January 28, 2025 Project No. US0030747.9191

Mr. Aaron Darling
Michigan Department of Environment, Great Lakes, and Energy
Office of Waste Management and Radiological Protection
Southeast Michigan District Office
27700 Donald Court
Warren, Michigan 48092-2793

FOURTH QUARTER 2024 ENVIRONMENTAL MONITORING REPORT
SMITHS CREEK LANDFILL, WDS #452546
ST. CLAIR COUNTY, MICHIGAN

Dear Mr. Darling:

WSP USA Inc., (WSP) is providing this report to summarize monitoring efforts from the above referenced sampling event. This report is submitted on behalf of St. Clair County, Michigan under the direction of Mr. Matt Williams.

1.0 INTRODUCTION

The Smiths Creek Landfill (SCL) is a Type II landfill located at 6779 Smiths Creek Road in Kimball Township, St. Clair County, Michigan. The SCL occupies approximately 264.5 acres and is bordered on the north by residential and agricultural properties, on the south by undeveloped private and county owned property, on the east by the Wolvin Drain, and on the west by Smiths Creek and undeveloped and residential properties.

Groundwater monitoring and reporting were performed in accordance with the Michigan Department of Environmental Quality (MDEQ, now Environment, Great Lakes and Energy [EGLE]) approved Hydrogeologic Monitoring Plan (HMP) dated December 2014, which included a reduction in sampling frequency from quarterly to semiannually (during the second and fourth quarters of each calendar year). Leachate and surface water continue to be sampled on a quarterly basis. **Table 1, Monitoring Well Network Summary**, includes a summary of the monitoring well network. Designated sampling parameters, test methods, reporting limits, and corresponding containers, preservatives, and holding times are summarized in the HMP. Water level measurement procedures, groundwater and surface water sample collection methods, decontamination procedures, and leachate sample collection procedures were performed in accordance with the HMP and applicable Public Act 451, Part 115 Rules.

2.0 MONITORING RESULTS

Samples were collected by WSP personnel from fifteen monitoring wells, three of four surface water locations, and one leachate sampling location between November 6 and 8, 2024. Copies of the field data forms are included

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in **Appendix A, Laboratory Results**. Table 1 identifies the monitoring wells included in the monitoring program. Copies of laboratory reports are included in **Appendix B, Field Data Sheets**.

The analytical data for the leachate sample and surface water samples is included in **Appendix A, Laboratory Analytical Report**. Surface water location SW-D2 was dry and unable to be sampled this sampling event. Upstream and downstream surface water locations were compared and were found to be generally similar, as well as consistent with historically reported results. As such, there is no evidence of surface water impact as a result of the landfill.

3.0 CHAIN OF CUSTODY INFORMATION & FIELD FORMS

All samples were submitted under standard chain-of custody protocol. Copies of the chains of custody for this event are included with the laboratory results in Appendix A. Field forms are prepared at each sampling location. Copies of the field forms are included in Appendix B.

4.0 GROUNDWATER SEEPAGE CHARACTERISTICS

Prior to well purging, WSP field personnel collected depth to groundwater measurements from each of the monitoring wells sampled, and groundwater elevations were calculated. The elevations are presented on **Table 2, Historical Groundwater Elevations** and **Figure 1, Groundwater Elevation Contour Map – November 6, 2024**. Review of the map indicates that groundwater flow is toward the east, which is consistent with past determinations.

In accordance with Rule 299.4907(5), the groundwater seepage velocity was determined based on groundwater elevations. As presented in the HMP, Darcy's equation was used to calculate the horizontal seepage velocity, as shown below:

$$V = K\frac{i}{n}$$

Where,

V = seepage velocity
K = hydraulic conductivity
i = hydraulic gradient
n = effective porosity

Table 3, Groundwater Seepage Velocity Calculations, presents values taken from the HMP and used in the calculations, the calculated flow gradients, and the velocity across the site. As shown on Table 3, the calculated average groundwater seepage velocity was 0.0045 feet per day (ft/day) (1.63 feet per year (ft/year)), which is consistent with historical determinations.

5.0 STATISTICAL ANALYSIS RESULTS

WSP completed statistical analyses in accordance with the approved statistical analysis plan, entitled, "Statistical Analysis of Background Groundwater Monitoring Data (SABGMD)", that was prepared in accordance with R299.4908, and last updated in August 2014. **Table 4, Fourth Quarter 2024 Monitoring Results**, includes the comparisons of the current and previous semiannual event with the tolerance limits.

5.1 Exceedances

Based on a review of Table 4, one (1) initial and two (2) verified exceedances were reported during the fourth quarter 2024 monitoring event:

- Chloride in monitoring well MW-106A - Initial
- Total Organic Carbon in monitoring well MW-207A – Verified
- Sodium in monitoring well MW-210 – Verified

5.2 Statistically Significant Increases

As shown in **Table 5, Summary of Statistical Exceedances** (required by MDEQ RMD-115-29), one (1) initial and two (verified) exceedances were reported during the fourth quarter 2024 monitoring event. An ASD is provided below for each of the exceedances.

5.2.1 Chloride in Monitoring Well MW-106A

An initial, one parameter statistical exceedance for chloride was observed at MW-106A this sampling event. The observed concentration (40.2 mg/L) is just above the statistical limit (39.8 mg/L) and is below the Part 201 criteria of 250 mg/L. This is the first prediction limit exceedance for chloride in MW-106A since the one-time exceedance in fourth quarter 2020. As shown in **Appendix C, Time Series Plots MW-106A** the chloride concentration in monitoring well MW-106A is within the range of chloride concentrations in upgradient wells at the SCL, specifically upgradient well MW-303A. None of the other leachate indicator parameters in monitoring well MW-106A are showing exceedances. As shown on the Time Series Plot for Multiple Parameters in MW-106A, no discernable upward trends in concentrations over time have been identified in monitoring well MW-106A. The current concentrations reported for potassium, sodium, total inorganic nitrogen, and total organic carbon are within range (and on the low end) of historical concentrations reported in MW-106A. Further, the reported chloride concentration (41.5 mg/L) is below the Part 201 Drinking Water Criteria (DWC) of 250 mg/L.

It is WSP's opinion that the SSI reported for chloride in monitoring well MW-106A is not a result of landfill influence on the groundwater, but rather a result of natural geochemical variability. Based on the above observations, no additional response is necessary with respect to the exceedance/SSI for chloride in monitoring well MW-106A. It is our opinion that continued detection monitoring is appropriate.

5.2.2 Total Organic Carbon in Monitoring Well MW-207A

A verified exceedance for total organic carbon (TOC) in downgradient monitoring well MW-207A. It is WSP's opinion that the TOC exceedance reported in downgradient monitoring well MW-207A is not a result of landfill influence on the groundwater but is rather a result of natural geochemical variability. As shown in **Appendix D**, **Time Series Plots MW-207A**, the current concentration of TOC is elevated with respect to TOC concentrations in upgradient monitoring wells at SCL. However, the concentrations of other indicator constituents, particularly chloride, potassium, sodium, and total inorganic nitrogen, decreased or stayed the same while the TOC concentrations increased. If the observed increases in TOC concentrations since 2021 were a result of landfill influence on the groundwater, it would be expected that increases in all the indicator parameters would have also simultaneously occurred. Based on the above observations, it is WSP's opinion that the recent change in TOC is not a result of landfill influence on the groundwater but is a result of another source.

5.2.3 Sodium in Monitoring Well MW-210

A verified statistically significant increase (SSI) for sodium in monitoring well MW-210 was also observed this sampling event. It is WSP's opinion that the SSI reported for sodium in monitoring well MW-210 is not a result of landfill influence on the groundwater but is rather a result of natural geochemical variability. As shown in **Appendix E, Time Series Plots MW-210.** The current concentration of sodium is within the range of historical values reported in monitoring well MW-210. In addition, sodium concentrations have been stable over the last several years. Further, the concentration of sodium in monitoring well MW-210 is within the range of sodium concentrations observed in upgradient monitoring wells at the SCL, particularly upgradient monitoring well MW-303A. Because the concentration in downgradient monitoring well MW-210 is similar to that in upgradient monitoring wells, it is likely that the concentration in the downgradient well is a result of natural geochemical variability in the uppermost aquifer.

Finally, none of the other leachate indicator parameters in monitoring well MW-210 are showing exceedances and the reported concentrations for indicator parameters are within the range of concentrations for other monitoring wells at the SCL. Based on these observations, no additional response is necessary with respect to the recent exceedances for sodium in monitoring well MW-210. Continued detection monitoring is appropriate.

5.2.4 Statistical Summary

Rule 299.4440(9) of Part 115 allows a site 30 days to prepare an ASD which asserts that an SSI indicated by groundwater monitoring data is the result of a source other than a release from the site. As indicated above, a total of three exceedances (one initial and two verified) were reported for the fourth quarter 2024 monitoring event. However, none of the exceedances reported during the fourth quarter 2024 monitoring period are attributable to landfill influence on the groundwater; thus, other than the proposed actions described above, no additional response is necessary and continued detection monitoring is appropriate. Due to the relatively low seepage velocity for the SCL (1.63 feet per year), it is WSP's opinion that, where applicable, confirmation sampling during the next semiannual monitoring event is appropriate.

CLOSING

This report is submitted as required by the site's approved HMP by the undersigned professionals. Please do not hesitate to contact either of us at 248-295-0135, if you have any questions.

Sincerely,

WSP USA INC.

Rachel B. Rubach
Consultant, Environmental Engineer

Mary L. Siegan, P.E.
Assistant Vice President, Environmental Engineer

RBR/MLS

CC: Matt Williams, St. Clair County/Smiths Creek Landfill

https://wsponlinenam.sharepoint.com/sites/global-smithscreekthomasrd/shared documents/200 reports/scl/4q2024/final/fn rp-scl 4q2024.docx

Tables

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TABLE 1.
MONITORING WELL NETWORK SUMMARY
Smiths Creek Landfill

Well ID	Gradient Direction	Northing	Easting	Top of Casing Elevation (ft msl)	Bottom of Screen Elevation (ft msl)	Total Well Depth (ft)	Well Screen and Riser Materials
MW-101	Up	18374.3	14719.3	634.76	557.9	76.9	PVC
MW-106A	Down	14643.2	17132.0	633.43	558.2	75.2	PVC
MW-201	Up	18488.1	15529.3	634.57	559.2	75.4	PVC
MW-202	Up	17786.6	14714.4	635.22	570.6	64.6	PVC
MW-203	Down	14644.5	16028.9	632.05	558.9	73.2	PVC
MW-203B	Down	14546.9	16027.9	633.00	631.3	72	PVC
MW-207A	Down	15225.7	17099.4	634.29	551.4	82.9	PVC
MW-208B	Down	15533.4	17136.7	633.91	NA	NA	PVC
MW-209	Down	16102.6	17180.1	630.58	551.4	79.2	PVC
MW-210	Down	16937.0	17218.1	628.38	556.5	71.9	PVC
MW-212	Down	17719.0	16985.5	628.16	563.0	65.2	PVC
MW-301	Down	15814.4	17134.8	635.10	550.8	84.3	PVC
MW-302	Down	16545.2	17191.4	626.75	546.4	80.4	PVC
MW-303A	Up	15709.1	14987.9	633.41	557.7	75.7	PVC
MW-304	Up	16769.8	14812.1	635.12	559.4	75.7	PVC
MW-305	Down	17269.0	17204.0	628.93	553.1	75.8	PVC

Notes:

NA - Not available

Information from CTI, 2010

MSL - Mean Sea Level

PVC - Polyvinyl Chloride

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TABLE 2.
HISTORICAL GROUNDWATER ELEVATIONS
Smiths Creek Landfill

Well ID	Top of Casing Elevation	2020		2021		2022		2023		2024	
		5/29/2020	12/1/2020	5/4/2021	10/19/2021	6/15/2022	10/24/2022	5/2/2023	11/7/2023	5/8/2024	11/18/2024
MW-101	634.76	611.38	611.08	611.79	612.03	611.57	610.46	610.39	611.14	611.45	610.25
MW-106A	633.43	602.41	602.14	602.06	602.39	602.11	601.53	599.99	598.61	600.64	601.75
MW-201	634.57	611.39	610.73	611.38	611.49	611.34	610.20	610.43	602.01	611.69	610.45
MW-202	635.22	610.92	610.57	611.24	611.65	611.19	610.09	609.80	606.81	610.83	609.70
MW-203	632.05	607.66	607.62	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-203B	633.00	n/a	n/a	609.02	608.77	608.45	608.18	603.61	607.71	607.65	607.82
MW-207A	634.29	598.59	598.11	598.45	598.92	598.47	597.42	598.19	594.69	597.80	598.29
MW-208B	633.91	599.87	599.41	599.80	600.21	599.80	598.76	598.44	598.91	598.94	599.61
MW-209	630.58	602.78	602.44	602.72	603.00	602.73	601.73	601.27	601.12	600.73	602.58
MW-210	628.38	600.83	600.62	600.84	601.02	600.85	599.89	599.39	602.75	599.76	600.52
MW-212	628.16	600.23	600.11	600.42	600.46	600.26	599.21	598.80	599.22	599.34	600.08
MW-301	635.10	601.40	601.01	601.36	601.74	601.38	600.39	598.97	600.48	601.67	601.20
MW-302	626.75	601.86	601.63	601.92	602.04	601.81	600.82	600.58	599.30	601.05	601.67
MW-303A	633.41	608.91	610.30	610.88	611.22	610.93	609.89	610.00	604.50	611.21	610.61
MW-304	635.12	612.34	609.27	609.93	610.21	609.86	608.81	609.12	609.70	610.22	609.40
MW-305	628.93	599.45	599.15	599.49	599.75	599.45	598.39	596.63	599.13	598.43	599.19

Notes:
All measurements recorded in feet above Mean Sea Level

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TABLE 3.
GROUNDWATER SEEPAGE VELOCITY CALCULATIONS
Smiths Creek Landfill

Flow Paths	Δ h (feet)[2]	Δ l (feet)[3]	Hydraulic Gradient (Δ h/Δ l)	Average Permeability, K (feet per day)[1]	Assumed Effective Porosity (n_e)	Average Linear Groundwater Velocity (feet per day)[4]
A (MW-101/MW-212)	10.17	2356	0.0043	0.283	0.30	0.0041
B (MW-303A/MW-207A)	12.32	2168	0.0057			0.0054
C (MW-304/MW-305)	10.21	2443	0.0042			0.0039

Notes:

1. Average K values from CTI (2012).
2. Δ h = Change in groundwater elevation.
3. Δ l = Distance along flow paths.
4. Velocity = (Δ h /Δ l x K) / n_e.

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TABLE 4.
SECOND QUARTER 2024 MONITORING RESULTS
Smiths Creek Landfill

Constituent Name	Units	Prediction Limits	Previous Quarterly Results	Current Quarterly Results
MW-101			**5/4/2024**	**11/7/2024**
Inorganic Indicators - Semiannual				
Chloride	mg/L	30.1	28.5	26.1
Potassium	mg/L	2.4	1.68	1.6
Sodium	mg/L	75.3	67.7	66.9
Total Inorganic Nitrogen	mg/L	0.72	0.095	0.132
Total Organic Carbon	mg/L	9.1	1.23	1.63
Metals - Annual				
Arsenic	ug/L	4.2	1.9	n/a
Barium	ug/L	48	47.1	n/a
Zinc	ug/L	110	<10	n/a
MW-106A			**5/4/2024**	**11/7/2024**
Inorganic Indicators - Semiannual				
Chloride	mg/L	39.8	38.6	40.2
Potassium	mg/L	3.7	1.2	1.18
Sodium	mg/L	89.1	79.4	77.5
Total Organic Carbon	mg/L	5.1	1.69	2.16
Total Inorganic Nitrogen	mg/L	0.48	0.088	0.153
Metals - Annual				
Arsenic	ug/L	12.5	5.5	n/a
Barium	ug/L	106	60.2	n/a
Zinc	ug/L	5.3	<10	n/a
MW-201			**5/4/2024**	**11/6/2024**
Inorganic Indicators - Semiannual				
Chloride	mg/L	30.2	18.1	17.6
Potassium	mg/L	2.6	1.41	1.31
Sodium	mg/L	75.2	68.5	66.3
Total Inorganic Nitrogen	mg/L	5.07	0.0821	0.111
Total Organic Carbon	mg/L	7.2	1.1	1.84
Metals - Annual				
Arsenic	ug/L	6.2	3.8	n/a
Barium	ug/L	50	41.8	n/a
Zinc	ug/L	40	<10	n/a
MW-202			**5/4/2024**	**11/7/2024**
Inorganic Indicators - Semiannual				
Chloride	mg/L	40	32.3	31.8
Potassium	mg/L	2.1	1.27	1.15
Sodium	mg/L	79	71.8	67.9
Total Organic Carbon	mg/L	8.2	1.22	1.24
Total Inorganic Nitrogen	mg/L	0.64	0.0574	0.101
Metals - Annual				
Arsenic	ug/L	2.0	3.8	n/a
Barium	ug/L	110	71.5	n/a
Zinc	ug/L	60	<10	n/a

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TABLE 4.
SECOND QUARTER 2024 MONITORING RESULTS
Smiths Creek Landfill

Constituent Name	Units	Prediction Limits	Previous Quarterly Results	Current Quarterly Results
MW-203B			**5/4/2024**	**11/6/2024**
Inorganic Indicators - Semiannual				
Chloride	mg/L	42.2	40.2	38.8
Potassium	mg/L	9.29	4.57	4.14
Sodium	mg/L	104.9	89.1	87.3
Total Inorganic Nitrogen	mg/L	0.376	0.242	0.297
Total Organic Carbon	mg/L	3.42	1.68	1.94
Metals - Annual				
Arsenic	ug/L	18.2*	6.7	n/a
Barium	ug/L	87*	69.3	n/a
Zinc	ug/L	60*	<10	n/a
MW-207A			**5/4/2024**	**11/8/2024**
Inorganic Indicators - Semiannual				
Chloride	mg/L	33.5	11.3	10.8
Potassium	mg/L	3.5	0.726	2.8
Sodium	mg/L	94.2	20.4	41.5
Total Inorganic Nitrogen	mg/L	1.62	<0.04	0.117
Total Organic Carbon	mg/L	4.2	8.45	7.9
Metals - Annual				
Arsenic	ug/L	14.3	<1	n/a
Barium	ug/L	125.7	53.4	n/a
Zinc	ug/L	30	<10	n/a
MW-208B			**5/4/2024**	**11/8/2024**
Inorganic Indicators - Semiannual				
Chloride	mg/L	36.8	34.7	33.8
Potassium	mg/L	2.4	1.15	1.21
Sodium	mg/L	117.3	86.7	83.4
Total Inorganic Nitrogen	mg/L	4.4	0.28	0.195
Total Organic Carbon	mg/L	6.2	1.34	1.58
Metals - Annual				
Arsenic	ug/L	17.0	8.3	n/a
Barium	ug/L	80.6	55.2	n/a
Zinc	ug/L	9.7	<10	n/a
MW-209			**5/4/2024**	**11/6/2024**
Inorganic Indicators - Semiannual				
Chloride	mg/L	44.5	37.1	36.6
Potassium	mg/L	1.5	1.09	1.19
Sodium	mg/L	99.8	92.9	90.7
Total Organic Carbon	mg/L	7.8	1.19	1.94
Total Inorganic Nitrogen	mg/L	5.72	0.0683	0.465
Metals - Annual				
Arsenic	ug/L	3.0	2.4	n/a
Barium	ug/L	55	47.3	n/a
Zinc	ug/L	39	<10	n/a

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TABLE 4.
SECOND QUARTER 2024 MONITORING RESULTS
Smiths Creek Landfill

Constituent Name	Units	Prediction Limits	Previous Quarterly Results	Current Quarterly Results
MW-210			**5/4/2024**	**11/7/2024**
Inorganic Indicators - Semiannual				
Chloride	mg/L	40.1	30.6	28.1
Potassium	mg/L	2.45	2.15	2.3
Sodium	mg/L	90.6	135	140
Total Inorganic Nitrogen	mg/L	1.71	0.147	0.127
Total Organic Carbon	mg/L	10.6	1.74	2.2
Metals - Annual				
Arsenic	ug/L	16	6.7	n/a
Barium	ug/L	480	53.5	n/a
Zinc	ug/L	50	12.5	n/a
MW-212			**5/4/2024**	**11/6/2024**
Inorganic Indicators - Semiannual				
Chloride	mg/L	41.4	33.3	32.2
Potassium	mg/L	1.8	0.992	0.975
Sodium	mg/L	101.2	90.8	87.7
Total Inorganic Nitrogen	mg/L	0.72	0.119	0.166
Total Organic Carbon	mg/L	7.1	1.6	1.79
Metals - Annual				
Arsenic	ug/L	60	6.0	n/a
Barium	ug/L	362.1	66.2	n/a
Zinc	ug/L	20	<10	n/a
MW-301			**5/4/2024**	**11/6/2024**
Inorganic Indicators - Semiannual				
Chloride	mg/L	54.3	42.6	42.5
Potassium	mg/L	11.8	1.21	1.13
Sodium	mg/L	110.4	99.9	96.8
Total Inorganic Nitrogen	mg/L	1.13	0.181	0.199
Total Organic Carbon	mg/L	12.3	1.08	1.42
Metals - Annual				
Arsenic	ug/L	7.1	3.1	n/a
Barium	ug/L	60	33.4	n/a
Zinc	ug/L	21	<10	n/a
MW-302			**5/4/2024**	**11/6/2024**
Inorganic Indicators - Semiannual				
Chloride	mg/L	67	39.4	38.8
Potassium	mg/L	7.9	1.67	1.65
Sodium	mg/L	111.9	96.1	92.0
Total Organic Carbon	mg/L	11.9	1.10	1.76
Total Inorganic Nitrogen	mg/L	0.92	0.041	0.16
Metals - Annual				
Arsenic	ug/L	6.0	<1	n/a
Barium	ug/L	40	32.3	n/a
Zinc	ug/L	29	<10	n/a

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TABLE 4.
SECOND QUARTER 2024 MONITORING RESULTS
Smiths Creek Landfill

Constituent Name	Units	Prediction Limits	Previous Quarterly Results	Current Quarterly Results
MW-303A			**5/4/2024**	**11/7/2024**
Inorganic Indicators - Semiannual				
Chloride	mg/L	48.6	44.8	43.2
Potassium	mg/L	2.2	1.09	1.07
Sodium	mg/L	157.6	107	103
Total Organic Carbon	mg/L	1.89	1.2	1.6
Total Inorganic Nitrogen	mg/L	0.21	0.0748	0.131
Metals - Annual				
Arsenic	ug/L	1.0	n/a	n/a
Barium	ug/L	24.25	n/a	n/a
Zinc	ug/L	10	n/a	n/a
MW-304			**5/4/2024**	**11/8/2024**
Inorganic Indicators - Semiannual				
Chloride	mg/L	40.2	34.1	32.2
Potassium	mg/L	4.2	1.46	1.53
Sodium	mg/L	90	78.5	78.5
Total Inorganic Nitrogen	mg/L	1.3	0.149	0.176
Total Organic Carbon	mg/L	3.1	1.0	1.8
Metals - Annual				
Arsenic	ug/L	2.0	1.4	n/a
Barium	ug/L	43	24.9	n/a
Zinc	ug/L	30	<10	n/a
MW-305			**5/4/2024**	**11/8/2024**
Inorganic Indicators - Semiannual				
Chloride	mg/L	49.2	36.4	35.1
Potassium	mg/L	11.1	1.79	1.82
Sodium	mg/L	96.1	94.6	89
Total Organic Carbon	mg/L	11.9	1.51	2.05
Total Inorganic Nitrogen	mg/L	2.16	0.38	0.986
Metals - Annual				
Arsenic	ug/L	6.4	2.8	n/a
Barium	ug/L	60	39.2	n/a
Zinc	ug/L	40	<10	n/a

Notes:

Shaded values represent exceedance of statistical prediction limit

mg/L = milligrams per liter; ug/L = micrograms per liter.

