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3 December 2021

Shawn Tisdell
Alaska Department of Environmental Conservation
Contaminated Sites Program
555 Cordova Street, Second Floor
Anchorage, AK 99501

RE: 2021 Site Characterization Summary Report
Eskimo Creek – Eddie's Fireplace Inn
King Salmon, Alaska
ADEC File No. 2569.38.008

Dear Mr. Tisdell,

Weston Solutions, Inc. (Weston) is pleased to submit this report to the Alaska Department of Environmental Conservation (ADEC) summarizing the results of the 2021 activities conducted at Eddie's Fireplace Inn in King Salmon, AK. In accordance with the approved scope of work (SOW), the activities included groundwater sampling, surface water sampling, and light non-aqueous phase liquid (LNAPL) recovery. Additional activities consisted of evaluating the presence and thickness of LNAPL in each of the sampling points, if any; disposing of product saturated absorbents; and repairing a damaged protective well pad and cover. Field observations and analytical results of the samples are used to monitor the existing petroleum groundwater plume and assist ADEC in developing remedial decisions and a path forward for obtaining site closure. The site is identified in the ADEC-contaminated sites database File Number (No.) 2569.38.008 and Hazard Identification 2152.

1.0 SITE BACKGROUND

Eddie's Fireplace Inn is located at approximately 64.564688° north latitude and 149.100866° west longitude in King Salmon, AK, (Figure 1). The site is located within Bureau of Land Management Public Land Survey Section 28, Township 5 South, Range 33 West, Seward Meridian.

In 1994, free-phase product was observed emanating from seeps on the east bank of Eskimo Creek, a tidally influenced anadromous stream. The source of contamination was suspected to be from the determined to be from an underground storage tank (UST) on the northwest side of Eddie's Fireplace Inn. Hart Crowser removed the UST in 1995. Since 1999, site investigations have been conducted by Hart Crowser, Platt Environmental Inc, and Shannon & Wilson, Inc. (Shannon &

Wilson). These activities included advancement of soil borings; installation of monitoring wells, well points, and recovery wells; analysis of groundwater and surface water samples, removal and treatment of impacted soils, and construction of an interception trench with two sumps for recovery of free-phase product (Sump 1 and Sump 2). Site activities are briefly summarized below:

- 1999: Hart Crowser performed a site assessment that included installation of monitoring wells MW-1 through MW-6 surrounding Eddies Fireplace Inn. Four well points (WP-1 through WP-4) and seven recovery wells (RW1 through RW7) were installed between the creek and the Eddie's Fireplace Inn property.

- 2000–2001: Platt Environmental Inc monitored the recovery wells.

- 2001: Shannon & Wilson performed a Phase I Interim Remedial Action (IRA), which consisted of constructing an interception trench with sumps (Sump 1 and Sump 2) and monitoring points (MP-1 through MP-5, MPA, MPB, and MPC), excavating test pits, advancing hand borings, constructing a soil storage cell, and removing of approximately 70 cubic yards of impacted soil. A monthly product monitoring and recovery program was initiated in December 2001.

- 2002: Shannon & Wilson performed a Phase II IRA, which consisted of removing impacted soil between the interception trench and Eskimo Creek, decommissioning recovery wells R1 through R3 (recovery well R4 had previously been frost-jacked out of the ground) and well points WP1 and WP2, and removing approximately 35 cubic yards of impacted soil.

- 2003–2014 and 2017: Shannon & Wilson performed groundwater, surface water, and drinking water monitoring and LNAPL recovery. Approximately 95 gallons of free product were recovered from sumps during this interval.

    - Two recovery wells (R6 and R7) and one monitoring well (MW-2) were decommissioned in 2014.

    - One monitoring point (MPA) was decommissioned in 2017.

- 2019: Weston conducted a limited investigation that included collecting groundwater and surface water samples, evaluating presence of LNAPL, and installing absorbent socks at select locations for removal in 2021.

2.0 2021 SCOPE OF WORK

The SOW for the 2021 field season was a continuation of activities that were provided in ADEC's Task Request for Proposal (RFP) 18-117-19 Addendum 1 Site Characterization in King Salmon, Alaska, dated 4 April 2019. The activities consisted of the following:

- Groundwater Sampling
    - Collect 11 groundwater samples from Sump 1, Sump 2, MW-1, MW-3, MW-4, MW-5, MP1, MP2, MP3, and MP4 as well as a duplicate.
    - Determine the presence and thickness of light non-aqueous phase liquid (LNAPL) in each location.
- Surface Water Sampling
    - Collect three surface samples from Eskimo Creek at locations sampled during previous investigations.
- LNAPL Collection
    - Remove absorbent socks that were placed in MP1, MW-3, and Sump 1 during the field activities conducted in 2019.

Weston personnel that are qualified environmental professional (QEP) and qualified environmental sampler (QES) in accordance with ADEC 18 Alaska Administrative Code (AAC) 75 333 conducted the activities on 21 and 22 July 2021 in accordance with the ADEC-approved *2019 Work Plan for Eskimo Creek, Eddie's Fireplace Inn, King Salmon, Alaska* (Weston, 2019). Groundwater and surface water samples were collected following ADEC's *Field Sampling Guidance* (ADEC, 2019). Figure 2 presents site features and sample locations. Documentation of the project activities are provided in Attachment 1.

Workplan Deviations

Weston did not collect samples for laboratory analysis if product or visible sheen was present on the groundwater. Additionally, Weston could not collect samples from several wells that had no water or insufficient volume for collection. Therefore, no groundwater samples were collected from the following:

- MW-5, MP1, MP4, Sump 1, and Sump 2 (contained a visible sheen).
- MP2 and MW-6 (dry).

3.0 GROUNDWATER EVALUATION

Weston initially gauged each of the groundwater monitoring wells, points, and sumps, using a Solinst® oil/water interface meter, to determine the presence and thickness of LNAPL in the groundwater, if any. The depth to water or depth to product was measured from the top of the polyvinyl chloride (PVC). The well gauging was conducted within 2 hours of high tide. A bailer was subsequently used to evaluate if there was a petroleum sheen on the groundwater if no LNAPL was identified. Information collected during the evaluation was used to determine which monitoring wells would be sampled and to calculate the hydraulic gradient and inferred flow direction. A visible sheen was observed in MW-5, MP1, MP4, Sump 1, and Sump 2. MW-6 and MP2 were dry. Absorbent socks, deployed in Sump 1, Sump 2, MW-3, and MP1 during the 2019 activities, were evaluated. Absorbent booms in MP1 and Sump 1 were saturated and were replaced. Absorbent booms in Sump 2 and MW-3 were not saturated and were redeployed.

The hydraulic gradient was calculated to be 0.004 feet (ft) with a westward flow toward Eskimo Creek. Figure 3 presents the inferred groundwater contours established for the sampling event. Results of the groundwater evaluation and general observations (missing caps, damage, identification markings, etc.) for each well are presented in Table 1, and photographs are provided Attachment 2.

4.0 GROUNDWATER SAMPLING

Weston collected groundwater samples from MW-1, MW-3, MW-4, and MP3. The monitoring wells and points were purged following United States (U.S.) Environmental Protection Agency low-flow sampling techniques approved in the ADEC *Field Sampling Guidance* (ADEC, 2019). MP3 was purged and sampled using a bailer because of an insufficient volume to maintain pump flow. Weston personnel used a calibrated YSI® Model 556 water quality meter (YSI®) with a flow-through cell throughout the purging process to monitor temperature, hydrogen ion concentration (pH), conductivity, oxidation-reduction potential (ORP) until stabilized within for three consecutive readings within the following ranges:

- pH within 0.1 pH.
- Temperature within 0.2 degrees Celsius.
- Conductivity within 3 percent (%) microSiemens per centimeter (µS/cm).
- ORP within 10 mV.
- DO within 10% mg/L.

Once stabilization of these parameters occurred, the YSI® was disconnected, and the laboratory containers were directly filled from the tubing. Table 2 presents the water quality parameters readings that were recorded prior to groundwater sampling. The low-flow sampling logs with recorded readings and general observations (color, odor, etc.) are provided in Attachment 3.

The groundwater samples were collected and delivered under standard chain-of-custody (CoC) procedures to SGS North America Inc. (SGS), an ADEC-approved laboratory, located in Anchorage, AK. SGS analyzed the groundwater samples for the following:

- Gasoline-range organics (GRO) by method AK101
- Diesel-range organics (DRO) and Residual-range organics (RRO) by method AK102/AK103
- Volatile organic compounds (VOCs) by method SW8260D
- Polycyclic aromatic hydrocarbons (PAHs) by method SW8270D Selected Ion Monitoring (SIM)

5.0 SURFACE WATER EVALUATION AND SAMPLING

Weston assessed the banks and immediate areas along Eskimo Creek to identify any petroleum sheen or seeps, signs of stressed vegetation, or surface soil staining. The banks were covered with green grasses, shrubs, and trees, showing no evidence of stress (discoloration, bare spots, etc.). The water varied in depth from 0.5 to 2.5 ft deep with no areas of stagnant water. Metal debris, abandoned drums, and general trash were observed on the bank of Eskimo Creek and the hillside between Eskimo Creek and the Eddie's Fireside Inn property. No seeps were observed from the banks of the creek nor was any olfactory evidence or visual observation of a petroleum sheen on the surface water.

Surface water samples (SW-1, SW-2, and SW-3) were collected from the approximate locations sampled by Shannon & Wilson in 2014 and 2017 and by Weston in 2019. The locations were downgradient of the free-phase product interceptor trench and were on the east bank of Eskimo Creek. SW-1 and SW-2 were collected at the approximate locations of seeps formerly observed emanating from the creek bank. SW-3 is located at the downstream end of the product interceptor trench. Water quality parameters from the stream were recorded prior to collecting each sample. Surface water samples were collected by submerging a clean glass container, facing the opening downstream, and then pouring the collected water into laboratory containers.

Table 2 presents the water quality parameters recorded at each surface water sampling location. The surface water collection forms with general observations (color, odor, etc.) and photographs are provided in Attachments 3 and 4, respectively.

The samples were delivered under standard CoC procedures to SGS for the following laboratory analysis:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) by method SW8260D
- PAHs by method SW8270D SIM

6.0 LNAPL COLLECTION

During the 2019 monitoring activities, absorbents were placed in MP1 and MW-3 due to LNAPL presence and were already present in Sump 1 and Sump 2. LNAPL was not detected in any of the monitoring locations during the 2021 activities. Weston removed the absorbents in MP1 and Sump 2 for disposal and replaced them with new ones. The absorbent in Sump 1 was not product saturated and, therefore, left in place. The absorbent and groundwater at MW-3 did not appear to have LNAPL or presence of a petroleum sheen as observed in 2019. A groundwater sample was collected, and a new absorbent was placed in MW-3.

7.0 INVESTIGATION-DERIVED WASTE

Investigation-derived waste (IDW) generated during the field effort consisted of purge water and disposable sampling equipment. Purge water was filtered through a granular-activated carbon (GAC) filtration system and discharged to the ground surface no less than 100 ft from any residential structure or surface water body on-site. Disposable sampling equipment was placed in bags for proper disposal at the Borough Landfill located in Naknek, AK. The spent absorbent booms that were removed from MP1 and Sump 1 were properly containerized and transported Environmental Compliance Consultants in Anchorage, Alaska for disposal. .

8.0 2021 ANALYTICAL RESULTS

Analytical results of groundwater samples were compared to ADEC 18 AAC 75 Table C Groundwater Cleanup Levels, Human Health Criteria (ADEC, 2021). Surface water samples were compared to Water Quality Standards in 18 AAC 70 (ADEC, 2020). Tables 3 and 4 present the validated analytical results for the groundwater and surface water samples, respectively, compared to their associated ADEC criteria. Exceedances for each sample location are also presented on Figure 4. The complete laboratory analytical package, ADEC Checklist, and Quality Assurance Review (QAR) Memo are provided in Attachment 5.

Groundwater Analytical Results

Petroleum Hydrocarbons

GRO was not reported in any of the samples with concentrations that exceed the ADEC criterion of 2.2 milligrams per liter (mg/L). GRO was reported with detectable concentrations in MW-1 (1.33 mg/L), MW-3 (0.0666 mg/L), and MP3 (0.0421 mg/L). GRO concentration in MW-4 was reported as non-detect at the laboratory limit of detection (LOD).

Concentrations of DRO that exceed the ADEC criterion of 1.5 mg/L were detected in MW-1 (4.94 mg/L) and MP3 (42.3 mg/L). The DRO concentrations reported in MW-3 (0.739 mg/L) and MW-4 (0.440 mg/L) were below the ADEC criterion.

RRO was detected in MP3 with a reported concentration of 3.73 mg/L, which exceeds the ADEC criterion of 1.1 mg/L. RRO was detected in MW-1 (0.531 mg/L) and MW-4 (0.214 mg/L) with reported concentrations below the ADEC criterion and as non-detect in MW-3.

Volatile Organic Compounds

VOCs 1,2,4-Trimethylbenzene (265 micrograms per liter [µg/L]), 1,3,5-Trimethylbenzene (90.6 µg/L), benzene (20.2 µg/L), ethylbenzene (94 µg/L), total xylenes (229 µg/L) were detected in MW-1 (duplicate MW-7) at concentrations that exceed their ADEC criterions: 56 µg/L, 60 µg/L, 4.6 µg/L, 15 µg/L, and 190 µg/L, respectively. Naphthalene was reported in MW-1 (386 µg/L), MW-3 (11 µg/L), and MP3 (1.81 µg/L), with concentrations that exceed the ADEC criterion of 1.7 µg/L. In MW-4, these compounds were either detected at concentrations below ADEC criteria or were reported as non-detect at the laboratory LOD.

Polycyclic Aromatic Hydrocarbons

PAHs 1-Methylnaphthalene (68.4 µg/L), 2-Methylnaphthalene (83.2 µg/L), and Naphthalene (156 µg/L) were detected in MW-1 at concentrations that exceed their ADEC criterions: 11 µg/L, 36 µg/L, and 1.7 µg/L, respectively.

Remaining VOCs and PAHs were either detected at concentrations below their respective ADEC criterions or were reported as non-detect at the laboratory LOD, as shown in Table 3

Surface Water Analytical Results

Total Aromatic Hydrocarbons

Concentrations of total aromatic hydrocarbons (TAH) (i.e., the sum of BTEX) that were calculated for samples SW-1 (2.75 µg/L), SW-2 (2.75 µg/L), and SW-3 (2.75 µg/L) fall below the Alaska Water Quality Standards (AWQS) criterion of 10 µg/L. All BTEX constituents were reported as non-detect at the laboratory LODs, whose values were used according to ADEC summation requirements.

Total Aqueous Hydrocarbons

Concentrations of total aqueous hydrocarbons (TAqH) (i.e., the sum of BTEX and PAH) that were calculated for SW-1 (3.21 µg/L), SW-2 (3.19 µg/L), and SW-3 (3.21 µg/L) fall below the AWQS criterion of 15 µg/L. Phenanthrene was detected in SW-2 (0.0213 µg/L) and SW-3 (0.0284 µg/L) at concentrations below the ADEC criterion of 170 µg/L, and all other PAHs were reported as non-detect at the laboratory LODs. The LOD values were used according to ADEC summation requirements.

