpA	97	40 - 130	01/25/24 01:09	
13C8-PFOA	86	40 - 130	01/25/24 01:09	
13C9-PFNA	77	40 - 130	01/25/24 01:09	
13C6-PFDA	79	40 - 130	01/25/24 01:09	
13C7-PFUnDA	80	30 - 130	01/25/24 01:09	
13C2-PFDoDA	69	10 - 130	01/25/24 01:09	
13C2-PFTeDA	71	10 - 130	01/25/24 01:09	
13C8-FOSA	71	40 - 130	01/25/24 01:09	
D3-MeFOSA	68	10 - 130	01/25/24 01:09	
D5-EtFOSA	70	10 - 130	01/25/24 01:09	
D7-MeFOSE	79	10 - 130	01/25/24 01:09	
D9-EtFOSE	80	10 - 130	01/25/24 01:09	
D3-MeFOSAA	73	40 - 170	01/25/24 01:09	
D5-EtFOSAA	57	25 - 135	01/25/24 01:09	
13C2-4:2 FTS	99	40 - 200	01/25/24 01:09	
13C2-6:2 FTS	111	40 - 200	01/25/24 01:09	
13C2-8:2 FTS	74	40 - 300	01/25/24 01:09	
13C3-HFPO-DA	91	40 - 130	01/25/24 01:09	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 11:30
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-9S	**Units:**	ng/L
Lab Code:	R2311985-007	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFSAs)						
Perfluorobutane sulfonic acid (PFBS)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Perfluoropentane sulfonic acid (PFPeS)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Perfluorohexane sulfonic acid (PFHxS)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Perfluoroheptane sulfonic acid (PFHpS)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Perfluorooctane sulfonic acid (PFOS)	**19**	4.6	1	01/25/24 02:19	1/9/24	
Perfluorononane sulfonic acid (PFNS)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Perfluorodecane sulfonic acid (PFDS)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Perfluorododecane sulfonic acid (PFDoS)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Perfluoroalkyl Carboxylic Acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	**5.2**	4.6	1	01/25/24 02:19	1/9/24	
Perfluoropentanoic acid (PFPeA)	**7.3**	4.6	1	01/25/24 02:19	1/9/24	
Perfluorohexanoic acid (PFHxA)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Perfluoroheptanoic acid (PFHpA)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Perfluorooctanoic acid (PFOA)	**20**	4.6	1	01/25/24 02:19	1/9/24	
Perfluorononanoic acid (PFNA)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Perfluorodecanoic acid (PFDA)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Perfluoroundecanoic acid (PFUnDA)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Perfluorododecanoic acid (PFDOA)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Perfluorotridecanoic acid (PFTrDA)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Perfluorotetradecanoic acid (PFTDA)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Perfluoroalkyl Sulfonamido Substances						
Perfluorooctane sulfonamide (PFOSAm)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
N-Methylperfluorooctane sulfonamide (MeFOSA)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	*

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 11:30
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-9S	**Units:**	ng/L
Lab Code:	R2311985-007	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Fluorotelomer Sulfonic Acids (FTSAs)						
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Fluorotelomer Carboxylic Acids (FTCAs)						
4,4,5,5,6,6,6-Heptafluorohexanoic acid (3:3 FTCA)	180 U	180	1	01/25/24 02:19	1/9/24	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	180 U	180	1	01/25/24 02:19	1/9/24	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	180 U	180	1	01/25/24 02:19	1/9/24	
Perfluoroalkyl Ether Sulfonic Acids (PFESAs)						
Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Perfluoroalkyl Ether Carboxylic Acids (PFECAs)						
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	*
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	4.6 U	4.6	1	01/25/24 02:19	1/9/24	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 11:30
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-9S	**Units:**	ng/L
Lab Code:	R2311985-007	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	81	40 - 135	01/25/24 02:19	
13C3-PFHxS	68	40 - 130	01/25/24 02:19	
13C8-PFOS	57	40 - 130	01/25/24 02:19	
13C4-PFBA	80	5 - 130	01/25/24 02:19	
13C5-PFPeA	57	40 - 130	01/25/24 02:19	
13C5-PFHxA	78	40 - 130	01/25/24 02:19	
13C4-PFHpA	93	40 - 130	01/25/24 02:19	
13C8-PFOA	76	40 - 130	01/25/24 02:19	
13C9-PFNA	70	40 - 130	01/25/24 02:19	
13C6-PFDA	77	40 - 130	01/25/24 02:19	
13C7-PFUnDA	74	30 - 130	01/25/24 02:19	
13C2-PFDoDA	62	10 - 130	01/25/24 02:19	
13C2-PFTeDA	65	10 - 130	01/25/24 02:19	
13C8-FOSA	62	40 - 130	01/25/24 02:19	
D3-MeFOSA	60	10 - 130	01/25/24 02:19	
D5-EtFOSA	60	10 - 130	01/25/24 02:19	
D7-MeFOSE	67	10 - 130	01/25/24 02:19	
D9-EtFOSE	68	10 - 130	01/25/24 02:19	
D3-MeFOSAA	66	40 - 170	01/25/24 02:19	
D5-EtFOSAA	59	25 - 135	01/25/24 02:19	
13C2-4:2 FTS	104	40 - 200	01/25/24 02:19	
13C2-6:2 FTS	160	40 - 200	01/25/24 02:19	
13C2-8:2 FTS	83	40 - 300	01/25/24 02:19	
13C3-HFPO-DA	80	40 - 130	01/25/24 02:19	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 14:38
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MH-1	**Units:**	ng/L
Lab Code:	R2311985-008	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFSAs)						
Perfluorobutane sulfonic acid (PFBS)	**7.2**	4.7	1	01/25/24 03:29	1/9/24	
Perfluoropentane sulfonic acid (PFPeS)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
Perfluorohexane sulfonic acid (PFHxS)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
Perfluoroheptane sulfonic acid (PFHpS)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
Perfluorooctane sulfonic acid (PFOS)	**12**	4.7	1	01/25/24 03:29	1/9/24	
Perfluorononane sulfonic acid (PFNS)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
Perfluorodecane sulfonic acid (PFDS)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
Perfluorododecane sulfonic acid (PFDoS)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
Perfluoroalkyl Carboxylic Acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	**9.1**	4.7	1	01/25/24 03:29	1/9/24	
Perfluoropentanoic acid (PFPeA)	**9.6**	4.7	1	01/25/24 03:29	1/9/24	
Perfluorohexanoic acid (PFHxA)	**7.7**	4.7	1	01/25/24 03:29	1/9/24	
Perfluoroheptanoic acid (PFHpA)	**4.7**	4.7	1	01/25/24 03:29	1/9/24	
Perfluorooctanoic acid (PFOA)	**23**	4.7	1	01/25/24 03:29	1/9/24	
Perfluorononanoic acid (PFNA)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
Perfluorodecanoic acid (PFDA)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
Perfluoroundecanoic acid (PFUnDA)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
Perfluorododecanoic acid (PFDOA)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
Perfluorotridecanoic acid (PFTrDA)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
Perfluorotetradecanoic acid (PFTDA)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
Perfluoroalkyl Sulfonamido Substances						
Perfluorooctane sulfonamide (PFOSAm)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
N-Methylperfluorooctane sulfonamide (MeFOSA)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	*

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 14:38
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MH-1	**Units:**	ng/L
Lab Code:	R2311985-008	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Fluorotelomer Sulfonic Acids (FTSAs)						
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
Fluorotelomer Carboxylic Acids (FTCAs)						
4,4,5,5,6,6,6-Heptafluorohexanoic acid (3:3 FTCA)	190 U	190	1	01/25/24 03:29	1/9/24	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	190 U	190	1	01/25/24 03:29	1/9/24	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	190 U	190	1	01/25/24 03:29	1/9/24	
Perfluoroalkyl Ether Sulfonic Acids (PFESAs)						
Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
Perfluoroalkyl Ether Carboxylic Acids (PFECAs)						
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	*
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	4.7 U	4.7	1	01/25/24 03:29	1/9/24	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 14:38
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MH-1	**Units:**	ng/L
Lab Code:	R2311985-008	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	75	40 - 135	01/25/24 03:29	
13C3-PFHxS	79	40 - 130	01/25/24 03:29	
13C8-PFOS	61	40 - 130	01/25/24 03:29	
13C4-PFBA	73	5 - 130	01/25/24 03:29	
13C5-PFPeA	63	40 - 130	01/25/24 03:29	
13C5-PFHxA	77	40 - 130	01/25/24 03:29	
13C4-PFHpA	99	40 - 130	01/25/24 03:29	
13C8-PFOA	80	40 - 130	01/25/24 03:29	
13C9-PFNA	76	40 - 130	01/25/24 03:29	
13C6-PFDA	85	40 - 130	01/25/24 03:29	
13C7-PFUnDA	70	30 - 130	01/25/24 03:29	
13C2-PFDoDA	59	10 - 130	01/25/24 03:29	
13C2-PFTeDA	58	10 - 130	01/25/24 03:29	
13C8-FOSA	67	40 - 130	01/25/24 03:29	
D3-MeFOSA	64	10 - 130	01/25/24 03:29	
D5-EtFOSA	64	10 - 130	01/25/24 03:29	
D7-MeFOSE	70	10 - 130	01/25/24 03:29	
D9-EtFOSE	72	10 - 130	01/25/24 03:29	
D3-MeFOSAA	73	40 - 170	01/25/24 03:29	
D5-EtFOSAA	60	25 - 135	01/25/24 03:29	
13C2-4:2 FTS	94	40 - 200	01/25/24 03:29	
13C2-6:2 FTS	101	40 - 200	01/25/24 03:29	
13C2-8:2 FTS	78	40 - 300	01/25/24 03:29	
13C3-HFPO-DA	87	40 - 130	01/25/24 03:29	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 14:57
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	CB-1	**Units:**	ng/L
Lab Code:	R2311985-009	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFSAs)						
Perfluorobutane sulfonic acid (PFBS)	**12**	4.4	1	01/25/24 03:52	1/9/24	
Perfluoropentane sulfonic acid (PFPeS)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
Perfluorohexane sulfonic acid (PFHxS)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
Perfluoroheptane sulfonic acid (PFHpS)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
Perfluorooctane sulfonic acid (PFOS)	**26**	4.4	1	01/25/24 03:52	1/9/24	
Perfluorononane sulfonic acid (PFNS)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
Perfluorodecane sulfonic acid (PFDS)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
Perfluorododecane sulfonic acid (PFDoS)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
Perfluoroalkyl Carboxylic Acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	**9.1**	4.4	1	01/25/24 03:52	1/9/24	
Perfluoropentanoic acid (PFPeA)	**13**	4.4	1	01/25/24 03:52	1/9/24	
Perfluorohexanoic acid (PFHxA)	**9.8**	4.4	1	01/25/24 03:52	1/9/24	
Perfluoroheptanoic acid (PFHpA)	**5.2**	4.4	1	01/25/24 03:52	1/9/24	
Perfluorooctanoic acid (PFOA)	**20**	4.4	1	01/25/24 03:52	1/9/24	
Perfluorononanoic acid (PFNA)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
Perfluorodecanoic acid (PFDA)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
Perfluoroundecanoic acid (PFUnDA)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
Perfluorododecanoic acid (PFDOA)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
Perfluorotridecanoic acid (PFTrDA)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
Perfluorotetradecanoic acid (PFTDA)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
Perfluoroalkyl Sulfonamido Substances						
Perfluorooctane sulfonamide (PFOSAm)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
N-Methylperfluorooctane sulfonamide (MeFOSA)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	*

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 14:57
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	CB-1	**Units:**	ng/L
Lab Code:	R2311985-009	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Fluorotelomer Sulfonic Acids (FTSAs)						
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
Fluorotelomer Carboxylic Acids (FTCAs)						
4,4,5,5,6,6,6-Heptafluorohexanoic acid (3:3 FTCA)	180 U	180	1	01/25/24 03:52	1/9/24	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	180 U	180	1	01/25/24 03:52	1/9/24	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	180 U	180	1	01/25/24 03:52	1/9/24	
Perfluoroalkyl Ether Sulfonic Acids (PFESAs)						
Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
Perfluoroalkyl Ether Carboxylic Acids (PFECAs)						
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	*
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	4.4 U	4.4	1	01/25/24 03:52	1/9/24	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 14:57
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	CB-1	**Units:**	ng/L
Lab Code:	R2311985-009	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	75	40 - 135	01/25/24 03:52	
13C3-PFHxS	68	40 - 130	01/25/24 03:52	
13C8-PFOS	57	40 - 130	01/25/24 03:52	
13C4-PFBA	72	5 - 130	01/25/24 03:52	
13C5-PFPeA	73	40 - 130	01/25/24 03:52	
13C5-PFHxA	75	40 - 130	01/25/24 03:52	
13C4-PFHpA	90	40 - 130	01/25/24 03:52	
13C8-PFOA	78	40 - 130	01/25/24 03:52	
13C9-PFNA	82	40 - 130	01/25/24 03:52	
13C6-PFDA	77	40 - 130	01/25/24 03:52	
13C7-PFUnDA	69	30 - 130	01/25/24 03:52	
13C2-PFDoDA	60	10 - 130	01/25/24 03:52	
13C2-PFTeDA	69	10 - 130	01/25/24 03:52	
13C8-FOSA	63	40 - 130	01/25/24 03:52	
D3-MeFOSA	58	10 - 130	01/25/24 03:52	
D5-EtFOSA	61	10 - 130	01/25/24 03:52	
D7-MeFOSE	65	10 - 130	01/25/24 03:52	
D9-EtFOSE	67	10 - 130	01/25/24 03:52	
D3-MeFOSAA	73	40 - 170	01/25/24 03:52	
D5-EtFOSAA	64	25 - 135	01/25/24 03:52	
13C2-4:2 FTS	88	40 - 200	01/25/24 03:52	
13C2-6:2 FTS	96	40 - 200	01/25/24 03:52	
13C2-8:2 FTS	81	40 - 300	01/25/24 03:52	
13C3-HFPO-DA	93	40 - 130	01/25/24 03:52	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:05
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	FD (Field Duplicate)	**Units:**	ng/L
Lab Code:	R2311985-010	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFSAs)						
Perfluorobutane sulfonic acid (PFBS)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluoropentane sulfonic acid (PFPeS)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluorohexane sulfonic acid (PFHxS)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluoroheptane sulfonic acid (PFHpS)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluorooctane sulfonic acid (PFOS)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluorononane sulfonic acid (PFNS)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluorodecane sulfonic acid (PFDS)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluorododecane sulfonic acid (PFDoS)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluoroalkyl Carboxylic Acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	**13**	4.5	1	01/25/24 04:15	1/9/24	
Perfluoropentanoic acid (PFPeA)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluorohexanoic acid (PFHxA)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluoroheptanoic acid (PFHpA)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluorooctanoic acid (PFOA)	**7.9**	4.5	1	01/25/24 04:15	1/9/24	
Perfluorononanoic acid (PFNA)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluorodecanoic acid (PFDA)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluoroundecanoic acid (PFUnDA)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluorododecanoic acid (PFDOA)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluorotridecanoic acid (PFTrDA)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluorotetradecanoic acid (PFTDA)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluoroalkyl Sulfonamido Substances						
Perfluorooctane sulfonamide (PFOSAm)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
N-Methylperfluorooctane sulfonamide (MeFOSA)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	*

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:05
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	FD (Field Duplicate)	**Units:**	ng/L
Lab Code:	R2311985-010	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Fluorotelomer Sulfonic Acids (FTSAs)						
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Fluorotelomer Carboxylic Acids (FTCAs)						
4,4,5,5,6,6,6-Heptafluorohexanoic acid (3:3 FTCA)	180 U	180	1	01/25/24 04:15	1/9/24	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	180 U	180	1	01/25/24 04:15	1/9/24	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	180 U	180	1	01/25/24 04:15	1/9/24	
Perfluoroalkyl Ether Sulfonic Acids (PFESAs)						
Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Perfluoroalkyl Ether Carboxylic Acids (PFECAs)						
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	*
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	4.5 U	4.5	1	01/25/24 04:15	1/9/24	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:05
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	FD (Field Duplicate)	**Units:**	ng/L
Lab Code:	R2311985-010	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	76	40 - 135	01/25/24 04:15	
13C3-PFHxS	72	40 - 130	01/25/24 04:15	
13C8-PFOS	61	40 - 130	01/25/24 04:15	
13C4-PFBA	52	5 - 130	01/25/24 04:15	
13C5-PFPeA	54	40 - 130	01/25/24 04:15	
13C5-PFHxA	77	40 - 130	01/25/24 04:15	
13C4-PFHpA	86	40 - 130	01/25/24 04:15	
13C8-PFOA	80	40 - 130	01/25/24 04:15	
13C9-PFNA	67	40 - 130	01/25/24 04:15	
13C6-PFDA	83	40 - 130	01/25/24 04:15	
13C7-PFUnDA	74	30 - 130	01/25/24 04:15	
13C2-PFDoDA	65	10 - 130	01/25/24 04:15	
13C2-PFTeDA	54	10 - 130	01/25/24 04:15	
13C8-FOSA	64	40 - 130	01/25/24 04:15	
D3-MeFOSA	67	10 - 130	01/25/24 04:15	
D5-EtFOSA	63	10 - 130	01/25/24 04:15	
D7-MeFOSE	64	10 - 130	01/25/24 04:15	
D9-EtFOSE	65	10 - 130	01/25/24 04:15	
D3-MeFOSAA	79	40 - 170	01/25/24 04:15	
D5-EtFOSAA	61	25 - 135	01/25/24 04:15	
13C2-4:2 FTS	105	40 - 200	01/25/24 04:15	
13C2-6:2 FTS	128	40 - 200	01/25/24 04:15	
13C2-8:2 FTS	78	40 - 300	01/25/24 04:15	
13C3-HFPO-DA	77	40 - 130	01/25/24 04:15	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	PFAS Feild Blank	**Units:**	ng/L
Lab Code:	R2311985-011	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFSAs)						
Perfluorobutane sulfonic acid (PFBS)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluoropentane sulfonic acid (PFPeS)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluorohexane sulfonic acid (PFHxS)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluoroheptane sulfonic acid (PFHpS)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluorooctane sulfonic acid (PFOS)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluorononane sulfonic acid (PFNS)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluorodecane sulfonic acid (PFDS)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluorododecane sulfonic acid (PFDoS)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluoroalkyl Carboxylic Acids (PFCAs)						
Perfluorobutanoic acid (PFBA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluoropentanoic acid (PFPeA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluorohexanoic acid (PFHxA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluoroheptanoic acid (PFHpA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluorooctanoic acid (PFOA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluorononanoic acid (PFNA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluorodecanoic acid (PFDA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluoroundecanoic acid (PFUnDA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluorododecanoic acid (PFDOA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluorotridecanoic acid (PFTrDA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluorotetradecanoic acid (PFTDA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluoroalkyl Sulfonamido Substances						
Perfluorooctane sulfonamide (PFOSAm)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
N-Methylperfluorooctane sulfonamide (MeFOSA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	*

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	PFAS Feild Blank	**Units:**	ng/L
Lab Code:	R2311985-011	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Fluorotelomer Sulfonic Acids (FTSAs)						
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Fluorotelomer Carboxylic Acids (FTCAs)						
4,4,5,5,6,6,6-Heptafluorohexanoic acid (3:3 FTCA)	180 U	180	1	01/25/24 04:38	1/9/24	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	180 U	180	1	01/25/24 04:38	1/9/24	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	180 U	180	1	01/25/24 04:38	1/9/24	
Perfluoroalkyl Ether Sulfonic Acids (PFESAs)						
Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Perfluoroalkyl Ether Carboxylic Acids (PFECAs)						
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	*
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	4.4 U	4.4	1	01/25/24 04:38	1/9/24	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	PFAS Feild Blank	**Units:**	ng/L
Lab Code:	R2311985-011	**Basis:**	NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method: Draft EPA Method 1633
Prep Method: Method

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	78	40 - 135	01/25/24 04:38	
13C3-PFHxS	66	40 - 130	01/25/24 04:38	
13C8-PFOS	61	40 - 130	01/25/24 04:38	
13C4-PFBA	88	5 - 130	01/25/24 04:38	
13C5-PFPeA	68	40 - 130	01/25/24 04:38	
13C5-PFHxA	78	40 - 130	01/25/24 04:38	
13C4-PFHpA	90	40 - 130	01/25/24 04:38	
13C8-PFOA	84	40 - 130	01/25/24 04:38	
13C9-PFNA	84	40 - 130	01/25/24 04:38	
13C6-PFDA	92	40 - 130	01/25/24 04:38	
13C7-PFUnDA	82	30 - 130	01/25/24 04:38	
13C2-PFDoDA	69	10 - 130	01/25/24 04:38	
13C2-PFTeDA	67	10 - 130	01/25/24 04:38	
13C8-FOSA	61	40 - 130	01/25/24 04:38	
D3-MeFOSA	58	10 - 130	01/25/24 04:38	
D5-EtFOSA	55	10 - 130	01/25/24 04:38	
D7-MeFOSE	67	10 - 130	01/25/24 04:38	
D9-EtFOSE	70	10 - 130	01/25/24 04:38	
D3-MeFOSAA	101	40 - 170	01/25/24 04:38	
D5-EtFOSAA	77	25 - 135	01/25/24 04:38	
13C2-4:2 FTS	111	40 - 200	01/25/24 04:38	
13C2-6:2 FTS	106	40 - 200	01/25/24 04:38	
13C2-8:2 FTS	116	40 - 300	01/25/24 04:38	
13C3-HFPO-DA	95	40 - 130	01/25/24 04:38	

PFAS

Data Section

ALPHA GEOSCIENCE

Geology

Hydrology

Remediation

Water Supply

QA/QC Review of Method 1633 PFAS Data
for ALS ALS Group USA, Corp.
Service Request: R2311985

9 Ground Water Samples, 1 Field Duplicate,
and 1 Field Blank
Collected December 27, 2023

Prepared by: Donald Anné
June 24, 2024

Holding Times: The samples were extracted and analyzed within USEPA holding times.