* = limits shown are from MW-203; additional data being gathered to determine whether revised limits are required for MW-203B

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TABLE 5.
SUMMARY OF STATISTICAL EXCEEDANCES
Fourth Quarter 2024 Monitoring Event
Smiths Creek Landfill

Parameter	Well #	Location (U/D/S)	Part 201 GRCC DWC	Statistical Limit	4Q2024 (bold>201)	2Q2024 (bold>201)	4Q2023 (bold>201)	2Q2023 (bold>201)
Chloride (mg/L)	MW-106A	D	250	39.8	40.2	39.6	37	38.6
Potassium (mg/l)	MW-203B	S	n/a	9.29	4.14	4.57	4.61*	4.57*
Sodium (mg/L)		S	230	104.9	87.3	89.1	88.4*	89.2*
Total Organic Carbon (mg/L)	MW-207A	D	NC	4.2	7.9	8.45	13.3	9.56
Sodium (mg/L)	MW-210	D	230	90.6	140	135	92.9	93.7
Arsenic (ug/L)	MW-303A	U	10	1.0	n/a	4.4	n/a	3

COMMENTS:

Shaded values exceed the statistical limit.

n/a = not applicable, not required during specified sampling event

n/s = not sampled, recently installed replacement well

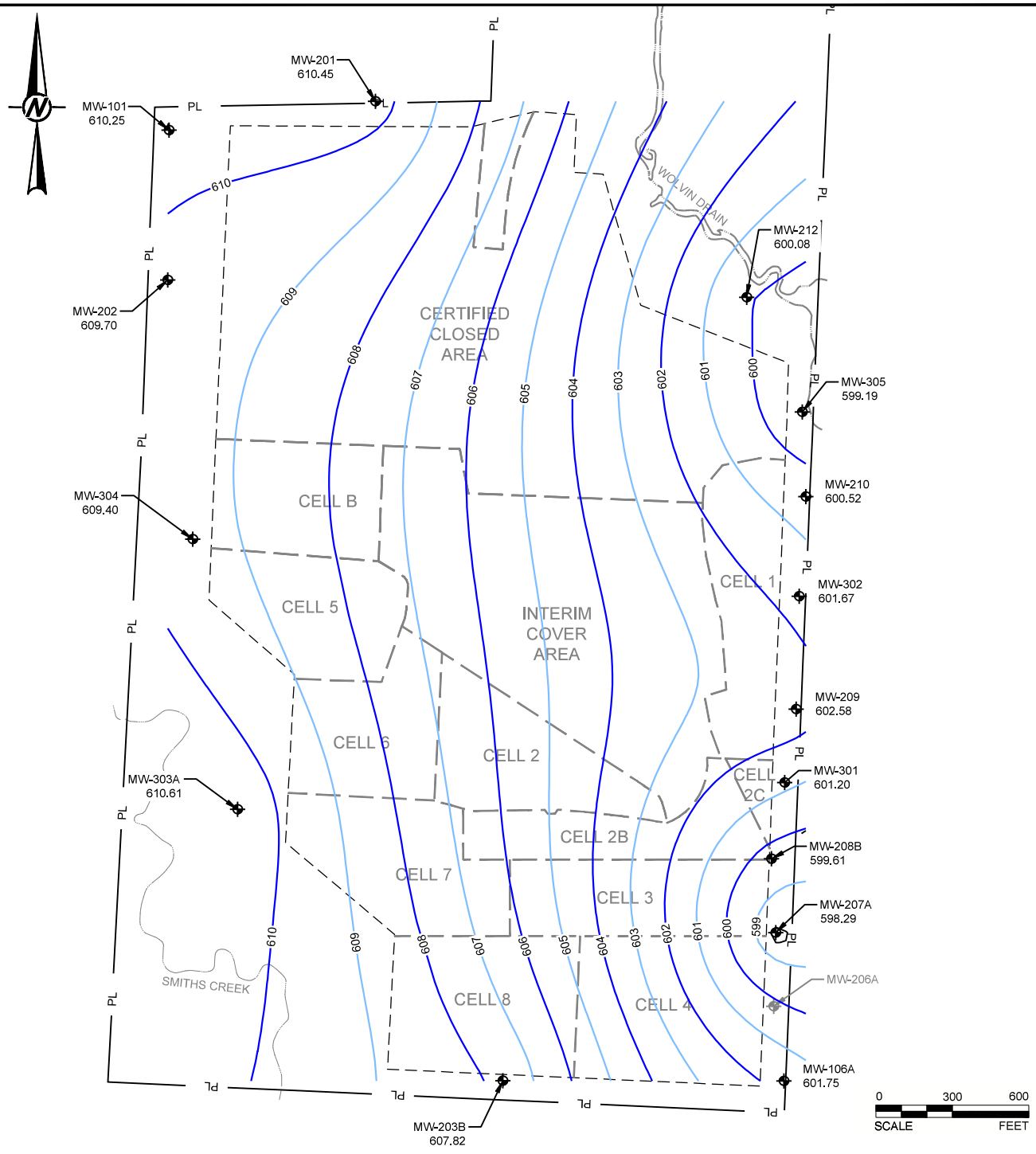
NL=No Limit, NC=Not Calculated

U=upgradient, D=downgradient, S=sidegradient

GRCC = generic residential cleanup criteria; DWC = drinking water criteria

*These sampling events used MW-203 Statistical Limits and were considered exceedances

Figure



LEGEND

- PL — PROPERTY BOUNDARY
- SOLID WASTE BOUNDARY
- CELL BOUNDARY
- 600 — GROUNDWATER ELEVATION CONTOUR
- MW-XXX XXX.XX — MONITORING WELL LOCATION AND GROUNDWATER ELEVATION
- MW-XXX — WELL ABANDONED

CLIENT
SMITHS CREEK LANDFILL
6779 SMITHS CREEK ROAD
SMITHS CREEK, MICHIGAN

PROJECT
2024 GROUNDWATER MONITORING

TITLE
GROUNDWATER ELEVATION CONTOUR MAP
NOVEMBER 6, 2024

CONSULTANT

YYYY-MM-DD	2024-12-17
PREPARED	CAG
DESIGN	MLS
REVIEW	MLS
APPROVED	

PROJECT No.	CONTROL	Rev.	FIGURE
31405076.000	31405076.000B007.dwg	0	1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

0 1 in

Path: \\corp.pbwan.net\US\CentralData\USDET100\CAD\Projects\31x\Projects\31405076.000\Smiths Creek LF\PRODUCTION\4-2024 QUARTERLY MONITORING\ | File Name: 31405076.000B007.dwg

APPENDIX A

Laboratory Results

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

November 22, 2024

Mary Siegan
WSP - Novi, MI
46850 Magellan Drive
Suite 190
Novi, MI 48377

RE: Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Dear Mary Siegan:

Enclosed are the analytical results for sample(s) received by the laboratory on November 09, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Brian Hall
brian.hall@pacelabs.com
(616)975-4500
Project Manager

Enclosures

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

CERTIFICATIONS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

SAMPLE SUMMARY

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50387480001	**MW-212**	Water	11/06/24 09:10	11/09/24 10:00
50387480002	**MW-203B**	Water	11/06/24 10:00	11/09/24 10:00
50387480003	**MW-208**	Water	11/06/24 11:20	11/09/24 10:00
50387480004	**MW-301**	Water	11/06/24 12:07	11/09/24 10:00
50387480005	**MW-209**	Water	11/06/24 12:42	11/09/24 10:00
50387480006	**MW-201**	Water	11/06/24 14:20	11/09/24 10:00
50387480007	**MW-106A**	Water	11/07/24 08:50	11/09/24 10:00
50387480008	**MW-210**	Water	11/07/24 09:40	11/09/24 10:00
50387480009	**MW-101**	Water	11/07/24 10:24	11/09/24 10:00
50387480010	**MW-202**	Water	11/07/24 10:55	11/09/24 10:00
50387480011	**MW-303A**	Water	11/07/24 11:35	11/09/24 10:00
50387480012	**MW-305**	Water	11/08/24 08:29	11/09/24 10:00
50387480013	**MW-304**	Water	11/08/24 10:00	11/09/24 10:00
50387480014	**MW-213**	Water	11/08/24 00:00	11/09/24 10:00
50387480015	**MW-207A**	Water	11/08/24 08:45	11/09/24 10:00
50387480016	**MW-302**	Water	11/06/24 13:22	11/09/24 10:00

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

SAMPLE ANALYTE COUNT

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50387480001	**MW-212**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480002	**MW-203B**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480003	**MW-208**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480004	**MW-301**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480005	**MW-209**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480006	**MW-201**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480007	**MW-106A**	EPA 6010	ABH	2	PASI-I

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

SAMPLE ANALYTE COUNT

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480008	**MW-210**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480009	**MW-101**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480010	**MW-202**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480011	**MW-303A**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480012	**MW-305**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480013	**MW-304**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

SAMPLE ANALYTE COUNT

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480014	**MW-213**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480015	**MW-207A**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480016	**MW-302**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-212 **Lab ID: 50387480001** Collected: 11/06/24 09:10 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**975**	ug/L	500	1	11/20/24 19:09	11/20/24 21:12	7440-09-7	
Sodium, Dissolved	**87700**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:12	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**166**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**<20.0**	ug/L	20.0	1		11/15/24 21:12		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**32200**	ug/L	1000	1		11/15/24 12:22	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**165**	ug/L	20.0	1		11/13/24 15:50	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1790**	ug/L	500	1		11/15/24 02:47	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-203B **Lab ID: 50387480002** Collected: 11/06/24 10:00 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**4140**	ug/L	500	1	11/20/24 19:09	11/20/24 21:21	7440-09-7	
Sodium, Dissolved	**87300**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:21	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**297**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**198**	ug/L	20.0	1		11/15/24 21:13		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**38800**	ug/L	1000	1		11/15/24 12:26	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**98.8**	ug/L	20.0	1		11/13/24 15:51	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1940**	ug/L	500	1		11/15/24 02:57	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-208 **Lab ID: 50387480003** Collected: 11/06/24 11:20 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1210**	ug/L	500	1	11/20/24 19:09	11/20/24 21:27	7440-09-7	
Sodium, Dissolved	**83400**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:27	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**195**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**<20.0**	ug/L	20.0	1		11/15/24 21:15		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**33800**	ug/L	1000	1		11/15/24 12:27	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**187**	ug/L	20.0	1		11/13/24 15:53	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1580**	ug/L	500	1		11/15/24 16:23	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-301 **Lab ID: 50387480004** Collected: 11/06/24 12:07 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1130**	ug/L	500	1	11/20/24 19:09	11/20/24 21:30	7440-09-7	
Sodium, Dissolved	**96800**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:30	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**199**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**<20.0**	ug/L	20.0	1		11/15/24 21:21		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**42500**	ug/L	1000	1		11/15/24 12:27	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**189**	ug/L	20.0	1		11/13/24 15:54	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1420**	ug/L	500	1		11/15/24 16:54	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-209 **Lab ID: 50387480005** Collected: 11/06/24 12:42 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1190**	ug/L	500	1	11/20/24 19:09	11/20/24 21:32	7440-09-7	
Sodium, Dissolved	**90700**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:32	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**465**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**453**	ug/L	20.0	1		11/15/24 21:24		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**36600**	ug/L	1000	1		11/15/24 12:29	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**<20.0**	ug/L	20.0	1		11/13/24 15:55	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1940**	ug/L	500	1		11/15/24 17:14	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-201 **Lab ID: 50387480006** Collected: 11/06/24 14:20 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1310**	ug/L	500	1	11/20/24 19:09	11/20/24 21:34	7440-09-7	
Sodium, Dissolved	**66300**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:34	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**111**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**111**	ug/L	20.0	1		11/15/24 21:26		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**17600**	ug/L	1000	1		11/15/24 12:30	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**<20.0**	ug/L	20.0	1		11/13/24 15:58	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1840**	ug/L	500	1		11/15/24 17:24	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Grand Rapids, MI 49512
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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-106A **Lab ID: 50387480007** Collected: 11/07/24 08:50 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1180**	ug/L	500	1	11/20/24 19:09	11/20/24 21:36	7440-09-7	
Sodium, Dissolved	**77500**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:36	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**153**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**<20.0**	ug/L	20.0	1		11/15/24 21:28		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**40200**	ug/L	1000	1		11/15/24 12:31	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**150**	ug/L	20.0	1		11/13/24 15:59	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**2160**	ug/L	500	1		11/15/24 17:34	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-210 **Lab ID: 50387480008** Collected: 11/07/24 09:40 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**2300**	ug/L	500	1	11/20/24 19:09	11/20/24 21:38	7440-09-7	
Sodium, Dissolved	**140000**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:38	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**127**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**90.1**	ug/L	20.0	1		11/15/24 21:29		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**28100**	ug/L	1000	1		11/15/24 12:32	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**36.6**	ug/L	20.0	1		11/13/24 16:00	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**2200**	ug/L	500	1		11/15/24 18:17	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-101 **Lab ID: 50387480009** Collected: 11/07/24 10:24 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1600**	ug/L	500	1	11/20/24 19:09	11/20/24 21:41	7440-09-7	
Sodium, Dissolved	**66900**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:41	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**132**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**<20.0**	ug/L	20.0	1		11/15/24 21:31		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**26100**	ug/L	1000	1		11/15/24 12:33	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**113**	ug/L	20.0	1		11/13/24 16:02	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1630**	ug/L	500	1		11/15/24 18:27	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-202 **Lab ID: 50387480010** Collected: 11/07/24 10:55 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1150**	ug/L	500	1	11/20/24 19:09	11/20/24 21:43	7440-09-7	
Sodium, Dissolved	**67900**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:43	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**101**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**72.7**	ug/L	20.0	1		11/15/24 21:33		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**31800**	ug/L	1000	1		11/15/24 12:34	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**28.6**	ug/L	20.0	1		11/13/24 16:05	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1240**	ug/L	500	1		11/15/24 18:37	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-303A **Lab ID: 50387480011** Collected: 11/07/24 11:35 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1070**	ug/L	500	1	11/20/24 19:09	11/20/24 21:45	7440-09-7	
Sodium, Dissolved	**103000**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:45	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**131**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**<20.0**	ug/L	20.0	1		11/15/24 21:35		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**43200**	ug/L	1000	1		11/15/24 12:38	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**124**	ug/L	20.0	1		11/13/24 16:07	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1600**	ug/L	500	1		11/15/24 18:47	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-305 **Lab ID: 50387480012** Collected: 11/08/24 08:29 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1820**	ug/L	500	1	11/20/24 19:09	11/20/24 21:47	7440-09-7	
Sodium, Dissolved	**89000**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:47	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**986**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**21.7**	ug/L	20.0	1		11/15/24 22:05		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**35100**	ug/L	1000	1		11/15/24 12:39	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**964**	ug/L	20.0	1		11/13/24 16:08	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**2050**	ug/L	500	1		11/15/24 19:02	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-304 **Lab ID: 50387480013** Collected: 11/08/24 10:00 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1530**	ug/L	500	1	11/20/24 19:09	11/20/24 21:54	7440-09-7	
Sodium, Dissolved	**78500**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:54	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**176**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**42.1**	ug/L	20.0	1		11/15/24 22:07		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**32200**	ug/L	1000	1		11/15/24 12:40	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**134**	ug/L	20.0	1		11/13/24 16:09	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1760**	ug/L	500	1		11/15/24 19:12	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-213 **Lab ID: 50387480014** Collected: 11/08/24 00:00 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1450**	ug/L	500	1	11/20/24 19:09	11/20/24 21:56	7440-09-7	
Sodium, Dissolved	**78000**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:56	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**170**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**36.2**	ug/L	20.0	1		11/15/24 21:37		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**32400**	ug/L	1000	1		11/15/24 12:41	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**134**	ug/L	20.0	1		11/13/24 16:10	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1730**	ug/L	500	1		11/15/24 19:22	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-207A **Lab ID: 50387480015** Collected: 11/08/24 08:45 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**2800**	ug/L	500	1	11/20/24 19:09	11/20/24 21:58	7440-09-7	
Sodium, Dissolved	**41500**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:58	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**117**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**54.0**	ug/L	20.0	1		11/15/24 21:42		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**10800**	ug/L	1000	1		11/15/24 12:42	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**62.9**	ug/L	20.0	1		11/13/24 16:12	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**7900**	ug/L	500	1		11/15/24 19:32	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-302 **Lab ID: 50387480016** Collected: 11/06/24 13:22 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1650**	ug/L	500	1	11/20/24 19:09	11/20/24 22:01	7440-09-7	
Sodium, Dissolved	**92000**	ug/L	1000	1	11/20/24 19:09	11/20/24 22:01	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**160**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**33.5**	ug/L	20.0	1		11/15/24 21:44		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**38800**	ug/L	1000	1		11/15/24 12:44	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**127**	ug/L	20.0	1		11/13/24 16:13	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1760**	ug/L	500	1		11/15/24 19:43	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

QC Batch: 820137
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387480001, 50387480002, 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480012, 50387480013, 50387480014, 50387480015, 50387480016

METHOD BLANK: 3753107 Matrix: Water
Associated Lab Samples: 50387480001, 50387480002, 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480012, 50387480013, 50387480014, 50387480015, 50387480016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Potassium, Dissolved	ug/L	<500	500	11/20/24 21:07	
Sodium, Dissolved	ug/L	<1000	1000	11/20/24 21:07	

LABORATORY CONTROL SAMPLE: 3753108

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Potassium, Dissolved	ug/L	10000	9810	98	80-120	
Sodium, Dissolved	ug/L	10000	9620	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3753109 3753110

Parameter	Units	50387480001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Potassium, Dissolved	ug/L	975	10000	10000	11200	11200	103	102	75-125	0	20	
Sodium, Dissolved	ug/L	87700	10000	10000	96100	95200	83	75	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

QC Batch: 819299
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, preserved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387480001, 50387480002, 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480014, 50387480015, 50387480016

METHOD BLANK: 3749282 Matrix: Water
Associated Lab Samples: 50387480001, 50387480002, 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480014, 50387480015, 50387480016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	<20.0	20.0	11/15/24 20:59	

LABORATORY CONTROL SAMPLE: 3749283

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	2000	1970	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3749284 3749285

Parameter	Units	50387476001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	ug/L	162	2000	2000	2120	2100	98	97	90-110	1	20	

MATRIX SPIKE SAMPLE: 3749286

Parameter	Units	50387480004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	<20.0	2000	1890	94	90-110	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

QC Batch: 819300
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, preserved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387480012, 50387480013

METHOD BLANK: 3749289 Matrix: Water
Associated Lab Samples: 50387480012, 50387480013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	<20.0	20.0	11/15/24 21:51	

LABORATORY CONTROL SAMPLE: 3749290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	2000	1880	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3749291 3749292

Parameter	Units	50387423003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	ug/L	0.031J mg/L	2000	2000	1260	1270	61	62	90-110	1	20	M3

MATRIX SPIKE SAMPLE: 3749293

Parameter	Units	50387555002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	0.031J mg/L	2000	1030	50	90-110	M0

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

QC Batch: 819171
QC Batch Method: SM 4500-Cl-E
Analysis Method: SM 4500-Cl-E
Analysis Description: 4500 Chloride
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387480001, 50387480002, 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480012, 50387480013, 50387480014, 50387480015

METHOD BLANK: 3748314 Matrix: Water
Associated Lab Samples: 50387480001, 50387480002, 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480012, 50387480013, 50387480014, 50387480015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	ug/L	<1000	1000	11/15/24 12:13	

LABORATORY CONTROL SAMPLE: 3748315

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L	20000	21300	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3748316 3748317

Parameter	Units	50387893001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	ug/L	3.9 mg/L	20000	20000	27600	27800	119	120	90-110	1	20	H3,M3