9.0 CONCLUSION

Analytical results and visual observations of the monitoring points indicate that petroleum contamination continues to impact groundwater at the site. DRO/RRO, VOCs, and PAH compounds exceeded ADEC criteria in groundwater samples collected from MW-1, MW-3, and MP3. A petroleum sheen was present on the groundwater in MW-5, MP1, MP4, Sump 1, and Sump 2. In review of historical data provided in Shannon & Wilson's Final Site Characterization Report (Shannon & Wilson, 2017) and in Weston's 2019 Site Characterization Groundwater Summary Report (Weston, 2020), the 2021 analytical results and observations have been generally consistent since 1999. DRO, benzene, ethylbenzene, total xylenes (total) have consistently been reported in MW-1, showing fluctuations and an overall decreasing trend. MW-5 is similar but was not sampled in 2019 and 2021 due presence of a petroleum sheen. MW-3 fluctuates between having either a sheen, measurable LNAPL, and concentrations that exceed ADEC criteria. MP1 through MP4 fluctuate between being dry and containing either a sheen or measurable LNAPL and, consequently, are not able to be sampled consistently. LNAPL or petroleum sheens are typically present in Sump 1 and Sump 2. Historical DRO, RRO, GRO and BTEX results from 1999 through 2021 are presented in Table 5. The full suite of petroleum, VOC, and PAH results collected in 2019 and 2021 are presented in Table 6.

Weston personnel observed no sheen on the surface water or seeps that are present along the banks of Eskimo Creek. Analytical results from the three surface water samples collected from Eskimo Creek fall below ADEC Table C and AWQS criteria.

Data Gaps and Recommendations

Analytical samples from inferred upgradient well MW-4 (1999 through 2009, and 2021) and MW-6 (1999 through 2012) have been reported with petroleum compounds below ADEC criteria. At times, these wells have not been sampled due to insufficient water volume. Based on available information reviewed by Weston (Shannon & Wilson, 2014 and 2017), the groundwater plume has not been defined to the north and south. MW-2 has had reported concentrations below ADEC criteria since 1999, with the exception of RRO in 2002, and was decommissioned in 2014. Based on the inferred westward groundwater direction, MW-2 was likely not representative of conditions nearer to MW-1 and MW-3.

To fully understand the groundwater plume and subsurface conditions at the site and to develop a path toward site closure, Weston recommends the following activities:

- Conduct a site visit with ADEC in Spring/Summer 2022 to evaluate site conditions and features at Eddie's Fireplace Inn and the surrounding area.

- Perform a Mann-Kendall Statistical Analysis. Enough data sets (greater than eight) exist to conduct the statistical analysis on MW-1 and MW-5 to evaluate if the plume is stable, increasing, or decreasing.

- Conduct a limited site investigation to characterize the horizontal and vertical extent of soil contamination that remains at the site by field screening methods and visual observations for LNAPL, using a Geoprobe® direct push drill rig. Alternatively, new technology such as Optical Image Profiling and Fluorescence Detector equipment can be used with the Geoprobe® unit to determine the presence and thickness of LNAPL that may remain.

- Install four additional monitoring wells to bound the north and south boundaries of the plume and to ensure contaminants are not migrating towards the drinking water well.

- Investigate the base of the stream bank to evaluate soil conditions and pore water below the recovery trench, MP1 through MP4, Sump 1, and Sump 2, which continue to contain LNAPL or sheen on the groundwater.

- Survey all monitoring wells, well points and surface features (Eskimo Creek, bank, recovery trench) for horizontal and vertical coordinates.

By thoroughly understanding the subsurface and extent of contamination, Weston will evaluate various remedial options and assist ADEC in developing a path toward site closure. Weston appreciates the opportunity to support ADEC with this project. If you have questions or require additional information, please contact me at 907-343-2708 or martin.mylet@westonsolutions.com.

Sincerely,

Weston Solutions, Inc.

Martin Mylet
Weston Solutions, Inc.
Project Manager

10.0 REFERENCES

Alaska Department of Environmental Conservation (ADEC). 2017. Guidance on Developing Conceptual Site Models. January.

ADEC. 2019. *Field Sampling Guidance*. October.

ADEC. 2020. 18 AAC 70 Water Quality Standards. Amended 5 March.

ADEC. 2021. 18 AAC 75 Oil and Other Hazardous Substances Pollution Control. Amended 24 June.

Shannon & Wilson, Inc. (Shannon & Wilson). 2014. Final Free-Phase Product, Groundwater, and Surface Water Monitoring Eskimo Creek – Eddie's Fireplace Inn, King Salmon, Alaska. August.

Shannon & Wilson. 2017. Final Site Characterization, Eskimo Creek – Eddie's Fireplace Inn, King Salmon. Alaska, October.

Weston Solutions, Inc. (Weston). 2019. Work Plan for Eskimo Creek, Eddie's Fireplace Inn, King Salmon Alaska. August.

Weston. 2020. 2019 Site Characterization Summary Report Eskimo Creek – Eddie's Fireplace Inn. January.

SITE FIGURES

1. Site Location Map
2. Site Map
3. Groundwater Contour Map
4. Groundwater and Surface Water Analytical Results

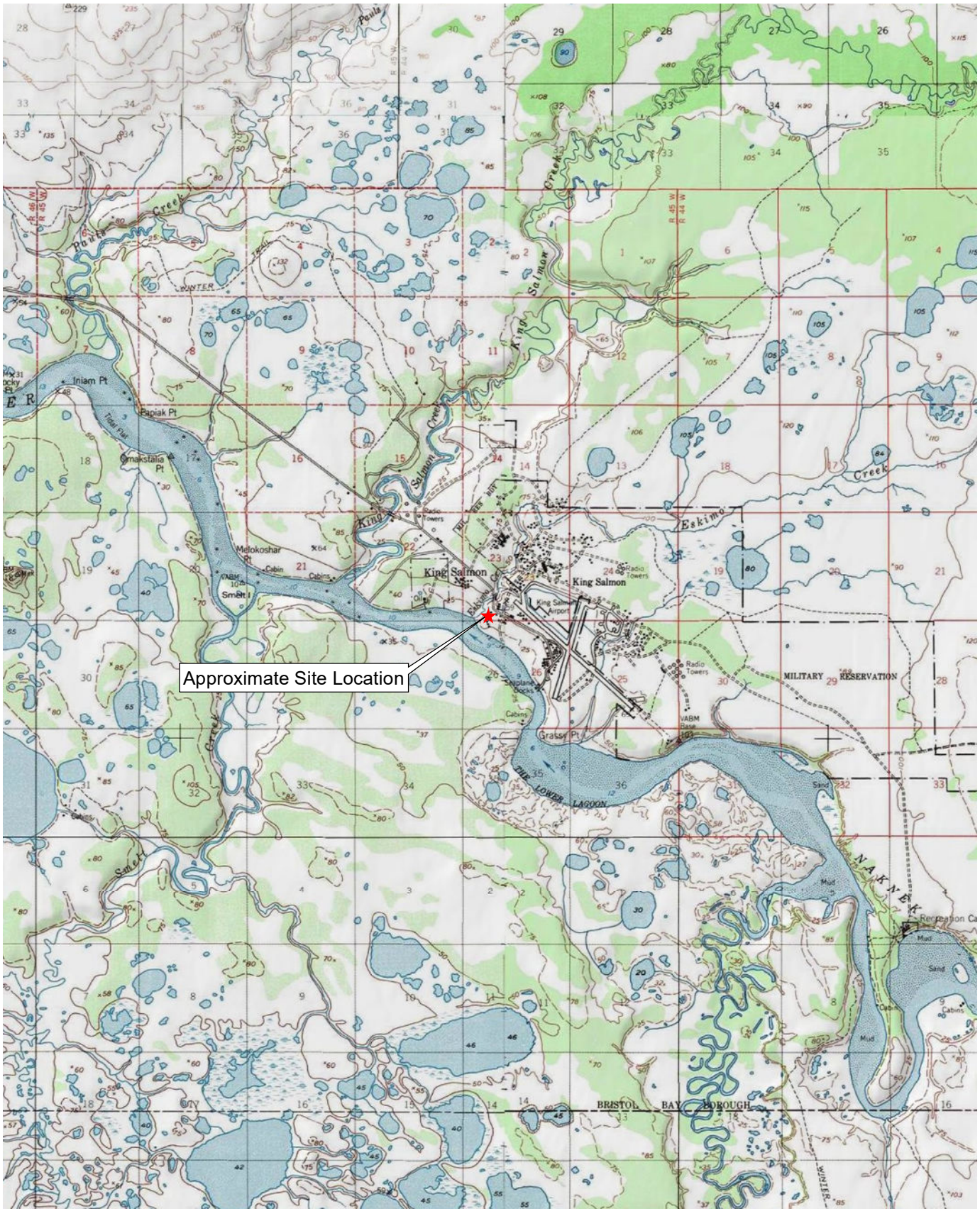
ANALYTICAL DATA TABLES

1. Monitoring Well, Well Point, and Sump Evaluation
2. Water Quality Parameters
3. Groundwater Analytical Results
4. Surface Water Analytical Results
5. Historical GRO, DRO, RRO, and BTEX Results
6. 2019 and 2021 Analytical Results

ATTACHMENTS

1. Field Notes
2. Photographic Log
3. Groundwater Sampling Forms
4. Surface Water Sampling Forms
5. Analytical Results, ADEC Data Review Checklists, and QAR Memo

SITE FIGURES



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WESTON SOLUTIONS

SITE LOCATION MAP

Eskimo Creek
Eddie's Fireplace Inn
King Salmon, Alaska

Figure
1

N

0 25 50 100 150

Feet

SITE MAP

Eskimo Creek
Eddie's Fireplace Inn
King Salmon, Alaska

Figure

2

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GROUNDWATER CONTOUR MAP

Eskimo Creek
Eddie's Fireplace Inn
King Salmon, Alaska

Figure

3

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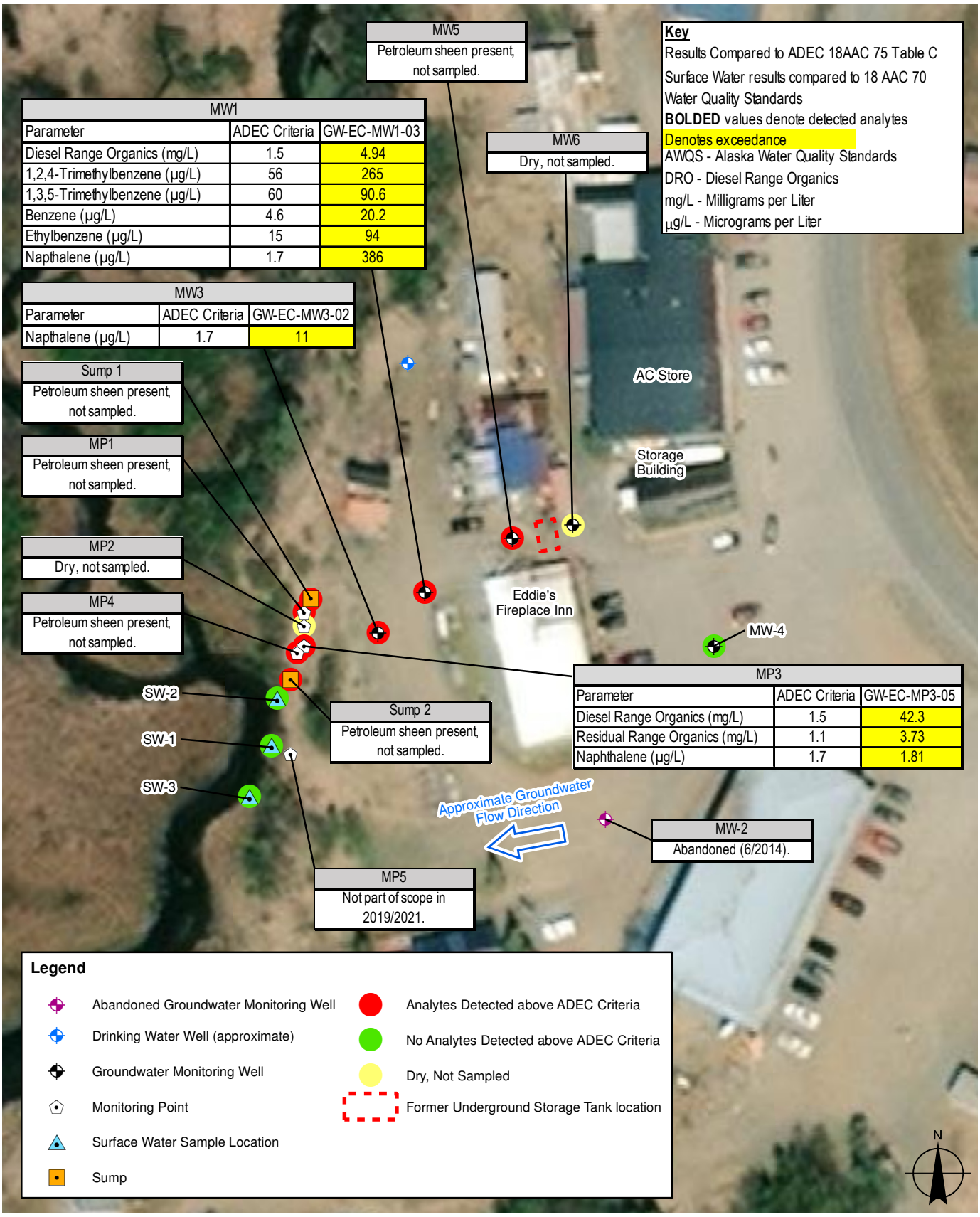

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WESTON SOLUTIONS

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GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS

Eskimo Creek
Eddie's Fireplace Inn
King Salmon, Alaska

Figure
4

ANALYTICAL DATA TABLES

TABLE 1
MONITORING WELL, WELL POINT, AND SUMP EVALUATION
2021 Site Characterization Summary Report
Eskimo Creek – Eddie's Fireplace Inn
King Salmon, Alaska

Monitoring Location	Time	Depth to Water (ft)	Depth to Bottom (ft)	Depth to Product (ft)	Thickness of Product (ft)	Elevation of MP (ft)[1]	Elevation of GW (ft)	Sample Collected?	Notes
MW-1	14:15	23.32	28.91	N/A	N/A	26.74	3.42	Yes	MW in good condition. Petroleum odor observed, no sheen present.
MW-3	16:11	22.79	27.95	N/A	N/A	25.95	3.16	Yes	MW in good condition. No petroleum sheen observed, but petroleum odor present. Abosorbent boom not saturated and reinstalled.
MW-4	16:26	24.88	28.27	N/A	N/A	28.56	3.68	Yes	MW in good condition. No petroleum odor or sheen observed.
MW-5	14:08	23.48	28.60	N/A	N/A	27.08	3.60	No	MW in good condition. Petroleum odor and sheen present.
MW-6	14:00	Dry	22.29	N/A	N/A	N/A	N/A	No	Well is dry. No petroleum odor observed. New well pad and protectiver cover installed 8/19/21.
MP1	14:49	8.30	9.05	8.82	N/A	N/A	N/A	No	MP in good condition. Petroleum odor and sheen present. Absorbant sock was saturated and replaced with new one.
MP2	14:43	Dry	8.73	N/A	N/A	N/A	N/A	No	MP in good condition. Dry with petorleum odor present. Replaced well cap and remarked measuring point on top of PVC.
MP3	14:38	8.99	9.44	N/A	N/A	N/A	N/A	Yes	MP in good condition. Petroleum odor present.
MP4	14:30	8.91	9.34	N/A	N/A	N/A	N/A	No	MP in good condition. Petroleum odor and sheen observed.
Sump 1	14:54	8.63	9.66	6.16	N/A	N/A	N/A	No	Petroleum odor and sheen observed. Existing absorbent was not saturated, left in place. New lock needed to secure lid.
Sump 2	14:23	8.34	9.40	N/A	N/A	N/A	N/A	No	Petroleum odor and sheen present. Absorbent boom was saturated and replaced with new one.