Initial Calibration: The %RSDs target PFASs were below the allowable maximum (20%) or r squared of greater than 0.990, as required.

Blanks: The analyses of method and field blanks reported target PFAS as not detected.

Surrogate Recovery: The surrogate recoveries were within QC limits for the ground water samples and field blank.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for target PFAS were below the allowable maximum; 2 of 2 percent recoveries (%Rs) for PFOA, 3:3 FTCA, and 5:3 FTCA and 1 of 2 %Rs for PFMPA and PFMBA were above QC limits; and 2 of 2 %Rs for 9-Cl-PF3ONS and 1 of 2 %Rs for 11-Cl-PF3OUdS were below QC limits, but not below 30% for aqueous MS/MSD sample MW-9D. The positive result for PFOA should be considered estimated biased, high (J+) and the "not detected" results for 9-Cl-PF3ONS and 11-Cl-PF3OUdS estimated (UJ) in sample MW-9D.

Laboratory Control Sample: The percent recovery (%R) for PFMPA was above QC limits for aqueous sample KQ2400296-03. The %Rs for 3:3 FTCA and NEtFOSAA were above QC limits for aqueous sample KQ2400296-04. The positive results for these PFAS should be considered estimated biased, high (J+) in associated aqueous samples.

Field Duplicates: The relative percent differences for applicable PFAS were below the allowable maximum (20%) for aqueous field duplicate pair MW-2D/FD (attached table), as required.

Compound ID: Checked surrogate was within LC quantitation limits. The analysis of the sample reported target PFAS as not detected.

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ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23
Sample Matrix:	Water	**Date Received:**	12/28/23
		Date Analyzed:	01/25/24
		Date Extracted:	01/9/24

Duplicate Matrix Spike Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Sample Name:	MW-9D	**Units:**	ng/L
Lab Code:	R2311985-006	**Basis:**	NA
Analysis Method:	Draft EPA Method 1633		
Prep Method:	Method		

		Matrix Spike KQ2400296-01			Duplicate Matrix Spike KQ2400296-02					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perfluorobutane sulfonic acid (PFBS)	7.6	21.9	16.0	90	22.3	16.2	91	60-145	2	30
Perfluoropentane sulfonic acid (PFPeS)	4.5 U	19.7	17.0	116	18.7	17.2	109	65-140	5	30
Perfluorohexane sulfonic acid (PFHxS)	4.5 U	19.5	16.5	118	20.1	16.7	120	65-145	3	30
Perfluoroheptane sulfonic acid (PFHpS)	4.5 U	21.6	17.2	125	22.8	17.4	131	70-150	6	30
Perfluorooctane sulfonic acid (PFOS)	5.0	23.8	16.8	112	22.4	17.0	103	55-150	6	30
Perfluorononane sulfonic acid (PFNS)	4.5 U	18.1	17.4	104	18.0	17.6	103	65-145	<1	30
Perfluorodecane sulfonic acid (PFDS)	4.5 U	15.7	17.4	90	15.1	17.6	86	60-145	4	30
Perfluorododecane sulfonic acid (PFDoS)	4.5 U	10.3	17.5	59	11.3	17.7	64	50-145	9	30
Perfluorobutanoic acid (PFBA)	9.3	28.8	18.1	107	28.6	18.3	105	70-140	<1	30
Perfluoropentanoic acid (PFPeA)	18	37.3	18.1	106	36.3	18.3	99	65-135	3	30
Perfluorohexanoic acid (PFHxA)	12	27.7	18.1	86	29.6	18.3	96	70-145	7	30
Perfluoroheptanoic acid (PFHpA)	5.8	23.0	18.1	95	23.6	18.3	97	70-150	3	30
Perfluorooctanoic acid (PFOA)	20	50.3	18.1	169 *	48.5	18.3	157 *	70-140	4	30
Perfluorononanoic acid (PFNA)	4.5 U	22.0	18.1	122	21.9	18.3	120	70-150	<1	30
Perfluorodecanoic acid (PFDA)	4.5 U	16.6	18.1	92	15.4	18.3	84	70-140	7	30
Perfluoroundecanoic acid (PFUnDA)	4.5 U	15.7	18.1	87	15.6	18.3	85	70-145	1	30
Perfluorododecanoic acid (PFDOA)	4.5 U	16.8	18.1	93	16.0	18.3	88	70-140	4	30
Perfluorotridecanoic acid (PFTrDA)	4.5 U	19.9	18.1	110	16.9	18.3	92	65-140	16	30
Perfluorotetradecanoic acid (PFTDA)	4.5 U	16.5	18.1	91	16.6	18.3	91	60-140	<1	30
Perfluorooctane sulfonamide (PFOSAm)	4.5 U	17.6	18.1	97	20.0	18.3	110	70-145	13	30
N-Methylperfluorooctane sulfonamide (MeFOSA)	4.5 U	14.8	18.1	82	16.4	18.3	90	60-150	11	30
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	4.5 U	14.6	18.1	81	15.1	18.3	82	65-145	3	30
N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)	4.5 U	17.2	18.1	95	17.1	18.3	93	70-145	<1	30
N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)	4.5 U	16.4	18.1	91	16.9	18.3	92	70-135	3	30
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.5 U	21.1	18.1	117	19.7	18.3	108	50-140	7	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23
Sample Matrix:	Water	**Date Received:**	12/28/23
		Date Analyzed:	01/25/24
		Date Extracted:	01/9/24

Duplicate Matrix Spike Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Sample Name:	MW-9D	**Units:**	ng/L
Lab Code:	R2311985-006	**Basis:**	NA
Analysis Method:	Draft EPA Method 1633		
Prep Method:	Method		

		Matrix Spike KQ2400296-01			Duplicate Matrix Spike KQ2400296-02					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.5 U	23.0	18.1	127	25.8	18.3	141	70-145	12	30
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	4.5 U	17.7	16.9	105	16.5	17.1	96	70-145	7	30
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.5 U	17.1	17.2	100	17.9	17.4	103	65-155	4	30
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.5 U	15.1	17.3	87	16.1	17.5	92	60-150	6	30
4,4,5,5,6,6,6-Heptafluorohexanoic acid (3:3 FTCA)	180 U	570	361	158 *	524	366	143 *	65-130	8	30
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	180 U	566	361	157 *	528	366	145 *	70-135	7	30
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	180 U	475	361	131	404	366	110	50-145	16	30
Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	4.5 U	15.1	16.1	94	14.4	16.3	88	70-140	5	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	4.5 U	7.99	16.9	47 *	7.96	17.1	47 *	70-155	<1	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	4.5 U	10.0	17.0	59	9.25	17.2	54 *	55-160	8	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.5 U	25.4	18.1	141 *	25.2	18.3	138	55-140	<1	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.5 U	28.0	18.1	155 *	26.2	18.3	143	60-150	7	30
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	4.5 U	18.0	18.1	99	19.3	18.3	105	70-140	7	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.5 U	21.0	18.1	116	20.2	18.3	110	50-150	4	30
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	4.5 U	16.3	17.1	96	16.6	17.3	96	65-145	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Analyzed:**	01/24/24
Sample Matrix:	Water	**Date Extracted:**	01/09/24

Lab Control Sample Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method:	Draft EPA Method 1633	**Units:**	ng/L
Prep Method:	Method	**Basis:**	NA
		Analysis Lot:	830687

Lab Control Sample
KQ2400296-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	12.5	18.9	66	55-160
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	19.1	19.2	99	60-150
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	19.6	18.7	104	70-145
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	16.8	19.0	88	65-155
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	298	400	74	50-145
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	306	400	77	70-135
4,4,5,5,6,6,6-Heptafluorohexanoic acid (3:3 FTCA)	395	400	99	65-130
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	15.0	18.9	79	65-145
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	13.0	18.7	70	70-155
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	20.4	20.0	102	70-140
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	15.8	20.0	79	65-145
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	28.0	20.0	140	70-145
N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)	21.5	20.0	108	70-135
N-Methylperfluorooctane sulfonamide (MeFOSA)	18.9	20.0	95	60-150
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	21.4	20.0	107	50-140
N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)	20.3	20.0	102	70-145
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	26.7	20.0	133	50-150
Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	19.7	17.8	110	70-140
Perfluoro-3-methoxypropanoic acid (PFMPA)	28.5	20.0	143 *	55-140
Perfluoro-4-methoxybutanoic acid (PFMBA)	25.1	20.0	125	60-150
Perfluorobutane sulfonic acid (PFBS)	18.2	17.7	103	60-145
Perfluorobutanoic acid (PFBA)	21.4	20.0	107	70-140
Perfluorodecane sulfonic acid (PFDS)	20.8	19.3	108	60-145
Perfluorodecanoic acid (PFDA)	17.6	20.0	88	70-140
Perfluorododecane sulfonic acid (PFDoS)	16.6	19.4	86	50-145
Perfluorododecanoic acid (PFDOA)	19.4	20.0	97	70-140
Perfluoroheptane sulfonic acid (PFHpS)	22.7	19.1	119	70-150
Perfluoroheptanoic acid (PFHpA)	18.2	20.0	91	70-150
Perfluorohexane sulfonic acid (PFHxS)	21.9	18.3	120	65-145
Perfluorohexanoic acid (PFHxA)	20.8	20.0	104	70-145
Perfluorononane sulfonic acid (PFNS)	23.1	19.2	120	65-145

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Analyzed:**	01/24/24
Sample Matrix:	Water	**Date Extracted:**	01/09/24

Lab Control Sample Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method:	Draft EPA Method 1633	**Units:**	ng/L
Prep Method:	Method	**Basis:**	NA
		Analysis Lot:	830687

Lab Control Sample
KQ2400296-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Perfluorononanoic acid (PFNA)	19.5	20.0	97	70-150
Perfluorooctane sulfonamide (PFOSAm)	21.0	20.0	105	70-145
Perfluorooctane sulfonic acid (PFOS)	21.1	18.6	113	55-150
Perfluorooctanoic acid (PFOA)	19.7	20.0	98	70-150
Perfluoropentane sulfonic acid (PFPeS)	20.4	18.8	108	65-140
Perfluoropentanoic acid (PFPeA)	24.2	20.0	121	65-135
Perfluorotetradecanoic acid (PFTDA)	19.0	20.0	95	60-140
Perfluorotridecanoic acid (PFTrDA)	20.8	20.0	104	65-140
Perfluoroundecanoic acid (PFUnDA)	18.6	20.0	93	70-145

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Analyzed:**	01/24/24
Sample Matrix:	Water	**Date Extracted:**	01/09/24

Lab Control Sample Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method:	Draft EPA Method 1633	**Units:**	ng/L
Prep Method:	Method	**Basis:**	NA
		Analysis Lot:	830687

Low Level Lab Control Sample
KQ2400296-04

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.69	9.43	60	55-160
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	10.1	9.60	105	60-150
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	9.63	9.37	103	70-145
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	7.91	9.51	83	65-155
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	312	300	104	50-145
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	326	300	109	70-135
4,4,5,5,6,6,6-Heptafluorohexanoic acid (3:3 FTCA)	426	300	142 *	65-130
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	7.97	9.45	84	65-145
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.90	9.33	74	70-155
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	10.1	10.0	101	70-140
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	7.67	10.0	77	65-145
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	14.7	10.0	147 *	70-145
N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)	10.5	10.0	105	70-135
N-Methylperfluorooctane sulfonamide (MeFOSA)	8.62	10.0	86	60-150
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	10.8	10.0	108	50-140
N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)	10.8	10.0	108	70-145
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	12.2	10.0	122	50-150
Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	9.31	8.90	105	70-140
Perfluoro-3-methoxypropanoic acid (PFMPA)	13.6	10.0	136	55-140
Perfluoro-4-methoxybutanoic acid (PFMBA)	11.9	10.0	119	60-150
Perfluorobutane sulfonic acid (PFBS)	10.2	8.87	115	60-145
Perfluorobutanoic acid (PFBA)	10.4	10.0	104	70-140
Perfluorodecane sulfonic acid (PFDS)	9.96	9.65	103	60-145
Perfluorodecanoic acid (PFDA)	9.23	10.0	92	70-140
Perfluorododecane sulfonic acid (PFDoS)	7.82	9.70	81	50-145
Perfluorododecanoic acid (PFDOA)	9.81	10.0	98	70-140
Perfluoroheptane sulfonic acid (PFHpS)	11.8	9.53	124	70-150
Perfluoroheptanoic acid (PFHpA)	9.65	10.0	96	70-150
Perfluorohexane sulfonic acid (PFHxS)	10.8	9.14	119	65-145
Perfluorohexanoic acid (PFHxA)	10.6	10.0	106	70-145
Perfluorononane sulfonic acid (PFNS)	10.8	9.62	112	65-145

ALS Group USA, Corp.
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QA/QC Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311985
Project:	Taylor's Lane Composte Site	**Date Analyzed:**	01/24/24
Sample Matrix:	Water	**Date Extracted:**	01/09/24

Lab Control Sample Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS Compliant with Table B-24 of DOD QSM 5.4

Analysis Method:	Draft EPA Method 1633	**Units:**	ng/L
Prep Method:	Method	**Basis:**	NA
		Analysis Lot:	830687

Low Level Lab Control Sample
KQ2400296-04

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Perfluorononanoic acid (PFNA)	9.58	10.0	96	70-150
Perfluorooctane sulfonamide (PFOSAm)	11.6	10.0	116	70-145
Perfluorooctane sulfonic acid (PFOS)	10.9	9.28	118	55-150
Perfluorooctanoic acid (PFOA)	11.1	10.0	111	70-150
Perfluoropentane sulfonic acid (PFPeS)	10.3	9.41	109	65-140
Perfluoropentanoic acid (PFPeA)	12.7	10.0	127	65-135
Perfluorotetradecanoic acid (PFTDA)	10.0	10.0	100	60-140
Perfluorotridecanoic acid (PFTrDA)	8.80	10.0	88	65-140
Perfluoroundecanoic acid (PFUnDA)	9.91	10.0	99	70-145

Field Duplicate Calculation Section

EPA Method 1633 PFC

Calculations for Field Duplicate Relative Percent Difference (RPD)

SDG No. R2311986

S1= MW-2D **S2=** FD (Field Duplicate)

Analyte	S1	S2	RPD (%)
Perfluorobutanoic acid (PFBA)	12	13	8%
Perfluorooctanoic acid (PFOA)	8.1	7.9	2%

* RPD is above the allowable maximum 20%

Results are in units of ng/L.

Bold numbers were values that below the CRQL or above the high standard.
ND - Not detected.

NC - Not calculated, both results must be within the linear range for valid RPDs to be calculated.

R2311986

ALPHA GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

Data Usability Summary Report
for ALS Group USA, Corp.
Service Request: R2311986

9 Ground Water Samples, 1 Field Duplicate,
1 Field Blank, and 1 Trip Blank
Collected December 27, 2023

Prepared by: Donald Anné
June 24, 2024

The data package contained the documentation as required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appeared legible and complete. The data pack contained the results of 1,4-dioxane, pesticide, and TAL metals analyses for 9 ground water samples and 1 field duplicate, and the results of 8260 volatile analyses for 9 ground water samples, 1 field duplicate, and 1 trip blank.

The overall performances of the analyses are acceptable. ALS Group USA, Corp. did fulfill the requirements of the analytical methods.

The data are mostly acceptable with some issues that are identified in the accompanying data validation reviews. The following data were qualified:

- The "not detected" pesticide results for endosulfan I and gamma-chlordane were qualified as "estimated" (UJ) for sample MW-9D because 1 of 2 percent recoveries for endosulfan I and gamma-chlordane were below QC limits, but not below 30% in the aqueous MS/MSD sample.

- The positive metal results for arsenic were qualified as estimated, biased low (J-) for samples MW-4D and MW-4S because 2 of 2 percent recoveries for arsenic were below QC limits, but not below 30% in the associated aqueous MS/MSD sample.

- The "not detected" metal results for arsenic were qualified as estimated (UJ) for the following samples because 2 of 2 percent recoveries for arsenic were below QC limits, but not below 30% in the associated aqueous MS/MSD sample.