MATRIX SPIKE SAMPLE: 3748318

Parameter	Units	50387480004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L	42500	20000	63100	103	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

QC Batch: 819173
QC Batch Method: SM 4500-Cl-E
Analysis Method: SM 4500-Cl-E
Analysis Description: 4500 Chloride
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387480016

METHOD BLANK: 3748323 Matrix: Water
Associated Lab Samples: 50387480016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	ug/L	<1000	1000	11/15/24 12:43	

LABORATORY CONTROL SAMPLE: 3748324

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L	20000	21800	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3748325 3748326

Parameter	Units	50387740003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	ug/L	7.0 mg/L	20000	20000	30200	30700	116	119	90-110	2	20	M3

MATRIX SPIKE SAMPLE: 3748327

Parameter	Units	50387708003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L	23.0 mg/L	20000	45800	114	90-110	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

QC Batch: 818741
QC Batch Method: SM-4500-NH3 G
Analysis Method: SM-4500-NH3 G
Analysis Description: 4500 Ammonia Low Level
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387480001, 50387480002, 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480012, 50387480013, 50387480014, 50387480015, 50387480016

METHOD BLANK: 3745946 Matrix: Water
Associated Lab Samples: 50387480001, 50387480002, 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480012, 50387480013, 50387480014, 50387480015, 50387480016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	ug/L	<20.0	20.0	11/13/24 15:37	

LABORATORY CONTROL SAMPLE: 3745947

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	ug/L	1000	1070	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3745948 3745949

Parameter	Units	50387476002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	ug/L	952	5000	5000	6300	6610	107	113	90-110	5	20	M0

MATRIX SPIKE SAMPLE: 3745950

Parameter	Units	50387480005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	ug/L	<20.0	1000	1090	108	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

QC Batch: 819009
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387480001, 50387480002

METHOD BLANK: 3747414 Matrix: Water
Associated Lab Samples: 50387480001, 50387480002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	ug/L	<500	500	11/14/24 23:38	

LABORATORY CONTROL SAMPLE: 3747415

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	10000	10100	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3747416 3747417

Parameter	Units	50387801003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	ug/L	3.1 mg/L	10000	10000	12700	12700	96	96	80-120	0	15	

MATRIX SPIKE SAMPLE: 3747418

Parameter	Units	50387331001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	11.4 mg/L	40000	53100	104	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

QC Batch: 819010
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480012, 50387480013, 50387480014, 50387480015, 50387480016

METHOD BLANK: 3747419 Matrix: Water
Associated Lab Samples: 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480012, 50387480013, 50387480014, 50387480015, 50387480016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	ug/L	<500	500	11/15/24 16:02	

LABORATORY CONTROL SAMPLE: 3747420

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	10000	10100	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3747421 3747422

Parameter	Units	50387480003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	ug/L	1580	10000	10000	11500	11700	99	101	80-120	2	15	

MATRIX SPIKE SAMPLE: 3747423

Parameter	Units	50387480004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	1420	10000	11500	101	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

QUALIFIERS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50387480001	**MW-212**	EPA 3010	820137	EPA 6010	820172
50387480002	**MW-203B**	EPA 3010	820137	EPA 6010	820172
50387480003	**MW-208**	EPA 3010	820137	EPA 6010	820172
50387480004	**MW-301**	EPA 3010	820137	EPA 6010	820172
50387480005	**MW-209**	EPA 3010	820137	EPA 6010	820172
50387480006	**MW-201**	EPA 3010	820137	EPA 6010	820172
50387480007	**MW-106A**	EPA 3010	820137	EPA 6010	820172
50387480008	**MW-210**	EPA 3010	820137	EPA 6010	820172
50387480009	**MW-101**	EPA 3010	820137	EPA 6010	820172
50387480010	**MW-202**	EPA 3010	820137	EPA 6010	820172
50387480011	**MW-303A**	EPA 3010	820137	EPA 6010	820172
50387480012	**MW-305**	EPA 3010	820137	EPA 6010	820172
50387480013	**MW-304**	EPA 3010	820137	EPA 6010	820172
50387480014	**MW-213**	EPA 3010	820137	EPA 6010	820172
50387480015	**MW-207A**	EPA 3010	820137	EPA 6010	820172
50387480016	**MW-302**	EPA 3010	820137	EPA 6010	820172
50387480001	**MW-212**	NO2+NO3+NH3 Calculation	820579		
50387480002	**MW-203B**	NO2+NO3+NH3 Calculation	820579		
50387480003	**MW-208**	NO2+NO3+NH3 Calculation	820579		
50387480004	**MW-301**	NO2+NO3+NH3 Calculation	820579		
50387480005	**MW-209**	NO2+NO3+NH3 Calculation	820579		
50387480006	**MW-201**	NO2+NO3+NH3 Calculation	820579		
50387480007	**MW-106A**	NO2+NO3+NH3 Calculation	820579		
50387480008	**MW-210**	NO2+NO3+NH3 Calculation	820579		
50387480009	**MW-101**	NO2+NO3+NH3 Calculation	820579		
50387480010	**MW-202**	NO2+NO3+NH3 Calculation	820579		
50387480011	**MW-303A**	NO2+NO3+NH3 Calculation	820579		
50387480012	**MW-305**	NO2+NO3+NH3 Calculation	820579		
50387480013	**MW-304**	NO2+NO3+NH3 Calculation	820579		
50387480014	**MW-213**	NO2+NO3+NH3 Calculation	820579		
50387480015	**MW-207A**	NO2+NO3+NH3 Calculation	820579		
50387480016	**MW-302**	NO2+NO3+NH3 Calculation	820579		
50387480001	**MW-212**	EPA 353.2	819299		
50387480002	**MW-203B**	EPA 353.2	819299		
50387480003	**MW-208**	EPA 353.2	819299		
50387480004	**MW-301**	EPA 353.2	819299		
50387480005	**MW-209**	EPA 353.2	819299		

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50387480006	**MW-201**	EPA 353.2	819299		
50387480007	**MW-106A**	EPA 353.2	819299		
50387480008	**MW-210**	EPA 353.2	819299		
50387480009	**MW-101**	EPA 353.2	819299		
50387480010	**MW-202**	EPA 353.2	819299		
50387480011	**MW-303A**	EPA 353.2	819299		
50387480012	**MW-305**	EPA 353.2	819300		
50387480013	**MW-304**	EPA 353.2	819300		
50387480014	**MW-213**	EPA 353.2	819299		
50387480015	**MW-207A**	EPA 353.2	819299		
50387480016	**MW-302**	EPA 353.2	819299		
50387480001	**MW-212**	SM 4500-Cl-E	819171		
50387480002	**MW-203B**	SM 4500-Cl-E	819171		
50387480003	**MW-208**	SM 4500-Cl-E	819171		
50387480004	**MW-301**	SM 4500-Cl-E	819171		
50387480005	**MW-209**	SM 4500-Cl-E	819171		
50387480006	**MW-201**	SM 4500-Cl-E	819171		
50387480007	**MW-106A**	SM 4500-Cl-E	819171		
50387480008	**MW-210**	SM 4500-Cl-E	819171		
50387480009	**MW-101**	SM 4500-Cl-E	819171		
50387480010	**MW-202**	SM 4500-Cl-E	819171		
50387480011	**MW-303A**	SM 4500-Cl-E	819171		
50387480012	**MW-305**	SM 4500-Cl-E	819171		
50387480013	**MW-304**	SM 4500-Cl-E	819171		
50387480014	**MW-213**	SM 4500-Cl-E	819171		
50387480015	**MW-207A**	SM 4500-Cl-E	819171		
50387480016	**MW-302**	SM 4500-Cl-E	819173		
50387480001	**MW-212**	SM-4500-NH3 G	818741		
50387480002	**MW-203B**	SM-4500-NH3 G	818741		
50387480003	**MW-208**	SM-4500-NH3 G	818741		
50387480004	**MW-301**	SM-4500-NH3 G	818741		
50387480005	**MW-209**	SM-4500-NH3 G	818741		
50387480006	**MW-201**	SM-4500-NH3 G	818741		
50387480007	**MW-106A**	SM-4500-NH3 G	818741		
50387480008	**MW-210**	SM-4500-NH3 G	818741		
50387480009	**MW-101**	SM-4500-NH3 G	818741		
50387480010	**MW-202**	SM-4500-NH3 G	818741		
50387480011	**MW-303A**	SM-4500-NH3 G	818741		
50387480012	**MW-305**	SM-4500-NH3 G	818741		
50387480013	**MW-304**	SM-4500-NH3 G	818741		
50387480014	**MW-213**	SM-4500-NH3 G	818741		
50387480015	**MW-207A**	SM-4500-NH3 G	818741		
50387480016	**MW-302**	SM-4500-NH3 G	818741		
50387480001	**MW-212**	SM 5310C	819009		
50387480002	**MW-203B**	SM 5310C	819009		

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50387480003	**MW-208**	SM 5310C	819010		
50387480004	**MW-301**	SM 5310C	819010		
50387480005	**MW-209**	SM 5310C	819010		
50387480006	**MW-201**	SM 5310C	819010		
50387480007	**MW-106A**	SM 5310C	819010		
50387480008	**MW-210**	SM 5310C	819010		
50387480009	**MW-101**	SM 5310C	819010		
50387480010	**MW-202**	SM 5310C	819010		
50387480011	**MW-303A**	SM 5310C	819010		
50387480012	**MW-305**	SM 5310C	819010		
50387480013	**MW-304**	SM 5310C	819010		
50387480014	**MW-213**	SM 5310C	819010		
50387480015	**MW-207A**	SM 5310C	819010		
50387480016	**MW-302**	SM 5310C	819010		

Pace® Location Requested (City/State):
Pace Analytical Grand Rapids
4171 40th Street SE, Grand Rapids, MI 49512

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY - Affix Workorder/Login Label Here

WO# : 50387480

50387480

Company Name:	WSP - Novi, MI	Contact/Report To:	Mary Siegan
Street Address:	46850 Magellan Drive Suite 190 Novi, MI 48377	Phone #:	(248)536-5435
		E-Mail:	mary.siegan@wsp.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	Smith's Creek LF GW S/A Q4	Invoice To:	Accounts Payable
		Invoice E-Mail:	usaccountspayable@wsp.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET		County / State origin of sample(s):	Michigan
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other	Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No **Rush (Pre-approval required):** [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____ **Date Results Requested:**	DW PWSID # or WW Permit # as applicable: Field Filtered (if applicable): [ ] Yes [ ] No Analysis:	

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: **Brian Hall**
AcctNum / Client ID:
Table #:
Profile / Template: **8284**
Prelog / Bottle Ord. ID: **EZ 3168150**

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	353.2 N+N; 4500 NH3LL; TIN	4500 Chloride	5310C TOC	3010 Dissolved Metals	Sample Comment	Preservation non-conformance identified for sample.
MW-212	GW	G	11/6	0910	11/6	0910	4			X	X	X	X	001	
MW-203B	"	"	"	1000	"	1000	"			"	"	"	"	002	
MW-208	"	"	"	1120	"	1120	"			"	"	"	"	003	
MW-301	"	"	"	1207	"	1207	"			"	"	"	"	004	
MW-209	"	"	"	1242	"	1242	"			"	"	"	"	005	
MW-201	"	"	"	1420	"	1420	"			"	"	"	"	006	
MW-106A	"	"	11/7	0850	11/7	0850	"			"	"	"	"	007	
MW-210	"	"	"	0940	"	0940	"			"	"	"	"	008	
MW-101	"	"	"	1024	"	1024	"			"	"	"	"	009	
MW-202	"	"	"	1055	"	1055	"			"	"	"	"	010	

Additional Instructions from Pace®:
Metals - Na,K

Collected By:
(Printed Name)
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
3	A	See Sive			Y

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
		Fedex		
Relinquished by/Company: (Signature) Fedex	Date/Time: 11/9/24 1000	Received by/Company: (Signature)	Date/Time: 11/9/24 1000	Delivered by: [ ] In- Person [ ] Courier [X] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 2

Pace® Location Requested (City/State):
Pace Analytical Grand Rapids
4171 40th Street SE, Grand Rapids, MI 49512

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name:	WSP - Novi, MI	Contact/Report To:	Mary Siegan
Street Address:	46850 Magellan Drive Suite 190 Novi, MI 48377	Phone #:	(248)536-5435
		E-Mail:	mary.siegan@wsp.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	Smith's Creek LF GW S/A Q4	Invoice To:	Accounts Payable
		Invoice E-Mail:	usaccountspayable@wsp.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Michigan

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	353.2 N+N; 4500 NH3LL; TIN	4500 Chloride	5310C TOC	6010 Dissolved Metals	Sample Comment
MW-303A	GW	G	11/7	1135	11/7	1135	4			X	Y	X	X	04
MW-305	"	"	11/8	0829	11/8	0829	"							012
MW-304	"	"	"	1000	"	1000	"							013
MW-213	"	"	"	-	"	-	"							014
MW-207A	GW	G	11/8	0845	11/8	0845	4							015
MW-302	GW	G	11/6	1322	11/6	1322	4							016

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only
Proj. Mgr: **Brian Hall**
AcctNum / Client ID:
Table #:
Profile / Template: **8284**
Prelog / Bottle Ord. ID: **EZ 3168150**

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
Metals - Na,K

Collected By:
(Printed Name)
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
3	A	see SESR			Y

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
		Fedex		
Relinquished by/Company: (Signature) Fedex	Date/Time: 11/9/24 1000	Received by/Company: (Signature)	Date/Time: 11/9/24 1000	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 2 of 2

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

F-IN-Q-290-rev.29, 4Oct2024

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11/9/24 1532 -MDW

1. Thermometer: 1 2 3 4 5 6 7 8 9 (A) B C D E F G H I

2. Cooler Temperature(s): (Initial/Corrected) | 1.6/1.7 | 3.8/3.9 | 4.7/4.8 |

RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

3. Courier: Circle One — Fed Ex UPS Client Pace Now/Jett Other

4. Custody Seal on Cooler/Box Present: ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

5. Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. Ice Type: ☑ Wet ☐ Blue ☐ None

7. Was the PM notified of out of temp cooler? ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

If the PM was contacted in the comments below please write how they instructed the project to proceed

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl. Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace in **VOA Vials** (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Containers Intact?:	✓		Trip Blank Present?		✓	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Custody Seals?:			✓
Extra labels on Terracore Vials? (soils only)			Out Of Temp Instructions if applicable:			

COMMENTS: Client signature not on Page 2 of COC - MDW 11/9/24

COC PAGE 1 **of** 2

Sample Container Count

** Place a PINK dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit			Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1						1		1	1								W	✓	✓		
2																																	
3																																	
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	CG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	CG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3B	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

NT3U	Non Teflon 250mL unpreserved plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 **of** 2

Sample Container Count

** Place a PINK dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit			Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												✓						✓		✓	✓								WT	✓	✓		
2																																	
3																																	
4																																	
5																																	
6												✓						✓		✓	✓								SL	✓	✓		
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	CG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	CG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3B	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

NT3U	Non Teflon 250mL unpreserved plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Container Order #3168150

brian.hall@pacelabs.com

Addresses

Order By :		Ship To :		Return To:	
Company	WSP - Novi, MI	Company	WSP - Novi, MI	Company	Pace Analytical Grand Rapids
Contact	Mary Siegan	Contact	Mary Siegan	Contact	Brian Hall
Email	mary.siegan@wsp.com	Email	mary.siegan@wsp.com	Email	brian.hall@pacelabs.com
Address	46850 Magellan Drive	Address	46850 Magellan Drive	Address	4171 40th Street SE
Address 2	Suite 190	Address 2	Suite 190	Address 2	
City	Novi	City	Novi	City	Grand Rapids
State	MI Zip 48377	State	MI Zip 48377	State	MI Zip 49512
Phone	(248)536-5435	Phone	(248)536-5435	Phone	(616)975-4500

Info

Project Name Smith's Creek LF GW S/A Q4 **Due Date** 10/31/2024 **Profile** 8284 **Quote**

Project Manager Hall, Brian **Return Date** **Carrier** FedEx Ground **Location** MI

Return Shipping Labels

Return Label Type: Indy M-Sat

- [ ] No Shipper
- [X] With Shipper

Bottle Labels

- [X] Blank
- [ ] Pre-Printed No Sample IDs
- [ ] Pre-Printed With Sample IDs

Bottles

- [ ] Boxed Cases
- [ ] Individually Wrapped
- [X] Grouped By Sample ID/Matrix

Trip Blanks

- [ ] Include Trip Blanks

COC Options

- [ ] Number of Blanks
- [X] Pre-Printed

Misc

- [ ] Sampling Instructions
- [ ] Custody Seal
- [X] Temp. Blanks
- [X] Coolers
- [ ] Syringes
- [ ] Extra Bubble Wrap
- [ ] Short Hold/Rush Stickers
- [ ] DI Water
- [ ] USDA Regulated Soils
- [ ] Dry Weight

# of Samp	Matrix	Analysis	Qty / Samp	Container	Total	# of QC	Lot #	Notes
16	WT	5310C TOC	1	250mL amber glass H2SO4	16	2		
16	WT	353.2 N+N; 4500 NH3LL; TIN	1	250mL plastic H2SO4	16	2		
16	WT	4500 Chloride	1	250mL plastic unpreserved	16	2		
16	WT	6010 Dissolved Metals	1	250ml plastic HNO3-Filtered	16	2		

Hazard Shipping Placard In Place : N/A

'Sample receiving hours are typically 8am-5pm, but may differ by location. Please check with your Pace Project Manager.

'Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

'Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.

'Payment term are net 30 days.

'Please include the proposal number on the chain of custody to ensure proper billing.

Sample Notes :

Metals - Na,K

LAB USE:

Ship Date :

Prepared By:

Verified By:

CLIENT USE (Optional):

Date Rec'd:

Received By:

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

November 22, 2024

Mary Siegan
WSP - Novi, MI
46850 Magellan Drive
Suite 190
Novi, MI 48377

RE: Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Dear Mary Siegan:

Enclosed are the analytical results for sample(s) received by the laboratory on November 09, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Brian Hall
brian.hall@pacelabs.com
(616)975-4500
Project Manager

Enclosures

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

CERTIFICATIONS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

SAMPLE SUMMARY

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50387480001	**MW-212**	Water	11/06/24 09:10	11/09/24 10:00
50387480002	**MW-203B**	Water	11/06/24 10:00	11/09/24 10:00
50387480003	**MW-208**	Water	11/06/24 11:20	11/09/24 10:00
50387480004	**MW-301**	Water	11/06/24 12:07	11/09/24 10:00
50387480005	**MW-209**	Water	11/06/24 12:42	11/09/24 10:00
50387480006	**MW-201**	Water	11/06/24 14:20	11/09/24 10:00
50387480007	**MW-106A**	Water	11/07/24 08:50	11/09/24 10:00
50387480008	**MW-210**	Water	11/07/24 09:40	11/09/24 10:00
50387480009	**MW-101**	Water	11/07/24 10:24	11/09/24 10:00
50387480010	**MW-202**	Water	11/07/24 10:55	11/09/24 10:00
50387480011	**MW-303A**	Water	11/07/24 11:35	11/09/24 10:00
50387480012	**MW-305**	Water	11/08/24 08:29	11/09/24 10:00
50387480013	**MW-304**	Water	11/08/24 10:00	11/09/24 10:00
50387480014	**MW-213**	Water	11/08/24 00:00	11/09/24 10:00
50387480015	**MW-207A**	Water	11/08/24 08:45	11/09/24 10:00
50387480016	**MW-302**	Water	11/06/24 13:22	11/09/24 10:00

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

SAMPLE ANALYTE COUNT

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50387480001	**MW-212**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480002	**MW-203B**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480003	**MW-208**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480004	**MW-301**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480005	**MW-209**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480006	**MW-201**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480007	**MW-106A**	EPA 6010	ABH	2	PASI-I

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

SAMPLE ANALYTE COUNT

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480008	**MW-210**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480009	**MW-101**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480010	**MW-202**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480011	**MW-303A**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480012	**MW-305**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480013	**MW-304**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

SAMPLE ANALYTE COUNT

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480014	**MW-213**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480015	**MW-207A**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387480016	**MW-302**	EPA 6010	ABH	2	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM 4500-Cl-E	KCS	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-212 **Lab ID: 50387480001** Collected: 11/06/24 09:10 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**975**	ug/L	500	1	11/20/24 19:09	11/20/24 21:12	7440-09-7	
Sodium, Dissolved	**87700**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:12	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**166**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**<20.0**	ug/L	20.0	1		11/15/24 21:12		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**32200**	ug/L	1000	1		11/15/24 12:22	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**165**	ug/L	20.0	1		11/13/24 15:50	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1790**	ug/L	500	1		11/15/24 02:47	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-203B **Lab ID: 50387480002** Collected: 11/06/24 10:00 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**4140**	ug/L	500	1	11/20/24 19:09	11/20/24 21:21	7440-09-7	
Sodium, Dissolved	**87300**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:21	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**297**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**198**	ug/L	20.0	1		11/15/24 21:13		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**38800**	ug/L	1000	1		11/15/24 12:26	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**98.8**	ug/L	20.0	1		11/13/24 15:51	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1940**	ug/L	500	1		11/15/24 02:57	7440-44-0	

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-208 **Lab ID: 50387480003** Collected: 11/06/24 11:20 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1210**	ug/L	500	1	11/20/24 19:09	11/20/24 21:27	7440-09-7	
Sodium, Dissolved	**83400**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:27	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**195**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**<20.0**	ug/L	20.0	1		11/15/24 21:15		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**33800**	ug/L	1000	1		11/15/24 12:27	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**187**	ug/L	20.0	1		11/13/24 15:53	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1580**	ug/L	500	1		11/15/24 16:23	7440-44-0	