Notes:

[1] Monitoring well survey conducted by Shannon & Wilson, Inc. on 25 October 2012.

ft — feet

GW — groundwater

MP — monitoring point

MW — monitoring well

N/A — not applicable

PVC — polyvinyl chloride

TABLE 2
WATER QUALITY PARAMETERS
2021 Site Characterization Summary Report
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King Salmon, Alaska

Monitoring Location	Sample Date	Color	pH	Turbidity (NTU)	Temperature (°C)	Specific Conductance (µS/cm)	DO (mg/L)	ORP (mV)
Groundwater								
MW-1	7/22/2021	light brown	6.42	2.61	9.3	0.579	0.76	-10.3
MW-3	7/22/2021	clear	6.45	2.96	8.7	0.333	0.18	63.7
MW-4	7/22/2021	light brown	6.36	29.57	9.9	0.320	0.45	211.6
MW-5	--	--	--	--	--	--	--	--
MW-6	--	--	--	--	--	--	--	--
MP1	--	--	--	--	--	--	--	--
MP2	--	--	--	--	--	--	--	--
MP3	7/22/2021	clear	5.67	5.09	9.1	0.283.8	1.52	151
MP4	--	--	--	--	--	--	--	--
Sump 1	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
Surface Water								
SW-1	7/22/2021	brown	6.44	11.05	12.6	0.117	7.82	200
SW-2	7/22/2021	brown	5.69	7.9	12.9	0.192	10.01	217.2
SW-3	7/22/2021	clear	5.81	60.93	12.5	0.171	8.53	218.7

Notes:

Visible sheen present in MW-5, MP1, MP4, Sump 1, and Sump 2. MW-6 and MP2 were dry.

-- indicates no sample was collected.

°C ─ degrees Celsius

µS/cm — microSiemens per centimeter

DO — dissolved oxygen

mg/L — milligrams per liter

mV — millivolts

NTU — nephelometric turbidity units

ORP — oxidation-reduction potential

pH — hydrogen ion concentration

TABLE 3
GROUNDWATER ANALYTICAL RESULTS
2021 Site Characterization Summary Report
Eskimo Creek – Eddie's Fireplace Inn
King Salmon, Alaska

Location:	ADEC Groundwater Cleanup Levels[1]	MW-1		MW-3	MW-4	MP3
Sample ID:		GW-EC-MW1-03	GW-EC-MW7-04	GW-EC-MW3-02	GW-EC-MW4-01	GW-EC-MP3-05
Sample Date:		7/22/2021	7/22/2021	7/22/2021	7/22/2021	7/22/2021
Petroleum Hydrocarbons (mg/L)						
Gasoline-Range Organics	2.2	**1.33(J-S)**	**1.3(J-S)**	**0.0666 J**	0.0500 U	**0.0421 J**
Diesel-Range Organics	1.5	**4.94**	**4.71**	**0.739**	**0.440 J**	**42.3**
Residual-Range Organics	1.1	**0.431 J**	**0.531**	0.255 U	**0.214 J**	**3.73**
VOCs (µg/L)						
1,1,1,2-Tetrachloroethane	5.7	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U
1,1,1-Trichloroethane	8,000	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
1,1,2,2-Tetrachloroethane	0.76	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U
1,1,2-Trichloroethane	0.41	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
1,1-Dichloroethane	28	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
1,1-Dichloroethene	280	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
1,1-Dichloropropene	NP	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
1,2,3-Trichlorobenzene	7.0	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
1,2,3-Trichloropropane	0.0075	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
1,2,4-Trichlorobenzene	4.0	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
1,2,4-Trimethylbenzene	56	**265**	**264**	**3.87**	0.500 U	**1.41**
1,2-Dibromo-3-chloropropane	NP	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
1,2-Dibromoethane	0.075	0.0375 U	0.0375 U	0.0375 U	0.0375 U	0.0375 U
1,2-Dichlorobenzene	300	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
1,2-Dichloroethane	1.7	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U
1,2-Dichloropropane	4.4	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
1,3,5-Trimethylbenzene	60	**90.6**	**90.1**	**0.806 J**	0.500 U	**0.598 J**
1,3-Dichlorobenzene	300	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
1,3-Dichloropropane	NP	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U
1,4-Dichlorobenzene	4.8	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U
2,2-Dichloropropane	NP	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
2-Butanone (MEK)	5,600	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
2-Chlorotoluene	NP	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
2-Hexanone	38	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
4-Chlorotoluene	NP	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
4-Isopropyltoluene	NP	**8.97**	**12.8**	0.500 U	0.500 U	0.500 U
4-Methyl-2-pentanone (MIBK)	6,300	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Benzene	4.6	**20.2**	**20**	**0.763**	0.200 U	0.200 U
Bromobenzene	62	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Bromochloromethane	8.7	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Bromodichloromethane	1.3	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U
Bromoform	33	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Bromomethane	7.5	2.50 U	2.50 U	2.50 U	2.50 U	2.50 U
Carbon disulfide	810	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Carbon tetrachloride	4.6	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Chlorobenzene	78	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U
Chloroethane	21,000	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Chloroform	2.2	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Chloromethane	190	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Dibromochloromethane	8.7	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U
Dibromomethane	8.3	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Dichlorodifluoromethane	200	0.500 U	0.500 U	**0.323 J**	**0.480 J**	0.500 U
Ethylbenzene	15	**94.00**	**92.6**	**2.3**	0.500 U	**0.423 J**
Freon-113	55,000	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Hexachlorobutadiene	1.4	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Isopropylbenzene (Cumene)	450	**38.7**	**37.6**	**1.09**	0.500 U	0.500 U

TABLE 3
GROUNDWATER ANALYTICAL RESULTS
2021 Site Characterization Summary Report
Eskimo Creek – Eddie's Fireplace Inn
King Salmon, Alaska

Location:	ADEC Groundwater Cleanup Levels[1]	MW-1		MW-3	MW-4	MP3
Sample ID:		GW-EC-MW1-03	GW-EC-MW7-04	GW-EC-MW3-02	GW-EC-MW4-01	GW-EC-MP3-05
Sample Date:		7/22/2021	7/22/2021	7/22/2021	7/22/2021	7/22/2021
Methyl-t-butyl ether	140	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Methylene chloride	110	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Naphthalene	1.7	**385**	**386**	**11**	0.500 U	**1.81**
P & M -Xylene	NP	**147**	**148**	**2.86**	1.00 U	1.00 U
Styrene	1,200	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Tetrachloroethene	41	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Toluene	1,100	**0.388 J**	**0.380 J**	0.500 U	0.500 U	0.500 U
Trichloroethene	2.8	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Trichlorofluoromethane	5,200	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Vinyl acetate	410	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Vinyl chloride	0.19	0.0750 U	0.0750 U	0.0750 U	0.0750 U	0.0750 U
Xylenes (total)	190	**228**	**229**	**3.77**	1.50 U	1.50 U
cis-1,2-Dichloroethene	36	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
cis-1,3-Dichloropropene	4.7	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U
n-Butylbenzene	1,000	**12.6**	**11.8**	0.500 U	0.500 U	0.500 U
n-Propylbenzene	660	**66.6**	**66.6**	**1.31**	0.500 U	0.500 U
o-Xylene	NP	**81.5**	**80.9**	**0.904 J**	0.500 U	0.500 U
sec-Butylbenzene	2,000	**16**	**15.4**	**0.542 J**	0.500 U	0.500 U
tert-Butylbenzene	690	**1.56**	**1.53**	0.500 U	0.500 U	0.500 U
trans-1,2-Dichloroethene	360	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
trans-1,3-Dichloropropene	NP	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
PAHs (µg/L)						
1-Methylnaphthalene	11	**66**	**68.4**	**0.224**	0.0255 U	0.133 U(UJ-S)
2-Methylnaphthalene	36	**82.1**	**83.2**	0.0255 U	0.0255 U	0.133 U(UJ-S)
Acenaphthene	530	**0.581**	**0.644**	**0.0433 J**	0.0255 U	0.133 U(UJ-S)
Acenaphthylene	260	0.0255 U	0.0255 U	0.0255 U	0.0255 U	0.133 U(UJ-S)
Anthracene	43	0.0255 U	0.0255 U	0.0255 U	0.0255 U	0.133 U(UJ-S)
Benzo(a)Anthracene	0.3	0.0255 U(UJ-L)	0.0255 U(UJ-L)	0.0255 U(UJ-L)	0.0255 U(UJ-L)	0.133 U(UJ-L,S)
Benzo[a]pyrene	0.25	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0530 U(UJ-S)
Benzo[b]Fluoranthene	2.5	0.0255 U	0.0255 U	0.0255 U	0.0255 U	0.133 U(UJ-S)
Benzo[g,h,i]perylene	0.26	0.0255 U	0.0255 U	0.0255 U	0.0255 U	0.133 U(UJ-S)
Benzo[k]fluoranthene	0.8	0.0255 U	0.0255 U	0.0255 U	0.0255 U	0.133 U(UJ-S)
Chrysene	2	0.0255 U	0.0255 U	0.0255 U	0.0255 U	0.133 U(UJ-S)
Dibenzo[a,h]anthracene	0.25	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0530 U(UJ-S)
Fluoranthene	260	0.0255 U(UJ-L)	0.0255 U(UJ-L)	0.0255 U(UJ-L)	0.0255 U(UJ-L)	0.133 U(UJ-L,S)
Fluorene	290	**1.72(J-L)**	**1.88**	**0.0597**	0.0255 U	0.133 U(UJ-S)
Indeno[1,2,3-c,d] pyrene	0.19	0.0255 U	0.0255 U	0.0255 U	0.0255 U	0.133 U(UJ-S)
Naphthalene	1.7	**150**	**156**	**0.983**	0.0510 U	0.266 U(UJ-S)
Phenanthrene	170	**0.463**	**0.473**	**0.0157 J**	**0.0299 J**	0.133 U(UJ-S)
Pyrene	120	0.0255 U(UJ-L)	0.0255 U(UJ-L)	0.0255 U(UJ-L)	0.0255 U(UJ-L)	0.133 U(UJ-L,S)

Notes:

Bolded values denote detected analytes.

[1] ADEC 18 AAC 75 Table C Human Health Groundwater Criteria

Yellow shaded values denote an exceedance of ADEC Criteria.

J indicates analyte concentration is estimated.

U indicates analyte was not detected above the reporting limit.

(J-L) indicates detected result is considered estimated because the LCS recovery was below acceptance criteria.

(J-S) indicates positive result is considered estimated because surrogate recovery criteria was not met.

(UJ-L) indicates non-detected result is considered estimated because the LCS recovery was below acceptance criteria.

(UJ-S) indicates non-detected result is considered estimated because surrogate recovery criteria was not met.

µg/L ─ micrograms per liter

AAC — Alaska Administrative Code

ADEC — Alaska Department of Environmental Conservation

ID — identification

LCS — laboratory control sample

mg/L — milligrams per liter

PAH — polycyclic aromatic hydrocarbon

VOC — volatile organic compound

TABLE 4
SURFACE WATER ANALYTICAL RESULTS
2021 Site Characterization Summary Report
Eskimo Creek – Eddie's Fireplace Inn
King Salmon, Alaska

Location:	ADEC Groundwater Cleanup Levels[1]	SW-1	SW-2	SW-3
Sample ID:		SW-EC-SW1-02	SW-EC-SW2-01	SW-EC-SW3-03
COC ID:		SW1-07	SW2-06	SW3-08
Sample Date:		7/22/2021	7/22/2021	7/22/2021
BTEX (µg/L)				
Benzene	4.6	0.250 U	0.250 U	0.250 U
Ethylbenzene	15	0.500 U	0.500 U	0.500 U
P & M -Xylene	NP	1.00 U	1.00 U	1.00 U
Toluene	1,100	0.500 U	0.500 U	0.500 U
Xylenes (total)	190	1.50 U	1.50 U	1.50 U
o-Xylene	NP	0.500 U	0.500 U	0.500 U
PAHs (µg/L)				
1-Methylnaphthalene	11	0.0261 U	0.0255 U	0.0261 U
2-Methylnaphthalene	36	0.0261 U	0.0255 U	0.0261 U
Acenaphthene	530	0.0261 U	0.0255 U	0.0261 U
Acenaphthylene	260	0.0261 U	0.0255 U	0.0261 U
Anthracene	43	0.0261 U	0.0255 U	0.0261 U
Benzo(a)Anthracene	0.3	0.0261 U(UJ-L)	0.0255 U(UJ-L)	0.0261 U(UJ-L)
Benzo[a]pyrene	0.25	0.0104 U	0.0102 U	0.0104 U
Benzo[b]Fluoranthene	2.5	0.0261 U	0.0255 U	0.0261 U
Benzo[g,h,i]perylene	0.26	0.0261 U	0.0255 U	0.0261 U
Benzo[k]fluoranthene	0.8	0.0261 U	0.0255 U	0.0261 U
Chrysene	2	0.0261 U	0.0255 U	0.0261 U
Dibenzo[a,h]anthracene	0.25	0.0104 U	0.0102 U	0.0104 U
Fluoranthene	260	0.0261 U(UJ-L)	0.0255 U(UJ-L)	0.0261 U(UJ-L)
Fluorene	290	0.0261 U	0.0255 U	0.0261 U
Indeno[1,2,3-c,d] pyrene	0.19	0.0261 U	0.0255 U	0.0261 U
Naphthalene	1.7	0.0520 U	0.0510 U	0.0520 U
Phenanthrene	170	0.0261 U	**0.0213 J**	**0.0284 J**
Pyrene	120	0.0261 U(UJ-L)	0.0255 U(UJ-L)	0.0261 U(UJ-L)
Alaska Water Quality Standards (µg/L) [2]				
TAH	10	2.75	2.75	2.75
TAqH	15	3.21	3.19	3.21

Notes:

Bolded values denote detected analytes.

[1] ADEC 18 AAC 75 Table C

[2] 18 AAC 70 Water Quality

J indicates analyte concentration is estimated.

U indicates analyte was not detected above the re

(UJ-L) indicates non-detected result is considered estimated because the LCS recovery was below acceptance criteria.