MW-2D	MW-2S	MW-15D	MW-9D
MW-9S	MH-1	CB-1	FD

All data are considered usable with estimated (J- or UJ) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

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Qualified Data Section

ALS Group USA, Corp.
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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:00
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-2D	**Units:**	ug/L
Lab Code:	R2311986-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	01/06/24 01:01	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	01/06/24 01:01	
1,1,2-Trichloroethane	5.0 U	5.0	1	01/06/24 01:01	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	01/06/24 01:01	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	01/06/24 01:01	
1,2,4-Trimethylbenzene	5.0 U	5.0	1	01/06/24 01:01	
1,2-Dichloroethane	5.0 U	5.0	1	01/06/24 01:01	
1,2-Dichloropropane	5.0 U	5.0	1	01/06/24 01:01	
1,3,5-Trimethylbenzene	5.0 U	5.0	1	01/06/24 01:01	
2-Butanone (MEK)	10 U	10	1	01/06/24 01:01	
2-Hexanone	10 U	10	1	01/06/24 01:01	
tert-Butyl Alcohol	100 U	100	1	01/06/24 01:01	
p-Isopropyltoluene	5.0 U	5.0	1	01/06/24 01:01	
4-Methyl-2-pentanone	10 U	10	1	01/06/24 01:01	
Acetone	10 U	10	1	01/06/24 01:01	
Benzene	5.0 U	5.0	1	01/06/24 01:01	
Bromodichloromethane	5.0 U	5.0	1	01/06/24 01:01	
Bromoform	5.0 U	5.0	1	01/06/24 01:01	
Bromomethane	5.0 U	5.0	1	01/06/24 01:01	
Carbon Disulfide	10 U	10	1	01/06/24 01:01	
Carbon Tetrachloride	5.0 U	5.0	1	01/06/24 01:01	
Chlorobenzene	5.0 U	5.0	1	01/06/24 01:01	
Chloroethane	5.0 U	5.0	1	01/06/24 01:01	
Chloroform	5.0 U	5.0	1	01/06/24 01:01	
Chloromethane	5.0 U	5.0	1	01/06/24 01:01	
Dibromochloromethane	5.0 U	5.0	1	01/06/24 01:01	
Methylene Chloride	5.0 U	5.0	1	01/06/24 01:01	
Ethylbenzene	5.0 U	5.0	1	01/06/24 01:01	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	01/06/24 01:01	
Methyl tert-Butyl Ether	5.0 U	5.0	1	01/06/24 01:01	
Naphthalene	5.0 U	5.0	1	01/06/24 01:01	
Styrene	5.0 U	5.0	1	01/06/24 01:01	
Tetrachloroethene (PCE)	5.0 U	5.0	1	01/06/24 01:01	
Toluene	5.0 U	5.0	1	01/06/24 01:01	
Trichloroethene (TCE)	5.0 U	5.0	1	01/06/24 01:01	
Vinyl Chloride	5.0 U	5.0	1	01/06/24 01:01	
cis-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 01:01	
cis-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 01:01	
m,p-Xylenes	5.0 U	5.0	1	01/06/24 01:01	
n-Butylbenzene	5.0 U	5.0	1	01/06/24 01:01	
n-Propylbenzene	5.0 U	5.0	1	01/06/24 01:01	

ALS Group USA, Corp.
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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:00
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-2D	**Units:**	ug/L
Lab Code:	R2311986-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
o-Xylene	5.0 U	5.0	1	01/06/24 01:01	
sec-Butylbenzene	5.0 U	5.0	1	01/06/24 01:01	
tert-Butylbenzene	5.0 U	5.0	1	01/06/24 01:01	
trans-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 01:01	
trans-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 01:01	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	85 - 122	01/06/24 01:01	
Dibromofluoromethane	105	80 - 116	01/06/24 01:01	
Toluene-d8	106	87 - 121	01/06/24 01:01	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:20
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-2S	**Units:**	ug/L
Lab Code:	R2311986-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	01/06/24 01:24	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	01/06/24 01:24	
1,1,2-Trichloroethane	5.0 U	5.0	1	01/06/24 01:24	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	01/06/24 01:24	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	01/06/24 01:24	
1,2,4-Trimethylbenzene	5.0 U	5.0	1	01/06/24 01:24	
1,2-Dichloroethane	5.0 U	5.0	1	01/06/24 01:24	
1,2-Dichloropropane	5.0 U	5.0	1	01/06/24 01:24	
1,3,5-Trimethylbenzene	5.0 U	5.0	1	01/06/24 01:24	
2-Butanone (MEK)	10 U	10	1	01/06/24 01:24	
2-Hexanone	10 U	10	1	01/06/24 01:24	
tert-Butyl Alcohol	100 U	100	1	01/06/24 01:24	
p-Isopropyltoluene	5.0 U	5.0	1	01/06/24 01:24	
4-Methyl-2-pentanone	10 U	10	1	01/06/24 01:24	
Acetone	10 U	10	1	01/06/24 01:24	
Benzene	5.0 U	5.0	1	01/06/24 01:24	
Bromodichloromethane	5.0 U	5.0	1	01/06/24 01:24	
Bromoform	5.0 U	5.0	1	01/06/24 01:24	
Bromomethane	5.0 U	5.0	1	01/06/24 01:24	
Carbon Disulfide	10 U	10	1	01/06/24 01:24	
Carbon Tetrachloride	5.0 U	5.0	1	01/06/24 01:24	
Chlorobenzene	5.0 U	5.0	1	01/06/24 01:24	
Chloroethane	5.0 U	5.0	1	01/06/24 01:24	
Chloroform	5.0 U	5.0	1	01/06/24 01:24	
Chloromethane	5.0 U	5.0	1	01/06/24 01:24	
Dibromochloromethane	5.0 U	5.0	1	01/06/24 01:24	
Methylene Chloride	5.0 U	5.0	1	01/06/24 01:24	
Ethylbenzene	5.0 U	5.0	1	01/06/24 01:24	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	01/06/24 01:24	
Methyl tert-Butyl Ether	5.0 U	5.0	1	01/06/24 01:24	
Naphthalene	5.0 U	5.0	1	01/06/24 01:24	
Styrene	5.0 U	5.0	1	01/06/24 01:24	
Tetrachloroethene (PCE)	5.0 U	5.0	1	01/06/24 01:24	
Toluene	5.0 U	5.0	1	01/06/24 01:24	
Trichloroethene (TCE)	5.0 U	5.0	1	01/06/24 01:24	
Vinyl Chloride	5.0 U	5.0	1	01/06/24 01:24	
cis-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 01:24	
cis-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 01:24	
m,p-Xylenes	5.0 U	5.0	1	01/06/24 01:24	
n-Butylbenzene	5.0 U	5.0	1	01/06/24 01:24	
n-Propylbenzene	5.0 U	5.0	1	01/06/24 01:24	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:20
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-2S	**Units:**	ug/L
Lab Code:	R2311986-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
o-Xylene	5.0 U	5.0	1	01/06/24 01:24	
sec-Butylbenzene	5.0 U	5.0	1	01/06/24 01:24	
tert-Butylbenzene	5.0 U	5.0	1	01/06/24 01:24	
trans-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 01:24	
trans-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 01:24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85 - 122	01/06/24 01:24	
Dibromofluoromethane	106	80 - 116	01/06/24 01:24	
Toluene-d8	105	87 - 121	01/06/24 01:24	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 09:10
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-15D	**Units:**	ug/L
Lab Code:	R2311986-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	01/06/24 01:47	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	01/06/24 01:47	
1,1,2-Trichloroethane	5.0 U	5.0	1	01/06/24 01:47	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	01/06/24 01:47	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	01/06/24 01:47	
1,2,4-Trimethylbenzene	5.0 U	5.0	1	01/06/24 01:47	
1,2-Dichloroethane	5.0 U	5.0	1	01/06/24 01:47	
1,2-Dichloropropane	5.0 U	5.0	1	01/06/24 01:47	
1,3,5-Trimethylbenzene	5.0 U	5.0	1	01/06/24 01:47	
2-Butanone (MEK)	10 U	10	1	01/06/24 01:47	
2-Hexanone	10 U	10	1	01/06/24 01:47	
tert-Butyl Alcohol	100 U	100	1	01/06/24 01:47	
p-Isopropyltoluene	5.0 U	5.0	1	01/06/24 01:47	
4-Methyl-2-pentanone	10 U	10	1	01/06/24 01:47	
Acetone	10 U	10	1	01/06/24 01:47	
Benzene	5.0 U	5.0	1	01/06/24 01:47	
Bromodichloromethane	5.0 U	5.0	1	01/06/24 01:47	
Bromoform	5.0 U	5.0	1	01/06/24 01:47	
Bromomethane	5.0 U	5.0	1	01/06/24 01:47	
Carbon Disulfide	10 U	10	1	01/06/24 01:47	
Carbon Tetrachloride	5.0 U	5.0	1	01/06/24 01:47	
Chlorobenzene	5.0 U	5.0	1	01/06/24 01:47	
Chloroethane	5.0 U	5.0	1	01/06/24 01:47	
Chloroform	5.0 U	5.0	1	01/06/24 01:47	
Chloromethane	5.0 U	5.0	1	01/06/24 01:47	
Dibromochloromethane	5.0 U	5.0	1	01/06/24 01:47	
Methylene Chloride	5.0 U	5.0	1	01/06/24 01:47	
Ethylbenzene	5.0 U	5.0	1	01/06/24 01:47	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	01/06/24 01:47	
Methyl tert-Butyl Ether	5.0 U	5.0	1	01/06/24 01:47	
Naphthalene	5.0 U	5.0	1	01/06/24 01:47	
Styrene	5.0 U	5.0	1	01/06/24 01:47	
Tetrachloroethene (PCE)	5.0 U	5.0	1	01/06/24 01:47	
Toluene	5.0 U	5.0	1	01/06/24 01:47	
Trichloroethene (TCE)	5.0 U	5.0	1	01/06/24 01:47	
Vinyl Chloride	5.0 U	5.0	1	01/06/24 01:47	
cis-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 01:47	
cis-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 01:47	
m,p-Xylenes	5.0 U	5.0	1	01/06/24 01:47	
n-Butylbenzene	5.0 U	5.0	1	01/06/24 01:47	
n-Propylbenzene	5.0 U	5.0	1	01/06/24 01:47	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 09:10
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-15D	**Units:**	ug/L
Lab Code:	R2311986-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
o-Xylene	5.0 U	5.0	1	01/06/24 01:47	
sec-Butylbenzene	5.0 U	5.0	1	01/06/24 01:47	
tert-Butylbenzene	5.0 U	5.0	1	01/06/24 01:47	
trans-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 01:47	
trans-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 01:47	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85 - 122	01/06/24 01:47	
Dibromofluoromethane	104	80 - 116	01/06/24 01:47	
Toluene-d8	104	87 - 121	01/06/24 01:47	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 09:20
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-4D	**Units:**	ug/L
Lab Code:	R2311986-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	01/06/24 02:10	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	01/06/24 02:10	
1,1,2-Trichloroethane	5.0 U	5.0	1	01/06/24 02:10	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	01/06/24 02:10	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	01/06/24 02:10	
1,2,4-Trimethylbenzene	5.0 U	5.0	1	01/06/24 02:10	
1,2-Dichloroethane	5.0 U	5.0	1	01/06/24 02:10	
1,2-Dichloropropane	5.0 U	5.0	1	01/06/24 02:10	
1,3,5-Trimethylbenzene	5.0 U	5.0	1	01/06/24 02:10	
2-Butanone (MEK)	10 U	10	1	01/06/24 02:10	
2-Hexanone	10 U	10	1	01/06/24 02:10	
tert-Butyl Alcohol	100 U	100	1	01/06/24 02:10	
p-Isopropyltoluene	5.0 U	5.0	1	01/06/24 02:10	
4-Methyl-2-pentanone	10 U	10	1	01/06/24 02:10	
Acetone	10 U	10	1	01/06/24 02:10	
Benzene	5.0 U	5.0	1	01/06/24 02:10	
Bromodichloromethane	5.0 U	5.0	1	01/06/24 02:10	
Bromoform	5.0 U	5.0	1	01/06/24 02:10	
Bromomethane	5.0 U	5.0	1	01/06/24 02:10	
Carbon Disulfide	10 U	10	1	01/06/24 02:10	
Carbon Tetrachloride	5.0 U	5.0	1	01/06/24 02:10	
Chlorobenzene	5.0 U	5.0	1	01/06/24 02:10	
Chloroethane	5.0 U	5.0	1	01/06/24 02:10	
Chloroform	5.0 U	5.0	1	01/06/24 02:10	
Chloromethane	5.0 U	5.0	1	01/06/24 02:10	
Dibromochloromethane	5.0 U	5.0	1	01/06/24 02:10	
Methylene Chloride	5.0 U	5.0	1	01/06/24 02:10	
Ethylbenzene	5.0 U	5.0	1	01/06/24 02:10	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	01/06/24 02:10	
Methyl tert-Butyl Ether	5.0 U	5.0	1	01/06/24 02:10	
Naphthalene	5.0 U	5.0	1	01/06/24 02:10	
Styrene	5.0 U	5.0	1	01/06/24 02:10	
Tetrachloroethene (PCE)	5.0 U	5.0	1	01/06/24 02:10	
Toluene	5.0 U	5.0	1	01/06/24 02:10	
Trichloroethene (TCE)	5.0 U	5.0	1	01/06/24 02:10	
Vinyl Chloride	5.0 U	5.0	1	01/06/24 02:10	
cis-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 02:10	
cis-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 02:10	
m,p-Xylenes	5.0 U	5.0	1	01/06/24 02:10	
n-Butylbenzene	5.0 U	5.0	1	01/06/24 02:10	
n-Propylbenzene	5.0 U	5.0	1	01/06/24 02:10	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 09:20
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-4D	**Units:**	ug/L
Lab Code:	R2311986-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
o-Xylene	5.0 U	5.0	1	01/06/24 02:10	
sec-Butylbenzene	5.0 U	5.0	1	01/06/24 02:10	
tert-Butylbenzene	5.0 U	5.0	1	01/06/24 02:10	
trans-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 02:10	
trans-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 02:10	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	85 - 122	01/06/24 02:10	
Dibromofluoromethane	105	80 - 116	01/06/24 02:10	
Toluene-d8	104	87 - 121	01/06/24 02:10	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 13:15
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-4S	**Units:**	ug/L
Lab Code:	R2311986-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	01/06/24 02:33	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	01/06/24 02:33	
1,1,2-Trichloroethane	5.0 U	5.0	1	01/06/24 02:33	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	01/06/24 02:33	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	01/06/24 02:33	
1,2,4-Trimethylbenzene	5.0 U	5.0	1	01/06/24 02:33	
1,2-Dichloroethane	5.0 U	5.0	1	01/06/24 02:33	
1,2-Dichloropropane	5.0 U	5.0	1	01/06/24 02:33	
1,3,5-Trimethylbenzene	5.0 U	5.0	1	01/06/24 02:33	
2-Butanone (MEK)	10 U	10	1	01/06/24 02:33	
2-Hexanone	10 U	10	1	01/06/24 02:33	
tert-Butyl Alcohol	100 U	100	1	01/06/24 02:33	
p-Isopropyltoluene	5.0 U	5.0	1	01/06/24 02:33	
4-Methyl-2-pentanone	10 U	10	1	01/06/24 02:33	
Acetone	10 U	10	1	01/06/24 02:33	
Benzene	5.0 U	5.0	1	01/06/24 02:33	
Bromodichloromethane	5.0 U	5.0	1	01/06/24 02:33	
Bromoform	5.0 U	5.0	1	01/06/24 02:33	
Bromomethane	5.0 U	5.0	1	01/06/24 02:33	
Carbon Disulfide	10 U	10	1	01/06/24 02:33	
Carbon Tetrachloride	5.0 U	5.0	1	01/06/24 02:33	
Chlorobenzene	5.0 U	5.0	1	01/06/24 02:33	
Chloroethane	5.0 U	5.0	1	01/06/24 02:33	
Chloroform	5.0 U	5.0	1	01/06/24 02:33	
Chloromethane	5.0 U	5.0	1	01/06/24 02:33	
Dibromochloromethane	5.0 U	5.0	1	01/06/24 02:33	
Methylene Chloride	5.0 U	5.0	1	01/06/24 02:33	
Ethylbenzene	5.0 U	5.0	1	01/06/24 02:33	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	01/06/24 02:33	
Methyl tert-Butyl Ether	5.0 U	5.0	1	01/06/24 02:33	
Naphthalene	5.0 U	5.0	1	01/06/24 02:33	
Styrene	5.0 U	5.0	1	01/06/24 02:33	
Tetrachloroethene (PCE)	5.0 U	5.0	1	01/06/24 02:33	
Toluene	5.0 U	5.0	1	01/06/24 02:33	
Trichloroethene (TCE)	5.0 U	5.0	1	01/06/24 02:33	
Vinyl Chloride	5.0 U	5.0	1	01/06/24 02:33	
cis-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 02:33	
cis-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 02:33	
m,p-Xylenes	5.0 U	5.0	1	01/06/24 02:33	
n-Butylbenzene	5.0 U	5.0	1	01/06/24 02:33	
n-Propylbenzene	5.0 U	5.0	1	01/06/24 02:33	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 13:15
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-4S	**Units:**	ug/L
Lab Code:	R2311986-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
o-Xylene	5.0 U	5.0	1	01/06/24 02:33	
sec-Butylbenzene	5.0 U	5.0	1	01/06/24 02:33	
tert-Butylbenzene	5.0 U	5.0	1	01/06/24 02:33	
trans-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 02:33	
trans-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 02:33	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	01/06/24 02:33	
Dibromofluoromethane	101	80 - 116	01/06/24 02:33	
Toluene-d8	103	87 - 121	01/06/24 02:33	

Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 10:28
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-9D	**Units:**	ug/L
Lab Code:	R2311986-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	01/06/24 02:56	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	01/06/24 02:56	
1,1,2-Trichloroethane	5.0 U	5.0	1	01/06/24 02:56	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	01/06/24 02:56	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	01/06/24 02:56	
1,2,4-Trimethylbenzene	5.0 U	5.0	1	01/06/24 02:56	
1,2-Dichloroethane	5.0 U	5.0	1	01/06/24 02:56	
1,2-Dichloropropane	5.0 U	5.0	1	01/06/24 02:56	
1,3,5-Trimethylbenzene	5.0 U	5.0	1	01/06/24 02:56	
2-Butanone (MEK)	10 U	10	1	01/06/24 02:56	
2-Hexanone	10 U	10	1	01/06/24 02:56	
tert-Butyl Alcohol	100 U	100	1	01/06/24 02:56	
p-Isopropyltoluene	5.0 U	5.0	1	01/06/24 02:56	
4-Methyl-2-pentanone	10 U	10	1	01/06/24 02:56	
Acetone	10 U	10	1	01/06/24 02:56	
Benzene	5.0 U	5.0	1	01/06/24 02:56	
Bromodichloromethane	5.0 U	5.0	1	01/06/24 02:56	
Bromoform	5.0 U	5.0	1	01/06/24 02:56	
Bromomethane	5.0 U	5.0	1	01/06/24 02:56	
Carbon Disulfide	10 U	10	1	01/06/24 02:56	
Carbon Tetrachloride	5.0 U	5.0	1	01/06/24 02:56	
Chlorobenzene	5.0 U	5.0	1	01/06/24 02:56	
Chloroethane	5.0 U	5.0	1	01/06/24 02:56	
Chloroform	5.0 U	5.0	1	01/06/24 02:56	
Chloromethane	5.0 U	5.0	1	01/06/24 02:56	
Dibromochloromethane	5.0 U	5.0	1	01/06/24 02:56	
Methylene Chloride	5.0 U	5.0	1	01/06/24 02:56	
Ethylbenzene	5.0 U	5.0	1	01/06/24 02:56	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	01/06/24 02:56	
Methyl tert-Butyl Ether	5.0 U	5.0	1	01/06/24 02:56	
Naphthalene	5.0 U	5.0	1	01/06/24 02:56	
Styrene	5.0 U	5.0	1	01/06/24 02:56	
Tetrachloroethene (PCE)	5.0 U	5.0	1	01/06/24 02:56	
Toluene	5.0 U	5.0	1	01/06/24 02:56	
Trichloroethene (TCE)	5.0 U	5.0	1	01/06/24 02:56	
Vinyl Chloride	5.0 U	5.0	1	01/06/24 02:56	
cis-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 02:56	
cis-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 02:56	
m,p-Xylenes	5.0 U	5.0	1	01/06/24 02:56	
n-Butylbenzene	5.0 U	5.0	1	01/06/24 02:56	
n-Propylbenzene	5.0 U	5.0	1	01/06/24 02:56	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 10:28
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-9D	**Units:**	ug/L
Lab Code:	R2311986-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
o-Xylene	5.0 U	5.0	1	01/06/24 02:56	
sec-Butylbenzene	5.0 U	5.0	1	01/06/24 02:56	
tert-Butylbenzene	5.0 U	5.0	1	01/06/24 02:56	
trans-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 02:56	
trans-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 02:56	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	01/06/24 02:56	
Dibromofluoromethane	101	80 - 116	01/06/24 02:56	
Toluene-d8	102	87 - 121	01/06/24 02:56	

Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 11:30
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-9S	**Units:**	ug/L
Lab Code:	R2311986-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	01/06/24 03:19	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	01/06/24 03:19	
1,1,2-Trichloroethane	5.0 U	5.0	1	01/06/24 03:19	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	01/06/24 03:19	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	01/06/24 03:19	
1,2,4-Trimethylbenzene	5.0 U	5.0	1	01/06/24 03:19	
1,2-Dichloroethane	5.0 U	5.0	1	01/06/24 03:19	
1,2-Dichloropropane	5.0 U	5.0	1	01/06/24 03:19	
1,3,5-Trimethylbenzene	5.0 U	5.0	1	01/06/24 03:19	
2-Butanone (MEK)	10 U	10	1	01/06/24 03:19	
2-Hexanone	10 U	10	1	01/06/24 03:19	
tert-Butyl Alcohol	100 U	100	1	01/06/24 03:19	
p-Isopropyltoluene	5.0 U	5.0	1	01/06/24 03:19	
4-Methyl-2-pentanone	10 U	10	1	01/06/24 03:19	
Acetone	10 U	10	1	01/06/24 03:19	
Benzene	5.0 U	5.0	1	01/06/24 03:19	
Bromodichloromethane	5.0 U	5.0	1	01/06/24 03:19	
Bromoform	5.0 U	5.0	1	01/06/24 03:19	
Bromomethane	5.0 U	5.0	1	01/06/24 03:19	
Carbon Disulfide	10 U	10	1	01/06/24 03:19	
Carbon Tetrachloride	5.0 U	5.0	1	01/06/24 03:19	
Chlorobenzene	5.0 U	5.0	1	01/06/24 03:19	
Chloroethane	5.0 U	5.0	1	01/06/24 03:19	
Chloroform	5.0 U	5.0	1	01/06/24 03:19	
Chloromethane	5.0 U	5.0	1	01/06/24 03:19	
Dibromochloromethane	5.0 U	5.0	1	01/06/24 03:19	
Methylene Chloride	5.0 U	5.0	1	01/06/24 03:19	
Ethylbenzene	5.0 U	5.0	1	01/06/24 03:19	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	01/06/24 03:19	
Methyl tert-Butyl Ether	**6.6**	5.0	1	01/06/24 03:19	
Naphthalene	5.0 U	5.0	1	01/06/24 03:19	
Styrene	5.0 U	5.0	1	01/06/24 03:19	
Tetrachloroethene (PCE)	5.0 U	5.0	1	01/06/24 03:19	
Toluene	5.0 U	5.0	1	01/06/24 03:19	
Trichloroethene (TCE)	5.0 U	5.0	1	01/06/24 03:19	
Vinyl Chloride	5.0 U	5.0	1	01/06/24 03:19	
cis-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 03:19	
cis-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 03:19	
m,p-Xylenes	5.0 U	5.0	1	01/06/24 03:19	
n-Butylbenzene	5.0 U	5.0	1	01/06/24 03:19	
n-Propylbenzene	5.0 U	5.0	1	01/06/24 03:19	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 11:30
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-9S	**Units:**	ug/L
Lab Code:	R2311986-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
o-Xylene	5.0 U	5.0	1	01/06/24 03:19	
sec-Butylbenzene	5.0 U	5.0	1	01/06/24 03:19	
tert-Butylbenzene	5.0 U	5.0	1	01/06/24 03:19	
trans-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 03:19	
trans-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 03:19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	85 - 122	01/06/24 03:19	
Dibromofluoromethane	103	80 - 116	01/06/24 03:19	
Toluene-d8	103	87 - 121	01/06/24 03:19	

Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 14:38
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MH-1	**Units:**	ug/L
Lab Code:	R2311986-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	01/06/24 03:42	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	01/06/24 03:42	
1,1,2-Trichloroethane	5.0 U	5.0	1	01/06/24 03:42	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	01/06/24 03:42	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	01/06/24 03:42	
1,2,4-Trimethylbenzene	5.0 U	5.0	1	01/06/24 03:42	
1,2-Dichloroethane	5.0 U	5.0	1	01/06/24 03:42	
1,2-Dichloropropane	5.0 U	5.0	1	01/06/24 03:42	
1,3,5-Trimethylbenzene	5.0 U	5.0	1	01/06/24 03:42	
2-Butanone (MEK)	10 U	10	1	01/06/24 03:42	
2-Hexanone	10 U	10	1	01/06/24 03:42	
tert-Butyl Alcohol	100 U	100	1	01/06/24 03:42	
p-Isopropyltoluene	5.0 U	5.0	1	01/06/24 03:42	
4-Methyl-2-pentanone	10 U	10	1	01/06/24 03:42	
Acetone	10 U	10	1	01/06/24 03:42	
Benzene	5.0 U	5.0	1	01/06/24 03:42	
Bromodichloromethane	5.0 U	5.0	1	01/06/24 03:42	
Bromoform	5.0 U	5.0	1	01/06/24 03:42	
Bromomethane	5.0 U	5.0	1	01/06/24 03:42	
Carbon Disulfide	10 U	10	1	01/06/24 03:42	
Carbon Tetrachloride	5.0 U	5.0	1	01/06/24 03:42	
Chlorobenzene	5.0 U	5.0	1	01/06/24 03:42	
Chloroethane	5.0 U	5.0	1	01/06/24 03:42	
Chloroform	5.0 U	5.0	1	01/06/24 03:42	
Chloromethane	5.0 U	5.0	1	01/06/24 03:42	
Dibromochloromethane	5.0 U	5.0	1	01/06/24 03:42	
Methylene Chloride	5.0 U	5.0	1	01/06/24 03:42	
Ethylbenzene	5.0 U	5.0	1	01/06/24 03:42	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	01/06/24 03:42	
Methyl tert-Butyl Ether	5.0 U	5.0	1	01/06/24 03:42	
Naphthalene	5.0 U	5.0	1	01/06/24 03:42	
Styrene	5.0 U	5.0	1	01/06/24 03:42	
Tetrachloroethene (PCE)	5.0 U	5.0	1	01/06/24 03:42	
Toluene	5.0 U	5.0	1	01/06/24 03:42	
Trichloroethene (TCE)	5.0 U	5.0	1	01/06/24 03:42	
Vinyl Chloride	5.0 U	5.0	1	01/06/24 03:42	
cis-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 03:42	
cis-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 03:42	
m,p-Xylenes	5.0 U	5.0	1	01/06/24 03:42	
n-Butylbenzene	5.0 U	5.0	1	01/06/24 03:42	
n-Propylbenzene	5.0 U	5.0	1	01/06/24 03:42	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 14:38
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MH-1	**Units:**	ug/L
Lab Code:	R2311986-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
o-Xylene	5.0 U	5.0	1	01/06/24 03:42	
sec-Butylbenzene	5.0 U	5.0	1	01/06/24 03:42	
tert-Butylbenzene	5.0 U	5.0	1	01/06/24 03:42	
trans-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 03:42	
trans-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 03:42	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	85 - 122	01/06/24 03:42	
Dibromofluoromethane	105	80 - 116	01/06/24 03:42	
Toluene-d8	106	87 - 121	01/06/24 03:42	

Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 14:57
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	CB-1	**Units:**	ug/L
Lab Code:	R2311986-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	01/06/24 04:05	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	01/06/24 04:05	
1,1,2-Trichloroethane	5.0 U	5.0	1	01/06/24 04:05	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	01/06/24 04:05	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	01/06/24 04:05	
1,2,4-Trimethylbenzene	5.0 U	5.0	1	01/06/24 04:05	
1,2-Dichloroethane	5.0 U	5.0	1	01/06/24 04:05	
1,2-Dichloropropane	5.0 U	5.0	1	01/06/24 04:05	
1,3,5-Trimethylbenzene	5.0 U	5.0	1	01/06/24 04:05	
2-Butanone (MEK)	10 U	10	1	01/06/24 04:05	
2-Hexanone	10 U	10	1	01/06/24 04:05	
tert-Butyl Alcohol	100 U	100	1	01/06/24 04:05	
p-Isopropyltoluene	5.0 U	5.0	1	01/06/24 04:05	
4-Methyl-2-pentanone	10 U	10	1	01/06/24 04:05	
Acetone	10 U	10	1	01/06/24 04:05	
Benzene	5.0 U	5.0	1	01/06/24 04:05	
Bromodichloromethane	5.0 U	5.0	1	01/06/24 04:05	
Bromoform	5.0 U	5.0	1	01/06/24 04:05	
Bromomethane	5.0 U	5.0	1	01/06/24 04:05	
Carbon Disulfide	10 U	10	1	01/06/24 04:05	
Carbon Tetrachloride	5.0 U	5.0	1	01/06/24 04:05	
Chlorobenzene	5.0 U	5.0	1	01/06/24 04:05	
Chloroethane	5.0 U	5.0	1	01/06/24 04:05	
Chloroform	5.0 U	5.0	1	01/06/24 04:05	
Chloromethane	5.0 U	5.0	1	01/06/24 04:05	
Dibromochloromethane	5.0 U	5.0	1	01/06/24 04:05	
Methylene Chloride	5.0 U	5.0	1	01/06/24 04:05	
Ethylbenzene	5.0 U	5.0	1	01/06/24 04:05	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	01/06/24 04:05	
Methyl tert-Butyl Ether	5.0 U	5.0	1	01/06/24 04:05	
Naphthalene	5.0 U	5.0	1	01/06/24 04:05	
Styrene	5.0 U	5.0	1	01/06/24 04:05	
Tetrachloroethene (PCE)	5.0 U	5.0	1	01/06/24 04:05	
Toluene	5.0 U	5.0	1	01/06/24 04:05	
Trichloroethene (TCE)	5.0 U	5.0	1	01/06/24 04:05	
Vinyl Chloride	5.0 U	5.0	1	01/06/24 04:05	
cis-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 04:05	
cis-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 04:05	
m,p-Xylenes	5.0 U	5.0	1	01/06/24 04:05	
n-Butylbenzene	5.0 U	5.0	1	01/06/24 04:05	
n-Propylbenzene	5.0 U	5.0	1	01/06/24 04:05	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 14:57
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	CB-1	**Units:**	ug/L
Lab Code:	R2311986-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
o-Xylene	5.0 U	5.0	1	01/06/24 04:05	
sec-Butylbenzene	5.0 U	5.0	1	01/06/24 04:05	
tert-Butylbenzene	5.0 U	5.0	1	01/06/24 04:05	
trans-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 04:05	
trans-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 04:05	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85 - 122	01/06/24 04:05	
Dibromofluoromethane	104	80 - 116	01/06/24 04:05	
Toluene-d8	104	87 - 121	01/06/24 04:05	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:05
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	FD (Field Duplicate)	**Units:**	ug/L
Lab Code:	R2311986-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	01/06/24 04:28	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	01/06/24 04:28	
1,1,2-Trichloroethane	5.0 U	5.0	1	01/06/24 04:28	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	01/06/24 04:28	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	01/06/24 04:28	
1,2,4-Trimethylbenzene	5.0 U	5.0	1	01/06/24 04:28	
1,2-Dichloroethane	5.0 U	5.0	1	01/06/24 04:28	
1,2-Dichloropropane	5.0 U	5.0	1	01/06/24 04:28	
1,3,5-Trimethylbenzene	5.0 U	5.0	1	01/06/24 04:28	
2-Butanone (MEK)	10 U	10	1	01/06/24 04:28	
2-Hexanone	10 U	10	1	01/06/24 04:28	
tert-Butyl Alcohol	100 U	100	1	01/06/24 04:28	
p-Isopropyltoluene	5.0 U	5.0	1	01/06/24 04:28	
4-Methyl-2-pentanone	10 U	10	1	01/06/24 04:28	
Acetone	10 U	10	1	01/06/24 04:28	
Benzene	5.0 U	5.0	1	01/06/24 04:28	
Bromodichloromethane	5.0 U	5.0	1	01/06/24 04:28	
Bromoform	5.0 U	5.0	1	01/06/24 04:28	
Bromomethane	5.0 U	5.0	1	01/06/24 04:28	
Carbon Disulfide	10 U	10	1	01/06/24 04:28	
Carbon Tetrachloride	5.0 U	5.0	1	01/06/24 04:28	
Chlorobenzene	5.0 U	5.0	1	01/06/24 04:28	
Chloroethane	5.0 U	5.0	1	01/06/24 04:28	
Chloroform	5.0 U	5.0	1	01/06/24 04:28	
Chloromethane	5.0 U	5.0	1	01/06/24 04:28	
Dibromochloromethane	5.0 U	5.0	1	01/06/24 04:28	
Methylene Chloride	5.0 U	5.0	1	01/06/24 04:28	
Ethylbenzene	5.0 U	5.0	1	01/06/24 04:28	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	01/06/24 04:28	
Methyl tert-Butyl Ether	5.0 U	5.0	1	01/06/24 04:28	
Naphthalene	5.0 U	5.0	1	01/06/24 04:28	
Styrene	5.0 U	5.0	1	01/06/24 04:28	
Tetrachloroethene (PCE)	5.0 U	5.0	1	01/06/24 04:28	
Toluene	5.0 U	5.0	1	01/06/24 04:28	
Trichloroethene (TCE)	5.0 U	5.0	1	01/06/24 04:28	
Vinyl Chloride	5.0 U	5.0	1	01/06/24 04:28	
cis-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 04:28	
cis-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 04:28	
m,p-Xylenes	5.0 U	5.0	1	01/06/24 04:28	
n-Butylbenzene	5.0 U	5.0	1	01/06/24 04:28	
n-Propylbenzene	5.0 U	5.0	1	01/06/24 04:28	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:05
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	FD (Field Duplicate)	**Units:**	ug/L
Lab Code:	R2311986-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
o-Xylene	5.0 U	5.0	1	01/06/24 04:28	
sec-Butylbenzene	5.0 U	5.0	1	01/06/24 04:28	
tert-Butylbenzene	5.0 U	5.0	1	01/06/24 04:28	
trans-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 04:28	
trans-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 04:28	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	85 - 122	01/06/24 04:28	
Dibromofluoromethane	105	80 - 116	01/06/24 04:28	
Toluene-d8	105	87 - 121	01/06/24 04:28	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	R2311986-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	01/06/24 04:51	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	01/06/24 04:51	
1,1,2-Trichloroethane	5.0 U	5.0	1	01/06/24 04:51	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	01/06/24 04:51	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	01/06/24 04:51	
1,2,4-Trimethylbenzene	5.0 U	5.0	1	01/06/24 04:51	
1,2-Dichloroethane	5.0 U	5.0	1	01/06/24 04:51	
1,2-Dichloropropane	5.0 U	5.0	1	01/06/24 04:51	
1,3,5-Trimethylbenzene	5.0 U	5.0	1	01/06/24 04:51	
2-Butanone (MEK)	10 U	10	1	01/06/24 04:51	
2-Hexanone	10 U	10	1	01/06/24 04:51	
tert-Butyl Alcohol	100 U	100	1	01/06/24 04:51	
p-Isopropyltoluene	5.0 U	5.0	1	01/06/24 04:51	
4-Methyl-2-pentanone	10 U	10	1	01/06/24 04:51	
Acetone	10 U	10	1	01/06/24 04:51	
Benzene	5.0 U	5.0	1	01/06/24 04:51	
Bromodichloromethane	5.0 U	5.0	1	01/06/24 04:51	
Bromoform	5.0 U	5.0	1	01/06/24 04:51	
Bromomethane	5.0 U	5.0	1	01/06/24 04:51	
Carbon Disulfide	10 U	10	1	01/06/24 04:51	
Carbon Tetrachloride	5.0 U	5.0	1	01/06/24 04:51	
Chlorobenzene	5.0 U	5.0	1	01/06/24 04:51	
Chloroethane	5.0 U	5.0	1	01/06/24 04:51	
Chloroform	5.0 U	5.0	1	01/06/24 04:51	
Chloromethane	5.0 U	5.0	1	01/06/24 04:51	
Dibromochloromethane	5.0 U	5.0	1	01/06/24 04:51	
Methylene Chloride	5.0 U	5.0	1	01/06/24 04:51	
Ethylbenzene	5.0 U	5.0	1	01/06/24 04:51	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	01/06/24 04:51	
Methyl tert-Butyl Ether	5.0 U	5.0	1	01/06/24 04:51	
Naphthalene	5.0 U	5.0	1	01/06/24 04:51	
Styrene	5.0 U	5.0	1	01/06/24 04:51	
Tetrachloroethene (PCE)	5.0 U	5.0	1	01/06/24 04:51	
Toluene	5.0 U	5.0	1	01/06/24 04:51	
Trichloroethene (TCE)	5.0 U	5.0	1	01/06/24 04:51	
Vinyl Chloride	5.0 U	5.0	1	01/06/24 04:51	
cis-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 04:51	
cis-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 04:51	
m,p-Xylenes	5.0 U	5.0	1	01/06/24 04:51	
n-Butylbenzene	5.0 U	5.0	1	01/06/24 04:51	
n-Propylbenzene	5.0 U	5.0	1	01/06/24 04:51	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	R2311986-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
o-Xylene	5.0 U	5.0	1	01/06/24 04:51	
sec-Butylbenzene	5.0 U	5.0	1	01/06/24 04:51	
tert-Butylbenzene	5.0 U	5.0	1	01/06/24 04:51	
trans-1,2-Dichloroethene	5.0 U	5.0	1	01/06/24 04:51	
trans-1,3-Dichloropropene	5.0 U	5.0	1	01/06/24 04:51	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	85 - 122	01/06/24 04:51	
Dibromofluoromethane	104	80 - 116	01/06/24 04:51	
Toluene-d8	104	87 - 121	01/06/24 04:51	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:00
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-2D	**Units:**	ug/L
Lab Code:	R2311986-001	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**0.092**	0.040	1	01/02/24 22:09	12/29/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrahydrofuran-d8 (SUR)	86	64 - 124	01/02/24 22:09	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:20
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-2S	**Units:**	ug/L
Lab Code:	R2311986-002	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**7.4**	0.10	1	01/02/24 22:27	12/29/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrahydrofuran-d8 (SUR)	94	64 - 124	01/02/24 22:27	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 09:10
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-15D	**Units:**	ug/L
Lab Code:	R2311986-003	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**0.13**	0.040	1	01/02/24 22:44	12/29/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrahydrofuran-d8 (SUR)	86	64 - 124	01/02/24 22:44	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 09:20
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-4D	**Units:**	ug/L
Lab Code:	R2311986-004	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**0.81**	0.10	1	01/02/24 23:02	12/29/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrahydrofuran-d8 (SUR)	92	64 - 124	01/02/24 23:02	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 13:15
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-4S	**Units:**	ug/L
Lab Code:	R2311986-005	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**1.5**	0.10	1	01/02/24 23:19	12/29/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrahydrofuran-d8 (SUR)	88	64 - 124	01/02/24 23:19	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 10:28
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-9D	**Units:**	ug/L
Lab Code:	R2311986-006	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	0.10 U	0.10	1	01/02/24 23:37	12/29/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrahydrofuran-d8 (SUR)	84	64 - 124	01/02/24 23:37	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 11:30
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-9S	**Units:**	ug/L
Lab Code:	R2311986-007	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	0.10 U	0.10	1	01/03/24 00:30	12/29/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrahydrofuran-d8 (SUR)	93	64 - 124	01/03/24 00:30	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 14:38
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MH-1	**Units:**	ug/L
Lab Code:	R2311986-008	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**5.4**	0.10	1	01/03/24 00:48	12/29/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrahydrofuran-d8 (SUR)	94	64 - 124	01/03/24 00:48	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 14:57
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	CB-1	**Units:**	ug/L
Lab Code:	R2311986-009	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**3.3**	0.040	1	01/03/24 14:38	1/2/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrahydrofuran-d8 (SUR)	93	64 - 124	01/03/24 14:38	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:05
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	FD (Field Duplicate)	**Units:**	ug/L
Lab Code:	R2311986-010	**Basis:**	NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	**0.11**	0.040	1	01/03/24 14:56	1/2/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrahydrofuran-d8 (SUR)	92	64 - 124	01/03/24 14:56	