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-301 **Lab ID: 50387480004** Collected: 11/06/24 12:07 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1130**	ug/L	500	1	11/20/24 19:09	11/20/24 21:30	7440-09-7	
Sodium, Dissolved	**96800**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:30	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**199**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**<20.0**	ug/L	20.0	1		11/15/24 21:21		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**42500**	ug/L	1000	1		11/15/24 12:27	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**189**	ug/L	20.0	1		11/13/24 15:54	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1420**	ug/L	500	1		11/15/24 16:54	7440-44-0	

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-209 **Lab ID: 50387480005** Collected: 11/06/24 12:42 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1190**	ug/L	500	1	11/20/24 19:09	11/20/24 21:32	7440-09-7	
Sodium, Dissolved	**90700**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:32	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**465**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**453**	ug/L	20.0	1		11/15/24 21:24		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**36600**	ug/L	1000	1		11/15/24 12:29	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**<20.0**	ug/L	20.0	1		11/13/24 15:55	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1940**	ug/L	500	1		11/15/24 17:14	7440-44-0	

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-201 **Lab ID: 50387480006** Collected: 11/06/24 14:20 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1310**	ug/L	500	1	11/20/24 19:09	11/20/24 21:34	7440-09-7	
Sodium, Dissolved	**66300**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:34	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**111**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**111**	ug/L	20.0	1		11/15/24 21:26		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**17600**	ug/L	1000	1		11/15/24 12:30	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**<20.0**	ug/L	20.0	1		11/13/24 15:58	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1840**	ug/L	500	1		11/15/24 17:24	7440-44-0	

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-106A **Lab ID: 50387480007** Collected: 11/07/24 08:50 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1180**	ug/L	500	1	11/20/24 19:09	11/20/24 21:36	7440-09-7	
Sodium, Dissolved	**77500**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:36	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**153**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**<20.0**	ug/L	20.0	1		11/15/24 21:28		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**40200**	ug/L	1000	1		11/15/24 12:31	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**150**	ug/L	20.0	1		11/13/24 15:59	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**2160**	ug/L	500	1		11/15/24 17:34	7440-44-0	

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-210 **Lab ID: 50387480008** Collected: 11/07/24 09:40 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**2300**	ug/L	500	1	11/20/24 19:09	11/20/24 21:38	7440-09-7	
Sodium, Dissolved	**140000**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:38	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**127**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**90.1**	ug/L	20.0	1		11/15/24 21:29		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**28100**	ug/L	1000	1		11/15/24 12:32	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**36.6**	ug/L	20.0	1		11/13/24 16:00	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**2200**	ug/L	500	1		11/15/24 18:17	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-101 **Lab ID: 50387480009** Collected: 11/07/24 10:24 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1600**	ug/L	500	1	11/20/24 19:09	11/20/24 21:41	7440-09-7	
Sodium, Dissolved	**66900**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:41	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**132**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**<20.0**	ug/L	20.0	1		11/15/24 21:31		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**26100**	ug/L	1000	1		11/15/24 12:33	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**113**	ug/L	20.0	1		11/13/24 16:02	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1630**	ug/L	500	1		11/15/24 18:27	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-202 **Lab ID: 50387480010** Collected: 11/07/24 10:55 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1150**	ug/L	500	1	11/20/24 19:09	11/20/24 21:43	7440-09-7	
Sodium, Dissolved	**67900**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:43	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**101**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**72.7**	ug/L	20.0	1		11/15/24 21:33		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**31800**	ug/L	1000	1		11/15/24 12:34	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**28.6**	ug/L	20.0	1		11/13/24 16:05	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1240**	ug/L	500	1		11/15/24 18:37	7440-44-0	

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-303A **Lab ID: 50387480011** Collected: 11/07/24 11:35 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1070**	ug/L	500	1	11/20/24 19:09	11/20/24 21:45	7440-09-7	
Sodium, Dissolved	**103000**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:45	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**131**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**<20.0**	ug/L	20.0	1		11/15/24 21:35		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**43200**	ug/L	1000	1		11/15/24 12:38	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**124**	ug/L	20.0	1		11/13/24 16:07	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1600**	ug/L	500	1		11/15/24 18:47	7440-44-0	

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-305 **Lab ID: 50387480012** Collected: 11/08/24 08:29 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1820**	ug/L	500	1	11/20/24 19:09	11/20/24 21:47	7440-09-7	
Sodium, Dissolved	**89000**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:47	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**986**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**21.7**	ug/L	20.0	1		11/15/24 22:05		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**35100**	ug/L	1000	1		11/15/24 12:39	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**964**	ug/L	20.0	1		11/13/24 16:08	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**2050**	ug/L	500	1		11/15/24 19:02	7440-44-0	

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-304 **Lab ID: 50387480013** Collected: 11/08/24 10:00 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1530**	ug/L	500	1	11/20/24 19:09	11/20/24 21:54	7440-09-7	
Sodium, Dissolved	**78500**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:54	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**176**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**42.1**	ug/L	20.0	1		11/15/24 22:07		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**32200**	ug/L	1000	1		11/15/24 12:40	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**134**	ug/L	20.0	1		11/13/24 16:09	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1760**	ug/L	500	1		11/15/24 19:12	7440-44-0	

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-213 **Lab ID: 50387480014** Collected: 11/08/24 00:00 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1450**	ug/L	500	1	11/20/24 19:09	11/20/24 21:56	7440-09-7	
Sodium, Dissolved	**78000**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:56	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**170**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**36.2**	ug/L	20.0	1		11/15/24 21:37		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**32400**	ug/L	1000	1		11/15/24 12:41	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**134**	ug/L	20.0	1		11/13/24 16:10	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1730**	ug/L	500	1		11/15/24 19:22	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-207A **Lab ID: 50387480015** Collected: 11/08/24 08:45 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**2800**	ug/L	500	1	11/20/24 19:09	11/20/24 21:58	7440-09-7	
Sodium, Dissolved	**41500**	ug/L	1000	1	11/20/24 19:09	11/20/24 21:58	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**117**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**54.0**	ug/L	20.0	1		11/15/24 21:42		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**10800**	ug/L	1000	1		11/15/24 12:42	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**62.9**	ug/L	20.0	1		11/13/24 16:12	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**7900**	ug/L	500	1		11/15/24 19:32	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Sample: MW-302 **Lab ID: 50387480016** Collected: 11/06/24 13:22 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Potassium, Dissolved	**1650**	ug/L	500	1	11/20/24 19:09	11/20/24 22:01	7440-09-7	
Sodium, Dissolved	**92000**	ug/L	1000	1	11/20/24 19:09	11/20/24 22:01	7440-23-5	
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**160**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**33.5**	ug/L	20.0	1		11/15/24 21:44		
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**38800**	ug/L	1000	1		11/15/24 12:44	16887-00-6	
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**127**	ug/L	20.0	1		11/13/24 16:13	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**1760**	ug/L	500	1		11/15/24 19:43	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

QC Batch: 820137
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387480001, 50387480002, 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480012, 50387480013, 50387480014, 50387480015, 50387480016

METHOD BLANK: 3753107 Matrix: Water
Associated Lab Samples: 50387480001, 50387480002, 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480012, 50387480013, 50387480014, 50387480015, 50387480016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Potassium, Dissolved	ug/L	<500	500	11/20/24 21:07	
Sodium, Dissolved	ug/L	<1000	1000	11/20/24 21:07	

LABORATORY CONTROL SAMPLE: 3753108

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Potassium, Dissolved	ug/L	10000	9810	98	80-120	
Sodium, Dissolved	ug/L	10000	9620	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3753109 3753110

Parameter	Units	50387480001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Potassium, Dissolved	ug/L	975	10000	10000	11200	11200	103	102	75-125	0	20	
Sodium, Dissolved	ug/L	87700	10000	10000	96100	95200	83	75	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

QC Batch: 819299
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, preserved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387480001, 50387480002, 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480014, 50387480015, 50387480016

METHOD BLANK: 3749282 Matrix: Water
Associated Lab Samples: 50387480001, 50387480002, 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480014, 50387480015, 50387480016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	<20.0	20.0	11/15/24 20:59	

LABORATORY CONTROL SAMPLE: 3749283

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	2000	1970	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3749284 3749285

Parameter	Units	50387476001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	ug/L	162	2000	2000	2120	2100	98	97	90-110	1	20	

MATRIX SPIKE SAMPLE: 3749286

Parameter	Units	50387480004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	<20.0	2000	1890	94	90-110	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

QC Batch: 819300
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, preserved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387480012, 50387480013

METHOD BLANK: 3749289 Matrix: Water
Associated Lab Samples: 50387480012, 50387480013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	<20.0	20.0	11/15/24 21:51	

LABORATORY CONTROL SAMPLE: 3749290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	2000	1880	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3749291 3749292

Parameter	Units	50387423003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	ug/L	0.031J mg/L	2000	2000	1260	1270	61	62	90-110	1	20	M3

MATRIX SPIKE SAMPLE: 3749293

Parameter	Units	50387555002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	0.031J mg/L	2000	1030	50	90-110	M0

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

QC Batch: 819171
QC Batch Method: SM 4500-Cl-E
Analysis Method: SM 4500-Cl-E
Analysis Description: 4500 Chloride
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387480001, 50387480002, 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480012, 50387480013, 50387480014, 50387480015

METHOD BLANK: 3748314 Matrix: Water
Associated Lab Samples: 50387480001, 50387480002, 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480012, 50387480013, 50387480014, 50387480015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	ug/L	<1000	1000	11/15/24 12:13	

LABORATORY CONTROL SAMPLE: 3748315

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L	20000	21300	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3748316 3748317

Parameter	Units	50387893001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	ug/L	3.9 mg/L	20000	20000	27600	27800	119	120	90-110	1	20	H3,M3

MATRIX SPIKE SAMPLE: 3748318

Parameter	Units	50387480004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L	42500	20000	63100	103	90-110	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

QC Batch: 819173
QC Batch Method: SM 4500-Cl-E
Analysis Method: SM 4500-Cl-E
Analysis Description: 4500 Chloride
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387480016

METHOD BLANK: 3748323 Matrix: Water
Associated Lab Samples: 50387480016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	ug/L	<1000	1000	11/15/24 12:43	

LABORATORY CONTROL SAMPLE: 3748324

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L	20000	21800	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3748325 3748326

Parameter	Units	50387740003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	ug/L	7.0 mg/L	20000	20000	30200	30700	116	119	90-110	2	20	M3

MATRIX SPIKE SAMPLE: 3748327

Parameter	Units	50387708003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L	23.0 mg/L	20000	45800	114	90-110	M0

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

QC Batch: 818741
QC Batch Method: SM-4500-NH3 G
Analysis Method: SM-4500-NH3 G
Analysis Description: 4500 Ammonia Low Level
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387480001, 50387480002, 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480012, 50387480013, 50387480014, 50387480015, 50387480016

METHOD BLANK: 3745946 Matrix: Water
Associated Lab Samples: 50387480001, 50387480002, 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480012, 50387480013, 50387480014, 50387480015, 50387480016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	ug/L	<20.0	20.0	11/13/24 15:37	

LABORATORY CONTROL SAMPLE: 3745947

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	ug/L	1000	1070	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3745948 3745949

Parameter	Units	50387476002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	ug/L	952	5000	5000	6300	6610	107	113	90-110	5	20	M0

MATRIX SPIKE SAMPLE: 3745950

Parameter	Units	50387480005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	ug/L	<20.0	1000	1090	108	90-110	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

QC Batch: 819009
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387480001, 50387480002

METHOD BLANK: 3747414 Matrix: Water
Associated Lab Samples: 50387480001, 50387480002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	ug/L	<500	500	11/14/24 23:38	

LABORATORY CONTROL SAMPLE: 3747415

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	10000	10100	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3747416 3747417

Parameter	Units	50387801003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	ug/L	3.1 mg/L	10000	10000	12700	12700	96	96	80-120	0	15	

MATRIX SPIKE SAMPLE: 3747418

Parameter	Units	50387331001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	11.4 mg/L	40000	53100	104	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

QC Batch: 819010
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480012, 50387480013, 50387480014, 50387480015, 50387480016

METHOD BLANK: 3747419 Matrix: Water
Associated Lab Samples: 50387480003, 50387480004, 50387480005, 50387480006, 50387480007, 50387480008, 50387480009, 50387480010, 50387480011, 50387480012, 50387480013, 50387480014, 50387480015, 50387480016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	ug/L	<500	500	11/15/24 16:02	

LABORATORY CONTROL SAMPLE: 3747420

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	10000	10100	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3747421 3747422

Parameter	Units	50387480003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	ug/L	1580	10000	10000	11500	11700	99	101	80-120	2	15	

MATRIX SPIKE SAMPLE: 3747423

Parameter	Units	50387480004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	1420	10000	11500	101	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50387480001	**MW-212**	EPA 3010	820137	EPA 6010	820172
50387480002	**MW-203B**	EPA 3010	820137	EPA 6010	820172
50387480003	**MW-208**	EPA 3010	820137	EPA 6010	820172
50387480004	**MW-301**	EPA 3010	820137	EPA 6010	820172
50387480005	**MW-209**	EPA 3010	820137	EPA 6010	820172
50387480006	**MW-201**	EPA 3010	820137	EPA 6010	820172
50387480007	**MW-106A**	EPA 3010	820137	EPA 6010	820172
50387480008	**MW-210**	EPA 3010	820137	EPA 6010	820172
50387480009	**MW-101**	EPA 3010	820137	EPA 6010	820172
50387480010	**MW-202**	EPA 3010	820137	EPA 6010	820172
50387480011	**MW-303A**	EPA 3010	820137	EPA 6010	820172
50387480012	**MW-305**	EPA 3010	820137	EPA 6010	820172
50387480013	**MW-304**	EPA 3010	820137	EPA 6010	820172
50387480014	**MW-213**	EPA 3010	820137	EPA 6010	820172
50387480015	**MW-207A**	EPA 3010	820137	EPA 6010	820172
50387480016	**MW-302**	EPA 3010	820137	EPA 6010	820172
50387480001	**MW-212**	NO2+NO3+NH3 Calculation	820579		
50387480002	**MW-203B**	NO2+NO3+NH3 Calculation	820579		
50387480003	**MW-208**	NO2+NO3+NH3 Calculation	820579		
50387480004	**MW-301**	NO2+NO3+NH3 Calculation	820579		
50387480005	**MW-209**	NO2+NO3+NH3 Calculation	820579		
50387480006	**MW-201**	NO2+NO3+NH3 Calculation	820579		
50387480007	**MW-106A**	NO2+NO3+NH3 Calculation	820579		
50387480008	**MW-210**	NO2+NO3+NH3 Calculation	820579		
50387480009	**MW-101**	NO2+NO3+NH3 Calculation	820579		
50387480010	**MW-202**	NO2+NO3+NH3 Calculation	820579		
50387480011	**MW-303A**	NO2+NO3+NH3 Calculation	820579		
50387480012	**MW-305**	NO2+NO3+NH3 Calculation	820579		
50387480013	**MW-304**	NO2+NO3+NH3 Calculation	820579		
50387480014	**MW-213**	NO2+NO3+NH3 Calculation	820579		
50387480015	**MW-207A**	NO2+NO3+NH3 Calculation	820579		
50387480016	**MW-302**	NO2+NO3+NH3 Calculation	820579		
50387480001	**MW-212**	EPA 353.2	819299		
50387480002	**MW-203B**	EPA 353.2	819299		
50387480003	**MW-208**	EPA 353.2	819299		
50387480004	**MW-301**	EPA 353.2	819299		
50387480005	**MW-209**	EPA 353.2	819299		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50387480006	**MW-201**	EPA 353.2	819299		
50387480007	**MW-106A**	EPA 353.2	819299		
50387480008	**MW-210**	EPA 353.2	819299		
50387480009	**MW-101**	EPA 353.2	819299		
50387480010	**MW-202**	EPA 353.2	819299		
50387480011	**MW-303A**	EPA 353.2	819299		
50387480012	**MW-305**	EPA 353.2	819300		
50387480013	**MW-304**	EPA 353.2	819300		
50387480014	**MW-213**	EPA 353.2	819299		
50387480015	**MW-207A**	EPA 353.2	819299		
50387480016	**MW-302**	EPA 353.2	819299		
50387480001	**MW-212**	SM 4500-Cl-E	819171		
50387480002	**MW-203B**	SM 4500-Cl-E	819171		
50387480003	**MW-208**	SM 4500-Cl-E	819171		
50387480004	**MW-301**	SM 4500-Cl-E	819171		
50387480005	**MW-209**	SM 4500-Cl-E	819171		
50387480006	**MW-201**	SM 4500-Cl-E	819171		
50387480007	**MW-106A**	SM 4500-Cl-E	819171		
50387480008	**MW-210**	SM 4500-Cl-E	819171		
50387480009	**MW-101**	SM 4500-Cl-E	819171		
50387480010	**MW-202**	SM 4500-Cl-E	819171		
50387480011	**MW-303A**	SM 4500-Cl-E	819171		
50387480012	**MW-305**	SM 4500-Cl-E	819171		
50387480013	**MW-304**	SM 4500-Cl-E	819171		
50387480014	**MW-213**	SM 4500-Cl-E	819171		
50387480015	**MW-207A**	SM 4500-Cl-E	819171		
50387480016	**MW-302**	SM 4500-Cl-E	819173		
50387480001	**MW-212**	SM-4500-NH3 G	818741		
50387480002	**MW-203B**	SM-4500-NH3 G	818741		
50387480003	**MW-208**	SM-4500-NH3 G	818741		
50387480004	**MW-301**	SM-4500-NH3 G	818741		
50387480005	**MW-209**	SM-4500-NH3 G	818741		
50387480006	**MW-201**	SM-4500-NH3 G	818741		
50387480007	**MW-106A**	SM-4500-NH3 G	818741		
50387480008	**MW-210**	SM-4500-NH3 G	818741		
50387480009	**MW-101**	SM-4500-NH3 G	818741		
50387480010	**MW-202**	SM-4500-NH3 G	818741		
50387480011	**MW-303A**	SM-4500-NH3 G	818741		
50387480012	**MW-305**	SM-4500-NH3 G	818741		
50387480013	**MW-304**	SM-4500-NH3 G	818741		
50387480014	**MW-213**	SM-4500-NH3 G	818741		
50387480015	**MW-207A**	SM-4500-NH3 G	818741		
50387480016	**MW-302**	SM-4500-NH3 G	818741		
50387480001	**MW-212**	SM 5310C	819009		
50387480002	**MW-203B**	SM 5310C	819009		

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Smith's Creek LF GW S/A 4Q2024
Pace Project No.: 50387480

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50387480003	**MW-208**	SM 5310C	819010		
50387480004	**MW-301**	SM 5310C	819010		
50387480005	**MW-209**	SM 5310C	819010		
50387480006	**MW-201**	SM 5310C	819010		
50387480007	**MW-106A**	SM 5310C	819010		
50387480008	**MW-210**	SM 5310C	819010		
50387480009	**MW-101**	SM 5310C	819010		
50387480010	**MW-202**	SM 5310C	819010		
50387480011	**MW-303A**	SM 5310C	819010		
50387480012	**MW-305**	SM 5310C	819010		
50387480013	**MW-304**	SM 5310C	819010		
50387480014	**MW-213**	SM 5310C	819010		
50387480015	**MW-207A**	SM 5310C	819010		
50387480016	**MW-302**	SM 5310C	819010		

Pace® Location Requested (City/State):
Pace Analytical Grand Rapids
4171 40th Street SE, Grand Rapids, MI 49512

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY - Affix Workorder/Login Label Here

WO# : 50387480

50387480

Company Name:	WSP - Novi, MI	Contact/Report To:	Mary Siegan
Street Address:	46850 Magellan Drive Suite 190 Novi, MI 48377	Phone #:	(248)536-5435
		E-Mail:	mary.siegan@wsp.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	Smith's Creek LF GW S/A Q4	Invoice To:	Accounts Payable
		Invoice E-Mail:	usaccountspayable@wsp.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET		County / State origin of sample(s):	Michigan
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other	Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No **Rush (Pre-approval required):** [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____ **Date Results Requested:**	DW PWSID # or WW Permit # as applicable: Field Filtered (if applicable): [ ] Yes [ ] No Analysis:	

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: **Brian Hall**
AcctNum / Client ID:
Table #:
Profile / Template: **8284**
Prelog / Bottle Ord. ID: **EZ 3168150**

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	353.2 N+N; 4500 NH3LL; TIN	4500 Chloride	5310C TOC	3010 Dissolved Metals	Sample Comment	Preservation non-conformance identified for sample.
MW-212	GW	G	11/6	0910	11/6	0910	4			X	X	X	X	001	
MW-203B	"	"	"	1000	"	1000	"			"	"	"	"	002	
MW-208	"	"	"	1120	"	1120	"			"	"	"	"	003	
MW-301	"	"	"	1207	"	1207	"			"	"	"	"	004	
MW-209	"	"	"	1242	"	1242	"			"	"	"	"	005	
MW-201	"	"	"	1420	"	1420	"			"	"	"	"	006	
MW-106A	"	"	11/7	0850	11/7	0850	"			"	"	"	"	007	
MW-210	"	"	"	0940	"	0940	"			"	"	"	"	008	
MW-101	"	"	"	1024	"	1024	"			"	"	"	"	009	
MW-202	"	"	"	1055	"	1055	"			"	"	"	"	010	

Additional Instructions from Pace®:
Metals - Na,K

Collected By:
(Printed Name)
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
3	A	See Sive			Y

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
		Fedex		
Relinquished by/Company: (Signature) Fedex	Date/Time: 11/9/24 1000	Received by/Company: (Signature)	Date/Time: 11/9/24 1000	Delivered by: [ ] In- Person [ ] Courier [X] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 2

Pace® Location Requested (City/State):
Pace Analytical Grand Rapids
4171 40th Street SE, Grand Rapids, MI 49512