µg/L — micrograms per liter

AAC — Alaska Administrative Code

ADEC — Alaska Department of Environmental Conservation

BTEX — benzene, toluene, ethylbenzene, and xylenes

COC — chain of custody

ID — identification

LCS — laboratory control sample

NP — not provided

PAH — polycyclic aromatic hydrocarbon

TAH — total aromatic hydrocarbons

TAqH — total aqueous hydrocarbons

TABLE 5
HISTORICAL GRO, DRO, RRO, AND BTEX RESULTS
2021 Site Characterization Summary Report
Eskimo Creek – Eddie's Fireplace Inn
King Salmon, Alaska

Monitoring Well	Date	Water Depth BTOC (Feet)	Target Analyte and Cleanup Level* (mg/L)						
			GRO 2.2	DRO 1.5	RRO 1.1	Benzene 0.0046	Toluene 1.1	Ethylbenzene 0.015	Xylenes 0.19
MW-1	6/26/1999	23.83	**3.7**	**6.4**	-	**0.10**	**0.14**	**0.16**	**0.720**
	10/8/2002	23.35	**1.41**	**9.99**	**1.15**	**0.0565**	**0.0178**	**0.0779**	**0.263**
	6/3/2003	24.03	**3.13**	**292**	**10.8**	**0.0194**	0.02	**0.111**	**0.499**
	10/1/2004	23.13	-	**36.0**	**2.22**	**0.0669**	**0.0133**	**0.0997**	**0.322**
	8/22/2006	22.72	-	**11.3**	0.5	**0.0642**	**0.0155**	**0.104**	**0.341**
	8/26/2009	23.58	**1.48**	**4.30**	0.446	**0.0417**	0.01	**0.0948**	**0.261**
	10/26/2012	22.54	**2.21**	**4.96**	**0.206 J**	**0.0677**	**0.00246**	**0.114**	**0.323**
	5/13/2014	23.93	**1.22 J**	**3.09**	0.500 B	**0.0556**	**0.000580 J**	**0.086**	**0.210**
	5/26/2017	24.06	**1.02 J**	**4.82**	0.236	**0.0193**	**0.0005**	**0.0688**	**0.129**
	8/28/2019	23.70	**1.12 J**	**2.45 J**	**0.361 J**	**0.0254**	**0.00069**	**0.0939**	**0.226**
	7/22/2021	23.32	**1.33**	**4.94**	**0.531**	**0.0202**	**0.000388**	**0.0940**	**0.229**
MW-2	6/26/1999	22.28	0.1	0.25	-	0.002	0.002	0.002	0.002
	10/8/2002	21.96	0.09	**0.650**	**1.35**	0.0005	0.002	0.002	0.004
	6/3/2003	22.41	0.09	0.313	0.521	**0.00052**	0.002	0.002	0.002
	10/1/2004	21.82	-	0.326	0.543	0.0004	0.001	0.001	0.002
	8/22/2006	21.10	-	0.3	0.5	0.0004	0.001	0.001	0.002
	8/26/2009	21.89	0.1	0.714	0.446	0.0004	0.01	0.001	0.002
	10/26/2012	20.46	**0.0415 J**	0.388	0.322	0.00024	0.00062	0.00062	0.00188
	6/11/2014	*Decommissioned*							
MW-3	6/26/1999	23.56	**3.7**	**6.0**	-	**0.074**	**0.180**	**0.17**	**0.730**
	10/8/2002	21.73	**0.635**	**1.24**	1	**0.0357**	**0.0167**	**0.0153**	**0.124**
	6/3/2003	23.65	0.09	**0.843**	**0.533**	**0.0048**	0.002	**0.00200**	**0.00398**
	10/1/2004	22.64	-	**3.00**	**0.910**	**0.0144**	**0.0138**	**0.0243**	**0.0896**
	8/22/2006	22.25	-	**1.46**	0.526	**0.0088**	**0.00554**	**0.0113**	**0.0543**
	8/26/2009	23.09	*Sample was not collected due to presence of free-phase product.*						
	10/26/2012	22.23	**0.0423 J**	**0.908**	0.3	0.000460	0.00062	**0.000430 J**	**0.000700 J**
	5/13/2014	*Not sampled*							
	5/26/2017	*Not sampled - 0.16 foot of product in well*							
	8/28/2019	23.24	*Not sampled - petroleum sheen and odor observed*						
	7/22/2021	22.79	**0.0666 J**	**0.739**	0.255	**0.000763**	0.0005	**0.0023**	**0.00377**
MW-4	6/26/1999	25.09	0.1	0.25	-	0.002	0.002	0.002	0.002
	10/8/2002	24.46	0.09	0.543	1.09	0.0005	0.002	0.002	0.002
	6/3/2003	25.20	0.09	0.3	0.5	0.0005	0.002	0.002	0.002
	10/1/2004	23.88	-	0.319	0.532	0.0004	0.001	0.001	0.002
	8/22/2006	20.46	-	0.3	0.5	0.0004	0.001	0.001	0.002
	8/26/2009	23.70	0.1	0.714	0.446	0.0004	0.01	0.001	0.002
	10/26/2012	*Well could not be accessed under frozen soil*							
	5/13/2014	*Not sampled*							
	5/26/2017	*Not sampled - Not enough water to sample*							
	8/28/2019	24.92	0.05	0.305	0.254	0.0002	0.0005	0.0005	0.0015
	7/22/2021	24.88	0.05	**0.440 J**	**0.214 J**	0.0002	0.0005	0.0005	0.0015

TABLE 5
HISTORICAL GRO, DRO, RRO, AND BTEX RESULTS
2021 Site Characterization Summary Report
Eskimo Creek – Eddie's Fireplace Inn
King Salmon, Alaska

Monitoring Well	Date	Water Depth BTOC (Feet)	Target Analyte and Cleanup Level* (mg/L)						
			GRO 2.2	DRO 1.5	RRO 1.1	Benzene 0.0046	Toluene 1.1	Ethylbenzene 0.015	Xylenes 0.19
MW-5	11/10/1999	23.61	**4.7**	**4.6**	-	**0.046**	**0.012**	**0.11**	**0.150**
	10/8/2002	23.51	**2.07**	**70.0**	**5.05**	**0.0793**	0.02	**0.0836**	**0.189**
	6/3/2003	24.11	**0.747**	**26.4**	**2.66**	**0.0182**	0.004	**0.0223**	**0.099**
	10/1/2004	23.33	-	**94.0**	**5.81**	**0.0283**	**0.00140**	**0.0542**	**0.0735**
	10/3/2006	22.78	**0.326**	**21.7**	**5.77**	**0.0166**	0.001	**0.0189**	**0.0207**
	8/26/2009	23.68	**0.453**	**33.7**	0.446	**0.0203**	0.01	**0.0253**	**0.0375**
	10/26/2012	22.56	**0.158**	**0.708**	0.3	**0.00597**	**0.00275**	**0.00810**	**0.0134**
	5/13/2014	23.96	**0.0991 J**	0.6	0.25	**0.00168**	0.0005	**0.00380**	0.003
	5/26/2017	24.14	**0.558 J**	**35.8**	0.236	**0.00321**	0.0005	**0.00212**	**0.00348**
	8/28/2019	23.76	*Not sampled - petroleum sheen and odor observed*						
	7/22/2021	23.48	*Not sampled - petroleum sheen and odor observed*						
MW-6	11/11/1999	24.55	0.1	0.27	-	0.002	0.002	0.002	0.002
	10/8/2002	24.67	0.09	0.581	**1.16**	0.0005	0.002	0.002	0.002
	6/3/2003	25.22	0.09	0.319	0.532	0.0005	0.002	0.002	0.002
	10/1/2004	24.61	-	0.326	0.543	0.0004	0.001	0.001	0.002
	8/22/2006	24.15	-	0.309	0.515	0.0004	0.001	0.001	0.002
	8/26/2009	25.90	0.1	0.714	0.446	0.0004	0.01	0.001	0.002
	10/26/2012	23.66	0.062	**0.366 J**	0.3	0.00024	0.00062	0.00062	0.00188
	5/13/2014	*Not Sampled*							
	5/26/2017	*Not sampled*							
	8/28/2019	Dry	*Not Sampled-dry*						
	7/22/2021	Dry	*Not Sampled-dry*						

Notes:

* Groundwater cleanup levels from Table C, 18 AAC 75.345 (June 2021).

Yellow highlight indicates reported concentration is greater than the cleanup level.

Bold indicates that analyte was detected.

- indicates that the sample was not analyzed for this parameter.

J indicates an estimated concentration less than the limit of quantitation.

BTOC – Below Top of Casing

DRO — diesel-range organics

GRO — gasoline-range organics

mg/L — Milligrams per liter

RRO — residual-range organics

TABLE 6
2019 AND 2021 ANALYTICAL RESULTS
2021 Site Characterization Summary Report
Eskimo Creek – Eddie's Fireplace Inn
King Salmon, Alaska

Location:	ADEC	MW-1				MW-3	MW-4		MP3	SW-1	SW-1	SW-2	SW-2	SW-3	SW-3
Sample ID:	Groundwater	GW-EC-MW1-03	GW-EC-MW7-04	GW-EC-MW1-03	GW-EC-MW7-04	GW-EC-MW3-02	GW-EC-MW4-01	GW-EC-MW4-01	GW-EC-MP3-05	SW-EC-SW1-02	SW-EC-SW1-02	SW-EC-SW2-03	SW-EC-SW2-01	SW-EC-SW3-01	SW-EC-SW3-03
Sample Date:	Cleanup Levels[1]	8/28/2019	8/28/2019	7/22/2021	7/22/2021	7/22/2021	8/28/2019	7/22/2021	7/22/2021	8/28/2019	7/22/2021	8/28/2019	7/22/2021	8/28/2019	7/22/2021
Petroleum Hydrocarbons (mg/L)															
Gasoline-Range Organics		**1.12 J**	**1.07 J**	**1.33**	**1.3**	**0.0666 J**	0.0500 U	0.0500 U	**0.0421 J**	--	--	--	--	--	--
Diesel-Range Organics	1.5	**2.45 J**	**1.79 J**	**4.94**	**4.71**	**0.739**	0.305 U	**0.440 J**	**42.3**	--	--	--	--	--	--
Residual-Range Organics	1.1	**0.361 J**	**0.196 J**	**0.431 J**	**0.531**	0.255 U	0.254 U	**0.214 J**	**3.73**	--	--	--	--	--	--
VOCs (µg/L)															
1,1,1,2-Tetrachloroethane	5.7	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	--	--	--	--	--	--
1,1,1-Trichloroethane	8,000	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	0.76	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	--	--	--	--	--	--
1,1,2-Trichloroethane	0.41	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	--	--	--	--	--	--
1,1-Dichloroethane	28	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
1,1-Dichloroethene	280	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
1,1-Dichloropropene	NP	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
1,2,3-Trichlorobenzene	7.0	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
1,2,3-Trichloropropane	0.0075	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
1,2,4-Trichlorobenzene	4.0	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
1,2,4-Trimethylbenzene	56	**233**	**220**	**265**	**264**	**3.87**	0.500 U	0.500 U	**1.41**	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	NP	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	--	--	--	--	--	--
1,2-Dibromoethane	0.075	0.0375 U	0.0375 U	0.0375 U	0.0375 U	0.0375 U	0.0375 U	0.0375 U	0.0375 U	--	--	--	--	--	--
1,2-Dichlorobenzene	300	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
1,2-Dichloroethane	1.7	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	--	--	--	--	--	--
1,2-Dichloropropane	4.4	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
1,3,5-Trimethylbenzene	60	**74**	**77.2**	90.6	90.1	**0.806 J**	0.500 U	0.500 U	**0.598 J**	--	--	--	--	--	--
1,3-Dichlorobenzene	300	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
1,3-Dichloropropane	NP	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	--	--	--	--	--	--
1,4-Dichlorobenzene	4.8	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	--	--	--	--	--	--
2,2-Dichloropropane	NP	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
2-Butanone (MEK)	5,600	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	--	--	--	--	--	--
2-Chlorotoluene	NP	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
2-Hexanone	38	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	--	--	--	--	--	--
4-Chlorotoluene	NP	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
4-Isopropyltoluene	NP	**31 J**	**10.6 J**	**8.97**	**12.8**	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
4-Methyl-2-pentanone (MIBK)	6,300	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	--	--	--	--	--	--
Benzene	4.6	**24.8**	**25.4**	**20.2**	**20**	**0.763**	0.200 U	0.200 U	0.200 U	0.200 U	0.250 U	0.200 U	0.250 U	0.200 U	0.250 U
Bromobenzene	62	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
Bromochloromethane	8.7	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
Bromodichloromethane	1.3	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	--	--	--	--	--	--
Bromoform	33	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
Bromomethane	7.5	2.50 U	2.50 U	2.50 U	2.50 U	2.50 U	2.50 U	2.50 U	2.50 U	--	--	--	--	--	--
Carbon disulfide	810	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	--	--	--	--	--	--
Carbon tetrachloride	4.6	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
Chlorobenzene	78	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	--	--	--	--	--	--
Chloroethane	21,000	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
Chloroform	2.2	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
Chloromethane	190	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
Dibromochloromethane	8.7	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	--	--	--	--	--	--
Dibromomethane	8.3	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
Dichlorodifluoromethane	200	**0.590 J**	**0.620 J**	0.500 U	0.500 U	**0.323 J**	**0.550 J**	**0.480 J**	0.500 U	--	--	--	--	--	--
Ethylbenzene	15	**87.0**	**93.9**	**94**	**92.6**	**2.3**	0.500 U	0.500 U	**0.423 J**	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Freon-113	55,000	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	--	--	--	--	--	--
Hexachlorobutadiene	1.4	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
Isopropylbenzene (Cumene)	450	**32.2**	**34.5**	**38.7**	**37.6**	**1.09**	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
Methyl-t-butyl ether	140	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	--	--	--	--	--	--
Methylene chloride	110	2.50 U	2.50 U	5.00 U	5.00 U	5.00 U	2.50 U	5.00 U	5.00 U	--	--	--	--	--	--
Naphthalene	1.7	**276**	**288**	**385**	**386**	**11**	0.500 U	0.500 U	**1.81**	--	--	--	--	--	--
P & M -Xylene	NP	**128**	**136**	**147**	**148**	**2.86**	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Styrene	1,200	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
Tetrachloroethene	41	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
Toluene	1,100	**0.690 J**	**0.620 J**	**0.388 J**	**0.380 J**	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Trichloroethene	2.8	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
Trichlorofluoromethane	5,200	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--

TABLE 6
2019 AND 2021 ANALYTICAL RESULTS
2021 Site Characterization Summary Report
Eskimo Creek – Eddie's Fireplace Inn
King Salmon, Alaska