ALS Group USA, Corp.
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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:00
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-2D	**Units:**	ug/L
Lab Code:	R2311986-001	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
4,4'-DDE	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
4,4'-DDT	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
Aldrin	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
Dieldrin	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
Endosulfan I	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
Endosulfan II	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
Endosulfan Sulfate	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
Endrin	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
Endrin Aldehyde	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
Endrin Ketone	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
Heptachlor	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
Heptachlor Epoxide	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
Methoxychlor	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
Toxaphene	0.50 U	0.50	1	01/08/24 18:10	12/28/23	
alpha-BHC	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
alpha-Chlordane	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
beta-BHC	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
delta-BHC	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
gamma-BHC (Lindane)	0.050 U	0.050	1	01/08/24 18:10	12/28/23	
gamma-Chlordane	0.050 U	0.050	1	01/08/24 18:10	12/28/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	45	10 - 111	01/08/24 18:10	
Tetrachloro-m-xylene	91	10 - 101	01/08/24 18:10	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:20
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-2S	**Units:**	ug/L
Lab Code:	R2311986-002	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
4,4'-DDE	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
4,4'-DDT	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
Aldrin	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
Dieldrin	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
Endosulfan I	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
Endosulfan II	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
Endosulfan Sulfate	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
Endrin	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
Endrin Aldehyde	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
Endrin Ketone	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
Heptachlor	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
Heptachlor Epoxide	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
Methoxychlor	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
Toxaphene	0.50 U	0.50	1	01/08/24 18:28	12/28/23	
alpha-BHC	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
alpha-Chlordane	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
beta-BHC	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
delta-BHC	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
gamma-BHC (Lindane)	0.050 U	0.050	1	01/08/24 18:28	12/28/23	
gamma-Chlordane	0.050 U	0.050	1	01/08/24 18:28	12/28/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	42	10 - 111	01/08/24 18:28	
Tetrachloro-m-xylene	79	10 - 101	01/08/24 18:28	

Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 09:10
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-15D	**Units:**	ug/L
Lab Code:	R2311986-003	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
4,4'-DDE	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
4,4'-DDT	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
Aldrin	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
Dieldrin	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
Endosulfan I	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
Endosulfan II	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
Endosulfan Sulfate	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
Endrin	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
Endrin Aldehyde	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
Endrin Ketone	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
Heptachlor	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
Heptachlor Epoxide	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
Methoxychlor	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
Toxaphene	0.50 U	0.50	1	01/08/24 18:46	12/28/23	
alpha-BHC	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
alpha-Chlordane	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
beta-BHC	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
delta-BHC	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
gamma-BHC (Lindane)	0.048 U	0.048	1	01/08/24 18:46	12/28/23	
gamma-Chlordane	0.048 U	0.048	1	01/08/24 18:46	12/28/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	49	10 - 111	01/08/24 18:46	
Tetrachloro-m-xylene	82	10 - 101	01/08/24 18:46	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 09:20
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-4D	**Units:**	ug/L
Lab Code:	R2311986-004	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
4,4'-DDE	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
4,4'-DDT	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
Aldrin	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
Dieldrin	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
Endosulfan I	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
Endosulfan II	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
Endosulfan Sulfate	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
Endrin	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
Endrin Aldehyde	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
Endrin Ketone	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
Heptachlor	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
Heptachlor Epoxide	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
Methoxychlor	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
Toxaphene	0.50 U	0.50	1	01/08/24 19:03	12/28/23	
alpha-BHC	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
alpha-Chlordane	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
beta-BHC	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
delta-BHC	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
gamma-BHC (Lindane)	0.050 U	0.050	1	01/08/24 19:03	12/28/23	
gamma-Chlordane	0.050 U	0.050	1	01/08/24 19:03	12/28/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	50	10 - 111	01/08/24 19:03	
Tetrachloro-m-xylene	78	10 - 101	01/08/24 19:03	

Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 13:15
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-4S	**Units:**	ug/L
Lab Code:	R2311986-005	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
4,4'-DDE	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
4,4'-DDT	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
Aldrin	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
Dieldrin	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
Endosulfan I	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
Endosulfan II	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
Endosulfan Sulfate	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
Endrin	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
Endrin Aldehyde	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
Endrin Ketone	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
Heptachlor	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
Heptachlor Epoxide	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
Methoxychlor	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
Toxaphene	0.50 U	0.50	1	01/08/24 19:21	12/28/23	
alpha-BHC	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
alpha-Chlordane	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
beta-BHC	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
delta-BHC	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
gamma-BHC (Lindane)	0.050 U	0.050	1	01/08/24 19:21	12/28/23	
gamma-Chlordane	0.050 U	0.050	1	01/08/24 19:21	12/28/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	45	10 - 111	01/08/24 19:21	
Tetrachloro-m-xylene	83	10 - 101	01/08/24 19:21	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 10:28
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-9D	**Units:**	ug/L
Lab Code:	R2311986-006	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
4,4'-DDE	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
4,4'-DDT	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
Aldrin	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
Dieldrin	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
Endosulfan I	0.050 U	UJ	0.050	1	01/08/24 19:38	12/28/23	
Endosulfan II	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
Endosulfan Sulfate	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
Endrin	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
Endrin Aldehyde	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
Endrin Ketone	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
Heptachlor	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
Heptachlor Epoxide	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
Methoxychlor	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
Toxaphene	0.50 U		0.50	1	01/08/24 19:38	12/28/23	
alpha-BHC	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
alpha-Chlordane	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
beta-BHC	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
delta-BHC	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
gamma-BHC (Lindane)	0.050 U		0.050	1	01/08/24 19:38	12/28/23	
gamma-Chlordane	0.050 U	UJ	0.050	1	01/08/24 19:38	12/28/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	33	10 - 111	01/08/24 19:38	
Tetrachloro-m-xylene	56	10 - 101	01/08/24 19:38	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 11:30
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MW-9S	**Units:**	ug/L
Lab Code:	R2311986-007	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
4,4'-DDE	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
4,4'-DDT	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
Aldrin	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
Dieldrin	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
Endosulfan I	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
Endosulfan II	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
Endosulfan Sulfate	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
Endrin	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
Endrin Aldehyde	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
Endrin Ketone	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
Heptachlor	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
Heptachlor Epoxide	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
Methoxychlor	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
Toxaphene	0.50 U	0.50	1	01/09/24 15:55	12/28/23	
alpha-BHC	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
alpha-Chlordane	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
beta-BHC	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
delta-BHC	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
gamma-BHC (Lindane)	0.050 U	0.050	1	01/09/24 15:55	12/28/23	
gamma-Chlordane	0.050 U	0.050	1	01/09/24 15:55	12/28/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	39	10 - 111	01/09/24 15:55	
Tetrachloro-m-xylene	76	10 - 101	01/09/24 15:55	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 14:38
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	MH-1	**Units:**	ug/L
Lab Code:	R2311986-008	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
4,4'-DDE	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
4,4'-DDT	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
Aldrin	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
Dieldrin	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
Endosulfan I	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
Endosulfan II	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
Endosulfan Sulfate	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
Endrin	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
Endrin Aldehyde	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
Endrin Ketone	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
Heptachlor	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
Heptachlor Epoxide	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
Methoxychlor	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
Toxaphene	0.50 U	0.50	1	01/09/24 16:12	12/28/23	
alpha-BHC	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
alpha-Chlordane	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
beta-BHC	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
delta-BHC	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
gamma-BHC (Lindane)	0.050 U	0.050	1	01/09/24 16:12	12/28/23	
gamma-Chlordane	0.050 U	0.050	1	01/09/24 16:12	12/28/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	60	10 - 111	01/09/24 16:12	
Tetrachloro-m-xylene	90	10 - 101	01/09/24 16:12	

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Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 14:57
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	CB-1	**Units:**	ug/L
Lab Code:	R2311986-009	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
4,4'-DDE	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
4,4'-DDT	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
Aldrin	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
Dieldrin	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
Endosulfan I	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
Endosulfan II	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
Endosulfan Sulfate	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
Endrin	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
Endrin Aldehyde	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
Endrin Ketone	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
Heptachlor	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
Heptachlor Epoxide	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
Methoxychlor	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
Toxaphene	0.50 U	0.50	1	01/09/24 16:30	12/28/23	
alpha-BHC	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
alpha-Chlordane	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
beta-BHC	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
delta-BHC	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
gamma-BHC (Lindane)	0.050 U	0.050	1	01/09/24 16:30	12/28/23	
gamma-Chlordane	**0.062**	0.050	1	01/09/24 16:30	12/28/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	46	10 - 111	01/09/24 16:30	
Tetrachloro-m-xylene	82	10 - 101	01/09/24 16:30	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23 08:05
Sample Matrix:	Water	**Date Received:**	12/28/23 09:50
Sample Name:	FD (Field Duplicate)	**Units:**	ug/L
Lab Code:	R2311986-010	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
4,4'-DDE	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
4,4'-DDT	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
Aldrin	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
Dieldrin	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
Endosulfan I	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
Endosulfan II	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
Endosulfan Sulfate	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
Endrin	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
Endrin Aldehyde	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
Endrin Ketone	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
Heptachlor	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
Heptachlor Epoxide	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
Methoxychlor	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
Toxaphene	0.50 U	0.50	1	01/09/24 16:48	12/28/23	
alpha-BHC	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
alpha-Chlordane	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
beta-BHC	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
delta-BHC	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
gamma-BHC (Lindane)	0.050 U	0.050	1	01/09/24 16:48	12/28/23	
gamma-Chlordane	**0.070**	0.050	1	01/09/24 16:48	12/28/23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	45	10 - 111	01/09/24 16:48	
Tetrachloro-m-xylene	82	10 - 101	01/09/24 16:48	

Form 1 - Inorganic Analysis Data Sheet

Client	Zion Environmental, LLC	Workorder	
Project	Taylor's Lane Composte Site	**R2311986**	

6010C, 7470A

MW-2D	Collected	Received	Matrix	Prep Method
R2311986-001	12/27/23 0800	12/28/23 0950	Water	EPA 3005A/3010A, Method

Analyte	Units	MC	Result	Q		DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
Aluminum, Total	ug/L	P	390			30	100	1	01/02/24 10:33	RPAES07_828663	431975
Antimony, Total	ug/L	P	60	U		11	60	1	01/02/24 10:33	RPAES07_828663	431975
Arsenic, Total	ug/L	P	10	U	UJ	6	10	1	01/02/24 10:33	RPAES07_828663	431975
Barium, Total	ug/L	P	270			3	20	1	01/02/24 10:33	RPAES07_828663	431975
Beryllium, Total	ug/L	P	3.0	U		0.2	3.0	1	01/02/24 10:33	RPAES07_828663	431975
Cadmium, Total	ug/L	P	5.0	U		0.4	5.0	1	01/02/24 10:33	RPAES07_828663	431975
Calcium, Total	ug/L	P	89000			300	1000	1	01/02/24 10:33	RPAES07_828663	431975
Chromium, Total	ug/L	P	10	U		2	10	1	01/02/24 10:33	RPAES07_828663	431975
Cobalt, Total	ug/L	P	50	U		0.9	50	1	01/02/24 10:33	RPAES07_828663	431975
Copper, Total	ug/L	P	20	U		4	20	1	01/02/24 10:33	RPAES07_828663	431975
Iron, Total	ug/L	P	1990			70	100	1	01/02/24 10:33	RPAES07_828663	431975
Lead, Total	ug/L	P	50	U		4	50	1	01/02/24 10:33	RPAES07_828663	431975
Magnesium, Total	ug/L	P	63300			30	1000	1	01/02/24 10:33	RPAES07_828663	431975
Manganese, Total	ug/L	P	248			4	10	1	01/02/24 10:33	RPAES07_828663	431975
Mercury, Total	ug/L	CV	0.20	U		0.08	0.20	1	01/04/24 09:50	RCVAA03_828825	432118
Nickel, Total	ug/L	P	40	U		3	40	1	01/02/24 10:33	RPAES07_828663	431975
Potassium, Total	ug/L	P	7500			400	2000	1	01/02/24 10:33	RPAES07_828663	431975
Selenium, Total	ug/L	P	10	U		7	10	1	01/02/24 10:33	RPAES07_828663	431975
Silver, Total	ug/L	P	10	U		0.6	10	1	01/02/24 10:33	RPAES07_828663	431975
Sodium, Total	ug/L	P	27400			300	1000	1	01/02/24 10:33	RPAES07_828663	431975
Thallium, Total	ug/L	P	10	U		8	10	1	01/02/24 10:33	RPAES07_828663	431975
Vanadium, Total	ug/L	P	50	U		0.7	50	1	01/02/24 10:33	RPAES07_828663	431975
Zinc, Total	ug/L	P	20	U		3	20	1	01/02/24 10:33	RPAES07_828663	431975

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

Form 1 - Inorganic Analysis Data Sheet

Client	Zion Environmental, LLC	Workorder	
Project	Taylor's Lane Composte Site		R2311986

6010C, 7470A

MW-2S	Collected	Received	Matrix	Prep Method
R2311986-002	12/27/23 0820	12/28/23 0950	Water	EPA 3005A/3010A, Method

Analyte	Units	MC	Result	Q		DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
Aluminum, Total	ug/L	P	860			30	100	1	01/02/24 10:37	RPAES07_828663	431975
Antimony, Total	ug/L	P	60	U		11	60	1	01/02/24 10:37	RPAES07_828663	431975
Arsenic, Total	ug/L	P	10	U	UJ	6	10	1	01/02/24 10:37	RPAES07_828663	431975
Barium, Total	ug/L	P	449			3	20	1	01/02/24 10:37	RPAES07_828663	431975
Beryllium, Total	ug/L	P	3.0	U		0.2	3.0	1	01/02/24 10:37	RPAES07_828663	431975
Cadmium, Total	ug/L	P	5.0	U		0.4	5.0	1	01/02/24 10:37	RPAES07_828663	431975
Calcium, Total	ug/L	P	82600			300	1000	1	01/02/24 10:37	RPAES07_828663	431975
Chromium, Total	ug/L	P	10	U		2	10	1	01/02/24 10:37	RPAES07_828663	431975
Cobalt, Total	ug/L	P	50	U		0.9	50	1	01/02/24 10:37	RPAES07_828663	431975
Copper, Total	ug/L	P	25			4	20	1	01/02/24 10:37	RPAES07_828663	431975
Iron, Total	ug/L	P	12500			70	100	1	01/02/24 10:37	RPAES07_828663	431975
Lead, Total	ug/L	P	75			4	50	1	01/02/24 10:37	RPAES07_828663	431975
Magnesium, Total	ug/L	P	32700			30	1000	1	01/02/24 10:37	RPAES07_828663	431975
Manganese, Total	ug/L	P	416			4	10	1	01/02/24 10:37	RPAES07_828663	431975
Mercury, Total	ug/L	CV	0.20	U		0.08	0.20	1	01/04/24 09:52	RCVAA03_828825	432118
Nickel, Total	ug/L	P	40	U		3	40	1	01/02/24 10:37	RPAES07_828663	431975
Potassium, Total	ug/L	P	9200			400	2000	1	01/02/24 10:37	RPAES07_828663	431975
Selenium, Total	ug/L	P	10	U		7	10	1	01/02/24 10:37	RPAES07_828663	431975
Silver, Total	ug/L	P	10	U		0.6	10	1	01/02/24 10:37	RPAES07_828663	431975
Sodium, Total	ug/L	P	108000			300	1000	1	01/02/24 10:37	RPAES07_828663	431975
Thallium, Total	ug/L	P	10	U		8	10	1	01/02/24 10:37	RPAES07_828663	431975
Vanadium, Total	ug/L	P	50	U		0.7	50	1	01/02/24 10:37	RPAES07_828663	431975
Zinc, Total	ug/L	P	82			3	20	1	01/02/24 10:37	RPAES07_828663	431975

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

Form 1 - Inorganic Analysis Data Sheet

Client	Zion Environmental, LLC	Workorder	
Project	Taylor's Lane Composte Site		R2311986

6010C, 7470A

MW-15D	Collected	Received	Matrix	Prep Method
R2311986-003	12/27/23 0910	12/28/23 0950	Water	EPA 3005A/3010A, Method

Analyte	Units	MC	Result	Q		DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
Aluminum, Total	ug/L	P	330			30	100	1	01/02/24 10:40	RPAES07_828663	431975
Antimony, Total	ug/L	P	60	U		11	60	1	01/02/24 10:40	RPAES07_828663	431975
Arsenic, Total	ug/L	P	10	U	UJ	6	10	1	01/02/24 10:40	RPAES07_828663	431975
Barium, Total	ug/L	P	951			3	20	1	01/02/24 10:40	RPAES07_828663	431975
Beryllium, Total	ug/L	P	3.0	U		0.2	3.0	1	01/02/24 10:40	RPAES07_828663	431975
Cadmium, Total	ug/L	P	5.0	U		0.4	5.0	1	01/02/24 10:40	RPAES07_828663	431975
Calcium, Total	ug/L	P	110000			300	1000	1	01/02/24 10:40	RPAES07_828663	431975
Chromium, Total	ug/L	P	34			2	10	1	01/02/24 10:40	RPAES07_828663	431975
Cobalt, Total	ug/L	P	50	U		0.9	50	1	01/02/24 10:40	RPAES07_828663	431975
Copper, Total	ug/L	P	20	U		4	20	1	01/02/24 10:40	RPAES07_828663	431975
Iron, Total	ug/L	P	4030			70	100	1	01/02/24 10:40	RPAES07_828663	431975
Lead, Total	ug/L	P	50	U		4	50	1	01/02/24 10:40	RPAES07_828663	431975
Magnesium, Total	ug/L	P	68400			30	1000	1	01/02/24 10:40	RPAES07_828663	431975
Manganese, Total	ug/L	P	5580			4	10	1	01/02/24 10:40	RPAES07_828663	431975
Mercury, Total	ug/L	CV	0.20	U		0.08	0.20	1	01/04/24 09:55	RCVAA03_828825	432118
Nickel, Total	ug/L	P	43			3	40	1	01/02/24 10:40	RPAES07_828663	431975
Potassium, Total	ug/L	P	9700			400	2000	1	01/02/24 10:40	RPAES07_828663	431975
Selenium, Total	ug/L	P	10	U		7	10	1	01/02/24 10:40	RPAES07_828663	431975
Silver, Total	ug/L	P	10	U		0.6	10	1	01/02/24 10:40	RPAES07_828663	431975
Sodium, Total	ug/L	P	47900			300	1000	1	01/02/24 10:40	RPAES07_828663	431975
Thallium, Total	ug/L	P	10	U		8	10	1	01/02/24 10:40	RPAES07_828663	431975
Vanadium, Total	ug/L	P	50	U		0.7	50	1	01/02/24 10:40	RPAES07_828663	431975
Zinc, Total	ug/L	P	62			3	20	1	01/02/24 10:40	RPAES07_828663	431975