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name:	WSP - Novi, MI	Contact/Report To:	Mary Siegan
Street Address:	46850 Magellan Drive Suite 190 Novi, MI 48377	Phone #:	(248)536-5435
		E-Mail:	mary.siegan@wsp.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	Smith's Creek LF GW S/A Q4	Invoice To:	Accounts Payable
		Invoice E-Mail:	usaccountspayable@wsp.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Michigan

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	353.2 N+N; 4500 NH3LL; TIN	4500 Chloride	5310C TOC	6010 Dissolved Metals	Sample Comment
MW-303A	GW	G	11/7	1135	11/7	1135	4			X	Y	X	X	04
MW-305	"	"	11/8	0829	11/8	0829	"							012
MW-304	"	"	"	1000	"	1000	"							013
MW-213	"	"	"	-	"	-	"							014
MW-207A	GW	G	11/8	0845	11/8	0845	4							015
MW-302	GW	G	11/6	1322	11/6	1322	4							016

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only
Proj. Mgr: **Brian Hall**
AcctNum / Client ID:
Table #:
Profile / Template: **8284**
Prelog / Bottle Ord. ID: **EZ 3168150**

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
Metals - Na,K

Collected By:
(Printed Name)
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
3	A	see SESR			Y

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
		Fedex		
Relinquished by/Company: (Signature) Fedex	Date/Time: 11/9/24 1000	Received by/Company: (Signature)	Date/Time: 11/9/24 1000	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 2 of 2

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

F-IN-Q-290-rev.29, 4Oct2024

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11/9/24 1532 -MDW

1. Thermometer: 1 2 3 4 5 6 7 8 9 (A) B C D E F G H I

2. Cooler Temperature(s): (Initial/Corrected) | 1.6/1.7 | 3.8/3.9 | 4.7/4.8 |

RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

3. Courier: Circle One — Fed Ex UPS Client Pace Now/Jett Other

4. Custody Seal on Cooler/Box Present: ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

5. Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. Ice Type: ☑ Wet ☐ Blue ☐ None

7. Was the PM notified of out of temp cooler? ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

If the PM was contacted in the comments below please write how they instructed the project to proceed

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl. Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace in **VOA Vials** (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Containers Intact?:	✓		Trip Blank Present?		✓	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Custody Seals?:			✓
Extra labels on Terracore Vials? (soils only)			Out Of Temp Instructions if applicable:			

COMMENTS: Client signature not on Page 2 of COC - MDW 11/9/24

COC PAGE 1 **of** 2

Sample Container Count

** Place a PINK dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit			Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1						1		1	1								W	✓	✓		
2																																	
3																																	
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	CG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	CG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3B	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

NT3U	Non Teflon 250mL unpreserved plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 **of** 2

Sample Container Count

** Place a PINK dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit			Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												✓						✓		✓	✓								WT	✓	✓		
2																																	
3																																	
4																																	
5																																	
6												✓						✓		✓	✓								SL	✓	✓		
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	CG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	CG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3B	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

NT3U	Non Teflon 250mL unpreserved plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Container Order #3168150

brian.hall@pacelabs.com

Addresses

Order By :		Ship To :		Return To:	
Company	WSP - Novi, MI	Company	WSP - Novi, MI	Company	Pace Analytical Grand Rapids
Contact	Mary Siegan	Contact	Mary Siegan	Contact	Brian Hall
Email	mary.siegan@wsp.com	Email	mary.siegan@wsp.com	Email	brian.hall@pacelabs.com
Address	46850 Magellan Drive	Address	46850 Magellan Drive	Address	4171 40th Street SE
Address 2	Suite 190	Address 2	Suite 190	Address 2	
City	Novi	City	Novi	City	Grand Rapids
State	MI Zip 48377	State	MI Zip 48377	State	MI Zip 49512
Phone	(248)536-5435	Phone	(248)536-5435	Phone	(616)975-4500

Info

Project Name Smith's Creek LF GW S/A Q4 **Due Date** 10/31/2024 **Profile** 8284 **Quote**

Project Manager Hall, Brian **Return Date** **Carrier** FedEx Ground **Location** MI

Return Shipping Labels

Return Label Type: Indy M-Sat

- [ ] No Shipper
- [X] With Shipper

Bottle Labels

- [X] Blank
- [ ] Pre-Printed No Sample IDs
- [ ] Pre-Printed With Sample IDs

Bottles

- [ ] Boxed Cases
- [ ] Individually Wrapped
- [X] Grouped By Sample ID/Matrix

Trip Blanks

- [ ] Include Trip Blanks

COC Options

- [ ] Number of Blanks
- [X] Pre-Printed

Misc

- [ ] Sampling Instructions
- [ ] Custody Seal
- [X] Temp. Blanks
- [X] Coolers
- [ ] Syringes
- [ ] Extra Bubble Wrap
- [ ] Short Hold/Rush Stickers
- [ ] DI Water
- [ ] USDA Regulated Soils
- [ ] Dry Weight

# of Samp	Matrix	Analysis	Qty / Samp	Container	Total	# of QC	Lot #	Notes
16	WT	5310C TOC	1	250mL amber glass H2SO4	16	2		
16	WT	353.2 N+N; 4500 NH3LL; TIN	1	250mL plastic H2SO4	16	2		
16	WT	4500 Chloride	1	250mL plastic unpreserved	16	2		
16	WT	6010 Dissolved Metals	1	250ml plastic HNO3-Filtered	16	2		

Hazard Shipping Placard In Place : N/A

'Sample receiving hours are typically 8am-5pm, but may differ by location. Please check with your Pace Project Manager.

'Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

'Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.

'Payment term are net 30 days.

'Please include the proposal number on the chain of custody to ensure proper billing.

Sample Notes :

Metals - Na,K

LAB USE:

Ship Date :

Prepared By:

Verified By:

CLIENT USE (Optional):

Date Rec'd:

Received By:

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

November 22, 2024

Mary Siegan
WSP - Novi, MI
46850 Magellan Drive
Suite 190
Novi, MI 48377

RE: Project: Smith's Creek LF SW 4Q2024
Pace Project No.: 50387476

Dear Mary Siegan:

Enclosed are the analytical results for sample(s) received by the laboratory on November 09, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Brian Hall
brian.hall@pacelabs.com
(616)975-4500
Project Manager

Enclosures

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

CERTIFICATIONS

Project: Smith's Creek LF SW 4Q2024
Pace Project No.: 50387476

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

SAMPLE SUMMARY

Project: Smith's Creek LF SW 4Q2024
Pace Project No.: 50387476

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50387476001	**SW-U1**	Water	11/08/24 11:20	11/09/24 10:00
50387476002	**SW-D1A**	Water	11/08/24 11:38	11/09/24 10:00
50387476003	**SW-U2**	Water	11/08/24 12:10	11/09/24 10:00

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SAMPLE ANALYTE COUNT

Project: Smith's Creek LF SW 4Q2024
Pace Project No.: 50387476

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50387476001	**SW-U1**	EPA 9056	ADM	2	PASI-I
		EPA 6010	ELK	4	PASI-I
		SM 2320B	YAM	2	PASI-I
		SM 2540C	CAS	1	PASI-I
		SM 2540D	MED1	1	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387476002	**SW-D1A**	EPA 9056	ADM	2	PASI-I
		EPA 6010	ELK	4	PASI-I
		SM 2320B	YAM	2	PASI-I
		SM 2540C	CAS	1	PASI-I
		SM 2540D	MED1	1	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I
50387476003	**SW-U2**	EPA 9056	ADM	2	PASI-I
		EPA 6010	ELK	4	PASI-I
		SM 2320B	YAM	2	PASI-I
		SM 2540C	CAS	1	PASI-I
		SM 2540D	MED1	1	PASI-I
		NO2+NO3+NH3 Calculation	DG	1	PASI-I
		EPA 353.2	DAW	1	PASI-I
		SM-4500-NH3 G	STS	1	PASI-I
		SM 5310C	ATS	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
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ANALYTICAL RESULTS

Project: Smith's Creek LF SW 4Q2024
Pace Project No.: 50387476

Sample: SW-U1 **Lab ID: 50387476001** Collected: 11/08/24 11:20 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	**277000**	ug/L	100000	100		11/18/24 03:52	16887-00-6	
Sulfate	**139000**	ug/L	20000	10		11/18/24 03:34	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Calcium	**136000**	ug/L	1000	1	11/17/24 21:00	11/21/24 15:37	7440-70-2	
Iron	**885**	ug/L	100	1	11/17/24 21:00	11/21/24 15:37	7439-89-6	
Magnesium	**33800**	ug/L	1000	1	11/17/24 21:00	11/21/24 15:37	7439-95-4	
Sodium	**139000**	ug/L	1000	1	11/17/24 21:00	11/21/24 15:37	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	**242000**	ug/L	10000	1		11/14/24 09:24		
Alkalinity,Bicarbonate (CaCO3)	**242000**	ug/L	10000	1		11/14/24 09:24		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**974000**	ug/L	40000	1		11/14/24 10:07		
2540D Total Suspended Solids	Analytical Method: SM 2540D Pace Analytical Services - Indianapolis							
Total Suspended Solids	**37900**	ug/L	6410	1		11/14/24 10:10		
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**162**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**162**	ug/L	20.0	1		11/15/24 21:03		
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**<20.0**	ug/L	20.0	1		11/13/24 15:41	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**15100**	ug/L	2000	4		11/15/24 02:15	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Grand Rapids, MI 49512
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ANALYTICAL RESULTS

Project: Smith's Creek LF SW 4Q2024
Pace Project No.: 50387476

Sample: SW-D1A **Lab ID: 50387476002** Collected: 11/08/24 11:38 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	**30800**	ug/L	10000	10		11/18/24 05:02	16887-00-6	
Sulfate	**12400**	ug/L	2000	1		11/18/24 04:44	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Calcium	**63000**	ug/L	1000	1	11/17/24 21:00	11/21/24 15:39	7440-70-2	
Iron	**12000**	ug/L	100	1	11/17/24 21:00	11/21/24 15:39	7439-89-6	
Magnesium	**18600**	ug/L	1000	1	11/17/24 21:00	11/21/24 15:39	7439-95-4	
Sodium	**17300**	ug/L	1000	1	11/17/24 21:00	11/21/24 15:39	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	**162000**	ug/L	10000	1		11/14/24 09:24		
Alkalinity,Bicarbonate (CaCO3)	**162000**	ug/L	10000	1		11/14/24 09:24		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**241000**	ug/L	20000	1		11/14/24 10:07		
2540D Total Suspended Solids	Analytical Method: SM 2540D Pace Analytical Services - Indianapolis							
Total Suspended Solids	**446000**	ug/L	12500	1		11/14/24 10:10		
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**1070**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**117**	ug/L	20.0	1		11/15/24 21:08		
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**952**	ug/L	20.0	1		11/13/24 15:42	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**9310**	ug/L	2000	4		11/15/24 02:27	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Smith's Creek LF SW 4Q2024
Pace Project No.: 50387476

Sample: SW-U2 **Lab ID: 50387476003** Collected: 11/08/24 12:10 Received: 11/09/24 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Chloride	**32000**	ug/L	10000	10		11/18/24 05:36	16887-00-6	
Sulfate	**13800**	ug/L	2000	1		11/18/24 05:19	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Calcium	**72500**	ug/L	1000	1	11/17/24 21:00	11/21/24 15:41	7440-70-2	
Iron	**1780**	ug/L	100	1	11/17/24 21:00	11/21/24 15:41	7439-89-6	
Magnesium	**21300**	ug/L	1000	1	11/17/24 21:00	11/21/24 15:41	7439-95-4	
Sodium	**18500**	ug/L	1000	1	11/17/24 21:00	11/21/24 15:41	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B Pace Analytical Services - Indianapolis							
Alkalinity, Total as CaCO3	**239000**	ug/L	10000	1		11/14/24 09:24		
Alkalinity,Bicarbonate (CaCO3)	**239000**	ug/L	10000	1		11/14/24 09:24		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**311000**	ug/L	20000	1		11/14/24 10:07		
2540D Total Suspended Solids	Analytical Method: SM 2540D Pace Analytical Services - Indianapolis							
Total Suspended Solids	**22000**	ug/L	10000	1		11/14/24 10:11		
Total Inorganic Nitrogen	Analytical Method: NO2+NO3+NH3 Calculation Pace Analytical Services - Indianapolis							
Total Inorganic Nitrogen	**30.3**	ug/L	20.0	1		11/22/24 12:49		
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Indianapolis							
Nitrogen, NO2 plus NO3	**<20.0**	ug/L	20.0	1		11/15/24 21:10		
4500 Ammonia Water Low Level	Analytical Method: SM-4500-NH3 G Pace Analytical Services - Indianapolis							
Nitrogen, Ammonia	**<20.0**	ug/L	20.0	1		11/13/24 16:22	7664-41-7	
5310C TOC	Analytical Method: SM 5310C Pace Analytical Services - Indianapolis							
Total Organic Carbon	**10000**	ug/L	2000	4		11/15/24 02:37	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA

Project: Smith's Creek LF SW 4Q2024
Pace Project No.: 50387476

QC Batch: 818888
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387476001, 50387476002, 50387476003

METHOD BLANK: 3746904 Matrix: Water
Associated Lab Samples: 50387476001, 50387476002, 50387476003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	ug/L	<1000	1000	11/17/24 15:22	
Sulfate	ug/L	<2000	2000	11/17/24 15:22	

LABORATORY CONTROL SAMPLE: 3746905

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L	2500	2310	92	80-120	
Sulfate	ug/L	5000	4710	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3746906 3746907

Parameter	Units	50387463001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	ug/L	267 mg/L	250000	250000	489000	490000	89	89	80-120	0	15	
Sulfate	ug/L	3.6 mg/L	5000	5000	8330	8320	95	95	80-120	0	15	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
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(616)975-4500

QUALITY CONTROL DATA

Project: Smith's Creek LF SW 4Q2024
Pace Project No.: 50387476

QC Batch: 818463
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387476001, 50387476002, 50387476003

METHOD BLANK: 3744441 Matrix: Water
Associated Lab Samples: 50387476001, 50387476002, 50387476003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium	ug/L	<1000	1000	11/21/24 14:39	
Iron	ug/L	<100	100	11/21/24 14:39	
Magnesium	ug/L	<1000	1000	11/21/24 14:39	
Sodium	ug/L	<1000	1000	11/21/24 14:39	

LABORATORY CONTROL SAMPLE: 3744442

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	ug/L	10000	9890	99	80-120	
Iron	ug/L	10000	9810	98	80-120	
Magnesium	ug/L	10000	9430	94	80-120	
Sodium	ug/L	10000	9490	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3744443 3744444

Parameter	Units	50386971003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	ug/L	134 mg/L	10000	10000	144000	143000	103	99	75-125	0	20	
Iron	ug/L	2.2 mg/L	10000	10000	12000	11900	98	97	75-125	0	20	
Magnesium	ug/L	65.4 mg/L	10000	10000	75200	74900	98	95	75-125	0	20	
Sodium	ug/L	127 mg/L	10000	10000	137000	136000	99	87	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3744445 3744446

Parameter	Units	50387416001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	ug/L	65100	10000	10000	74300	74900	92	99	75-125	1	20	
Iron	ug/L	984	10000	10000	10600	10700	96	97	75-125	1	20	
Magnesium	ug/L	16800	10000	10000	26000	26300	92	94	75-125	1	20	
Sodium	ug/L	84700	10000	10000	93200	93400	85	87	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Smith's Creek LF SW 4Q2024
Pace Project No.: 50387476

QC Batch: 818701
QC Batch Method: SM 2320B
Analysis Method: SM 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387476001, 50387476002, 50387476003

METHOD BLANK: 3745755 Matrix: Water
Associated Lab Samples: 50387476001, 50387476002, 50387476003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	ug/L	<10000	10000	11/14/24 09:24	
Alkalinity,Bicarbonate (CaCO3)	ug/L	<10000	10000	11/14/24 09:24	

LABORATORY CONTROL SAMPLE: 3745756

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	ug/L	50000	51300	103	90-110	

SAMPLE DUPLICATE: 3745757

Parameter	Units	50387366001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	ug/L	349 mg/L	351000	0	20	
Alkalinity,Bicarbonate (CaCO3)	ug/L	333 mg/L	334000	0	20	

SAMPLE DUPLICATE: 3745758

Parameter	Units	50387476002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	ug/L	162000	161000	1	20	
Alkalinity,Bicarbonate (CaCO3)	ug/L	162000	161000	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Smith's Creek LF SW 4Q2024
Pace Project No.: 50387476

QC Batch: 818863
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387476001, 50387476002, 50387476003

METHOD BLANK: 3746824 Matrix: Water
Associated Lab Samples: 50387476001, 50387476002, 50387476003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	ug/L	<20000	20000	11/14/24 10:01	

LABORATORY CONTROL SAMPLE: 3746825

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	ug/L	300000	282000	94	80-120	

SAMPLE DUPLICATE: 3746826

Parameter	Units	50387463001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	ug/L	706 mg/L	696000	1	10	

SAMPLE DUPLICATE: 3746827

Parameter	Units	50387463002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	ug/L	904 mg/L	888000	2	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA

Project: Smith's Creek LF SW 4Q2024
Pace Project No.: 50387476

QC Batch: 818880
QC Batch Method: SM 2540D
Analysis Method: SM 2540D
Analysis Description: 2540D Total Suspended Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387476001, 50387476002, 50387476003

METHOD BLANK: 3746882 Matrix: Water
Associated Lab Samples: 50387476001, 50387476002, 50387476003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	ug/L	<2500	2500	11/14/24 10:10	

LABORATORY CONTROL SAMPLE: 3746883

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	ug/L	100000	93000	93	80-120	

SAMPLE DUPLICATE: 3746884

Parameter	Units	50387476003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	ug/L	22000	24800	12	10	R1

SAMPLE DUPLICATE: 3746885

Parameter	Units	50387673002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	ug/L	30.4 mg/L	30600	1	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Grand Rapids, MI 49512
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QUALITY CONTROL DATA

Project: Smith's Creek LF SW 4Q2024
Pace Project No.: 50387476

QC Batch: 819299
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, preserved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387476001, 50387476002, 50387476003

METHOD BLANK: 3749282 Matrix: Water
Associated Lab Samples: 50387476001, 50387476002, 50387476003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	<20.0	20.0	11/15/24 20:59	

LABORATORY CONTROL SAMPLE: 3749283

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	2000	1970	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3749284 3749285

Parameter	Units	50387476001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	ug/L	162	2000	2000	2120	2100	98	97	90-110	1	20	

MATRIX SPIKE SAMPLE: 3749286

Parameter	Units	50387480004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	<20.0	2000	1890	94	90-110	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA

Project: Smith's Creek LF SW 4Q2024
Pace Project No.: 50387476

QC Batch: 818741
QC Batch Method: SM-4500-NH3 G
Analysis Method: SM-4500-NH3 G
Analysis Description: 4500 Ammonia Low Level
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387476001, 50387476002, 50387476003

METHOD BLANK: 3745946 Matrix: Water
Associated Lab Samples: 50387476001, 50387476002, 50387476003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	ug/L	<20.0	20.0	11/13/24 15:37	

LABORATORY CONTROL SAMPLE: 3745947

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	ug/L	1000	1070	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3745948 3745949

Parameter	Units	50387476002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	ug/L	952	5000	5000	6300	6610	107	113	90-110	5	20	M0

MATRIX SPIKE SAMPLE: 3745950

Parameter	Units	50387480005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	ug/L	<20.0	1000	1090	108	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA

Project: Smith's Creek LF SW 4Q2024
Pace Project No.: 50387476

QC Batch: 819009
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50387476001, 50387476002, 50387476003

METHOD BLANK: 3747414 Matrix: Water
Associated Lab Samples: 50387476001, 50387476002, 50387476003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	ug/L	<500	500	11/14/24 23:38	

LABORATORY CONTROL SAMPLE: 3747415

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	10000	10100	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3747416 3747417

Parameter	Units	50387801003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	ug/L	3.1 mg/L	10000	10000	12700	12700	96	96	80-120	0	15	

MATRIX SPIKE SAMPLE: 3747418

Parameter	Units	50387331001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	11.4 mg/L	40000	53100	104	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

QUALIFIERS

Project: Smith's Creek LF SW 4Q2024
Pace Project No.: 50387476

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
R1	RPD value was outside control limits.