Location:	ADEC	MW-1				MW-3	MW-4		MP3	SW-1	SW-1	SW-2	SW-2	SW-3	SW-3
Sample ID:	Groundwater	GW-EC-MW1-03	GW-EC-MW7-04	GW-EC-MW1-03	GW-EC-MW7-04	GW-EC-MW3-02	GW-EC-MW4-01	GW-EC-MW4-01	GW-EC-MP3-05	SW-EC-SW1-02	SW-EC-SW1-02	SW-EC-SW2-03	SW-EC-SW2-01	SW-EC-SW3-01	SW-EC-SW3-03
Sample Date:	Cleanup Levels[1]	8/28/2019	8/28/2019	7/22/2021	7/22/2021	7/22/2021	8/28/2019	7/22/2021	7/22/2021	8/28/2019	7/22/2021	8/28/2019	7/22/2021	8/28/2019	7/22/2021
Vinyl acetate	410	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	--	--	--	--	--	--
Vinyl chloride	0.19	0.0750 U	0.0750 U	0.0750 U	0.0750 U	0.0750 U	0.0750 U	0.0750 U	0.0750 U	--	--	--	--	--	--
Xylenes (total)	190	**212**	**226**	**228**	**229**	**3.77**	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U	1.50 U
cis-1,2-Dichloroethene	36	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
cis-1,3-Dichloropropene	4.7	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	--	--	--	--	--	--
n-Butylbenzene	1,000	**9.81**	**8.41**	**12.6**	**11.8**	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
n-Propylbenzene	660	**57.6**	**61.7**	**66.6**	**66.6**	**1.31**	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
o-Xylene	NP	**83.4**	**89.7**	**81.5**	**80.9**	**0.904 J**	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
sec-Butylbenzene	2,000	**14.2**	**14.7**	**16**	**15.4**	**0.542 J**	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
tert-Butylbenzene	690	0.500 U	0.500 U	**1.56**	**1.53**	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
trans-1,2-Dichloroethene	360	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
trans-1,3-Dichloropropene	NP	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--	--	--	--	--
PAHs (µg/L)															
1-Methylnaphthalene	11	**105**	**97.7**	**66**	**68.4**	**0.224**	0.0254 U	0.0255 U	0.133 U	0.0240 U	0.0261 U	**0.155**	0.0255 U	0.0245 U	0.0261 U
2-Methylnaphthalene	36	**136**	**123**	**82.1**	**83.2**	0.0255 U	0.0254 U	0.0255 U	0.133 U	0.0240 U	0.0261 U	0.0236 U	0.0255 U	0.0245 U	0.0261 U
Acenaphthene	530	**1.00**	**0.930**	**0.581**	**0.644**	**0.0433 J**	0.0254 U	0.0255 U	0.133 U	0.0240 U	0.0261 U	0.0236 U	0.0255 U	0.0245 U	0.0261 U
Acenaphthylene	260	0.0250 U	0.0245 U	0.0255 U	0.0255 U	0.0255 U	0.0254 U	0.0255 U	0.133 U	0.0240 U	0.0261 U	0.0236 U	0.0255 U	0.0245 U	0.0261 U
Anthracene	43	0.0250 U	0.0245 U	0.0255 U	0.0255 U	0.0255 U	0.0254 U	0.0255 U	0.133 U	0.0240 U	0.0261 U	0.0236 U	0.0255 U	0.0245 U	0.0261 U
Benzo(a)Anthracene	0.3	0.0250 U	0.0245 U	0.0255 U	0.0255 U	0.0255 U	0.0254 U	0.0255 U	0.133 U	0.0240 U	0.0261 U	0.0236 U	0.0255 U	0.0245 U	0.0261 U
Benzo[a]pyrene	0.25	0.0100 U	0.00980 U	0.0102 U	0.0102 U	0.0102 U	0.0101 U	0.0102 U	0.0530 U	0.00960 U	0.0104 U	0.00945 U	0.0102 U	0.00980 U	0.0104 U
Benzo[b]Fluoranthene	2.5	0.0250 U	0.0245 U	0.0255 U	0.0255 U	0.0255 U	0.0254 U	0.0255 U	0.133 U	0.0240 U	0.0261 U	0.0236 U	0.0255 U	0.0245 U	0.0261 U
Benzo[g,h,i]perylene	0.26	0.0250 U	0.0245 U	0.0255 U	0.0255 U	0.0255 U	0.0254 U	0.0255 U	0.133 U	0.0240 U	0.0261 U	0.0236 U	0.0255 U	0.0245 U	0.0261 U
Benzo[k]fluoranthene	0.8	0.0250 U	0.0245 U	0.0255 U	0.0255 U	0.0255 U	0.0254 U	0.0255 U	0.133 U	0.0240 U	0.0261 U	0.0236 U	0.0255 U	0.0245 U	0.0261 U
Chrysene	2	0.0250 U	0.0245 U	0.0255 U	0.0255 U	0.0255 U	0.0254 U	0.0255 U	0.133 U	0.0240 U	0.0261 U	0.0236 U	0.0255 U	0.0245 U	0.0261 U
Dibenzo[a,h]anthracene	0.25	0.0100 U	0.00980 U	0.0102 U	0.0102 U	0.0102 U	0.0101 U	0.0102 U	0.0530 U	0.00960 U	0.0104 U	0.00945 U	0.0102 U	0.00980 U	0.0104 U
Fluoranthene	260	0.0250 U	0.0245 U	0.0255 U	0.0255 U	0.0255 U	0.0254 U	0.0255 U	0.133 U	0.0240 U	0.0261 U	0.0236 U	0.0255 U	0.0245 U	0.0261 U
Fluorene	290	**3.03**	**2.81**	**1.72**	**1.88**	**0.0597**	0.0254 U	0.0255 U	0.133 U	0.0240 U	0.0261 U	0.0236 U	0.0255 U	0.0245 U	0.0261 U
Indeno[1,2,3-c,d] pyrene	0.19	0.0250 U	0.0245 U	0.0255 U	0.0255 U	0.0255 U	0.0254 U	0.0255 U	0.133 U	0.0240 U	0.0261 U	0.0236 U	0.0255 U	0.0245 U	0.0261 U
Naphthalene	1.7	**251**	**237**	**150**	**156**	**0.983**	0.0510 U	0.0510 U	0.266 U	**0.0377 J**	0.0520 U	**0.261**	0.0510 U	**0.0427 J**	0.0520 U
Phenanthrene	170	**0.741**	**0.678**	**0.463**	**0.473**	**0.0157 J**	0.0254 U	**0.0299 J**	0.133 U	0.0240 U	0.0261 U	0.0236 U	**0.0213 J**	0.0245 U	**0.0284 J**
Pyrene	120	0.0250 U	0.0245 U	0.0255 U	0.0255 U	0.0255 U	0.0254 U	0.0255 U	0.133 U	0.0240 U	0.0261 U	0.0236 U	0.0255 U	0.0245 U	0.0261 U

Notes:

[1] ADEC 18AAC 75 Table C Human Health Criteria

Bolded values denote detected analytes.

Shaded values denote exceedance.

J indicates analyte concentration is estimated.

U indicates analyte not detected above the reporting limit.

µg/L ─ micrograms per liter

ADEC — Alaska Department of Environmental Conservation

ID — identification

mg/L — milligrams per liter

PAH — polycyclic aromatic hydrocarbon

VOC — volatile organic compound

ATTACHMENT 1

FIELD NOTES

W. Shaw

7/21/2021 Eskimo Creek E. Hodges

0700 RAN Flight departs Anchorage for King Salmon

0830 Arrive in King Salmon, waiting for luggage

Wx| Overcast 53°F, Rain

0900 Head to EFI and Lodge on foot. Goldstreak has not arrived. 3 are luggage. Phones not compatible with GCI sim card (calls not possible). Obtain wifi at lodge.

0940 Email PM that we will be in contact at set times

0950 Head to Goldstreak for gear

1000 Informed Goldstreak will not arrive until after 11am and cargo will not be available for pick up until noon

1005 Locate 3W collection points. No sheen on water no seeps found. Located Sump 1 & 2, MPs 1-4, MW-1, MW-5, MW-6. Need metal detector for MW-3 and MW-4. Lots of debris near sumps and monitoring points

W. Shaw

7/21/21 Eskimo Creek E. Hodges

Terrain along bluff is very steep

1140 At airport waiting for cargo to ~~arrive~~ be available. Mike - owner of Eddie's Fireside Inn will not be available until 12:30pm.

1200 Pick up rental car. Cargo office not open to pick up equipment

1245 Cargo office open and able to get equipment. Using metal detector to locate MW-3 and MW-4 unsuccessful. Contact PM for swing ties.

Time	Well ID	DTW	DTB	DTP	Notes
1400	MW-6	DRY	22.29	—	Sandy well head deteriorated PVC, Unable to place well cap.
1408	MW-5	23.48	28.60	—	
1415	MW-1	23.32	28.91	—	
1423	Sump 2	8.34	9.40	—	
1430	MP4	9.91	9.34	—	
1436	MP3	8.99	9.44	—	MW-3 pulled

7/21/21 Eskimo Creek

Well notes:

MW-4 Sandy bottom. PVC is frost jacked, well cap will not fit with metal lid OA. Placed glove over it to prevent water form entering.

* Break note * high tide at 13:00 *

MW-5 Sandy bottom. Strong POL odor. Has well cap

MW-1 Hard bottom. Has well cap POL odor - moderate

Sump 2 Silty bottom, slight POL odor. Sheen seen. Absorbent not saturated

MP4 Moderate POL odor. Hard bottom. Remarked

MP3 Hard bottom. Remarked moderate POL odor

MP2 Hard bottom. Slight POL odor. well cap replaced (8")

MP1 Hard bottom. Strong POL odor socks to be replaced.

Sump 1 Very soft bottom. Absorbent has some visible product, but does appear saturated. Moderate POL odor

7/21/21 Eskimo Creek

Time	Well ID	DTW	DTB	DTP
1443	MP2	DRY	8.73	—
1449	MP1	8.30	9.05	—
1454	Sump 1	8.63	9.66	—

1520 Emailed PM 1 to about Sumps.

1553 located MW4, 48 feet from NE corner of Wells Fargo Building

1605 located MW3 marked with pin flag and cement block

* Break note * MW1 is located by the propane tank under a large rock.

Time	Well	ID	DTW	DTB	DTP
1611	MW3		22.79	27.95	—
1626	MW4		24.80	28.27	—

MW3 Soft bottom, Strong POL odor. Absorbent does appear saturated.

MW4 Hard bottom. no odor

7/21/21 Eskimo Creek

1645 Call PM discuss Change and plan of action

1730 Break for Dinner

1930 MW5 checked and found a Sheen. well will not be sampled - LO

1945 MW1 subtle sheen seen in water

2001 MW3 no sheen seen.

1923 MP4 sheen observed

1935 MP1 thin layer of product observed, but not a measurable amount

Replaced socks

1950 Sump 1 replaced absorbent sock

Bale note MP3 no sheen seen. Recharge undiscernable. will use bailer to sample

2010 Back at truck, GAC, purge water and place used socks in trash bag into drum

2020 Email PM results

2030 End of Day

7/22/2021 Eskimo Creek E. Hodges

WX: 50°F, Fog / heavy

0630 Team reads and responds to email from PM regarding the wells and points to sample. Team Clarifies items to PM

~~0700 Team~~

0730 team onsite will start at MW4

Bale note from 7/21/21 "Mike" at Eddie's Fireside Inn informs team that diggings occurred around MW1 and removed outter metal rings.

0735 Arrive at MW4 and start to set up equipment

0805 Start purge on MW4

Pump: SN 24729

Controller: SN U09359

YSI: SN 36614

Battery: BATG-20.003020

Probe: 3193; ~~Turbidity~~

Turbidity Meter: 20200837

0839 stop purge of MW4

0850 Collect GW-EC-MW4-01

7/22/2021 Eskimo Creek

0920 Set up on MW3. Remove sock

0930 ~~Start~~ Start purge on MW3

0958 End purge at MW3

1005 Collect GW-EC-MW3-02

1036 Start purge on MW1

1116 End purge on ~~MW3~~ MW1

1120 Collect GW-EC-MW1-03

1130 DUP GW-EC-MW7-04

W. Shaw start to pack equipment to take to Goldstreak and pull items needed for collecting MP3, SW1, SW2, SW3

1210 Head to Gold Streak and drop equipment and Dunny

1220 Wendy takes car back to rental place

1235 Wendy helps to load the equipment onto a pallet at Goldstreak and I do the paperwork inside

1300 Depart Goldstreak and check out of hotel

1327 arrive at MP3

1345 Collect GW-EC-MP3-05

7/22/21 Eskimo Creek

1350 Collect SW2 and photograph

~~1410 Collect SW1~~

~~1420~~ SW-EC-SW2-06

1410 Collect SW-EC-SW1-07

1420 Collect SW-EC-SW3-08

All surface water samples were taken at approximately the same location as previous years. Sample area was photographed for surface samples.

1440 Prep cooler with samples for travel

Store was out of ice, found some socheye feeding

1510 arrive at airport

☆ Back note ☆ There is no tubing in any of the wells. Need approximately 35 feet for each well. Monitoring Points do not have tubing need approximately 15 feet in each.

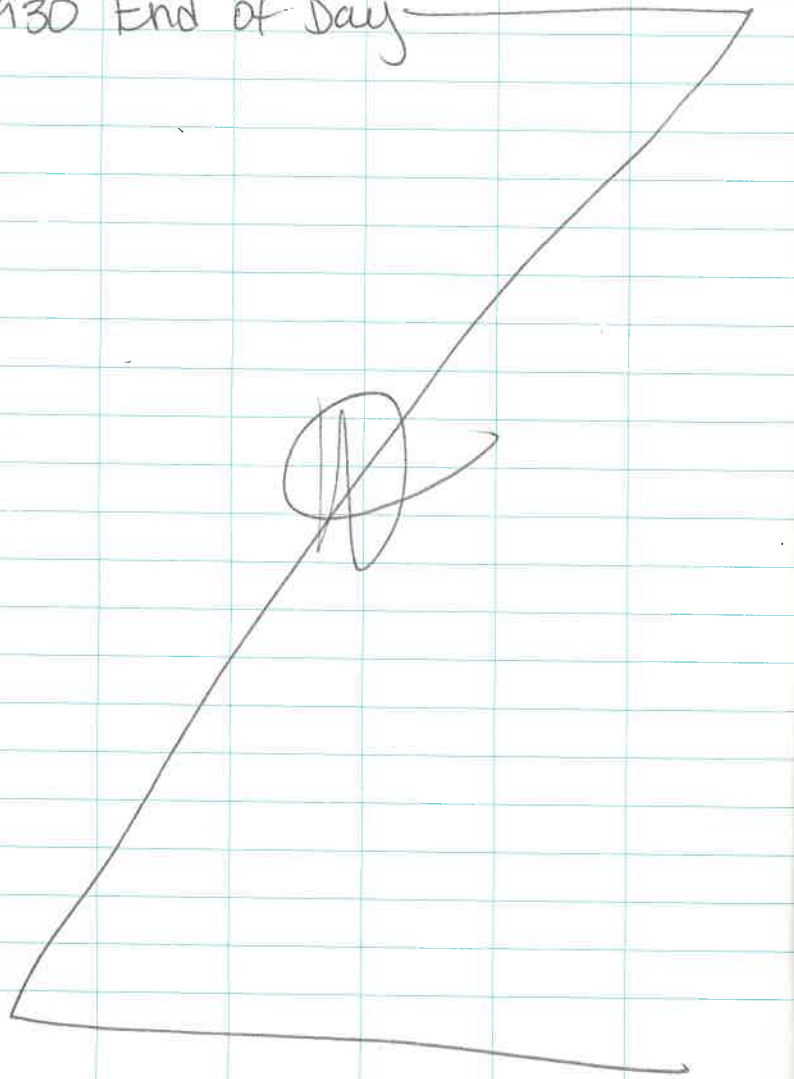
1720 Now ~~boarding~~ on board for ~~1600~~ flight scheduled to depart at 1600 hours.