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

Form 1 - Inorganic Analysis Data Sheet

Client	Zion Environmental, LLC	Workorder	
Project	Taylor's Lane Composte Site	**R2311986**	

6010C, 7470A

MW-4D	Collected	Received	Matrix	Prep Method
R2311986-004	12/27/23 0920	12/28/23 0950	Water	EPA 3005A/3010A, Method

Analyte	Units	MC	Result	Q		DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
Aluminum, Total	ug/L	P	900			30	100	1	01/02/24 10:43	RPAES07_828663	431975
Antimony, Total	ug/L	P	60	U		11	60	1	01/02/24 10:43	RPAES07_828663	431975
Arsenic, Total	ug/L	P	37		J-	6	10	1	01/02/24 10:43	RPAES07_828663	431975
Barium, Total	ug/L	P	851			3	20	1	01/02/24 10:43	RPAES07_828663	431975
Beryllium, Total	ug/L	P	3.0	U		0.2	3.0	1	01/02/24 10:43	RPAES07_828663	431975
Cadmium, Total	ug/L	P	5.0	U		0.4	5.0	1	01/02/24 10:43	RPAES07_828663	431975
Calcium, Total	ug/L	P	56900			300	1000	1	01/02/24 10:43	RPAES07_828663	431975
Chromium, Total	ug/L	P	10	U		2	10	1	01/02/24 10:43	RPAES07_828663	431975
Cobalt, Total	ug/L	P	50	U		0.9	50	1	01/02/24 10:43	RPAES07_828663	431975
Copper, Total	ug/L	P	20	U		4	20	1	01/02/24 10:43	RPAES07_828663	431975
Iron, Total	ug/L	P	60300			700	1000	10	01/02/24 11:41	RPAES07_828663	431975
Lead, Total	ug/L	P	50	U		4	50	1	01/02/24 10:43	RPAES07_828663	431975
Magnesium, Total	ug/L	P	27300			30	1000	1	01/02/24 10:43	RPAES07_828663	431975
Manganese, Total	ug/L	P	2370			4	10	1	01/02/24 10:43	RPAES07_828663	431975
Mercury, Total	ug/L	CV	0.20	U		0.08	0.20	1	01/04/24 09:57	RCVAA03_828825	432118
Nickel, Total	ug/L	P	221			3	40	1	01/02/24 10:43	RPAES07_828663	431975
Potassium, Total	ug/L	P	5800			400	2000	1	01/02/24 10:43	RPAES07_828663	431975
Selenium, Total	ug/L	P	10	U		7	10	1	01/02/24 10:43	RPAES07_828663	431975
Silver, Total	ug/L	P	10	U		0.6	10	1	01/02/24 10:43	RPAES07_828663	431975
Sodium, Total	ug/L	P	162000			300	1000	1	01/02/24 10:43	RPAES07_828663	431975
Thallium, Total	ug/L	P	10	U		8	10	1	01/02/24 10:43	RPAES07_828663	431975
Vanadium, Total	ug/L	P	50	U		0.7	50	1	01/02/24 10:43	RPAES07_828663	431975
Zinc, Total	ug/L	P	20	U		3	20	1	01/02/24 10:43	RPAES07_828663	431975

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

Form 1 - Inorganic Analysis Data Sheet

Client	Zion Environmental, LLC	Workorder	
Project	Taylor's Lane Composte Site	**R2311986**	

6010C, 7470A

MW-4S	Collected	Received	Matrix	Prep Method
R2311986-005	12/27/23 1315	12/28/23 0950	Water	EPA 3005A/3010A, Method

Analyte	Units	MC	Result	Q		DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
Aluminum, Total	ug/L	P	197000			30	100	1	01/02/24 10:46	RPAES07_828663	431975
Antimony, Total	ug/L	P	60	U		11	60	1	01/02/24 10:46	RPAES07_828663	431975
Arsenic, Total	ug/L	P	81		J-	6	10	1	01/02/24 10:46	RPAES07_828663	431975
Barium, Total	ug/L	P	4980			3	20	1	01/02/24 10:46	RPAES07_828663	431975
Beryllium, Total	ug/L	P	11.6			0.2	3.0	1	01/02/24 10:46	RPAES07_828663	431975
Cadmium, Total	ug/L	P	10.0			0.4	5.0	1	01/02/24 10:46	RPAES07_828663	431975
Calcium, Total	ug/L	P	146000			300	1000	1	01/02/24 10:46	RPAES07_828663	431975
Chromium, Total	ug/L	P	918			2	10	1	01/02/24 10:46	RPAES07_828663	431975
Cobalt, Total	ug/L	P	239			0.9	50	1	01/02/24 10:46	RPAES07_828663	431975
Copper, Total	ug/L	P	839			4	20	1	01/02/24 10:46	RPAES07_828663	431975
Iron, Total	ug/L	P	767000			3100	5000	50	01/04/24 15:29	RPAES07_828941	431975
Lead, Total	ug/L	P	715			4	50	1	01/02/24 10:46	RPAES07_828663	431975
Magnesium, Total	ug/L	P	120000			30	1000	1	01/02/24 10:46	RPAES07_828663	431975
Manganese, Total	ug/L	P	9250			4	10	1	01/02/24 10:46	RPAES07_828663	431975
Mercury, Total	ug/L	CV	0.31			0.08	0.20	1	01/04/24 10:00	RCVAA03_828825	432118
Nickel, Total	ug/L	P	1280			3	40	1	01/02/24 10:46	RPAES07_828663	431975
Potassium, Total	ug/L	P	49000			400	2000	1	01/02/24 10:46	RPAES07_828663	431975
Selenium, Total	ug/L	P	100	U		70	100	10	01/02/24 11:45	RPAES07_828663	431975
Silver, Total	ug/L	P	10	U		0.6	10	1	01/02/24 10:46	RPAES07_828663	431975
Sodium, Total	ug/L	P	160000			300	1000	1	01/02/24 10:46	RPAES07_828663	431975
Thallium, Total	ug/L	P	10	U		8	10	1	01/02/24 10:46	RPAES07_828663	431975
Vanadium, Total	ug/L	P	615			0.7	50	1	01/02/24 10:46	RPAES07_828663	431975
Zinc, Total	ug/L	P	1910			3	20	1	01/02/24 10:46	RPAES07_828663	431975

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

Form 1 - Inorganic Analysis Data Sheet

Client	Zion Environmental, LLC	Workorder	
Project	Taylor's Lane Composte Site	**R2311986**	

6010C, 7470A

MW-9D	Collected	Received	Matrix	Prep Method
R2311986-006	12/27/23 1028	12/28/23 0950	Water	EPA 3005A/3010A, Method

Analyte	Units	MC	Result	Q		DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
Aluminum, Total	ug/L	P	100	U		30	100	1	01/02/24 10:50	RPAES07_828663	431975
Antimony, Total	ug/L	P	60	U		11	60	1	01/02/24 10:50	RPAES07_828663	431975
Arsenic, Total	ug/L	P	10	U	UJ	6	10	1	01/02/24 10:50	RPAES07_828663	431975
Barium, Total	ug/L	P	221			3	20	1	01/02/24 10:50	RPAES07_828663	431975
Beryllium, Total	ug/L	P	3.0	U		0.2	3.0	1	01/02/24 10:50	RPAES07_828663	431975
Cadmium, Total	ug/L	P	5.0	U		0.4	5.0	1	01/02/24 10:50	RPAES07_828663	431975
Calcium, Total	ug/L	P	121000			300	1000	1	01/02/24 10:50	RPAES07_828663	431975
Chromium, Total	ug/L	P	2920			2	10	1	01/02/24 10:50	RPAES07_828663	431975
Cobalt, Total	ug/L	P	50	U		0.9	50	1	01/02/24 10:50	RPAES07_828663	431975
Copper, Total	ug/L	P	79			4	20	1	01/02/24 10:50	RPAES07_828663	431975
Iron, Total	ug/L	P	18200			70	100	1	01/02/24 10:50	RPAES07_828663	431975
Lead, Total	ug/L	P	50	U		4	50	1	01/02/24 10:50	RPAES07_828663	431975
Magnesium, Total	ug/L	P	41300			30	1000	1	01/02/24 10:50	RPAES07_828663	431975
Manganese, Total	ug/L	P	376			4	10	1	01/02/24 10:50	RPAES07_828663	431975
Mercury, Total	ug/L	CV	0.20	U		0.08	0.20	1	01/04/24 10:07	RCVAA03_828825	432118
Nickel, Total	ug/L	P	4030			3	40	1	01/02/24 10:50	RPAES07_828663	431975
Potassium, Total	ug/L	P	10000			400	2000	1	01/02/24 10:50	RPAES07_828663	431975
Selenium, Total	ug/L	P	10	U		7	10	1	01/02/24 10:50	RPAES07_828663	431975
Silver, Total	ug/L	P	10	U		0.6	10	1	01/02/24 10:50	RPAES07_828663	431975
Sodium, Total	ug/L	P	68700			300	1000	1	01/02/24 10:50	RPAES07_828663	431975
Thallium, Total	ug/L	P	10	U		8	10	1	01/02/24 10:50	RPAES07_828663	431975
Vanadium, Total	ug/L	P	50	U		0.7	50	1	01/02/24 10:50	RPAES07_828663	431975
Zinc, Total	ug/L	P	25			3	20	1	01/02/24 10:50	RPAES07_828663	431975

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

Form 1 - Inorganic Analysis Data Sheet

Client	Zion Environmental, LLC	Workorder	
Project	Taylor's Lane Composte Site		R2311986

6010C, 7470A

MW-9S	Collected	Received	Matrix	Prep Method
R2311986-007	12/27/23 1130	12/28/23 0950	Water	EPA 3005A/3010A, Method

Analyte	Units	MC	Result	Q		DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
Aluminum, Total	ug/L	P	4290			30	100	1	01/02/24 11:12	RPAES07_828663	431975
Antimony, Total	ug/L	P	60	U		11	60	1	01/02/24 11:12	RPAES07_828663	431975
Arsenic, Total	ug/L	P	10	U	UJ	6	10	1	01/02/24 11:12	RPAES07_828663	431975
Barium, Total	ug/L	P	327			3	20	1	01/02/24 11:12	RPAES07_828663	431975
Beryllium, Total	ug/L	P	3.0	U		0.2	3.0	1	01/02/24 11:12	RPAES07_828663	431975
Cadmium, Total	ug/L	P	5.0	U		0.4	5.0	1	01/02/24 11:12	RPAES07_828663	431975
Calcium, Total	ug/L	P	55200			300	1000	1	01/02/24 11:12	RPAES07_828663	431975
Chromium, Total	ug/L	P	3940			2	10	1	01/02/24 11:12	RPAES07_828663	431975
Cobalt, Total	ug/L	P	50	U		0.9	50	1	01/02/24 11:12	RPAES07_828663	431975
Copper, Total	ug/L	P	42			4	20	1	01/02/24 11:12	RPAES07_828663	431975
Iron, Total	ug/L	P	19900			70	100	1	01/02/24 11:12	RPAES07_828663	431975
Lead, Total	ug/L	P	50	U		4	50	1	01/02/24 11:12	RPAES07_828663	431975
Magnesium, Total	ug/L	P	17500			30	1000	1	01/02/24 11:12	RPAES07_828663	431975
Manganese, Total	ug/L	P	2660			4	10	1	01/02/24 11:12	RPAES07_828663	431975
Mercury, Total	ug/L	CV	0.20	U		0.08	0.20	1	01/04/24 10:15	RCVAA03_828825	432118
Nickel, Total	ug/L	P	105			3	40	1	01/02/24 11:12	RPAES07_828663	431975
Potassium, Total	ug/L	P	4900			400	2000	1	01/02/24 11:12	RPAES07_828663	431975
Selenium, Total	ug/L	P	10	U		7	10	1	01/02/24 11:12	RPAES07_828663	431975
Silver, Total	ug/L	P	10	U		0.6	10	1	01/02/24 11:12	RPAES07_828663	431975
Sodium, Total	ug/L	P	175000			300	1000	1	01/02/24 11:12	RPAES07_828663	431975
Thallium, Total	ug/L	P	10	U		8	10	1	01/02/24 11:12	RPAES07_828663	431975
Vanadium, Total	ug/L	P	50	U		0.7	50	1	01/02/24 11:12	RPAES07_828663	431975
Zinc, Total	ug/L	P	20	U		3	20	1	01/02/24 11:12	RPAES07_828663	431975

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

Form 1 - Inorganic Analysis Data Sheet

Client	Zion Environmental, LLC	Workorder	
Project	Taylor's Lane Composte Site	**R2311986**	

6010C, 7470A

MH-1	Collected	Received	Matrix	Prep Method
R2311986-008	12/27/23 1438	12/28/23 0950	Water	EPA 3005A/3010A, Method

Analyte	Units	MC	Result	Q		DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
Aluminum, Total	ug/L	P	100	U		30	100	1	01/02/24 11:15	RPAES07_828663	431975
Antimony, Total	ug/L	P	60	U		11	60	1	01/02/24 11:15	RPAES07_828663	431975
Arsenic, Total	ug/L	P	10	U	UJ	6	10	1	01/02/24 11:15	RPAES07_828663	431975
Barium, Total	ug/L	P	466			3	20	1	01/02/24 11:15	RPAES07_828663	431975
Beryllium, Total	ug/L	P	3.0	U		0.2	3.0	1	01/02/24 11:15	RPAES07_828663	431975
Cadmium, Total	ug/L	P	5.0	U		0.4	5.0	1	01/02/24 11:15	RPAES07_828663	431975
Calcium, Total	ug/L	P	80900			300	1000	1	01/02/24 11:15	RPAES07_828663	431975
Chromium, Total	ug/L	P	10	U		2	10	1	01/02/24 11:15	RPAES07_828663	431975
Cobalt, Total	ug/L	P	50	U		0.9	50	1	01/02/24 11:15	RPAES07_828663	431975
Copper, Total	ug/L	P	20	U		4	20	1	01/02/24 11:15	RPAES07_828663	431975
Iron, Total	ug/L	P	19300			70	100	1	01/02/24 11:15	RPAES07_828663	431975
Lead, Total	ug/L	P	50	U		4	50	1	01/02/24 11:15	RPAES07_828663	431975
Magnesium, Total	ug/L	P	28500			30	1000	1	01/02/24 11:15	RPAES07_828663	431975
Manganese, Total	ug/L	P	742			4	10	1	01/02/24 11:15	RPAES07_828663	431975
Mercury, Total	ug/L	CV	0.20	U		0.08	0.20	1	01/04/24 10:18	RCVAA03_828825	432118
Nickel, Total	ug/L	P	40	U		3	40	1	01/02/24 11:15	RPAES07_828663	431975
Potassium, Total	ug/L	P	5900			400	2000	1	01/02/24 11:15	RPAES07_828663	431975
Selenium, Total	ug/L	P	10	U		7	10	1	01/02/24 11:15	RPAES07_828663	431975
Silver, Total	ug/L	P	10	U		0.6	10	1	01/02/24 11:15	RPAES07_828663	431975
Sodium, Total	ug/L	P	122000			300	1000	1	01/02/24 11:15	RPAES07_828663	431975
Thallium, Total	ug/L	P	10	U		8	10	1	01/02/24 11:15	RPAES07_828663	431975
Vanadium, Total	ug/L	P	50	U		0.7	50	1	01/02/24 11:15	RPAES07_828663	431975
Zinc, Total	ug/L	P	20	U		3	20	1	01/02/24 11:15	RPAES07_828663	431975

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

Form 1 - Inorganic Analysis Data Sheet

Client	Zion Environmental, LLC	Workorder	
Project	Taylor's Lane Composte Site		R2311986

6010C, 7470A

CB-1	Collected	Received	Matrix	Prep Method
R2311986-009	12/27/23 1457	12/28/23 0950	Water	EPA 3005A/3010A, Method

Analyte	Units	MC	Result	Q		DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
Aluminum, Total	ug/L	P	100	U		30	100	1	01/02/24 11:19	RPAES07_828663	431975
Antimony, Total	ug/L	P	60	U		11	60	1	01/02/24 11:19	RPAES07_828663	431975
Arsenic, Total	ug/L	P	10	U	UJ	6	10	1	01/02/24 11:19	RPAES07_828663	431975
Barium, Total	ug/L	P	352			3	20	1	01/02/24 11:19	RPAES07_828663	431975
Beryllium, Total	ug/L	P	3.0	U		0.2	3.0	1	01/02/24 11:19	RPAES07_828663	431975
Cadmium, Total	ug/L	P	5.0	U		0.4	5.0	1	01/02/24 11:19	RPAES07_828663	431975
Calcium, Total	ug/L	P	64000			300	1000	1	01/02/24 11:19	RPAES07_828663	431975
Chromium, Total	ug/L	P	10	U		2	10	1	01/02/24 11:19	RPAES07_828663	431975
Cobalt, Total	ug/L	P	50	U		0.9	50	1	01/02/24 11:19	RPAES07_828663	431975
Copper, Total	ug/L	P	20	U		4	20	1	01/02/24 11:19	RPAES07_828663	431975
Iron, Total	ug/L	P	7700			70	100	1	01/02/24 11:19	RPAES07_828663	431975
Lead, Total	ug/L	P	50	U		4	50	1	01/02/24 11:19	RPAES07_828663	431975
Magnesium, Total	ug/L	P	23100			30	1000	1	01/02/24 11:19	RPAES07_828663	431975
Manganese, Total	ug/L	P	519			4	10	1	01/02/24 11:19	RPAES07_828663	431975
Mercury, Total	ug/L	CV	0.20	U		0.08	0.20	1	01/04/24 10:20	RCVAA03_828825	432118
Nickel, Total	ug/L	P	40	U		3	40	1	01/02/24 11:19	RPAES07_828663	431975
Potassium, Total	ug/L	P	5500			400	2000	1	01/02/24 11:19	RPAES07_828663	431975
Selenium, Total	ug/L	P	10	U		7	10	1	01/02/24 11:19	RPAES07_828663	431975
Silver, Total	ug/L	P	10	U		0.6	10	1	01/02/24 11:19	RPAES07_828663	431975
Sodium, Total	ug/L	P	90100			300	1000	1	01/02/24 11:19	RPAES07_828663	431975
Thallium, Total	ug/L	P	10	U		8	10	1	01/02/24 11:19	RPAES07_828663	431975
Vanadium, Total	ug/L	P	50	U		0.7	50	1	01/02/24 11:19	RPAES07_828663	431975
Zinc, Total	ug/L	P	20	U		3	20	1	01/02/24 11:19	RPAES07_828663	431975

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

Form 1 - Inorganic Analysis Data Sheet

Client	Zion Environmental, LLC	Workorder	
Project	Taylor's Lane Composte Site	R2311986	

6010C, 7470A

FD (Field Duplicate)