Pace Analytical Services, LLC
4171 40th St. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Smith's Creek LF SW 4Q2024
Pace Project No.: 50387476

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50387476001	**SW-U1**	EPA 9056	818888		
50387476002	**SW-D1A**	EPA 9056	818888		
50387476003	**SW-U2**	EPA 9056	818888		
50387476001	**SW-U1**	EPA 3010	818463	EPA 6010	820322
50387476002	**SW-D1A**	EPA 3010	818463	EPA 6010	820322
50387476003	**SW-U2**	EPA 3010	818463	EPA 6010	820322
50387476001	**SW-U1**	SM 2320B	818701		
50387476002	**SW-D1A**	SM 2320B	818701		
50387476003	**SW-U2**	SM 2320B	818701		
50387476001	**SW-U1**	SM 2540C	818863		
50387476002	**SW-D1A**	SM 2540C	818863		
50387476003	**SW-U2**	SM 2540C	818863		
50387476001	**SW-U1**	SM 2540D	818880		
50387476002	**SW-D1A**	SM 2540D	818880		
50387476003	**SW-U2**	SM 2540D	818880		
50387476001	**SW-U1**	NO2+NO3+NH3 Calculation	820579		
50387476002	**SW-D1A**	NO2+NO3+NH3 Calculation	820579		
50387476003	**SW-U2**	NO2+NO3+NH3 Calculation	820579		
50387476001	**SW-U1**	EPA 353.2	819299		
50387476002	**SW-D1A**	EPA 353.2	819299		
50387476003	**SW-U2**	EPA 353.2	819299		
50387476001	**SW-U1**	SM-4500-NH3 G	818741		
50387476002	**SW-D1A**	SM-4500-NH3 G	818741		
50387476003	**SW-U2**	SM-4500-NH3 G	818741		
50387476001	**SW-U1**	SM 5310C	819009		
50387476002	**SW-D1A**	SM 5310C	819009		
50387476003	**SW-U2**	SM 5310C	819009		

Pace® Location Requested (City/State):
Pace Analytical Grand Rapids
4171 40th Street SE, Grand Rapids, MI 49512

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY

WO# : 50387476

50387476

Company Name:	WSP - Novi, MI	Contact/Report To:	Mary Siegan
Street Address:	46850 Magellan Drive Suite 190 Novi, MI 48377	Phone #:	(248)536-5435
		E-Mail:	mary.siegan@wsp.com
		Cc E-Mail:	
Customer Project #:			
Project Name:	Smith's Creek LF SW Q134	Invoice To:	Accounts Payable
		Invoice E-Mail:	usaccountspayable@wsp.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET		County / State origin of sample(s):	Michigan

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	2320B Alkalinity; 9056 IC Cl/SO4	2540C Total Dissolved Solids	2540D Total Suspended Solids	353.2 N+N; 4500 NH3LL; TIN	5310C TOC	6010 MET CP	Sample Comment
SW-U1	SW	G	11/8	1120	11/8	1120	6			X	X	X	X	X	X	
SW-D1A	SW	G	"	1138	"	1138	6			"	"	"	"	"	"	
SW-U2	SW	G	"	1210	"	1210	6			"	"	"	"	"	"	

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: Brian Hall
AcctNum / Client ID:
Table #:
Profile / Template: 8218
Prelog / Bottle Ord. ID: EZ 3168146

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
Metals - Ca,Fe,Mg,Na

Collected By:
(Printed Name)
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
1	A	+0.1	2.8	2.9	Y

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
		Fedex		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier
Fedex	11/9/24 1000	Marcus Winslow	11/9/24 1000	[X] FedEx [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-CORQ-0019_v02_110122 ©

F-IN-Q-290-rev.29, 4Oct2024

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 11/9/24 1455 -MDW

1. Thermometer: 1 2 3 4 5 6 7 8 9 (A) B C D E F G H I	**5. Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
2. Cooler Temperature(s): (Initial/Corrected) 2.8/2.9 RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)	**6. Ice Type:** ☑ Wet ☐ Blue ☐ None
3. Courier: *Circle One* (Fed Ex) UPS Client Pace Now/Jett Other	**7. Was the PM notified of out of temp cooler?** ☐ Yes ☐ No
4. Custody Seal on Cooler/Box Present: ☑ Yes ☐ No	Cooler temp should be above freezing to 6°C
(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**	If the PM was contacted in the comments below please write how they instructed the project to proceed

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any ~~container with a septum cap~~ or preserved with HCl. Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace in **VOA Vials** (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Containers Intact?:	✓		Trip Blank Present?		✓	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Custody Seals?:			✓
Extra labels on Terracore Vials? (soils only)			Out Of Temp Instructions if applicable:			

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a PINK dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit			Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1												1			1		1	1	1		1								wt	✓	✓		
2												↓			↓		↓	↓	↓		↓								↓	↓	↓		
3												↓			↓		↓	↓	↓		↓								↓	↓	↓		
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	CG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3B	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
NT3U	Non Teflon 250mL unpreserved plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Container Order #3168146

brian.hall@pacelabs.com

Addresses

Order By :

Company WSP - Novi, MI
Contact Mary Siegan
Email mary.siegan@wsp.com
Address 46850 Magellan Drive
Address 2 Suite 190
City Novi
State MI Zip 48377
Phone (248)536-5435

Ship To :

Company WSP - Novi, MI
Contact Mary Siegan
Email mary.siegan@wsp.com
Address 46850 Magellan Drive
Address 2 Suite 190
City Novi
State MI Zip 48377
Phone (248)536-5435

Return To:

Company Pace Analytical Grand Rapids
Contact Brian Hall
Email brian.hall@pacelabs.com
Address 4171 40th Street SE
Address 2
City Grand Rapids
State MI Zip 49512
Phone (616)975-4500

Info

Project Name Smith's Creek LF SW Q134 **Due Date** 10/31/2024 **Profile** 8218 **Quote**

Project Manager Hall, Brian **Return Date** **Carrier** FedEx Ground **Location** MI

Return Shipping Labels

Return Label Type: Indy M-Sat

- [ ] No Shipper
- [X] With Shipper

Bottle Labels

- [X] Blank
- [ ] Pre-Printed No Sample IDs
- [ ] Pre-Printed With Sample IDs

Bottles

- [ ] Boxed Cases
- [ ] Individually Wrapped
- [X] Grouped By Sample ID/Matrix

Trip Blanks

- [ ] Include Trip Blanks

COC Options

- [ ] Number of Blanks
- [X] Pre-Printed

Misc

- [ ] Sampling Instructions
- [ ] Custody Seal
- [X] Temp. Blanks
- [X] Coolers
- [ ] Syringes
- [ ] Extra Bubble Wrap
- [ ] Short Hold/Rush Stickers
- [ ] DI Water
- [ ] USDA Regulated Soils
- [ ] Dry Weight

# of Samp	Matrix	Analysis	Qty / Samp	Container	Total	# of QC	Lot #	Notes
4	WT	2540D Total Suspended Solids	1	1L plastic unpreserved	4			
4	WT	5310C TOC	1	250mL amber glass H2SO4	4			
4	WT	353.2 N+N; 4500 NH3LL; TIN	1	250mL plastic H2SO4	4			
4	WT	6010 MET ICP	1	250mL plastic HNO3	4			
4	WT	2540C Total Dissolved Solids	1	250mL plastic unpreserved	4			
4	WT	2320B Alkalinity; 9056 IC Cl/SO4	1	500mL plastic unpreserved	4			

Hazard Shipping Placard In Place : N/A

'Sample receiving hours are typically 8am-5pm, but may differ by location. Please check with your Pace Project Manager.

'Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

'Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.

'Payment term are net 30 days.

'Please include the proposal number on the chain of custody to ensure proper billing.

Sample Notes :

Metals - Ca,Fe,Mg,Na

LAB USE:

Ship Date :
Prepared By:
Verified By:

CLIENT USE (Optional):

Date Rec'd:
Received By:

APPENDIX B

Field Data Sheets

Well ID MW-304

GROUNDWATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: US0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS

SKY: Sunny
GROUND: dry
AIR TEMPERATURE (°F): 50
PRECIPITATION (LAST 24 HRS): none

WELL SECURITY

PROTECTIVE COVER: ok
BUMPER POSTS: NA
EXTERNAL WELL ID: ok
LOCK: ok
WELL DIAMETER: 2"
CONCRETE PAD: ok

CALCULATIONS

WELL ELEVATION (FT/MSL):
DEPTH TO WATER (FT): 25.72
GROUNDWATER ELEVATION (FT/MSL):
TOTAL WELL DEPTH (FT): 75.7
WELL STICK-UP (FT):
WATER VOLUME IN CASING (GALLONS): 7.99

PURGING

INITIAL PURGE DATE: 11/8
INITIAL PURGE TIME: 0918

STABILIZATION READINGS

	1	2	3	4	5	6	Final
Time	0936	0944					0952
Volume Removed (gal)	8.00	16.00					24.00
pH (s.u.)	7.75	7.74					7.79
Conductivity. (µmho/cm)	445	420					417
Temperature (°C)	11.18	10.78					10.96

SAMPLING

SAMPLE DATE: 11/8
SAMPLE TIME: 1000
TOTAL BOTTLES COLLECTED: 4
FILTERED FOR METALS: yes
SAMPLE CLARITY (clear, sl. turbid, m. turbid, v. turbid): clear
COLOR (yellow, brown, rust, grey, white, colorless): colorless
ODOR (sulfur, LFG, musty, solvent, petrol, no odor): no odor
SAMPLE COLLECTED BY: JC

EQUIPMENT

FIELD METER USED: YSI
CALIBRATION TIME: 0815
PH CALIBRATION STANDARDS (s.u.): 4/7/10
CONDUCTIVITY STANDARD (µmho/cm): 1.413
PURIFIED WATER SUPPLIED BY: —
PUMP/BAILER TYP: MP50

SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS: sample duplicate (MW-213)

DATE FORM COMPLETED: 11/8
FORM COMPLETED BY (signature):

Well ID MW-207A

GROUNDWATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: US0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS

SKY: Sunny
GROUND: dry
AIR TEMPERATURE (°F): 60
PRECIPITATION (LAST 24 HRS): none

WELL SECURITY

PROTECTIVE COVER: ok
BUMPER POSTS: N/A
EXTERNAL WELL ID: ok
LOCK: ok
WELL DIAMETER: 2"
CONCRETE PAD: ok

CALCULATIONS

WELL ELEVATION (FT/MSL):
DEPTH TO WATER (FT): 36.00
GROUNDWATER ELEVATION (FT/MSL):
TOTAL WELL DEPTH (FT): 82.9
WELL STICK-UP (FT):
WATER VOLUME IN CASING (GALLONS): 7.5

PURGING

INITIAL PURGE DATE: 11/7
INITIAL PURGE TIME: 0909

STABILIZATION READINGS

	1	2	3	4	5	6	Final
Time	0916	0924	0929				~~0940~~
Volume Removed (gal)	7.5	15.0	1 /				15.5
pH (s.u.)	7.40	7.02	dry				7.15
Conductivity. (µmho/cm)	888	892	/				913
Temperature (°C)	10.33	10.21					10.22

SAMPLING

SAMPLE DATE: 11/8
SAMPLE TIME: 0845
TOTAL BOTTLES COLLECTED: 4
FILTERED FOR METALS: yes
SAMPLE CLARITY (clear, sl. turbid, m. turbid, v. turbid):
COLOR (yellow, brown, rust, grey, white, ~~colorless~~):
ODOR (sulfur, LFG, musty, solvent, petrol, ~~no odor~~):
SAMPLE COLLECTED BY: TC

EQUIPMENT

FIELD METER USED: YSI
CALIBRATION TIME: 0840
PH CALIBRATION STANDARDS (s.u.): 4/7/10
CONDUCTIVITY STANDARD (µmho/cm): 1,413
PURIFIED WATER SUPPLIED BY: -
PUMP/BAILER TYP MP50

SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr. Suite 190. Novi. MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED:
FORM COMPLETED BY (signature):

Well ID MW-305

GROUNDWATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: LIS0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS

SKY: Sunny
GROUND: dry
AIR TEMPERATURE (°F): 68
PRECIPITATION (LAST 24 HRS): none

WELL SECURITY

PROTECTIVE COVER: ok
BUMPER POSTS: NA
EXTERNAL WELL ID: ok
LOCK: ok
WELL DIAMETER: 2"
CONCRETE PAD: ok

CALCULATIONS

WELL ELEVATION (FT/MSL):
DEPTH TO WATER (FT): 29.74
GROUNDWATER ELEVATION (FT/MSL):
TOTAL WELL DEPTH (FT): 75.8
WELL STICK-UP (FT):
WATER VOLUME IN CASING (GALLONS): 7.4

PURGING

INITIAL PURGE DATE: 11/7
INITIAL PURGE TIME: 1152

STABILIZATION READINGS

	1	2	3	4	5	6	Final
Time	1200	1208	1213				0825
Volume Removed (gal)	7.4	14.8	15				15.0
pH (s.u.)	6.87	6.91	6.93				7.32
Conductivity. (µmho/cm)	464	439	"				539
Temperature (°C)	13.8	13.1					9.35

SAMPLING

SAMPLE DATE: 11/8/24
SAMPLE TIME: 0829
TOTAL BOTTLES COLLECTED: 4
FILTERED FOR METALS: yes
SAMPLE CLARITY (clear, sl. turbid, m. turbid, v. turbid):
COLOR (yellow, brown, rust, grey, white, colorless):
ODOR (sulfur, LFG, musty, solvent, petrol, no odor):
SAMPLE COLLECTED BY: [signature]

EQUIPMENT

FIELD METER USED: YSI
CALIBRATION TIME: 0840
PH CALIBRATION STANDARDS (s.u.): 4/7/10
CONDUCTIVITY STANDARD (µmho/cm): 1,413
PURIFIED WATER SUPPLIED BY: —
PUMP/BAILER TYP MP50

SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED:
FORM COMPLETED BY (signature): [signature]

Well ID MW-202

GROUNDWATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: US0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS

SKY: Sunny
GROUND:
AIR TEMPERATURE (°F): 64
PRECIPITATION (LAST 24 HRS): none

WELL SECURITY

PROTECTIVE COVER: ok
BUMPER POSTS: NA
EXTERNAL WELL ID: ok
LOCK: ok
WELL DIAMETER: 2"
CONCRETE PAD: ok

CALCULATIONS

WELL ELEVATION (FT/MSL):
DEPTH TO WATER (FT): 25.52
GROUNDWATER ELEVATION (FT/MSL):
TOTAL WELL DEPTH (FT): 64.6
WELL STICK-UP (FT):
WATER VOLUME IN CASING (GALLONS): 6.25

PURGING

INITIAL PURGE DATE: 11/7
INITIAL PURGE TIME: 1035

STABILIZATION READINGS

	1	2	3	4	5	6	Final
Time	1041	1047					1053
Volume Removed (gal)	6.25	12.5					18.75
pH (s.u.)	8.25	8.41					8.36
Conductivity. (µmho/cm)	372	370					371
Temperature (°C)	11.00	11.37					11.51

SAMPLING

SAMPLE DATE: 11/7
SAMPLE TIME: 1055
TOTAL BOTTLES COLLECTED: 4
FILTERED FOR METALS: yes
SAMPLE CLARITY (clear, sl. turbid, m. turbid, v. turbid):
COLOR (yellow, brown, rust, grey, white, colorless):
ODOR (sulfur, LFG, musty, solvent, petrol, no odor):
SAMPLE COLLECTED BY: TC

EQUIPMENT

FIELD METER USED: YSI
CALIBRATION TIME: 0840
PH CALIBRATION STANDARDS (s.u.): 4/7/10
CONDUCTIVITY STANDARD (µmho/cm): 1,413
PURIFIED WATER SUPPLIED BY: —
PUMP/BAILER TYP MP50

SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED: 11/7
FORM COMPLETED BY (signature):

Well ID MW-101

GROUNDWATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: US0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS

SKY: sunny
GROUND: dry
AIR TEMPERATURE (°F): 60
PRECIPITATION (LAST 24 HRS): none

WELL SECURITY

PROTECTIVE COVER: ok
BUMPER POSTS: ok
EXTERNAL WELL ID: ok
LOCK: ok
WELL DIAMETER: 2"
CONCRETE PAD: ok

CALCULATIONS

WELL ELEVATION (FT/MSL):
DEPTH TO WATER (FT): 24.51
GROUNDWATER ELEVATION (FT/MSL):
TOTAL WELL DEPTH (FT): 76.9
WELL STICK-UP (FT):
WATER VOLUME IN CASING (GALLONS): 8.38

PURGING

INITIAL PURGE DATE: 11/7
INITIAL PURGE TIME: 0955

STABILIZATION READINGS

	1	2	3	4	5	6	Final
Time	1004	1013					1022
Volume Removed (gal)	9.0	18.0					27.0
pH (s.u.)	8.01	8.11					7.85
Conductivity. (µmho/cm)	498	448					437
Temperature (°C)	12.09	11.39					11.96

SAMPLING

SAMPLE DATE: 11/7
SAMPLE TIME: 1024
TOTAL BOTTLES COLLECTED: 4
FILTERED FOR METALS: yes
SAMPLE CLARITY: (clear), sl. turbid, m. turbid, v. turbid):
COLOR (yellow, brown, rust, grey, white, colorless):
ODOR (sulfur, LFG, musty, solvent, petrol, ~~no odor~~)
SAMPLE COLLECTED BY: TC

EQUIPMENT

FIELD METER USED: YSI
CALIBRATION TIME: 0840
PH CALIBRATION STANDARDS (s.u.): 4/7/10
CONDUCTIVITY STANDARD (µmho/cm): 1.413
PURIFIED WATER SUPPLIED BY: —
PUMP/BAILER TYP MP50

SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS:
CLIENT REPRESENTATIVES: 46850 Magellan Dr, Suite 190, Novi, MI 48377
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED: 11/7
FORM COMPLETED BY (signature):

Well ID MW-210

GROUNDWATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: LIS0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS

SKY: Sunny
GROUND: dry
AIR TEMPERATURE (°F): 65
PRECIPITATION (LAST 24 HRS): light

WELL SECURITY

PROTECTIVE COVER: ok
BUMPER POSTS: ok
EXTERNAL WELL ID: ok
LOCK: ok
WELL DIAMETER: 2"
CONCRETE PAD: ok

CALCULATIONS

WELL ELEVATION (FT/MSL):
DEPTH TO WATER (FT): 27.86
GROUNDWATER ELEVATION (FT/MSL):
TOTAL WELL DEPTH (FT): 71.9
WELL STICK-UP (FT):
WATER VOLUME IN CASING (GALLONS): 7.05

PURGING

INITIAL PURGE DATE: ~~1330~~ 11/6
INITIAL PURGE TIME: 1338

STABILIZATION READINGS

	1	2	3	4	5	6	Final
Time	1346	1354	1401				0940
Volume Removed (gal)	7.05	14.1	/ /				14.2
pH (s.u.)	7.17	7.60	dry				7.33
Conductivity. (µmho/cm)	2883	2726	/ /				1486
Temperature (°C)	12.25	11.63	/ /				11.93

SAMPLING

SAMPLE DATE: 11/7
SAMPLE TIME: 0940
TOTAL BOTTLES COLLECTED: 4
FILTERED FOR METALS: yes
SAMPLE CLARITY (clear, sl. turbid, m. turbid, v. turbid):
COLOR (yellow, brown, rust, grey, white, colorless):
ODOR (sulfur, LFG, musty, solvent, petrol, no odor):
SAMPLE COLLECTED BY: EC

EQUIPMENT

FIELD METER USED: 451
CALIBRATION TIME: 0820
PH CALIBRATION STANDARDS (s.u.): 4/7/10
CONDUCTIVITY STANDARD (µmho/cm): 1.413
PURIFIED WATER SUPPLIED BY: —
PUMP/BAILER TYP: MP50

SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED: 11/7
FORM COMPLETED BY (signature):

Well ID MW-106A

GROUNDWATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: US0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS

SKY: Sunny
GROUND: moist
AIR TEMPERATURE (°F): 70
PRECIPITATION (LAST 24 HRS): light

WELL SECURITY

PROTECTIVE COVER: Ok
BUMPER POSTS: Ok
EXTERNAL WELL ID: Ok
LOCK: Ok
WELL DIAMETER: 2"
CONCRETE PAD: Ok

CALCULATIONS

WELL ELEVATION (FT/MSL):
DEPTH TO WATER (FT): 31.68
GROUNDWATER ELEVATION (FT/MSL):
TOTAL WELL DEPTH (FT): 75.2
WELL STICK-UP (FT):
WATER VOLUME IN CASING (GALLONS): 6.9

PURGING

INITIAL PURGE DATE: 11/6/24
INITIAL PURGE TIME: 1018

STABILIZATION READINGS

	1	2	3	4	5	6	Final 11/7
Time	1028	1038	1047				0853
Volume Removed (gal)	6.9	13.8	↓				13.8
pH (s.u.)	8.25	7.90	↓				8.22
Conductivity. (µmho/cm)	1066	729	↓				491
Temperature (°C)	13.43	10.87	↓				10.5

SAMPLING

SAMPLE DATE: 11/7
SAMPLE TIME: 0850
TOTAL BOTTLES COLLECTED: 4
FILTERED FOR METALS: yes
SAMPLE CLARITY (clear, sl. turbid, m. turbid, v. turbid):
COLOR (yellow, brown, rust, grey, white, colorless):
ODOR (sulfur, LFG, musty, solvent, petrol, no odor):
SAMPLE COLLECTED BY: IC

EQUIPMENT

FIELD METER USED: YSI
CALIBRATION TIME: 0820
PH CALIBRATION STANDARDS (s.u.): 4/7/10
CONDUCTIVITY STANDARD (µmho/cm): 1,413
PURIFIED WATER SUPPLIED BY: —
PUMP/BAILER TYP MP50

SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED: 11/7
FORM COMPLETED BY (signature):

Well ID MW-303A

GROUNDWATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: US0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS

SKY: Sunny
GROUND: dry
AIR TEMPERATURE (°F): 68
PRECIPITATION (LAST 24 HRS): none

WELL SECURITY

PROTECTIVE COVER: ok
BUMPER POSTS: NA
EXTERNAL WELL ID: ok
LOCK: ok
WELL DIAMETER: 2"
CONCRETE PAD: ok

CALCULATIONS

WELL ELEVATION (FT/MSL):
DEPTH TO WATER (FT): 22.8
GROUNDWATER ELEVATION (FT/MSL):
TOTAL WELL DEPTH (FT): 75.7
WELL STICK-UP (FT):
WATER VOLUME IN CASING (GALLONS): 8.46

PURGING

INITIAL PURGE DATE: 11/7
INITIAL PURGE TIME: 1108

STABILIZATION READINGS

	1	2	3	4	5	6	Final
Time	1116	1124					1132
Volume Removed (gal)	8.5	17					25.5
pH (s.u.)	8.20	8.36					8.47
Conductivity. (µmho/cm)	491	482					472
Temperature (°C)	10.88	11.53					11.88

SAMPLING

SAMPLE DATE: 11/7
SAMPLE TIME: 1135
TOTAL BOTTLES COLLECTED: 4
FILTERED FOR METALS: yes
SAMPLE CLARITY (clear, sl. turbid, m. turbid, v. turbid):
COLOR (yellow, brown, rust, grey, white, colorless):
ODOR (sulfur, LFG, musty, solvent, petrol, no odor):
SAMPLE COLLECTED BY:

EQUIPMENT

FIELD METER USED: YSI
CALIBRATION TIME: 0840
PH CALIBRATION STANDARDS (s.u.): 4/7/10
CONDUCTIVITY STANDARD (µmho/cm): 1,413
PURIFIED WATER SUPPLIED BY: —
PUMP/BAILER TYP MP50

SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED: 11/7
FORM COMPLETED BY (signature):

Well ID MW-201

GROUNDWATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: US0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS

SKY: Overcast
GROUND: wet
AIR TEMPERATURE (°F): 60
PRECIPITATION (LAST 24 HRS): light

WELL SECURITY

PROTECTIVE COVER: ok
BUMPER POSTS: N/A
EXTERNAL WELL ID: ok
LOCK: ok
WELL DIAMETER: 2"
CONCRETE PAD: ok

CALCULATIONS

WELL ELEVATION (FT/MSL):
DEPTH TO WATER (FT): 24.12
GROUNDWATER ELEVATION (FT/MSL):
TOTAL WELL DEPTH (FT): 75.4
WELL STICK-UP (FT): 2
WATER VOLUME IN CASING (GALLONS): 8.20

PURGING

INITIAL PURGE DATE: 11/6/24
INITIAL PURGE TIME: 0815

0.7 gpm

STABILIZATION READINGS

	1	2	3	4	5	6	Final
Time	0826	0837	0841				~~0848~~ 1408
Volume Removed (gal)	8.2	16.4					16.4
pH (s.u.)	6.87	6.97					6.94
Conductivity. (µmho/cm)	769	738					727
Temperature (°C)	11.24	11.20					11.49

SAMPLING

SAMPLE DATE: 11/6
SAMPLE TIME: 1408
TOTAL BOTTLES COLLECTED: 4
FILTERED FOR METALS: yes
SAMPLE CLARITY (clear, sl. turbid, m. turbid, v. turbid): clear
COLOR (yellow, brown, rust, grey, white, colorless): colorless
ODOR (sulfur, LFG, musty, solvent, petrol, no odor): no odor
SAMPLE COLLECTED BY: IC

EQUIPMENT

FIELD METER USED: YSI
CALIBRATION TIME: 0820
PH CALIBRATION STANDARDS (s.u.): 4/7/10
CONDUCTIVITY STANDARD (µmho/cm): 1.413 mS/cm
PURIFIED WATER SUPPLIED BY: —
PUMP/BAILER TYP: MP50

SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED: 11/6
FORM COMPLETED BY (signature):

Well ID MW-302

GROUNDWATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: LIS0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS

SKY: Sunny
GROUND: dry
AIR TEMPERATURE (°F): 69
PRECIPITATION (LAST 24 HRS): light

WELL SECURITY

PROTECTIVE COVER: ok
BUMPER POSTS: NA
EXTERNAL WELL ID: ok
LOCK: ok
WELL DIAMETER: 2"
CONCRETE PAD: ok

CALCULATIONS

WELL ELEVATION (FT/MSL):
DEPTH TO WATER (FT): 25.08
GROUNDWATER ELEVATION (FT/MSL):
TOTAL WELL DEPTH (FT): 80.4
WELL STICK-UP (FT):
WATER VOLUME IN CASING (GALLONS): 8.85

PURGING

INITIAL PURGE DATE: 11/6
INITIAL PURGE TIME: 1255

STABILIZATION READINGS

	1	2	3	4	5	6	Final
Time	1304	1312					1320
Volume Removed (gal)	8.9	17.8					26
pH (s.u.)	8.01	7.75					7.89
Conductivity. (µmho/cm)	770	761					766
Temperature (°C)	12.27	12.48					12.31

SAMPLING

SAMPLE DATE: 11/6/24
SAMPLE TIME: 1322
TOTAL BOTTLES COLLECTED: 4
FILTERED FOR METALS: yes
SAMPLE CLARITY (clear, sl. turbid, m. turbid, v. turbid):
COLOR (yellow, brown, rust, grey, white, colorless):
ODOR (sulfur, LFG, musty, solvent, petrol, no odor):
SAMPLE COLLECTED BY: TC

EQUIPMENT

FIELD METER USED: YSI
CALIBRATION TIME: 0820
PH CALIBRATION STANDARDS (s.u.): 4/7/10
CONDUCTIVITY STANDARD (µmho/cm): 1,413
PURIFIED WATER SUPPLIED BY: —
PUMP/BAILER TYP MP50

SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED:
FORM COMPLETED BY (signature):

Well ID MW-209

GROUNDWATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: US0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS

SKY: clear, sunny
GROUND: dry
AIR TEMPERATURE (°F): 70
PRECIPITATION (LAST 24 HRS): light

WELL SECURITY

PROTECTIVE COVER: ok
BUMPER POSTS: N/A
EXTERNAL WELL ID: ok
LOCK: ok
WELL DIAMETER: 2"
CONCRETE PAD: ok

CALCULATIONS

WELL ELEVATION (FT/MSL):
DEPTH TO WATER (FT): 28
GROUNDWATER ELEVATION (FT/MSL):
TOTAL WELL DEPTH (FT): 79.2
WELL STICK-UP (FT):
WATER VOLUME IN CASING (GALLONS): 8.19

PURGING

INITIAL PURGE DATE: 11/6
INITIAL PURGE TIME: 1216

STABILIZATION READINGS

	1	2	3	4	5	6	Final
Time	1224	1232					1240
Volume Removed (gal)	8.2	16.4					24.6
pH (s.u.)	8.22	7.74					7.76
Conductivity. (µmho/cm)	775	764					760
Temperature (°C)	12.03	12.33					11.48

SAMPLING

SAMPLE DATE: 11/6
SAMPLE TIME: 1242
TOTAL BOTTLES COLLECTED: 4
FILTERED FOR METALS: yes
SAMPLE CLARITY (clear, sl. turbid, m. turbid, v. turbid):
COLOR (yellow, brown, rust, grey, white, colorless):
ODOR (sulfur, LFG, musty, solvent, petrol, no odor):
SAMPLE COLLECTED BY: TC

EQUIPMENT

FIELD METER USED: YSI
CALIBRATION TIME: 0820
PH CALIBRATION STANDARDS (s.u.): 4/7/10
CONDUCTIVITY STANDARD (µmho/cm): 1,413
PURIFIED WATER SUPPLIED BY: —
PUMP/BAILER TYP MP50

SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED:
FORM COMPLETED BY (signature):

Well ID MW-301

GROUNDWATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: US0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS

SKY: clear
GROUND: dry
AIR TEMPERATURE (°F): 68
PRECIPITATION (LAST 24 HRS): light

WELL SECURITY

PROTECTIVE COVER: ok
BUMPER POSTS: N/A
EXTERNAL WELL ID: ok
LOCK: ok
WELL DIAMETER: 2"
CONCRETE PAD: ok

CALCULATIONS

WELL ELEVATION (FT/MSL):
DEPTH TO WATER (FT): 33.90
GROUNDWATER ELEVATION (FT/MSL):
TOTAL WELL DEPTH (FT): 84.3
WELL STICK-UP (FT):
WATER VOLUME IN CASING (GALLONS): 8.06

PURGING

INITIAL PURGE DATE: 11/6
INITIAL PURGE TIME: 1130

STABILIZATION READINGS

	1	2	3	4	5	6	Final
Time	1142	1154					1206
Volume Removed (gal)	8.06	16.12					24.18
pH (s.u.)	8.02	8.12					8.11
Conductivity. (µmho/cm)	794	792					790
Temperature (°C)	11.70	11.70					11.69

SAMPLING

SAMPLE DATE: 11/6
SAMPLE TIME: 1207
TOTAL BOTTLES COLLECTED: 4
FILTERED FOR METALS: yes
SAMPLE CLARITY (clear, sl. turbid, m. turbid, v. turbid):
COLOR (yellow, brown, rust, grey, white, colorless):
ODOR (sulfur, LFG, musty, solvent, petrol, no odor):
SAMPLE COLLECTED BY: IC

EQUIPMENT

FIELD METER USED: 451
CALIBRATION TIME: 0820
PH CALIBRATION STANDARDS (s.u.): 4/7/10
CONDUCTIVITY STANDARD (µmho/cm): 1,413
PURIFIED WATER SUPPLIED BY: —
PUMP/BAILER TYP: MP50

SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED: 11/6/24 FORM COMPLETED BY (signature):

Well ID MW-208B

GROUNDWATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: US0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS

SKY: Sunny
GROUND: dry
AIR TEMPERATURE (°F): 70
PRECIPITATION (LAST 24 HRS): light

WELL SECURITY

PROTECTIVE COVER: ok
BUMPER POSTS: NA
EXTERNAL WELL ID: ok
LOCK: ok
WELL DIAMETER: 2"
CONCRETE PAD: ok

CALCULATIONS

WELL ELEVATION (FT/MSL):
DEPTH TO WATER (FT): 34.30
GROUNDWATER ELEVATION (FT/MSL):
TOTAL WELL DEPTH (FT): ~~NA~~ 75
WELL STICK-UP (FT):
WATER VOLUME IN CASING (GALLONS): 6.51

PURGING

INITIAL PURGE DATE: 11/16
INITIAL PURGE TIME: 1055

STABILIZATION READINGS

	1	2	3	4	5	6	Final
Time	1103	1117					1120
Volume Removed (gal)	6.51	13					20
pH (s.u.)	7.47	7.31					7.54
Conductivity. (µmho/cm)	728	716					734
Temperature (°C)	12.19	11.58					12.26

SAMPLING

SAMPLE DATE: 11/16
SAMPLE TIME: 1120
TOTAL BOTTLES COLLECTED: 4
FILTERED FOR METALS: yes
SAMPLE CLARITY (clear, sl. turbid, m. turbid, v. turbid):
COLOR (yellow, brown, rust, grey, white, colorless):
ODOR (sulfur, LFG, musty, solvent, petrol, no odor):
SAMPLE COLLECTED BY: TC

EQUIPMENT

FIELD METER USED:
CALIBRATION TIME:
PH CALIBRATION STANDARDS (s.u.):
CONDUCTIVITY STANDARD (µmho/cm):
PURIFIED WATER SUPPLIED BY:
PUMP/BAILER TYP

SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED: 11/16/24 FORM COMPLETED BY (signature):

Well ID MW-203B

GROUNDWATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: LIS0030747 9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS

SKY: cloudy
GROUND: moist
AIR TEMPERATURE (°F): 62
PRECIPITATION (LAST 24 HRS): light

WELL SECURITY

PROTECTIVE COVER: ok
BUMPER POSTS: NA
EXTERNAL WELL ID: ok
LOCK: ok
WELL DIAMETER: 2"
CONCRETE PAD: ok

CALCULATIONS

WELL ELEVATION (FT/MSL):
DEPTH TO WATER (FT): 25.18
GROUNDWATER ELEVATION (FT/MSL):
TOTAL WELL DEPTH (FT): 73.21
WELL STICK-UP (FT): 2'
WATER VOLUME IN CASING (GALLONS): 7.68
0.7gpm

PURGING

INITIAL PURGE DATE: 11/6/24
INITIAL PURGE TIME: 0927

STABILIZATION READINGS

	1	2	3	4	5	6	Final
Time	0937	0947					0957
Volume Removed (gal)	7.68	15.36					23.04
pH (s.u.)	8.08	8.13					8.20
Conductivity. (µmho/cm)	817	760					764
Temperature (°C)	10.85	11.10					11.06

SAMPLING

SAMPLE DATE: 11/6/24
SAMPLE TIME: 1000
TOTAL BOTTLES COLLECTED:
FILTERED FOR METALS: Yes
SAMPLE CLARITY: (clear, sl. turbid, m. turbid, v. turbid):
COLOR (yellow, brown, rust, grey, white, colorless):
ODOR (sulfur, LFG, musty, solvent, petrol, no odor):
SAMPLE COLLECTED BY: JC

EQUIPMENT

FIELD METER USED: 451
CALIBRATION TIME: 0820
PH CALIBRATION STANDARDS (s.u.): 4/7/10
CONDUCTIVITY STANDARD (µmho/cm): 1,413
PURIFIED WATER SUPPLIED BY: —
PUMP/BAILER TYP MP50

SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED: 11/6
FORM COMPLETED BY (signature):

Well ID MW-212

GROUNDWATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: LIS0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS

SKY: overcast
GROUND: wet/moist
AIR TEMPERATURE (°F): 60
PRECIPITATION (LAST 24 HRS): light

WELL SECURITY

PROTECTIVE COVER: ok
BUMPER POSTS: NA
EXTERNAL WELL ID: ok
LOCK: ok
WELL DIAMETER: 2"
CONCRETE PAD: ok

CALCULATIONS

WELL ELEVATION (FT/MSL):
DEPTH TO WATER (FT): 28.99
GROUNDWATER ELEVATION (FT/MSL):
TOTAL WELL DEPTH (FT): 65.2
WELL STICK-UP (FT): 2'
WATER VOLUME IN CASING (GALLONS): 5.94

PURGING

INITIAL PURGE DATE: 11/6/24
INITIAL PURGE TIME: 0850

0.99pm

STABILIZATION READINGS

	1	2	3	4	5	6	Final
Time	0856	0902					0908
Volume Removed (gal)	5.94	11.88					17.8
pH (s.u.)	7.46	7.57	~~7.62~~				7.62
Conductivity. (µmho/cm)	749	747	~~741~~ sc				741
Temperature (°C)	11.20	11.05	~~11.09~~				11.09

SAMPLING

SAMPLE DATE: 11/6/24
SAMPLE TIME: 0910
TOTAL BOTTLES COLLECTED: 4
FILTERED FOR METALS: Yes
SAMPLE CLARITY (clear, sl. turbid, m. turbid, v. turbid): clear
COLOR (yellow, brown, rust, grey, white, colorless): clear
ODOR (sulfur, LFG, musty, solvent, petrol, no odor): none
SAMPLE COLLECTED BY: IC

EQUIPMENT

FIELD METER USED: 451
CALIBRATION TIME: 0820
PH CALIBRATION STANDARDS (s.u.): 4/7/10
CONDUCTIVITY STANDARD (µmho/cm): 1.413
PURIFIED WATER SUPPLIED BY: —
PUMP/BAILER TYP MP50

SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED: 11/6/24 FORM COMPLETED BY (signature):

SAMPLE ID: Leachate

LEACHATE SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: US0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS DURING SAMPLING

SKY: Sunny
WIND (mph): 5-10
AIR TEMPERATURE (°F): 50

SAMPLING

SAMPLE DATE: 11/8
SAMPLE TIME:
TOTAL BOTTLES COLLECTED: 7
FILTERED FOR METALS: No
SAMPLE CLARITY:
SAMPLE COLOR:
SAMPLE ODOR:

FIELD MEASUREMENTS

FIELD MEASUREMENT TIME: 1040
FINAL pH (S.U.): 7.81
FINAL CONDUCTIVITY (µMHO/CM): 29084
SAMPLE TEMPERATURE (°C): 18.13

EQUIPMENT

FIELD METER USED: YSI
CALIBRATION TIME: 0815
FINAL CALIBRATION pH: 4/7/10
FINAL CALIBRATION SC: 1.413 mS/cm
FILTER TYPE USED: —
PUMP OR BAILER USED: bailer

SAMPLE COLLECTED BY: JC
SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED: 11/8
FORM COMPLETED BY (signature):

Sample ID SW-DA1

SURFACE WATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: US0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS DURING SAMPLING

SKY: Sunny
WIND (mph): 0-5
AIR TEMPERATURE (°F): 60

SAMPLING

SAMPLE DATE: 11/8
SAMPLE TIME: 1138
TOTAL BOTTLES COLLECTED: 6
FILTERED FOR METALS: N
SAMPLE CLARIT ~~clear~~ sl. turbid
SAMPLE COLOR: none
SAMPLE ODOR: none

FIELD MEASUREMENTS

FIELD MEASUREMENT TIME: 1135
FINAL pH (S.U.): 8.04
FINAL CONDUCTIVITY (µMHO/CM): 428
SAMPLE TEMPERATURE (°C): 11.64
DISSOLVED OXYGEN (mg/L): 6.60

EQUIPMENT

FIELD METER USED: YSI
CALIBRATION TIME: 0815
FINAL CALIBRATION pH: 4/7/10
FINAL CALIBRATION SC: 1,413
DEIONIZED WATER SUPPLIED BY: —

SAMPLE COLLECTED BY: JC
SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED: 11/8
FORM COMPLETED BY (signature):

Sample ID SW-D2

SURFACE WATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: US0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS DURING SAMPLING

SKY: Sunny
WIND (mph): to 5-10
AIR TEMPERATURE (°F): 56

SAMPLING

SAMPLE DATE: 11/8
SAMPLE TIME: —
TOTAL BOTTLES COLLECTED: —
FILTERED FOR METALS: —
SAMPLE CLARIT —
SAMPLE COLOR: —
SAMPLE ODOR: —

FIELD MEASUREMENTS

FIELD MEASUREMENT TIME: —
FINAL pH (S.U.): —
FINAL CONDUCTIVITY (µMHO/CM): —
SAMPLE TEMPERATURE (°C): —
DISSOLVED OXYGEN (mg/L): —

EQUIPMENT

FIELD METER USED: —
CALIBRATION TIME: —
FINAL CALIBRATION pH: —
FINAL CALIBRATION SC: —
DEIONIZED WATER SUPPLIED BY: —

dry

SAMPLE COLLECTED BY: —
SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED: 11/8
FORM COMPLETED BY (signature):

Sample ID SW-U1

SURFACE WATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: US0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS DURING SAMPLING

SKY: Sunny
WIND (mph): 0-5
AIR TEMPERATURE (°F): 54

SAMPLING

SAMPLE DATE: 11/8
SAMPLE TIME: 1120
TOTAL BOTTLES COLLECTED: 6
FILTERED FOR METALS: No
SAMPLE CLARIT clear
SAMPLE COLOR: clear
SAMPLE ODOR: none

FIELD MEASUREMENTS

FIELD MEASUREMENT TIME: 1120
FINAL pH (S.U.): 7.71
FINAL CONDUCTIVITY (µMHO/CM): 1930
SAMPLE TEMPERATURE (°C): 11.64
DISSOLVED OXYGEN (mg/L): 8.51

EQUIPMENT

FIELD METER USED: YSI
CALIBRATION TIME: 0815
FINAL CALIBRATION pH: 4/7/10
FINAL CALIBRATION SC: 1.413mS/cm
DEIONIZED WATER SUPPLIED BY: —

SAMPLE COLLECTED BY: TC
SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

DATE FORM COMPLETED: 11/8
FORM COMPLETED BY (signature):

Sample ID SW-U2

SURFACE WATER SAMPLE COLLECTION RECORD

SITE IDENTIFICATION

COMPANY: Smith's Creek Landfill
FACILITY/SITE: Smith's Creek Landfill
PROJECT NUMBER: US0030747.9191
ADDRESS: 6779 Smith's Creek Rd. Smith's Creek, MI
CONTACT: Matt Williams
PHONE: (248) 459-3309

WEATHER CONDITIONS DURING SAMPLING

SKY: Sunny
WIND (mph): 0-5
AIR TEMPERATURE (°F): 68

SAMPLING

SAMPLE DATE: 11/8
SAMPLE TIME: 1210
TOTAL BOTTLES COLLECTED: 6
FILTERED FOR METALS: no
SAMPLE CLARIT clear
SAMPLE COLOR: none
SAMPLE ODOR: none

FIELD MEASUREMENTS

FIELD MEASUREMENT TIME: 1210
FINAL pH (S.U.): 8.03
FINAL CONDUCTIVITY (µMHO/CM): 543
SAMPLE TEMPERATURE (°C): 12.35
DISSOLVED OXYGEN (mg/L): 3.07

EQUIPMENT

FIELD METER USED: YSI
CALIBRATION TIME: 0815
FINAL CALIBRATION pH: 4/7/10
FINAL CALIBRATION SC: 1.413 mS/CM
DEIONIZED WATER SUPPLIED BY: —

SAMPLE COLLECTED BY: JC
SAMPLING COMPANY: WSP USA Inc.
SAMPLER'S PHONE:
SAMPLER'S ADDRESS: 46850 Magellan Dr, Suite 190, Novi, MI 48377
CLIENT REPRESENTATIVES:
REGULATORY REPRESENTATIVES:

COMMENTS:

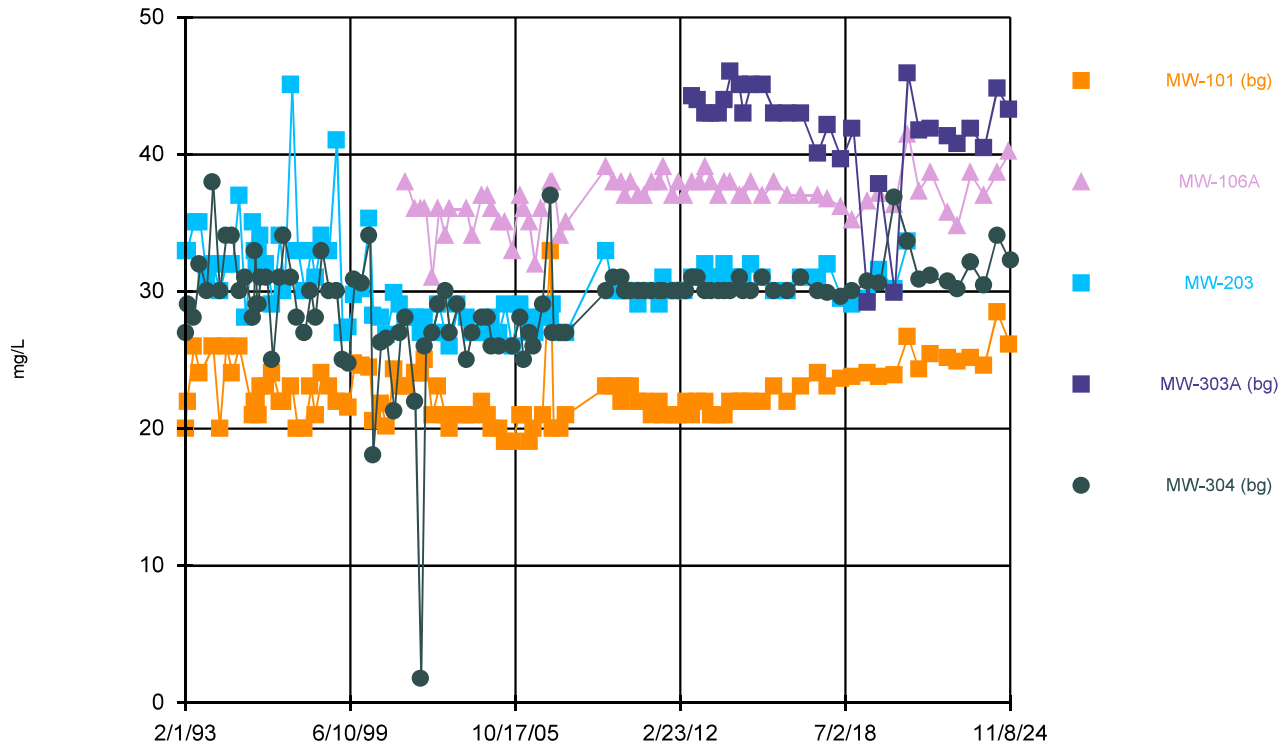
DATE FORM COMPLETED: 11/8
FORM COMPLETED BY (signature):

APPENDIX C

Time Series Plots

MW-106A

Time Series

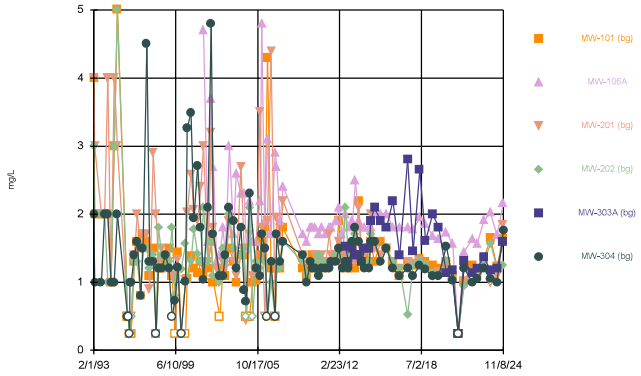


Constituent: Chloride Analysis Run 12/18/2024 10:48 AM View: SCL GW

Smiths Creek LF Client: St. Clair County Data: Dt-scl

Sanitas™ v.10.0.23 Software licensed to WSP, UG
Hollow symbols indicate censored values.