7/22/21 Eskimo Creek

1830 Land in Anchorage

1900 Arrive home. Leave to buy ice for samples

1930 End of Day



ATTACHMENT 2

PHOTOGRAPHIC LOG

Photo 1. Sump 1 located at the northern end of the recovery trench. Sump 2 is of similar construction and is located at the southern end of the recovery trench. In both sumps a petroleum sheen was present on the groundwater and a petroleum odor was observed.

Photo 2. Monitoring Point (MP)1. MP2 through MP4 are of similar construction. MP1 and MP4 had a petroleum sheen on the groundwater and a petroleum odor was observed. MP2 was dry but a petroleum odor was observed.

Photo 3. Monitoring Well (MW)-4. MW-1, MW-3, MW-5, and MW-6 are of similar construction.

Photo 4. MW-5. Polyvinyl chloride (PVC) was cut down to accommodate frost jacking.

Photo 5. MW-6 after completion of repairs.

Photo 6. Eskimo Creek facing south, below recovery trench, where surface water samples were collected.

ATTACHMENT 3

GROUNDWATER SAMPLING FORMS

Groundwater Sampling Record

Project Name: Eddie's Fireplace Inn
Site Name: Eskimo Creek
Date/Time: 0740 7/22/2021

Well ID: MW4
Sample No.: GW-FEC-MW4-D1
Sampler(s): W. Shaw, E. Hodges
Weather: 50°F, Fog

Water Level Measurements and Purge Data

Time	Depth of Well (TOC)	Depth to Water (TOC)	Feet of Water in Well	Gallons per Well Volume (2" dia. = 0.163, 4" dia.=0.653, 3/4 " dia = 0.024 gal/ft)
0750	28.27	24.76	3.51	0.57 gal

Well Evacuation Method: ☑ Submersible Pump ☐ Bladder Pump ☐ Bailer ☐ Other _____

Purge Rate: 200 mL/min
Begin Purge: 0805
End Purge: 0839
Total Volume Purged: 1.15 gal
Well Volumes Purged: 2.02
Purge Water Disposed: ☐ 55-gal steel drum onsite Other: ☑ GAC onsite

Sample Collection Method & Analysis

Sample Time: 0850
Sample Description (color, turbidity, odor, sheen, etc.): no sheen, no odor. Slightly brown

Analytical Analysis

- ☑ GRO
- ☑ DRO/RRO
- ☐ BTEX
- ☑ VOCs
- ☑ PAHs

☐ Other Analyses (List Below)

GRO - AK101
DRO/RRO - AK102/103 (Low Volume)
VOCs - SW8260C
PAH - 8270D SIM (Low Volume)

Sample Duplicate and MS/MSD

☐ MS/MSD
☐ Duplicate ID _____

Notes: water slightly brown in color. No POL odor or sheen observed
pump set @ 25.5 feet

Sampler Signature: _____

Date: 7/22/2021 Well ID: MW 4

Well Evacuation / Field Parameters

Time	Depth to Water (TOC)	Volume (gallons)	Temp (°C) (± 2°C)	Spec Cond ~~(mS~~/cm) (± 3%)	DO (mg/L) (± 10% or 0.2)	pH (± 0.1)	ORP (mV) (± 10)	Turbidity (NTU) (± 10% or ≤ 5)
08:05	24.79	0.2	8.7	343.3	0.63	6.02	224.5	171.7
08:10	24.81	0.3	8.7	338.4	0.51	6.16	220.3	123.0
08:15	24.82	0.5	9.0	330.3	0.43	6.25	216.8	92.78
08:20	24:79	0.6	9.2	325.5	0.55	6.28	216.0	68.46
08:25	24.80	0.7	9.5	321.8	0.46 ✓	6.29 ✓	215.2 ✓	53.33
0830	24.81	0.8	9.7	320.5	0.43	6.31	214.4	40.18
08:33	24.81	1.0	9.9	320.1	0.41	6.33	213.3	34.90
08:36	24.81	1.1	9.9	320.1	0.33	6.35	212.3	36.58
0839	24.81	1.15	9.9	320.1	0.45	6.36	211.0	29.57

Notes :

Specific conductivity is measured in µS/cm

Groundwater Sampling Record

Project Name: Eddie's Fireplace Inn
Site Name: Eskimo Creek
Date/Time: 7/22/2021 0920
Well ID: MW3
Sample No.: GW-EC-MW3-02
Sampler(s): W. Shaw, E. Hodges
Weather: 50°F Foggy, Cloudy

Water Level Measurements and Purge Data

Time	Depth of Well (TOC)	Depth to Water (TOC)	Feet of Water in Well	Gallons per Well Volume (2" dia. = 0.163, 4" dia.=0.653, 3/4 " dia = 0.024 gal/ft)
0927	27.95	22.70	5.25	0.86 gal

Well Evacuation Method: ☑ Submersible Pump ☐ Bladder Pump ☐ Bailer ☐ Other _____

Purge Rate: 275 mL/min

Begin Purge: 0930

End Purge: 0958

Total Volume Purged: 2.4 gal

Well Volumes Purged: 2.79

Purge Water Disposed: ☐ 55-gal steel drum onsite Other: ☑ GAC onsite

Sample Collection Method & Analysis

Sample Time: 1005

Sample Description (color, turbidity, odor, sheen, etc.): no sheen, no odor, clear

Analytical Analysis

☑ GRO
☑ DRO/RRO
☐ BTEX
☑ VOCs
☑ PAHs

☐ Other Analyses (List Below)

GRO - AK101
DRO/RRO - AK102/103 (Low Volume)
VOCs - SW8260C
PAH - 8270D SIM (Low Volume)

Sample Duplicate and MS/MSD

☐ MS/MSD

☐ Duplicate ID _____

Notes:

Pump set @ 24.0 feet

Sampler Signature: _____

Date: 7/22/2021 Well ID: MW3

Well Evacuation / Field Parameters

Time	Depth to Water (TOC)	Volume (gallons)	Temp (°C) (± 2°C)	Spec Cond (mS/cm) (± 3%)	DO (mg/L) (± 10% or 0.2)	pH (± 0.1)	ORP (mV) (± 10)	Turbidity (NTU) (± 10% or ≤ 5)
0935	22.94	1.0	8.2	328.6	0.28	6.50	97.0	8.95
0940	23.0	1.3	8.5	327.3	0.23	6.44	88.6	6.41
0945	22.88	1.5	8.8	326.8	0.25	6.43	82.4	3.12
0950	22.88	1.8	8.7	328.2	0.21	6.44	76.3	4.42
0955	22.88	2.2	9.2	329.6	0.19	6.45	65.1	3.09
0958	22.88	2.4	8.7	333.7	0.18	6.45	63.7	2.96

Notes :

specific conductivity in µS/cm

Groundwater Sampling Record

Project Name: Eddie's Fireplace Inn
Site Name: Eskimo Creek
Date/Time: 7/27/2011 1028
Well ID: MW1
Sample No.: GW-EC-MW1-03
Sampler(s): W. Shelo, E. Hodges
Weather: 52°F, overcast

Water Level Measurements and Purge Data

Time	Depth of Well (TOC)	Depth to Water (TOC)	Feet of Water in Well (H)	Gallons per Well Volume (2" dia. = 0.163, 4" dia.=0.653, 3/4 " dia = 0.024 gal/ft)
1033	28.91	23.27	~~28.91~~ 5.64	0.92 gal

Well Evacuation Method: ☑ Submersible Pump ☐ Bladder Pump ☐ Bailer ☐ Other _____

Purge Rate: 250 mL/min
Begin Purge: 1036
End Purge: 1110
Total Volume Purged: 1.98 gal
Well Volumes Purged: 2.15

Purge Water Disposed: ☐ 55-gal steel drum onsite Other: ☑ GAC onsite

Sample Collection Method & Analysis

Sample Time: 1120
Sample Description (color, turbidity, odor, sheen, etc.): PID odor moderate/strong, very light sheen, very light brown

Analytical Analysis

- ☑ GRO
- ☑ DRO/RRO
- ☐ BTEX
- ☑ VOCs
- ☑ PAHs
- ☐ Other Analyses (List Below)

GRO - AK101
DRO/RRO - AK102/103 (Low Volume)
VOCs - SW8260C
PAH - 8270D SIM (Low Volume)

Sample Duplicate and MS/MSD

- ☐ MS/MSD
- ☑ Duplicate ID GW-EC-MW7-04 @ 1130

Notes:

pump set @ 24.0 feet

Sampler Signature: _____

Date: 7/22/2024 Well ID: MW1

Well Evacuation / Field Parameters

Time	Depth to Water (TOC)	Volume (gallons)	Temp (°C) (± 2°C)	Spec Cond µ (mS/cm) (± 3%)	DO (mg/L) (± 10% or 0.2)	pH (± 0.1)	ORP (mV) (± 10)	Turbidity (NTU) (± 10% or ≤ 5)
1040	23.39	0.26	8.9	630.7	4.38	6.48	-1.4	166.5
1045	23.42	0.52	9.0	607.4	2.08	6.47	-8.9	7.01
1050	23.39	0.80	9.1	600.7	1.60	6.44	-8.4	10.31
1055	23.39	1.0	9.1	595.8	1.20	6.43	-11.5	8.36
1100	23.41	1.3	8.7	592.3	0.92	6.44	-13.8	4.38
1105	23.38	1.6	9.0	586.9	0.78	6.45	-13.7	2.75
1110	23.36	1.98	9.3	579.1	0.71	6.42	-10.3	2.61

Notes :

3. Specific conductivity in µS/cm

Groundwater Sampling Record

Project Name: Eddie's Fireplace Inn
Site Name: Eskimo Creek
Date/Time: 7/22/21 1327

Well ID: MP3
Sample No.: GW-EC-MP3-05
Sampler(s): W. Shaw, E. Hodges
Weather: 53°F overcast

Water Level Measurements and Purge Data

Time	Depth of Well (TOC)	Depth to Water (TOC)	Feet of Water in Well	Gallons per Well Volume (2" dia. = 0.163, 4" dia.=0.653, 3/4 " dia = 0.024 gal/ft)
1330	9.44	8.99	0.45	1.17 gal

Well Evacuation Method: ☑ Submersible Pump ☐ Bladder Pump ☐ Bailer ☐ Other _____

Purge Rate: _____ mL/min

Begin Purge: _____ Total Volume Purged: _____ gal

End Purge: _____ Well Volumes Purged: _____

Purge Water Disposed: ☐ 55-gal steel drum onsite Other: ☑ GAC onsite

Sample Collection Method & Analysis

Sample Time: 1345

Sample Description (color, turbidity, odor, sheen, etc.): moderate PDL odor, no sheen Clear

Analytical Analysis

- ☑ GRO
- ☑ DRO/RRO
- ☐ BTEX
- ☑ VOCs
- ☑ PAHs

☐ Other Analyses (List Below)

GRO - AK101
DRO/RRO - AK102/103 (Low Volume)
VOCs - SW8260C
PAH - 8270D SIM (Low Volume)

Sample Duplicate and MS/MSD

☐ MS/MSD

☐ Duplicate ID _____

Notes:

Hand bailed due to very slow recharge and small amount of water. Diameter 8"

Sampler Signature: _____

Date: 7/22/21 Well ID: MP3

Well Evacuation / Field Parameters

Time	Depth to Water (TOC)	Volume (gallons)	Temp (°C) (± 2°C)	Spec Cond (µS/cm) (± 3%)	DO (mg/L) (± 10% or 0.2)	pH (± 0.1)	ORP (mV) (± 10)	Turbidity (NTU) (± 10% or ≤ 5)
1334	8.99	—	9.1	293.8	~~3.70~~ 1.52	5.67	151.0	~~5.09~~

Notes :

Spec. Cond in µS/cm

ATTACHMENT 4

SURFACE WATER SAMPLING FORMS

Surface Water Sampling Record

Project Name: Eddie's Fireplace Inn
Site Name: Eskimo Creek
Date/Time: 7/27/17 1340
Location ID: SW 2
Sample No.: SW-EC-SW2-06
Sampler(s): W Shaw, H Hodges
Weather: Cloudy 67°

Sample Collection Method & Analysis

Sample Type: ☒ Surface Water ☐ Seep ☐ Other:
Sample Time: 13:50
Sample Method: ☒ Grab ☐ Bailer ☐ Other: Grab
Decon Procedure: ☐ N/A ☒ Alconox Wash ☐ Tap Rinse ☐ DI Water ☒ Other: N/A
Sample Description (color, turbidity, odor, sheen, etc.): light brown no odor or sheen

Field Parameters

Time	Temp (°C)	Cond (µS/cm)	DO (mg/L)	pH	ORP (mV)	Color	Turbidity
13:44	12.6	117.1	7.82	6.44	208.0	light brown	11.05

Analytical Analysis

- ☐ GRO
- ☐ DRO
- ☑ BTEX
- ☐ VOCs
- ☑ PAHs
- ☐ Other Analyses (List Below)

BTEX - 8021B

PAH - 8270D SIM (Low Volume)

Sample Duplicate and MS/MSD

- ☐ MS/MSD
- ☐ Duplicate ID

Notes:

Sampler Signature:

Surface Water Sampling Record

Project Name: Eddie's Fireplace Inn
Location ID: SW 1
Site Name: Eskimo Creek
Sample No.: SW-EC-SW1-07
Date/Time: 7/22/2021 14:05
Sampler(s): L. Hodges W. Shaw
Weather: Cloudy, 67°

Sample Collection Method & Analysis

Sample Type: [X] Surface Water [ ] Seep [ ] Other:
Sample Time: 14:10
Sample Method: [X] Grab [ ] Bailer [ ] Other:
Decon Procedure: [ ] N/A [X] Alconox Wash [ ] Tap Rinse [ ] DI Water [X] Other: N/A
Sample Description (color, turbidity, odor, sheen, etc.): light brown, no odor or sheen

Field Parameters

Time	Temp (°C)	Cond (µS/cm)	DO (mg/L)	pH	ORP (mV)	Color	Turbidity
14:05	12.9	192.1	10.01	5.69	217.2	light brown	7.90

Analytical Analysis

[ ] GRO
[ ] DRO
[x] BTEX
[ ] VOCs
[x] PAHs

[ ] Other Analyses (List Below)

BTEX - 8021B
PAH - 8270D SIM (Low Volume)

Sample Duplicate and MS/MSD

[ ] MS/MSD
[ ] Duplicate ID

Notes:

Sampler Signature:

Surface Water Sampling Record

Project Name: Eddie's Fireplace Inn
Site Name: Eskimo Creek
Date/Time: 7/22/2021 1410
Location ID: SW3
Sample No.: SW-EC-SW3-08
Sampler(s): L. Hodys, W. Shu
Weather: Cloudy

Sample Collection Method & Analysis

Sample Type: [X] Surface Water [ ] Seep [ ] Other:
Sample Time: 1420
Sample Method: [X] Grab [ ] Bailer [ ] Other: N/A
Decon Procedure: [X] N/A [ ] Alconox Wash [ ] Tap Rinse [ ] DI Water [ ] Other:
Sample Description (color, turbidity, odor, sheen, etc.): Clear, No odor or Sheen

Field Parameters

Time	Temp (°C)	Cond (µS/cm)	DO (mg/L)	pH	ORP (mV)	Color	Turbidity
14:25	12.5	170.7	6.53	5.81	218.7	light brown	60.93

Analytical Analysis

[ ] GRO
[ ] DRO
[x] BTEX
[ ] VOCs
[x] PAHs

[ ] Other Analyses (List Below)

BTEX - 8021B

PAH - 8270D SIM (Low Volume)

Sample Duplicate and MS/MSD

[ ] MS/MSD
[ ] Duplicate ID

Notes:

Sampler Signature:

ATTACHMENT 5

ANALYTICAL RESULTS, ADEC DATA REVIEW CHECKLIST, AND QAR MEMO

Laboratory Report of Analysis

To: Weston Solutions
425 G. Street, Suite 300
Anchorage, AK 99501
(907)276-6610

Report Number: **1214525**

Client Project: **ADEC Eskimo Creek**

Dear Martin Mylet,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Justin at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

_____

Justin Nelson Date
Project Manager
Justin.Nelson@sgs.com

Case Narrative

SGS Client: **Weston Solutions**
SGS Project: **1214525**
Project Name/Site: **ADEC Eskimo Creek**
Project Contact: **Martin Mylet**

Refer to sample receipt form for information on sample condition.