	Collected	Received	Matrix	Prep Method
R2311986-010	12/27/23 0805	12/28/23 0950	Water	EPA 3005A/3010A, Method

Analyte	Units	MC	Result	Q		DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
Aluminum, Total	ug/L	P	450			30	100	1	01/02/24 11:22	RPAES07_828663	431975
Antimony, Total	ug/L	P	60	U		11	60	1	01/02/24 11:22	RPAES07_828663	431975
Arsenic, Total	ug/L	P	10	U	UJ	6	10	1	01/02/24 11:22	RPAES07_828663	431975
Barium, Total	ug/L	P	270			3	20	1	01/02/24 11:22	RPAES07_828663	431975
Beryllium, Total	ug/L	P	3.0	U		0.2	3.0	1	01/02/24 11:22	RPAES07_828663	431975
Cadmium, Total	ug/L	P	5.0	U		0.4	5.0	1	01/02/24 11:22	RPAES07_828663	431975
Calcium, Total	ug/L	P	88700			300	1000	1	01/02/24 11:22	RPAES07_828663	431975
Chromium, Total	ug/L	P	10	U		2	10	1	01/02/24 11:22	RPAES07_828663	431975
Cobalt, Total	ug/L	P	50	U		0.9	50	1	01/02/24 11:22	RPAES07_828663	431975
Copper, Total	ug/L	P	20	U		4	20	1	01/02/24 11:22	RPAES07_828663	431975
Iron, Total	ug/L	P	2040			70	100	1	01/02/24 11:22	RPAES07_828663	431975
Lead, Total	ug/L	P	50	U		4	50	1	01/02/24 11:22	RPAES07_828663	431975
Magnesium, Total	ug/L	P	62800			30	1000	1	01/02/24 11:22	RPAES07_828663	431975
Manganese, Total	ug/L	P	248			4	10	1	01/02/24 11:22	RPAES07_828663	431975
Mercury, Total	ug/L	CV	0.20	U		0.08	0.20	1	01/04/24 10:23	RCVAA03_828825	432118
Nickel, Total	ug/L	P	40	U		3	40	1	01/02/24 11:22	RPAES07_828663	431975
Potassium, Total	ug/L	P	7500			400	2000	1	01/02/24 11:22	RPAES07_828663	431975
Selenium, Total	ug/L	P	10	U		7	10	1	01/02/24 11:22	RPAES07_828663	431975
Silver, Total	ug/L	P	10	U		0.6	10	1	01/02/24 11:22	RPAES07_828663	431975
Sodium, Total	ug/L	P	26600			300	1000	1	01/02/24 11:22	RPAES07_828663	431975
Thallium, Total	ug/L	P	10	U		8	10	1	01/02/24 11:22	RPAES07_828663	431975
Vanadium, Total	ug/L	P	50	U		0.7	50	1	01/02/24 11:22	RPAES07_828663	431975
Zinc, Total	ug/L	P	20	U		3	20	1	01/02/24 11:22	RPAES07_828663	431975

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

VOC Data Section

ALPHA GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

QA/QC Review of Method 8260C Volatiles
Data for ALS Group USA, Corp.
Service Request: R2311986

9 Ground Water Samples, 1 Field Duplicate,
and 1 Trip Blank
Collected December 27, 2023

Prepared by: Donald Anné
June 24, 2024

Holding Times: Samples were analyzed within USEPA SW-846 holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The average RRFs for applicable compounds were above the method minimums, as required.

The average RRFs for target compounds were above the allowable minimum (0.010) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRFs for applicable compounds were above the method minimums and the %Ds were below the method maximum, as required.

The RRFs for target compounds were above the allowable minimum (0. 0.010) and the %Ds were below the allowable maximum (20%), as required.

Blanks: The analyses of the method and trip blanks reported target compounds as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for the ground water samples, field blank, and trip blank.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for target compounds were below the allowable maximum and the percent recoveries were within QC limits for aqueous MS/MSD sample MW-9D.

Laboratory Control Sample: The percent recoveries for target compounds were within QC limits for aqueous sample RQ2400186-03.

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Field Duplicates: The analyses of aqueous field duplicate pair MW-2D/FD reported target compounds as not detected; therefore, valid relative percent differences could not be calculated. The analyses for the field duplicate pair were acceptable.

Compound ID: Checked surrogate results were within GC/MS quantitation limits. The analyses of the ground water samples reported target compounds as not detected.

1,4-Dioxane

Data Section

ALPHA GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

QA/QC Review of Method 8270D SIM 1,4-Dioxane
Data for ALS Group USA, Corp.
Service Request: R2311986

9 Ground Water Samples, 1 Field Duplicate,
Collected December 27, 2023

Prepared by: Donald Anné
June 24, 2024

Holding Times: The samples were extracted and analyzed within USEPA holding times.

GC/MS Tuning and Mass Calibration: The DFTPP tuning criteria were within control limits.

Initial Calibration: The average RRF for 1,4-dioxane was above the allowable minimum (0.010) and %RSD was below the allowable maximum (30%), as required.

Continuing Calibration: The RRFs for 1,4-dioxane were above the allowable minimum (0.010) and the %Ds were below the allowable maximum (20%), as required.

Blanks: The analyses of the method blanks reported 1,4-dioxane as not detected.

Surrogate Recovery: The surrogate recoveries were within QC limits for the ground water samples.

Internal Standard Area Summary: The internal standard area and retention time were within control limits.

Matrix Spike/Matrix Spike Duplicate: The relative percent difference for 1,4-dioxane was above the allowable maximum and 1 of 2 percent recoveries was above QC limits for aqueous MS/MSD sample MW-9D. Sample MW-9D reported 1,4-dioxane as "not detected"; therefore, no action is taken.

Laboratory Control Sample: The relative percent differences for 1,4-dioxane were below the allowable maximum and the percent recoveries were within QC limits for aqueous samples RQ2317051-02/03 and RQ2400020-02/03.

Field Duplicates: The relative percent difference for 1,4-dioxane was below the allowable maximum (20%) for aqueous field duplicate pair MW-2D/FD (attached table), as required.

Compound ID: Checked 1,4-dioxane and surrogate results were within GC/MS quantitation limits.

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ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23
Sample Matrix:	Water	**Date Received:**	12/28/23
		Date Analyzed:	01/2/24
		Date Extracted:	12/29/23

Duplicate Matrix Spike Summary
1,4-Dioxane by GC/MS

Sample Name:	MW-9D	**Units:**	ug/L
Lab Code:	R2311986-006	**Basis:**	NA
Analysis Method:	8270D SIM		
Prep Method:	EPA 3535A		

		Matrix Spike RQ2317051-04			Duplicate Matrix Spike RQ2317051-05					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,4-Dioxane	0.10 U	41.9	25.0	168 *	20.7	25.0	83	33-146	68*	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

Pesticide Data Section

ALPHA GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

QA/QC Review of Method 8081B Pesticides
Data for ALS Group USA, Corp.
Service Request: R2311986

9 Ground Water Samples and 1 Field Duplicate
Collected December 27, 2023

Prepared by: Donald Anné
June 24, 2024

Holding Times: Samples were extracted and analyzed within USEPA SW-846 holding times.

Blanks: The analysis of the method blank reported target pesticides as not detected.

Surrogate Recovery: The surrogate recoveries were within QC limits for the ground water samples.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for 19 pesticides (highlighted yellow on attached form) were above the allowable maximum; 1 of 2 percent recoveries (%Rs) for endrin aldehyde was above QC limits; and 1 of 2 %Rs for endosulfan I and gamma-chlordane were below QC limits, but not below 30% for aqueous MS/MSD sample MW-9D. The "not detected" results for endosulfan I and gamma-chlordane should be considered estimated (UJ) in sample MW-9D.

Laboratory Control Sample: The relative percent differences for target pesticides were below the allowable maximum; but 2 of 2 percent recoveries (%Rs) for aldrin and 1 of 2 %Rs for 4,4'-DDT, endrin, and heptachlor were above QC limits for aqueous samples RQ2316932-02 and RQ2316932-03. The positive results for these pesticides should be considered estimated biased, high (J+) in associated aqueous samples.

Field Duplicates: The analyses of aqueous field duplicate pair MW-2D/FD reported target compounds as not detected in one or both samples; therefore, valid relative percent differences could not be calculated. The analyses for the field duplicate pair were acceptable.

Initial Calibration: The %RSDs for target pesticides were below the allowable maximum (20%), as required.

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Continuing Calibration: The %Ds for 4,4’-DDT and methoxychlor were above the allowable maximum (20%) for both columns on 01-08-24 (B3913.D). The %Ds for 4,4’-DDT and methoxychlor were above the allowable maximum (20%) for both columns on 01-09-24 (B3930.D). Positive results for 4,4’-DDT and methoxychlor should be considered estimated (J) in associated samples.

DDT/Endrin Breakdown Check: The percent breakdowns were below the allowable maximum (15%) for 4,4'-DDT and endrin, as required.

Pesticide Identification Summary for Single Component Analytes: Checked surrogate and detected results were within GC quantitation limits. The RPDs for dual column quantitation of detected pesticides were below the allowable maximum, as required.

Pesticide Identification Summary for Multicomponent Analytes: The analyses of ground water samples reported target multicomponent pesticides as not detected.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Collected:**	12/27/23
Sample Matrix:	Water	**Date Received:**	12/28/23
		Date Analyzed:	01/8/24
		Date Extracted:	12/28/23

Duplicate Matrix Spike Summary
Organochlorine Pesticides by Gas Chromatography

Sample Name:	MW-9D	**Units:**	ug/L
Lab Code:	R2311986-006	**Basis:**	NA
Analysis Method:	8081B		
Prep Method:	EPA 3510C		

		Matrix Spike RQ2316932-04			Duplicate Matrix Spike RQ2316932-05					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
4,4'-DDD	0.050 U	0.160	0.400	40	0.405	0.400	101	38-157	87*	30
4,4'-DDE	0.050 U	0.111	0.400	28	0.303	0.400	76	10-200	92*	30
4,4'-DDT	0.050 U	0.167	0.400	42	0.355	0.400	89	19-154	72*	30
Aldrin	0.050 U	0.110	0.400	28	0.334	0.400	83	26-149	101*	30
Dieldrin	0.050 U	0.212	0.400	53	0.403	0.400	101	41-164	62*	30
Endosulfan I	0.050 U	0.140	0.400	35 *	0.376	0.400	94	47-149	91*	30
Endosulfan II	0.050 U	0.267	0.400	67	0.415	0.400	104	51-148	43*	30
Endosulfan Sulfate	0.050 U	0.289	0.400	72	0.415	0.400	104	10-170	36*	30
Endrin	0.050 U	0.284	0.400	71	0.503	0.400	126	48-165	56*	30
Endrin Aldehyde	0.050 U	0.301	0.400	75	0.398	0.400	100 *	10-94	28	30
Endrin Ketone	0.050 U	0.285	0.400	71	0.425	0.400	106	48-162	40*	30
Heptachlor	0.050 U	0.155	0.400	39	0.378	0.400	95	29-168	83*	30
Heptachlor Epoxide	0.050 U	0.218	0.400	55	0.402	0.400	100	29-180	59*	30
Methoxychlor	0.050 U	0.219	0.400	55	0.470	0.400	118	38-162	73*	30
alpha-BHC	0.050 U	0.256	0.400	64	0.377	0.400	94	27-154	38*	30
alpha-Chlordane	0.050 U	0.140	0.400	35	0.373	0.400	93	35-160	91*	30
beta-BHC	0.050 U	0.266	0.400	67	0.373	0.400	93	32-184	33*	30
delta-BHC	0.050 U	0.275	0.400	69	0.394	0.400	98	10-182	35*	30
gamma-BHC (Lindane)	0.050 U	0.267	0.400	67	0.387	0.400	97	43-164	37*	30
gamma-Chlordane	0.050 U	0.136	0.400	34 *	0.372	0.400	93	35-165	93*	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Zion Environmental, LLC
Project: Taylor's Lane Composite Site
Sample Matrix: Water

Service Request: R2311986
Date Analyzed: 01/08/24

Duplicate Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Units:ug/L
Basis:NA

		Lab Control Sample RQ2316932-02			Duplicate Lab Control Sample RQ2316932-03					
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
4,4'-DDD	8081B	0.374	0.400	93	0.407	0.400	102	38-116	9	30
4,4'-DDE	8081B	0.365	0.400	91	0.390	0.400	97	40-107	7	30
4,4'-DDT	8081B	0.488	0.400	122 *	0.482	0.400	120	41-121	1	30
Aldrin	8081B	0.346	0.400	86 *	0.377	0.400	94 *	27-85	9	30
Dieldrin	8081B	0.380	0.400	95	0.421	0.400	105	45-112	10	30
Endosulfan I	8081B	0.362	0.400	91	0.395	0.400	99	44-111	9	30
Endosulfan II	8081B	0.382	0.400	96	0.416	0.400	104	44-114	8	30
Endosulfan Sulfate	8081B	0.393	0.400	98	0.415	0.400	104	38-119	5	30
Endrin	8081B	0.453	0.400	113	0.483	0.400	121 *	47-116	6	30
Endrin Aldehyde	8081B	0.382	0.400	96	0.413	0.400	103	10-134	8	30
Endrin Ketone	8081B	0.412	0.400	103	0.456	0.400	114	44-120	10	30
Heptachlor	8081B	0.372	0.400	93	0.404	0.400	101 *	33-99	8	30
Heptachlor Epoxide	8081B	0.371	0.400	93	0.401	0.400	100	46-111	8	30
Methoxychlor	8081B	0.513	0.400	128	0.527	0.400	132	29-138	3	30
alpha-BHC	8081B	0.352	0.400	88	0.383	0.400	96	39-107	8	30
alpha-Chlordane	8081B	0.364	0.400	91	0.394	0.400	99	44-107	8	30
beta-BHC	8081B	0.348	0.400	87	0.382	0.400	96	47-110	9	30
delta-BHC	8081B	0.365	0.400	91	0.399	0.400	100	43-109	9	30
gamma-BHC (Lindane)	8081B	0.363	0.400	91	0.407	0.400	102	41-105	11	30
gamma-Chlordane	8081B	0.368	0.400	92	0.395	0.400	99	41-107	7	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Analyzed:**	01/08/24 17:18

Continuing Calibration Verification (CCV) Summary
Organochlorine Pesticides by Gas Chromatography

Analysis Method:	8081B	**Calibration Date:**	1/5/2024
File ID:	I:\ACQUDATA\7890m\DATA\010824\B3913.D\	**Calibration ID:**	RC2400006
Signal ID:	STx-CLPII	**Analysis Lot:**	829213
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4,4'-DDD	25.0	27.4	1.188E7	1.303E7	9.7	NA	±20	Average RF
4,4'-DDE	25.0	28.2	1.459E7	1.645E7	12.7	NA	±20	Average RF
4,4'-DDT	25.0	35.7	6.965E6	9.956E6	42.9*	NA	±20	Average RF
Aldrin	25.0	27.0	1.695E7	1.832E7	8.0	NA	±20	Average RF
Dieldrin	25.0	27.5	1.499E7	1.652E7	10.2	NA	±20	Average RF
Endosulfan I	25.0	26.8	1.543E7	1.652E7	7.0	NA	±20	Average RF
Endosulfan II	25.0	27.3	1.285E7	1.404E7	9.3	NA	±20	Average RF
Endosulfan Sulfate	25.0	27.1	1.167E7	1.263E7	8.2	NA	±20	Average RF
Endrin	25.0	29.1	1.045E7	1.216E7	16.4	NA	±20	Average RF
Endrin Aldehyde	25.0	25.4	1.059E7	1.075E7	1.5	NA	±20	Average RF
Endrin Ketone	25.0	28.8	1.317E7	1.515E7	15.1	NA	±20	Average RF
Heptachlor	25.0	28.4	1.439E7	1.632E7	13.4	NA	±20	Average RF
Heptachlor Epoxide	25.0	26.7	1.489E7	1.59E7	6.8	NA	±20	Average RF
Methoxychlor	25.0	34.5	3.575E6	4.939E6	38.1*	NA	±20	Average RF
alpha-BHC	25.0	26.7	1.995E7	2.132E7	6.8	NA	±20	Average RF
alpha-Chlordane	25.0	26.8	1.409E7	1.508E7	7.0	NA	±20	Average RF
beta-BHC	25.0	25.3	7.684E6	7.789E6	1.4	NA	±20	Average RF
delta-BHC	25.0	26.8	1.766E7	1.896E7	7.4	NA	±20	Average RF
gamma-BHC (Lindane)	25.0	26.8	1.749E7	1.874E7	7.1	NA	±20	Average RF
gamma-Chlordane	25.0	26.9	1.535E7	1.65E7	7.5	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Decachlorobiphenyl	25.0	26.7	1.013E7	1.08E7	6.6	NA	±20	Average RF
Tetrachloro-m-xylene	25.0	26.3	1.374E7	1.447E7	5.3	NA	±20	Average RF

Client: Zion Environmental, LLC
Project: Taylor's Lane Composte Site

Service Request: R2311986
Date Analyzed: 01/08/24 17:18

Continuing Calibration Verification (CCV) Summary
Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
File ID: I:\ACQUDATA\7890m\DATA\010824\B3913.D\
Signal ID: STx-CLP

Calibration Date: 1/5/2024
Calibration ID: RC2400006
Analysis Lot: 829213
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4,4'-DDD	25.0	27.5	1.103E7	1.215E7	10.1	NA	±20	Average RF
4,4'-DDE	25.0	27.7	1.331E7	1.476E7	10.9	NA	±20	Average RF
4,4'-DDT	25.0	33.0	7.587E6	1.001E7	32.0*	NA	±20	Average RF
Aldrin	25.0	26.7	1.573E7	1.682E7	6.9	NA	±20	Average RF
Dieldrin	25.0	26.3	1.387E7	1.462E7	5.4	NA	±20	Average RF
Endosulfan I	25.0	26.4	1.306E7	1.38E7	5.6	NA	±20	Average RF
Endosulfan II	25.0	26.6	1.202E7	1.279E7	6.4	NA	±20	Average RF
Endosulfan Sulfate	25.0	25.9	1.117E7	1.156E7	3.5	NA	±20	Average RF
Endrin	25.0	28.3	1.007E7	1.141E7	13.3	NA	±20	Average RF
Endrin Aldehyde	25.0	25.1	9.722E6	9.755E6	0.3	NA	±20	Average RF
Endrin Ketone	25.0	27.8	1.294E7	1.441E7	11.4	NA	±20	Average RF
Heptachlor	25.0	28.1	1.358E7	1.527E7	12.5	NA	±20	Average RF
Heptachlor Epoxide	25.0	26.3	1.369E7	1.44E7	5.2	NA	±20	Average RF
Methoxychlor	25.0	32.3	3.954E6	5.112E6	29.3*	NA	±20	Average RF
alpha-BHC	25.0	26.6	1.893E7	2.011E7	6.3	NA	±20	Average RF
alpha-Chlordane	25.0	26.8	1.367E7	1.467E7	7.3	NA	±20	Average RF
beta-BHC	25.0	24.6	7.36E6	7.241E6	-1.6	NA	±20	Average RF
delta-BHC	25.0	26.0	1.661E7	1.727E7	4.0	NA	±20	Average RF
gamma-BHC (Lindane)	25.0	26.6	1.668E7	1.775E7	6.4	NA	±20	Average RF
gamma-Chlordane	25.0	26.5	1.4E7	1.485E7	6.0	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Decachlorobiphenyl	25.0	27.4	8.549E6	9.362E6	9.5	NA	±20	Average RF
Tetrachloro-m-xylene	25.0	26.2	1.319E7	1.38E7	4.6	NA	±20	Average RF