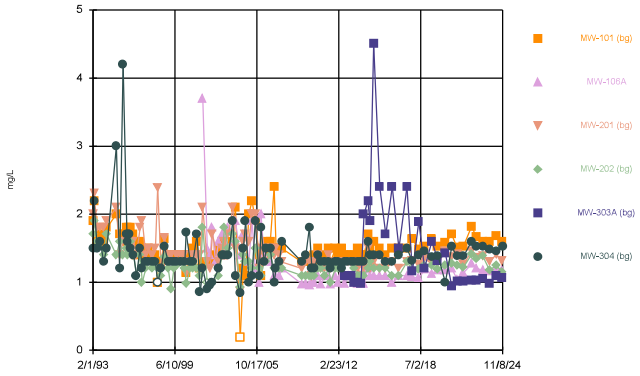
Carbon, Total Organic



Time Series Analysis Run 12/19/2024 5:14 PM View: SCL GW
Smiths Creek LF Client: St. Clair County Data: Dt-scl

Sanitas™ v.10.0.23 Software licensed to WSP, UG
Hollow symbols indicate censored values.

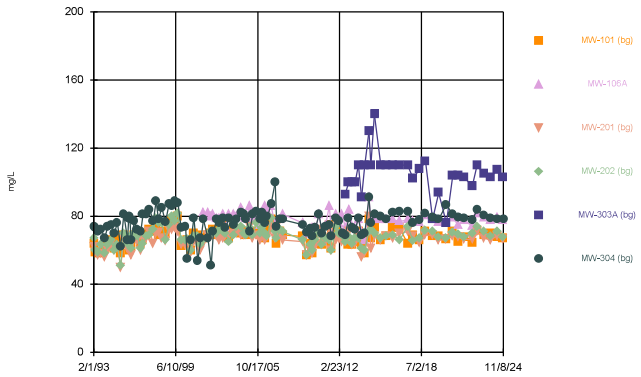
Potassium



Time Series Analysis Run 12/19/2024 5:14 PM View: SCL GW
Smiths Creek LF Client: St. Clair County Data: Dt-scl

Sanitas™ v.10.0.23 Software licensed to WSP, UG

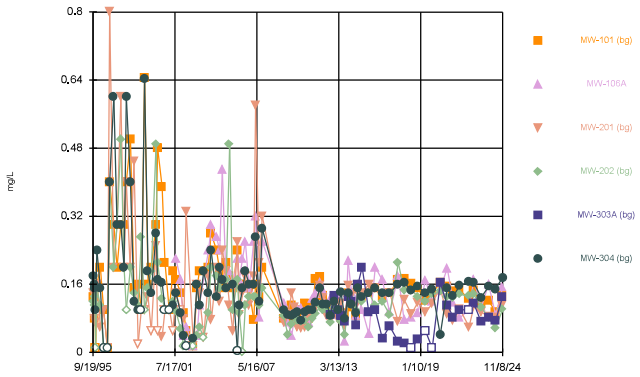
Sodium



Time Series Analysis Run 12/19/2024 5:14 PM View: SCL GW
Smiths Creek LF Client: St. Clair County Data: Dt-scl

Sanitas™ v.10.0.23 Software licensed to WSP, UG
Hollow symbols indicate censored values.

Total Inorganic Nitrogen



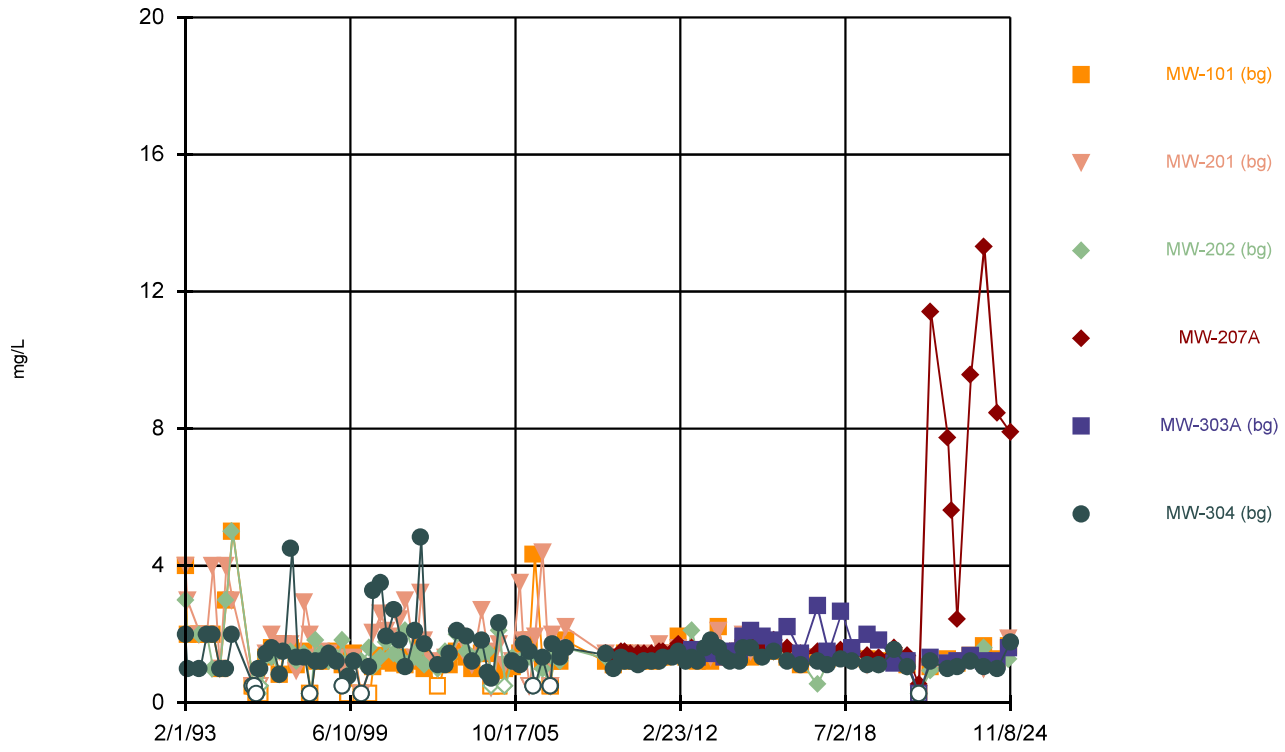
Time Series Analysis Run 12/19/2024 5:14 PM View: SCL GW
Smiths Creek LF Client: St. Clair County Data: Dt-scl

APPENDIX D

Time Series Plots
MW-207A

Sanitas™ v.10.0.23 Software licensed to WSP. UG
Hollow symbols indicate censored values.

Time Series

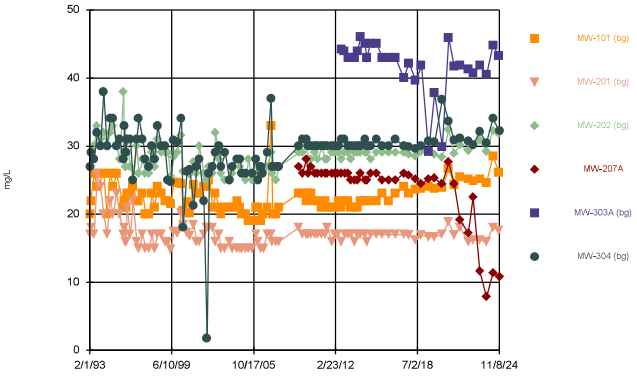


Constituent: Carbon, Total Organic Analysis Run 12/19/2024 3:22 PM View: SCL GW

Smiths Creek LF Client: St. Clair County Data: Dt-scl

Sanitas™ v.10.0.23 Software licensed to WSP, UG

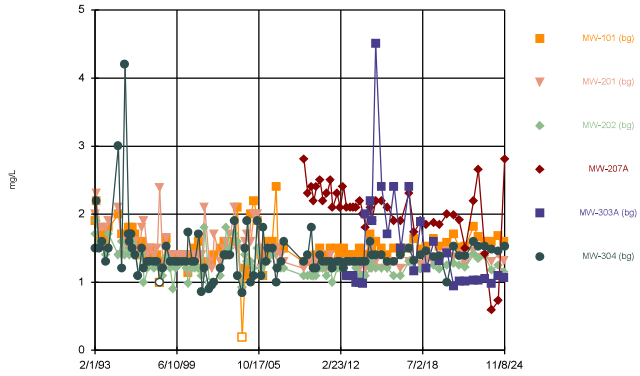
Chloride



Time Series Analysis Run 12/19/2024 5:16 PM View: SCL GW
Smiths Creek LF Client: St. Clair County Data: Dt-scl

Sanitas™ v.10.0.23 Software licensed to WSP, UG
Hollow symbols indicate censored values.

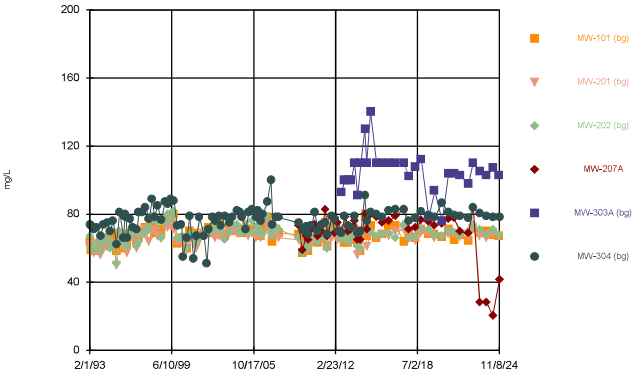
Potassium



Time Series Analysis Run 12/19/2024 5:16 PM View: SCL GW
Smiths Creek LF Client: St. Clair County Data: Dt-scl

Sanitas™ v.10.0.23 Software licensed to WSP, UG

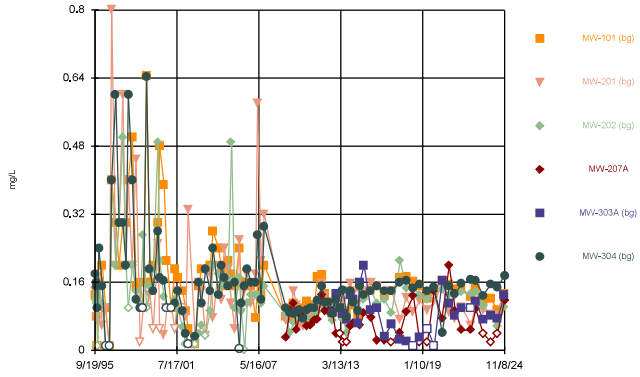
Sodium



Time Series Analysis Run 12/19/2024 5:16 PM View: SCL GW
Smiths Creek LF Client: St. Clair County Data: Dt-scl

Sanitas™ v.10.0.23 Software licensed to WSP, UG
Hollow symbols indicate censored values.

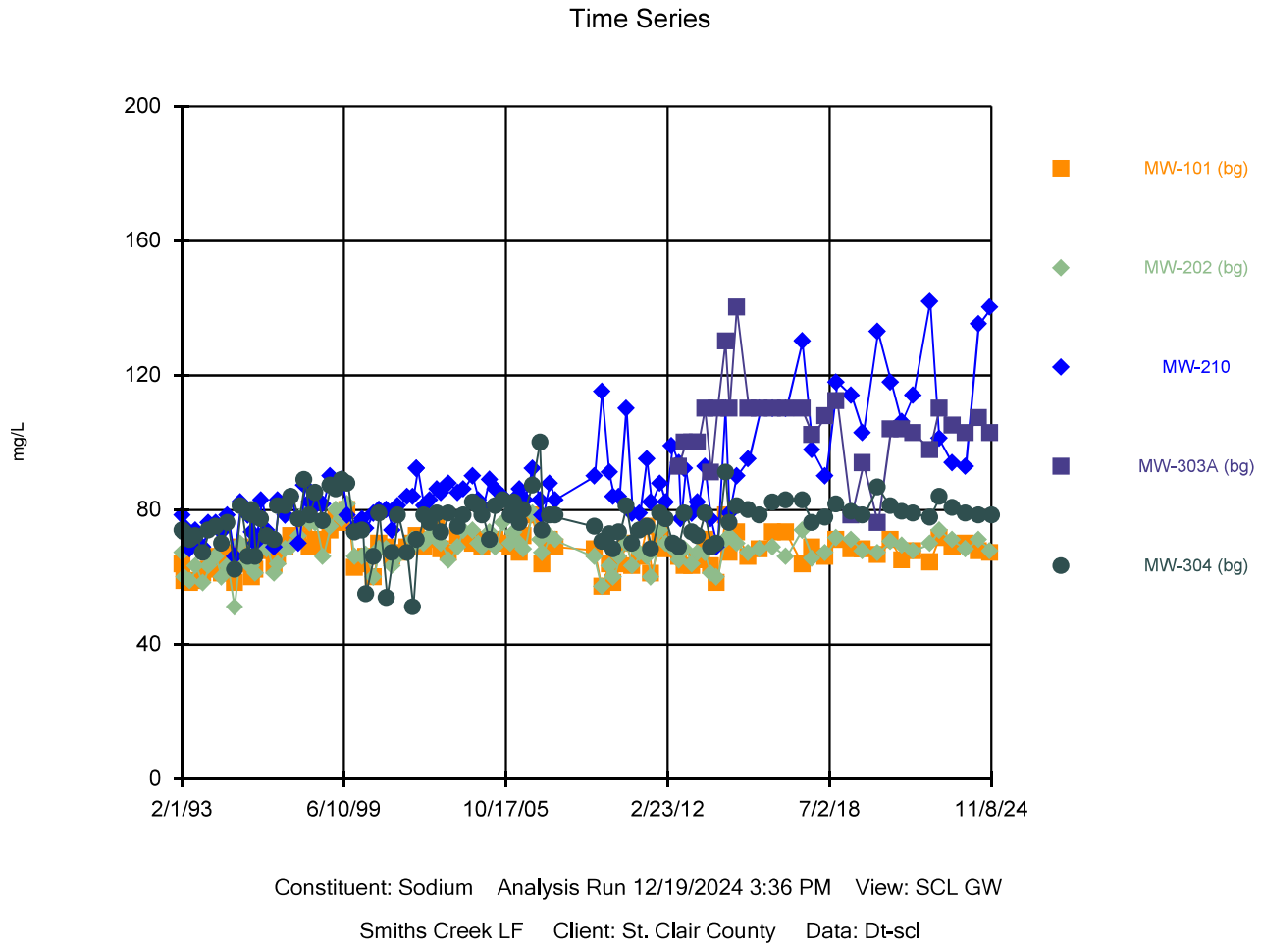
Total Inorganic Nitrogen



Time Series Analysis Run 12/19/2024 5:16 PM View: SCL GW
Smiths Creek LF Client: St. Clair County Data: Dt-scl

APPENDIX E

Time Series Plots
MW-210

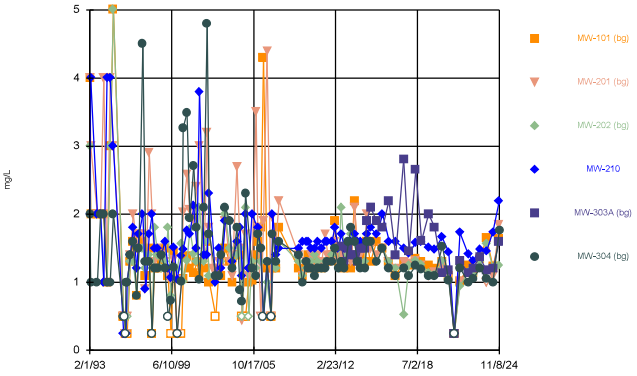


Constituent: Sodium Analysis Run 12/19/2024 3:36 PM View: SCL GW

Smiths Creek LF Client: St. Clair County Data: Dt-scl

Sanitas™ v.10.0.23 Software licensed to WSP, UG
Hollow symbols indicate censored values.

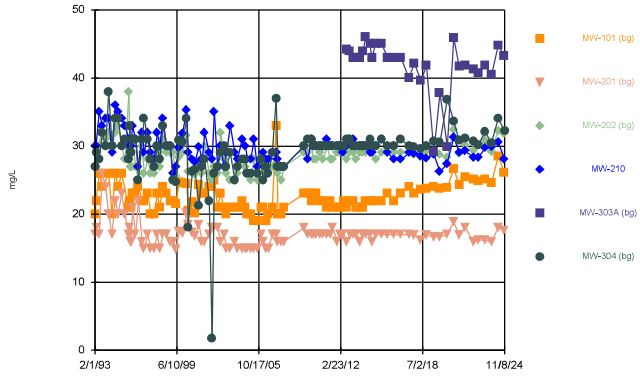
Carbon, Total Organic



Time Series Analysis Run 12/19/2024 5:17 PM View: SCL GW
Smiths Creek LF Client: St. Clair County Data: Dt-scl

Sanitas™ v.10.0.23 Software licensed to WSP, UG

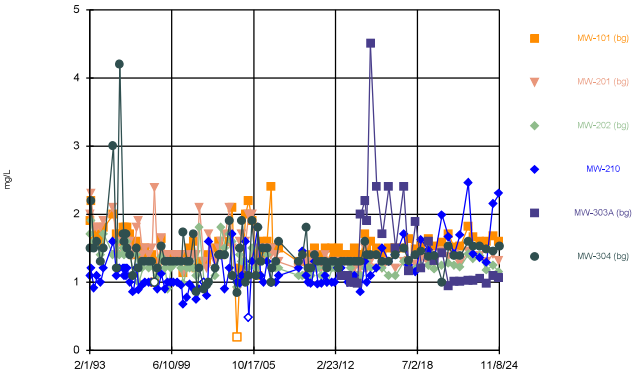
Chloride



Time Series Analysis Run 12/19/2024 5:17 PM View: SCL GW
Smiths Creek LF Client: St. Clair County Data: Dt-scl

Sanitas™ v.10.0.23 Software licensed to WSP, UG
Hollow symbols indicate censored values.

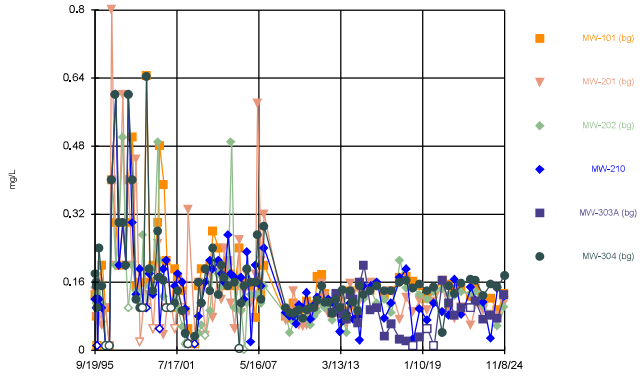
Potassium



Time Series Analysis Run 12/19/2024 5:17 PM View: SCL GW
Smiths Creek LF Client: St. Clair County Data: Dt-scl

Sanitas™ v.10.0.23 Software licensed to WSP, UG
Hollow symbols indicate censored values.

Total Inorganic Nitrogen



Time Series Analysis Run 12/19/2024 5:17 PM View: SCL GW
Smiths Creek LF Client: St. Clair County Data: Dt-scl