GW-EC-MW4-01 (1214525001) PS

8270D SIM - PAH LCS recoveries for fluoranthene, benzo(a)anthracene and pyrene do not meet QC criteria. The sample was re-extracted outside of hold time to confirm results for these analytes. Results confirm and in-hold data is reported.

GW-EC-MW3-02 (1214525002) PS

8270D SIM - PAH LCS recoveries for fluoranthene, benzo(a)anthracene and pyrene do not meet QC criteria. The sample was re-extracted outside of hold time to confirm results for these analytes. Results confirm and in-hold data is reported.

GW-EC-MW1-03 (1214525003) PS

AK101 - Surrogate recovery for 4-bromofluorobenzene does not meet QC criteria, due to matrix interference.
8270D SIM - PAH LCS recoveries for fluoranthene, benzo(a)anthracene and pyrene do not meet QC criteria. The sample was re-extracted outside of hold time to confirm results for these analytes. Results confirm and in-hold data is reported.

GW-EC-MW7-04 (1214525004) PS

AK101 - Surrogate recovery for 4-bromofluorobenzene does not meet QC criteria, due to matrix interference.
8270D SIM - PAH LCS recoveries for fluoranthene, benzo(a)anthracene and pyrene do not meet QC criteria. The sample was re-extracted outside of hold time to confirm results for these analytes. Results confirm and in-hold data is reported.

GW-EC-MP3-05 (1214525005) PS

8270D SIM - PAH surrogate recovery for 2-methylnaphthalene-d10 does not meet QC criteria due to sample matrix interference.
8270D SIM - The PAH LOQs are elevated due to sample dilution. The sample was analyzed at a dilution due to matrix interference with internal standards.
8270D SIM - PAH LCS recoveries for fluoranthene, benzo(a)anthracene and pyrene do not meet QC criteria. The sample was re-extracted outside of hold time to confirm results for these analytes. Results confirm and in-hold data is reported.

SW-EC-SW2-06 (1214525006) PS

8270D SIM - PAH LCS recoveries for fluoranthene, benzo(a)anthracene and pyrene do not meet QC criteria. The sample was re-extracted outside of hold time to confirm results for these analytes. Results confirm and in-hold data is reported.

SW-EC-SW1-07 (1214525007) PS

8270D SIM - PAH LCS recoveries for fluoranthene, benzo(a)anthracene and pyrene do not meet QC criteria. The sample was re-extracted outside of hold time to confirm results for these analytes. Results confirm and in-hold data is reported.

SW-EC-SW3-08 (1214525008) PS

8270D SIM - PAH LCS recoveries for fluoranthene, benzo(a)anthracene and pyrene do not meet QC criteria. The sample was re-extracted outside of hold time to confirm results for these analytes. Results confirm and in-hold data is reported.

LCS for HBN 1823119 [XXX/45255 (1626177) LCS

8270D SIM - PAH LCS recoveries for fluoranthene, pyrene and benzo(a)anthracene do not meet QC criteria.

1214580004MS (1626178) MS

SGS North America Inc.
200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Case Narrative

SGS Client: **Weston Solutions**
SGS Project: **1214525**
Project Name/Site: **ADEC Eskimo Creek**
Project Contact: **Martin Mylet**

8270D SIM - PAH MS recoveries for fluoranthene, pyrene and benzo(a)anthracene do not meet QC criteria. These analytes are not detected in above the LOQ in the parent sample.

1214580004MSD (1626179) MSD

8270D SIM - PAH MSD recoveries for multiple analytes do not meet QC criteria. These analytes are not detected in above the LOQ in the parent sample.

*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.

Report of Manual Integrations

Laboratory ID	Client Sample ID	Analytical Batch	Analyte	Reason
SW8260D				
1214525003	GW-EC-MW1-03	VMS20988	4-Isopropyltoluene	SP
1214525003	GW-EC-MW1-03	VMS20988	n-Butylbenzene	SP
1214525004	GW-EC-MW7-04	VMS20988	4-Isopropyltoluene	SP
1214525004	GW-EC-MW7-04	VMS20988	n-Butylbenzene	SP

Manual Integration Reason Code Descriptions

Code	Description
O	Original Chromatogram
M	Modified Chromatogram
SS	Skimmed surrogate
BLG	Closed baseline gap
RP	Reassign peak name
PIR	Pattern integration required
IT	Included tail
SP	Split peak
RSP	Removed split peak
FPS	Forced peak start/stop
BLC	Baseline correction
PNF	Peak not found by software

All DRO/RRO analysis are integrated per SOP.

SGS North America Inc.
200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. The results apply to the samples as received. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indenmification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the context or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020B, 7470A, 7471B, 8015C, 8021B, 8082A, 8260D, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). SGS is only certified for the analytes listed on our Drinking Water Certification (DW methods: 200.8, 2130B, 2320B, 2510B, 300.0, 4500-CN-C,E, 4500-H-B, 4500-NO3-F, 4500-P-E and 524.2) and only those analytes will be reported to the State of Alaska for compliance. Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
TNTC	Too Numerous To Count
U	Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.

SGS North America Inc. 200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
GW-EC-MW4-01	1214525001	07/22/2021	07/23/2021	Water (Surface, Eff., Ground)
GW-EC-MW3-02	1214525002	07/22/2021	07/23/2021	Water (Surface, Eff., Ground)
GW-EC-MW1-03	1214525003	07/22/2021	07/23/2021	Water (Surface, Eff., Ground)
GW-EC-MW7-04	1214525004	07/22/2021	07/23/2021	Water (Surface, Eff., Ground)
GW-EC-MP3-05	1214525005	07/22/2021	07/23/2021	Water (Surface, Eff., Ground)
SW-EC-SW2-06	1214525006	07/22/2021	07/23/2021	Water (Surface, Eff., Ground)
SW-EC-SW1-07	1214525007	07/22/2021	07/23/2021	Water (Surface, Eff., Ground)
SW-EC-SW3-08	1214525008	07/22/2021	07/23/2021	Water (Surface, Eff., Ground)
TB01	1214525009	07/22/2021	07/23/2021	Water (Surface, Eff., Ground)
TB02	1214525010	07/22/2021	07/23/2021	Water (Surface, Eff., Ground)
TB03	1214525011	07/22/2021	07/23/2021	Water (Surface, Eff., Ground)

Method	Method Description
8270D SIM LV (PAH)	8270 PAH SIM GC/MS LV
SW8021B	BTEX 8021
AK102	DRO/RRO Low Volume Water
AK103	DRO/RRO Low Volume Water
AK101	Gasoline Range Organics (W)
SW8260D	Volatile Organic Compounds (W) FULL

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Detectable Results Summary

Client Sample ID: **GW-EC-MW4-01**
Lab Sample ID: 1214525001

	Parameter	Result	Units
Polynuclear Aromatics GC/MS	Phenanthrene	0.0299J	ug/L
Semivolatile Organic Fuels	Diesel Range Organics	0.440J	mg/L
	Residual Range Organics	0.214J	mg/L
Volatile GC/MS	Dichlorodifluoromethane	0.480J	ug/L

Client Sample ID: **GW-EC-MW3-02**
Lab Sample ID: 1214525002

	Parameter	Result	Units
Polynuclear Aromatics GC/MS	1-Methylnaphthalene	0.224	ug/L
	Acenaphthene	0.0433J	ug/L
	Fluorene	0.0597	ug/L
	Naphthalene	0.983	ug/L
	Phenanthrene	0.0157J	ug/L
Semivolatile Organic Fuels	Diesel Range Organics	0.739	mg/L
Volatile Fuels	Gasoline Range Organics	0.0666J	mg/L
Volatile GC/MS	1,2,4-Trimethylbenzene	3.87	ug/L
	1,3,5-Trimethylbenzene	0.806J	ug/L
	Benzene	0.763	ug/L
	Dichlorodifluoromethane	0.323J	ug/L
	Ethylbenzene	2.30	ug/L
	Isopropylbenzene (Cumene)	1.09	ug/L
	Naphthalene	11.0	ug/L
	n-Propylbenzene	1.31	ug/L
	o-Xylene	0.904J	ug/L
	P & M -Xylene	2.86	ug/L
	sec-Butylbenzene	0.542J	ug/L
	Xylenes (total)	3.77	ug/L

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Detectable Results Summary

Client Sample ID: **GW-EC-MW1-03**
Lab Sample ID: 1214525003

	Parameter	Result	Units
Polynuclear Aromatics GC/MS	1-Methylnaphthalene	66.0	ug/L
	2-Methylnaphthalene	82.1	ug/L
	Acenaphthene	0.581	ug/L
	Fluorene	1.72	ug/L
	Naphthalene	150	ug/L
	Phenanthrene	0.463	ug/L
Semivolatile Organic Fuels	Diesel Range Organics	4.94	mg/L
	Residual Range Organics	0.431J	mg/L
Volatile Fuels	Gasoline Range Organics	1.33	mg/L
Volatile GC/MS	1,2,4-Trimethylbenzene	265	ug/L
	1,3,5-Trimethylbenzene	90.6	ug/L
	4-Isopropyltoluene	8.97	ug/L
	Benzene	20.2	ug/L
	Ethylbenzene	94.0	ug/L
	Isopropylbenzene (Cumene)	38.7	ug/L
	Naphthalene	385	ug/L
	n-Butylbenzene	12.6	ug/L
	n-Propylbenzene	66.6	ug/L
	o-Xylene	81.5	ug/L
	P & M -Xylene	147	ug/L
	sec-Butylbenzene	16.0	ug/L
	tert-Butylbenzene	1.56	ug/L
	Toluene	0.388J	ug/L
	Xylenes (total)	228	ug/L

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Detectable Results Summary

Client Sample ID: **GW-EC-MW7-04**
Lab Sample ID: 1214525004

	Parameter	Result	Units
Polynuclear Aromatics GC/MS	1-Methylnaphthalene	68.4	ug/L
	2-Methylnaphthalene	83.2	ug/L
	Acenaphthene	0.644	ug/L
	Fluorene	1.88	ug/L
	Naphthalene	156	ug/L
	Phenanthrene	0.473	ug/L
Semivolatile Organic Fuels	Diesel Range Organics	4.71	mg/L
	Residual Range Organics	0.531	mg/L
Volatile Fuels	Gasoline Range Organics	1.30	mg/L
Volatile GC/MS	1,2,4-Trimethylbenzene	264	ug/L
	1,3,5-Trimethylbenzene	90.1	ug/L
	4-Isopropyltoluene	12.8	ug/L
	Benzene	20.0	ug/L
	Ethylbenzene	92.6	ug/L
	Isopropylbenzene (Cumene)	37.6	ug/L
	Naphthalene	386	ug/L
	n-Butylbenzene	11.8	ug/L
	n-Propylbenzene	66.6	ug/L
	o-Xylene	80.9	ug/L
	P & M -Xylene	148	ug/L
	sec-Butylbenzene	15.4	ug/L
	tert-Butylbenzene	1.53	ug/L
	Toluene	0.380J	ug/L
	Xylenes (total)	229	ug/L

Client Sample ID: **GW-EC-MP3-05**
Lab Sample ID: 1214525005

	Parameter	Result	Units
Semivolatile Organic Fuels	Diesel Range Organics	42.3	mg/L
	Residual Range Organics	3.73	mg/L
Volatile Fuels	Gasoline Range Organics	0.0421J	mg/L
Volatile GC/MS	1,2,4-Trimethylbenzene	1.41	ug/L
	1,3,5-Trimethylbenzene	0.598J	ug/L
	Ethylbenzene	0.423J	ug/L
	Naphthalene	1.81	ug/L

Client Sample ID: **SW-EC-SW2-06**
Lab Sample ID: 1214525006

	Parameter	Result	Units
Polynuclear Aromatics GC/MS	Phenanthrene	0.0213J	ug/L

Client Sample ID: **SW-EC-SW3-08**
Lab Sample ID: 1214525008

	Parameter	Result	Units
Polynuclear Aromatics GC/MS	Phenanthrene	0.0284J	ug/L

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Results of **GW-EC-MW4-01**

Client Sample ID: **GW-EC-MW4-01**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525001
Lab Project ID: 1214525

Collection Date: 07/22/21 08:50
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:35
2-Methylnaphthalene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:35
Acenaphthene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:35
Acenaphthylene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:35
Anthracene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:35
Benzo(a)Anthracene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:35
Benzo[a]pyrene	0.0102	U	0.0204	0.00633	ug/L	1		07/29/21 15:35
Benzo[b]Fluoranthene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:35
Benzo[g,h,i]perylene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:35
Benzo[k]fluoranthene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:35
Chrysene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:35
Dibenzo[a,h]anthracene	0.0102	U	0.0204	0.00633	ug/L	1		07/29/21 15:35
Fluoranthene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:35
Fluorene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:35
Indeno[1,2,3-c,d] pyrene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:35
Naphthalene	0.0510	U	0.102	0.0316	ug/L	1		07/29/21 15:35
Phenanthrene	0.0299	J	0.0510	0.0153	ug/L	1		07/29/21 15:35
Pyrene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:35
Surrogates								
2-Methylnaphthalene-d10 (surr)	69.2		42-86		%	1		07/29/21 15:35
Fluoranthene-d10 (surr)	69.8		50-97		%	1		07/29/21 15:35

Batch Information

Analytical Batch: XMS12798
Analytical Method: 8270D SIM LV (PAH)
Analyst: LAW
Analytical Date/Time: 07/29/21 15:35
Container ID: 1214525001-I

Prep Batch: XXX45255
Prep Method: SW3535A
Prep Date/Time: 07/28/21 10:30
Prep Initial Wt./Vol.: 245 mL
Prep Extract Vol: 1 mL

Print Date: 08/23/2021 8:33:55AM

J flagging is activated

Results of **GW-EC-MW4-01**

Client Sample ID: **GW-EC-MW4-01**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525001
Lab Project ID: 1214525

Collection Date: 07/22/21 08:50
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	0.440	J	0.638	0.191	mg/L	1		08/05/21 02:17
Surrogates								
5a Androstane (surr)	102		50-150		%	1		08/05/21 02:17

Batch Information

Analytical Batch: XFC16031
Analytical Method: AK102
Analyst: A.A
Analytical Date/Time: 08/05/21 02:17
Container ID: 1214525001-G