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Analyzed:**	01/09/24 14:45

Continuing Calibration Verification (CCV) Summary
Organochlorine Pesticides by Gas Chromatography

Analysis Method:	8081B	**Calibration Date:**	1/5/2024
File ID:	I:\ACQUDATA\7890m\DATA\010924\B3930.D\	**Calibration ID:**	RC2400006
Signal ID:	STx-CLP	**Analysis Lot:**	829331
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4,4'-DDD	25.0	25.6	1.103E7	1.13E7	2.5	NA	±20	Average RF
4,4'-DDE	25.0	26.0	1.331E7	1.383E7	3.9	NA	±20	Average RF
4,4'-DDT	25.0	33.6	7.587E6	1.02E7	34.4*	NA	±20	Average RF
Aldrin	25.0	25.9	1.573E7	1.629E7	3.5	NA	±20	Average RF
Dieldrin	25.0	25.9	1.387E7	1.439E7	3.7	NA	±20	Average RF
Endosulfan I	25.0	25.2	1.306E7	1.316E7	0.7	NA	±20	Average RF
Endosulfan II	25.0	25.1	1.202E7	1.206E7	0.3	NA	±20	Average RF
Endosulfan Sulfate	25.0	24.5	1.117E7	1.095E7	-2.0	NA	±20	Average RF
Endrin	25.0	28.7	1.007E7	1.155E7	14.7	NA	±20	Average RF
Endrin Aldehyde	25.0	23.6	9.722E6	9.176E6	-5.6	NA	±20	Average RF
Endrin Ketone	25.0	25.6	1.294E7	1.326E7	2.5	NA	±20	Average RF
Heptachlor	25.0	28.9	1.358E7	1.568E7	15.5	NA	±20	Average RF
Heptachlor Epoxide	25.0	25.7	1.369E7	1.407E7	2.7	NA	±20	Average RF
Methoxychlor	25.0	32.4	3.954E6	5.125E6	29.6*	NA	±20	Average RF
Toxaphene	500	665	NA	NA	NA	NA	±20	
alpha-BHC	25.0	26.1	1.893E7	1.975E7	4.4	NA	±20	Average RF
alpha-Chlordane	25.0	25.7	1.367E7	1.403E7	2.6	NA	±20	Average RF
beta-BHC	25.0	24.1	7.36E6	7.107E6	-3.4	NA	±20	Average RF
delta-BHC	25.0	25.2	1.661E7	1.675E7	0.9	NA	±20	Average RF
gamma-BHC (Lindane)	25.0	26.3	1.668E7	1.752E7	5.0	NA	±20	Average RF
gamma-Chlordane	25.0	25.3	1.4E7	1.419E7	1.3	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Decachlorobiphenyl	25.0	22.1	8.549E6	7.543E6	-11.8	NA	±20	Average RF
Tetrachloro-m-xylene	25.0	25.8	1.319E7	1.362E7	3.2	NA	±20	Average RF

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Zion Environmental, LLC	**Service Request:**	R2311986
Project:	Taylor's Lane Composte Site	**Date Analyzed:**	01/09/24 14:45

Continuing Calibration Verification (CCV) Summary
Organochlorine Pesticides by Gas Chromatography

Analysis Method:	8081B	**Calibration Date:**	1/5/2024
File ID:	I:\ACQUDATA\7890m\DATA\010924\B3930.D\	**Calibration ID:**	RC2400006
Signal ID:	STx-CLPII	**Analysis Lot:**	829331
		Units:	ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4,4'-DDD	25.0	26.4	1.188E7	1.255E7	5.6	NA	±20	Average RF
4,4'-DDE	25.0	27.0	1.459E7	1.578E7	8.2	NA	±20	Average RF
4,4'-DDT	25.0	36.7	6.965E6	1.024E7	47.0*	NA	±20	Average RF
Aldrin	25.0	26.2	1.695E7	1.78E7	5.0	NA	±20	Average RF
Dieldrin	25.0	26.5	1.499E7	1.592E7	6.2	NA	±20	Average RF
Endosulfan I	25.0	26.0	1.543E7	1.602E7	3.8	NA	±20	Average RF
Endosulfan II	25.0	25.9	1.285E7	1.331E7	3.6	NA	±20	Average RF
Endosulfan Sulfate	25.0	25.7	1.167E7	1.2E7	2.8	NA	±20	Average RF
Endrin	25.0	29.7	1.045E7	1.24E7	18.7	NA	±20	Average RF
Endrin Aldehyde	25.0	24.6	1.059E7	1.041E7	-1.8	NA	±20	Average RF
Endrin Ketone	25.0	26.9	1.317E7	1.417E7	7.6	NA	±20	Average RF
Heptachlor	25.0	29.6	1.439E7	1.704E7	18.4	NA	±20	Average RF
Heptachlor Epoxide	25.0	26.3	1.489E7	1.564E7	5.1	NA	±20	Average RF
Methoxychlor	25.0	34.6	3.575E6	4.949E6	38.4*	NA	±20	Average RF
Toxaphene	500	647	NA	NA	NA	NA	±20	
alpha-BHC	25.0	26.4	1.995E7	2.111E7	5.8	NA	±20	Average RF
alpha-Chlordane	25.0	25.9	1.409E7	1.462E7	3.8	NA	±20	Average RF
beta-BHC	25.0	25.1	7.684E6	7.726E6	0.6	NA	±20	Average RF
delta-BHC	25.0	26.7	1.766E7	1.883E7	6.6	NA	±20	Average RF
gamma-BHC (Lindane)	25.0	26.7	1.749E7	1.866E7	6.7	NA	±20	Average RF
gamma-Chlordane	25.0	26.1	1.535E7	1.605E7	4.5	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Decachlorobiphenyl	25.0	23.6	1.013E7	9.549E6	-5.8	NA	±20	Average RF
Tetrachloro-m-xylene	25.0	26.1	1.374E7	1.434E7	4.4	NA	±20	Average RF

Metals Data Section

ALPHA GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

QA/QC Review of TAL Metals
Data for ALS Group USA, Corp.
Service Request: R2311986

9 Ground Water Samples and 1 Field Duplicate
Collected December 27, 2023

Prepared by: Donald Anné
June 24, 2024

Holding Times: The samples were analyzed within USEPA SW-846 holding times.

Initial and Continuing Calibration Verification: The percent recoveries for target metals were within control limits (90-110% for all metals except Hg, 80-120% for Hg).

Low Level CCV: The percent recoveries for target metals were within QC limits (70-130%) for CRDL standards.

Blanks: The analyses of initial and continuing calibration, and method blanks reported target metals as below the reporting limits or not detected, as required.

ICP Interference Check Sample: The percent recoveries for applicable metals were within control limits (80-120%).

Spike Sample Recovery: Two of two percent recoveries for arsenic were below control limits (75-125%), but not below 30% for aqueous MS/MSD sample MW-9D. Positive results for arsenic should be considered estimated, biased low (J-) and "not detected" results estimated (UJ) in associated aqueous samples.

Laboratory Duplicates: The relative percent differences for target metals were below the allowable maximum (20%) for aqueous batch duplicate sample DLCSW, as required.

Field Duplicates: The relative percent differences for applicable metals were below the allowable maximum (20%) for aqueous field duplicate pair MW-2D/FD (attached table), as required.

Laboratory Control Sample: The percent recoveries for target metals were within control limits (80-120%) for aqueous sample R2311986-LCS.

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Form 5A - Matrix Spike Sample Recovery

Client	Zion Environmental, LLC	Workorder	
Project	Taylor's Lane Composte Site		R2311986

6010C

RunID
RPAES07-828663

MW-9D (R2311986-006)				R2311986-006MS				R2311986-006DMS						
Spike Matrix	Water	Result Units	ug/L	Run Date	01/02/24			Run Date	01/02/24					
Instrument ID	RICPAES07	Analysis	828663	Run Time	10:53			Run Time	11:03					
Prep Date	12/28/23	Prep Batch	431975		NA				NA					
Prep Method	EPA 3005A/3010A			Prep Amt	50 mL			Prep Amt	50 mL					
Analyte	%R Limits	DF	Sample Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
Aluminum, Total	75-125	1	80	2110	2000	105		2090	2000	105		20	0	
Antimony, Total	75-125	1	0	523	500	105		519	500	104		20	0	
Arsenic, Total	75-125	1	0	30	40	74	*	29	40	74	*	20	0	
Barium, Total	75-125	1	221	2240	2000	101		2230	2000	100		20	0	
Beryllium, Total	75-125	1	0	49.5	50.0	99		49.4	50.0	99		20	0	
Cadmium, Total	75-125	1	0.3	50.3	50.0	101		50.2	50.0	100		20	0	
Calcium, Total	75-125	1	121000	123000	2000	95	#	120000	2000	-22	NA	20	2	
Chromium, Total	75-125	1	2920	2700	200	-111	NA	2560	200	-181	NA	20	5	
Cobalt, Total	75-125	1	48	542	500	108		541	500	108		20	0	
Copper, Total	75-125	1	79	324	250	98		320	250	97		20	1	
Iron, Total	75-125	1	18200	17400	1000	-81	NA	16800	1000	-136	NA	20	3	
Lead, Total	75-125	1	0	497	500	99		495	500	99		20	0	
Magnesium, Total	75-125	1	41300	43300	2000	102	#	42500	2000	61	NA	20	2	
Manganese, Total	75-125	1	376	805	500	86		800	500	85		20	0	
Nickel, Total	75-125	1	4030	4490	500	93	#	4400	500	76	#	20	2	
Potassium, Total	75-125	1	10000	30600	20000	103		30300	20000	101		20	0	
Selenium, Total	75-125	1	0.2	1060	1010	105		1060	1010	105		20	0	
Silver, Total	75-125	1	0	53	50	105		53	50	105		20	0	
Sodium, Total	75-125	1	68700	88600	20000	100		87300	20000	93		20	2	
Thallium, Total	75-125	1	5	1990	2000	100		1980	2000	99		20	0	
Vanadium, Total	75-125	1	10	512	500	102		509	500	102		20	0	
Zinc, Total	75-125	1	25	539	500	103		536	500	102		20	0	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)

NA - Sample concentration is greater than 4X the spiking level; therefore, the %R is not applicable.

Field Duplicate Calculation Section

Semi-Volatiles

Calculations for Field Duplicate Relative Percent Difference (RPD)
SDG No. R2311986

S1= MW-2D **S2=** FD (Field Duplicate)

Analyte	S1	S2	RPD (%)
1,4-Dioxane	0.092	0.11	18%

* RPD is above the allowable maximum 20%.

Results are in units of ug/L.

Bold numbers were values that are below the CRQL.
ND - Not detected.
NC - Not calculated, both results must be above the CRDL for valid RPDs to be calculated.

Pesticides

Calculations for Field Duplicate Relative Percent Difference (RPD)
SDG No. R2311986

S1= MW-2D **S2=** FD (Field Duplicate)

Analyte	S1	S2	RPD (%)
gamma-Chlordane	ND	0.07	NC

* RPD is above the allowable maximum 20%.

Results are in units of ug/L.

Bold numbers were values that are below the CRQL.
ND - Not detected.
NC - Not calculated, both results must be above the CRDL for valid RPDs to be calculated.

TAL Metals

Calculations for Field Duplicate Relative Percent Difference (RPD)
SDG No. R2311986

S1= MW-2D **S2=** FD (Field Duplicate)

Analyte	S1	S2	RPD (%)
aluminum	390	450	14%
antimony	ND	ND	NC
arsenic	ND	ND	NC
barium	270	270	0%
beryllium	ND	ND	NC
cadmium	ND	ND	NC
calcium	89000	88700	0%
chromium	ND	ND	NC
cobalt	ND	ND	NC
copper	ND	ND	NC
iron	1990	2040	2%
lead	ND	ND	NC
magnesium	63300	62800	1%
manganese	248	248	0%
mercury	ND	ND	NC
nickel	ND	ND	NC
potassium	7500	7500	0%
selenium	ND	ND	NC
silver	ND	ND	NC
sodium	27400	26600	3%
thallium	ND	ND	NC
vanadium	ND	ND	NC
zinc	ND	ND	NC

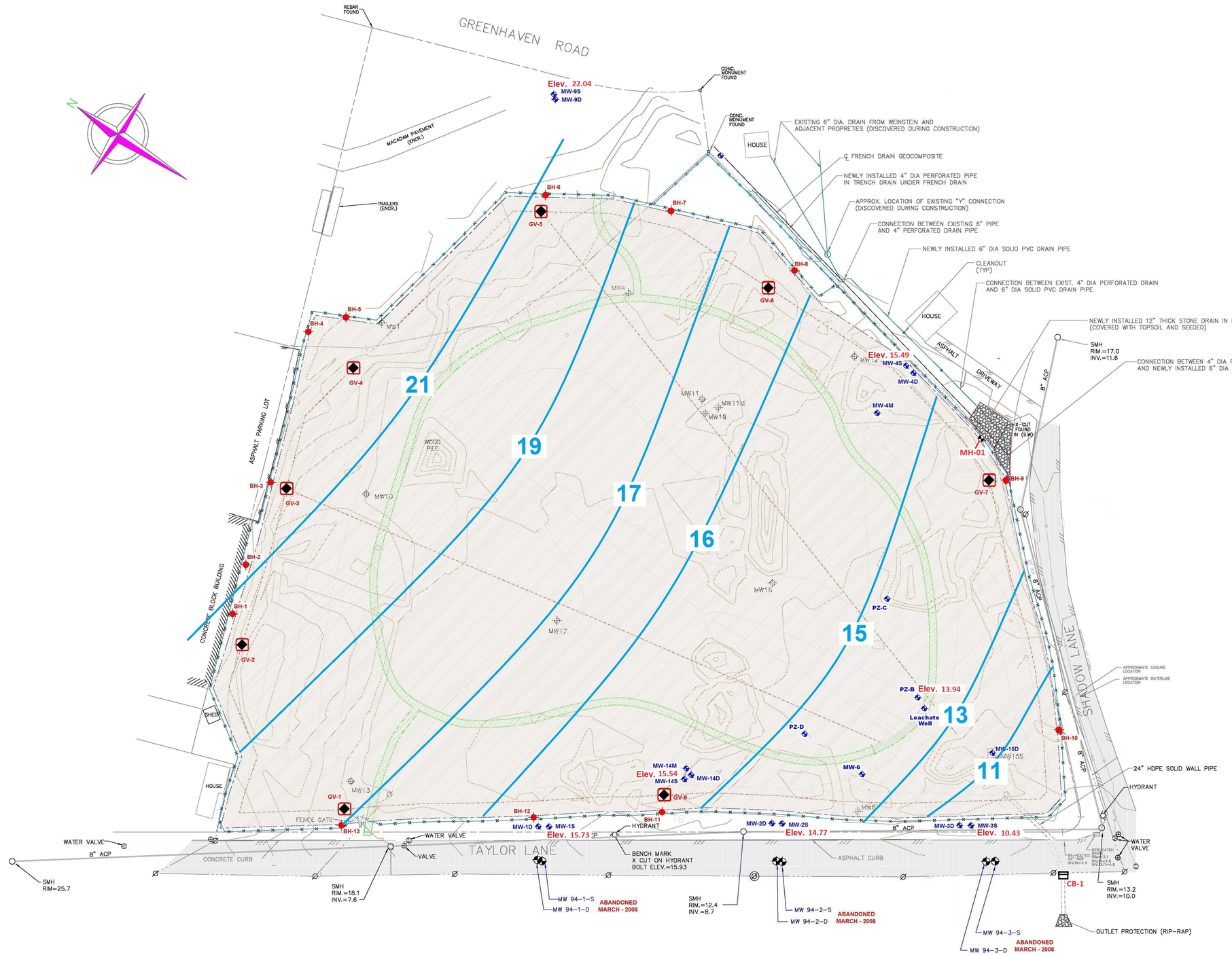
* RPD is above the allowable maximum 20%

Results are in units of ug/L.

Bold numbers were values that below the CRDL.
ND - Not detected.
NC - Not calculated, both results must be above the CRDL for valid RPDs to be calculated.

Attachment 4

Groundwater Contour Map



LEGEND

SMH	=	SANITARY SEWER MANHOLE
CB	=	CATCH BASIN
FI	=	FLAT GRATE
RCP	=	REINFORCED CONCRETE PIPE
ACP	=	ASBESTOS CEMENT PIPE
CMP	=	CORRUGATED METAL PIPE
VCP	=	VITRIFIED CLAY PIPE
SP	=	STEEL PIPE
MW-1S	=	MONITORING WELL
S.W.	=	STONE WALL
	=	VEGETATIVE DEBRIS PILE
U.P.	=	UTILITY POLE
	=	PROPERTY LINE
15	=	SHALLOW GROUNDWATER CONTOUR
	=	GAS VENTING PIPE
	=	CONTOUR
	=	LIMIT OF FINAL COVER
	=	GAS VENT
	=	MONITRORING WELL ABANDONED (TYP)
	=	BAR HOLE PUNCH (TYP)
	=	FENCE AROUNG GAS/MONITORING WELL (TYP)
	=	FINAL COVER AREA
	=	WALK TRAIL

NOTES:

1. NORTH REFERENCE IS BASED ON FILE MAP #3107.
2. BOUNDARY INFORMATION SHOWN HEREON IS AS TAKEN FROM A FIELD SURVEY PERFORMED BY WEHRAN ENGINEERING IN APRIL OF 1994.
3. TOPOGRAPHIC IMFORMATION SHOWN HEREON IS BASED UPON A GROUND SURVEY PERFORMED BY CONTRACTOR'S LINE & GRADE SOUTH OF BEDFORD HILLS NEW YORK, DATED OCT. 24, 1995 (REVISED MAY 6, 1996)
4. VERTICAL DATUM BASED ON U.S.G.S. MEAN SEA LEVEL DATUM OF 1929.
5. EASEMENTS OR RIGHT-OF-WAYS ON, OR UNDER THE LANDS, AND NOT VISIBLE, ARE NOT SHOWN.
6. GRID COORDINATES SHOWN HEREON ARE BASED UPON NEW YORK STATE PLANE COORDINATE SYSTEM.
7. FINAL COVER DRAINAGE PIPES LIE ALONG THE SAME ALIGNMENT AS THE TRIANGULAR DRAINAGE CHANNELS.
8. DRAINAGE INFORMATION FOR WEINSTEIN PROPERTY OBTAINED FROM OWNER AND FIELD VERIFIED BY MEASUREMENTS FROM EXISTING FEATURES.

MAP REFERENCE :

1. "REVISED MAP OF FIRST ADDITION TO GREENHAVEN", AS FILED ON 2/5/27. IN WESTCHESTER COUNTY CLERK'S OFFICE AS MAP #3107.
2. "MAP #4204", AS FILED ON 11/16/35. IN WESTCHESTER COUNTY CLERK'S OFFICE.

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SCALE IN FEET

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REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
1	3/26/11	ADDED CONTOURS AND NEW BORDER	BN	BN	TP	AC

DATE OF ISSUE 3/27/2011 — DWN BY BN — DES BY BN — CHK BY TP — APP BY AC

ZION ENVIRONMENTAL, LLC.

VILLAGE OF MAMARONECK
TAYLOR'S LANE COMPOST SITE
TOWN OF RYE, WESTCHESTER, NEW YORK
DECEMBER 27, 2023
SITE MAP WITH
SHALLOW GROUNDWATER FLOW CONTOURS

DRAWING NO. 1
PROJECT NO. 14-PSA-001