Prep Batch: XXX45275
Prep Method: SW3520C
Prep Date/Time: 07/30/21 14:58
Prep Initial Wt./Vol.: 235 mL
Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	0.214	J	0.532	0.160	mg/L	1		08/05/21 02:17
Surrogates								
n-Triacontane-d62 (surr)	112		50-150		%	1		08/05/21 02:17

Batch Information

Analytical Batch: XFC16031
Analytical Method: AK103
Analyst: A.A
Analytical Date/Time: 08/05/21 02:17
Container ID: 1214525001-G

Prep Batch: XXX45275
Prep Method: SW3520C
Prep Date/Time: 07/30/21 14:58
Prep Initial Wt./Vol.: 235 mL
Prep Extract Vol: 1 mL

Results of **GW-EC-MW4-01**

Client Sample ID: **GW-EC-MW4-01**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525001
Lab Project ID: 1214525

Collection Date: 07/22/21 08:50
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	0.0500	U	0.100	0.0310	mg/L	1		07/25/21 01:38
Surrogates								
4-Bromofluorobenzene (surr)	66.5		50-150		%	1		07/25/21 01:38

Batch Information

Analytical Batch: VFC15729
Analytical Method: AK101
Analyst: MDT
Analytical Date/Time: 07/25/21 01:38
Container ID: 1214525001-A

Prep Batch: VXX37491
Prep Method: SW5030B
Prep Date/Time: 07/24/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **GW-EC-MW4-01**

Client Sample ID: **GW-EC-MW4-01**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525001
Lab Project ID: 1214525

Collection Date: 07/22/21 08:50
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 18:48
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 18:48
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		07/29/21 18:48
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		07/29/21 18:48
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		07/29/21 18:48
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 18:48
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/29/21 18:48
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/29/21 18:48
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		07/29/21 18:48
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		07/29/21 18:48
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		07/29/21 18:48
Benzene	0.200	U	0.400	0.120	ug/L	1		07/29/21 18:48
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 18:48
Bromoform	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
Bromomethane	2.50	U	5.00	2.00	ug/L	1		07/29/21 18:48
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		07/29/21 18:48
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/29/21 18:48
Chloroethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:48

Results of **GW-EC-MW4-01**

Client Sample ID: **GW-EC-MW4-01**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525001
Lab Project ID: 1214525

Collection Date: 07/22/21 08:50
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
Chloromethane	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
cis-1,2-Dichloroethene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
cis-1,3-Dichloropropene	0.250 U		0.500	0.150	ug/L	1		07/29/21 18:48
Dibromochloromethane	0.250 U		0.500	0.150	ug/L	1		07/29/21 18:48
Dibromomethane	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
Dichlorodifluoromethane	0.480 J		1.00	0.310	ug/L	1		07/29/21 18:48
Ethylbenzene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
Freon-113	5.00 U		10.0	3.10	ug/L	1		07/29/21 18:48
Hexachlorobutadiene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
Isopropylbenzene (Cumene)	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
Methylene chloride	5.00 U		10.0	3.10	ug/L	1		07/29/21 18:48
Methyl-t-butyl ether	5.00 U		10.0	3.10	ug/L	1		07/29/21 18:48
Naphthalene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
n-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
n-Propylbenzene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
o-Xylene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
P & M -Xylene	1.00 U		2.00	0.620	ug/L	1		07/29/21 18:48
sec-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
Styrene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
tert-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
Tetrachloroethene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
Toluene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
trans-1,2-Dichloroethene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
trans-1,3-Dichloropropene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
Trichloroethene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
Trichlorofluoromethane	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:48
Vinyl acetate	5.00 U		10.0	3.10	ug/L	1		07/29/21 18:48
Vinyl chloride	0.0750 U		0.150	0.0500	ug/L	1		07/29/21 18:48
Xylenes (total)	1.50 U		3.00	1.00	ug/L	1		07/29/21 18:48
Surrogates								
1,2-Dichloroethane-D4 (surr)	101		81-118		%	1		07/29/21 18:48
4-Bromofluorobenzene (surr)	101		85-114		%	1		07/29/21 18:48
Toluene-d8 (surr)	99.3		89-112		%	1		07/29/21 18:48

Print Date: 08/23/2021 8:33:55AM

J flagging is activated

Results of **GW-EC-MW4-01**

Client Sample ID: **GW-EC-MW4-01**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525001
Lab Project ID: 1214525

Collection Date: 07/22/21 08:50
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS20988
Analytical Method: SW8260D
Analyst: JMG
Analytical Date/Time: 07/29/21 18:48
Container ID: 1214525001-D

Prep Batch: VXX37536
Prep Method: SW5030B
Prep Date/Time: 07/29/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **GW-EC-MW3-02**

Client Sample ID: **GW-EC-MW3-02**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525002
Lab Project ID: 1214525

Collection Date: 07/22/21 10:05
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	0.224		0.0510	0.0153	ug/L	1		07/29/21 15:56
2-Methylnaphthalene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:56
Acenaphthene	0.0433	J	0.0510	0.0153	ug/L	1		07/29/21 15:56
Acenaphthylene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:56
Anthracene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:56
Benzo(a)Anthracene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:56
Benzo[a]pyrene	0.0102	U	0.0204	0.00633	ug/L	1		07/29/21 15:56
Benzo[b]Fluoranthene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:56
Benzo[g,h,i]perylene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:56
Benzo[k]fluoranthene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:56
Chrysene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:56
Dibenzo[a,h]anthracene	0.0102	U	0.0204	0.00633	ug/L	1		07/29/21 15:56
Fluoranthene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:56
Fluorene	0.0597		0.0510	0.0153	ug/L	1		07/29/21 15:56
Indeno[1,2,3-c,d] pyrene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:56
Naphthalene	0.983		0.102	0.0316	ug/L	1		07/29/21 15:56
Phenanthrene	0.0157	J	0.0510	0.0153	ug/L	1		07/29/21 15:56
Pyrene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 15:56
Surrogates								
2-Methylnaphthalene-d10 (surr)	46.3		42-86		%	1		07/29/21 15:56
Fluoranthene-d10 (surr)	53.9		50-97		%	1		07/29/21 15:56

Batch Information

Analytical Batch: XMS12798
Analytical Method: 8270D SIM LV (PAH)
Analyst: LAW
Analytical Date/Time: 07/29/21 15:56
Container ID: 1214525002-I

Prep Batch: XXX45255
Prep Method: SW3535A
Prep Date/Time: 07/28/21 10:30
Prep Initial Wt./Vol.: 245 mL
Prep Extract Vol: 1 mL

Print Date: 08/23/2021 8:33:55AM

J flagging is activated

Results of **GW-EC-MW3-02**

Client Sample ID: **GW-EC-MW3-02**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525002
Lab Project ID: 1214525

Collection Date: 07/22/21 10:05
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	0.739		0.612	0.184	mg/L	1		08/05/21 02:26
Surrogates								
5a Androstane (surr)	92.2		50-150		%	1		08/05/21 02:26

Batch Information

Analytical Batch: XFC16031
Analytical Method: AK102
Analyst: A.A
Analytical Date/Time: 08/05/21 02:26
Container ID: 1214525002-G

Prep Batch: XXX45275
Prep Method: SW3520C
Prep Date/Time: 07/30/21 14:58
Prep Initial Wt./Vol.: 245 mL
Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	0.255 U		0.510	0.153	mg/L	1		08/05/21 02:26
Surrogates								
n-Triacontane-d62 (surr)	103		50-150		%	1		08/05/21 02:26

Batch Information

Analytical Batch: XFC16031
Analytical Method: AK103
Analyst: A.A
Analytical Date/Time: 08/05/21 02:26
Container ID: 1214525002-G

Prep Batch: XXX45275
Prep Method: SW3520C
Prep Date/Time: 07/30/21 14:58
Prep Initial Wt./Vol.: 245 mL
Prep Extract Vol: 1 mL

Results of **GW-EC-MW3-02**

Client Sample ID: **GW-EC-MW3-02**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525002
Lab Project ID: 1214525

Collection Date: 07/22/21 10:05
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	0.0666	J	0.100	0.0310	mg/L	1		07/25/21 01:56
Surrogates								
4-Bromofluorobenzene (surr)	75.5		50-150		%	1		07/25/21 01:56

Batch Information

Analytical Batch: VFC15729
Analytical Method: AK101
Analyst: MDT
Analytical Date/Time: 07/25/21 01:56
Container ID: 1214525002-A

Prep Batch: VXX37491
Prep Method: SW5030B
Prep Date/Time: 07/24/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Print Date: 08/23/2021 8:33:55AM

J flagging is activated

Results of **GW-EC-MW3-02**

Client Sample ID: **GW-EC-MW3-02**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525002
Lab Project ID: 1214525

Collection Date: 07/22/21 10:05
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 19:03
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 19:03
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		07/29/21 19:03
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
1,2,4-Trimethylbenzene	3.87		1.00	0.310	ug/L	1		07/29/21 19:03
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		07/29/21 19:03
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		07/29/21 19:03
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 19:03
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
1,3,5-Trimethylbenzene	0.806	J	1.00	0.310	ug/L	1		07/29/21 19:03
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/29/21 19:03
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/29/21 19:03
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		07/29/21 19:03
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		07/29/21 19:03
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		07/29/21 19:03
Benzene	0.763		0.400	0.120	ug/L	1		07/29/21 19:03
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 19:03
Bromoform	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
Bromomethane	2.50	U	5.00	2.00	ug/L	1		07/29/21 19:03
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		07/29/21 19:03
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/29/21 19:03
Chloroethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:03

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J flagging is activated

Results of **GW-EC-MW3-02**

Client Sample ID: **GW-EC-MW3-02**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525002
Lab Project ID: 1214525

Collection Date: 07/22/21 10:05
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500 U		1.00	0.310	ug/L	1		07/29/21 19:03
Chloromethane	0.500 U		1.00	0.310	ug/L	1		07/29/21 19:03
cis-1,2-Dichloroethene	0.500 U		1.00	0.310	ug/L	1		07/29/21 19:03
cis-1,3-Dichloropropene	0.250 U		0.500	0.150	ug/L	1		07/29/21 19:03
Dibromochloromethane	0.250 U		0.500	0.150	ug/L	1		07/29/21 19:03
Dibromomethane	0.500 U		1.00	0.310	ug/L	1		07/29/21 19:03
Dichlorodifluoromethane	0.323 J		1.00	0.310	ug/L	1		07/29/21 19:03
Ethylbenzene	2.30		1.00	0.310	ug/L	1		07/29/21 19:03
Freon-113	5.00 U		10.0	3.10	ug/L	1		07/29/21 19:03
Hexachlorobutadiene	0.500 U		1.00	0.310	ug/L	1		07/29/21 19:03
Isopropylbenzene (Cumene)	1.09		1.00	0.310	ug/L	1		07/29/21 19:03
Methylene chloride	5.00 U		10.0	3.10	ug/L	1		07/29/21 19:03
Methyl-t-butyl ether	5.00 U		10.0	3.10	ug/L	1		07/29/21 19:03
Naphthalene	11.0		1.00	0.310	ug/L	1		07/29/21 19:03
n-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		07/29/21 19:03
n-Propylbenzene	1.31		1.00	0.310	ug/L	1		07/29/21 19:03
o-Xylene	0.904 J		1.00	0.310	ug/L	1		07/29/21 19:03
P & M -Xylene	2.86		2.00	0.620	ug/L	1		07/29/21 19:03
sec-Butylbenzene	0.542 J		1.00	0.310	ug/L	1		07/29/21 19:03
Styrene	0.500 U		1.00	0.310	ug/L	1		07/29/21 19:03
tert-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		07/29/21 19:03
Tetrachloroethene	0.500 U		1.00	0.310	ug/L	1		07/29/21 19:03
Toluene	0.500 U		1.00	0.310	ug/L	1		07/29/21 19:03
trans-1,2-Dichloroethene	0.500 U		1.00	0.310	ug/L	1		07/29/21 19:03
trans-1,3-Dichloropropene	0.500 U		1.00	0.310	ug/L	1		07/29/21 19:03
Trichloroethene	0.500 U		1.00	0.310	ug/L	1		07/29/21 19:03
Trichlorofluoromethane	0.500 U		1.00	0.310	ug/L	1		07/29/21 19:03
Vinyl acetate	5.00 U		10.0	3.10	ug/L	1		07/29/21 19:03
Vinyl chloride	0.0750 U		0.150	0.0500	ug/L	1		07/29/21 19:03
Xylenes (total)	3.77		3.00	1.00	ug/L	1		07/29/21 19:03
Surrogates								
1,2-Dichloroethane-D4 (surr)	102		81-118		%	1		07/29/21 19:03
4-Bromofluorobenzene (surr)	98.8		85-114		%	1		07/29/21 19:03
Toluene-d8 (surr)	99.4		89-112		%	1		07/29/21 19:03

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J flagging is activated

Results of **GW-EC-MW3-02**

Client Sample ID: **GW-EC-MW3-02**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525002
Lab Project ID: 1214525

Collection Date: 07/22/21 10:05
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS20988
Analytical Method: SW8260D
Analyst: JMG
Analytical Date/Time: 07/29/21 19:03
Container ID: 1214525002-D

Prep Batch: VXX37536
Prep Method: SW5030B
Prep Date/Time: 07/29/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **GW-EC-MW1-03**

Client Sample ID: **GW-EC-MW1-03**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525003
Lab Project ID: 1214525

Collection Date: 07/22/21 11:20
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	66.0		1.02	0.306	ug/L	20		08/04/21 15:22
2-Methylnaphthalene	82.1		1.02	0.306	ug/L	20		08/04/21 15:22
Acenaphthene	0.581		0.0510	0.0153	ug/L	1		07/29/21 16:16
Acenaphthylene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:16
Anthracene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:16
Benzo(a)Anthracene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:16
Benzo[a]pyrene	0.0102	U	0.0204	0.00633	ug/L	1		07/29/21 16:16
Benzo[b]Fluoranthene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:16
Benzo[g,h,i]perylene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:16
Benzo[k]fluoranthene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:16
Chrysene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:16
Dibenzo[a,h]anthracene	0.0102	U	0.0204	0.00633	ug/L	1		07/29/21 16:16
Fluoranthene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:16
Fluorene	1.72		0.0510	0.0153	ug/L	1		07/29/21 16:16
Indeno[1,2,3-c,d] pyrene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:16
Naphthalene	150		2.04	0.633	ug/L	20		08/04/21 15:22
Phenanthrene	0.463		0.0510	0.0153	ug/L	1		07/29/21 16:16
Pyrene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:16
Surrogates								
2-Methylnaphthalene-d10 (surr)	46.2		42-86		%	1		07/29/21 16:16
Fluoranthene-d10 (surr)	50.6		50-97		%	1		07/29/21 16:16

Batch Information

Analytical Batch: XMS12799
Analytical Method: 8270D SIM LV (PAH)
Analyst: LAW
Analytical Date/Time: 08/04/21 15:22
Container ID: 1214525003-I

Prep Batch: XXX45255
Prep Method: SW3535A
Prep Date/Time: 07/28/21 10:30
Prep Initial Wt./Vol.: 245 mL
Prep Extract Vol: 1 mL

Analytical Batch: XMS12798
Analytical Method: 8270D SIM LV (PAH)
Analyst: LAW
Analytical Date/Time: 07/29/21 16:16
Container ID: 1214525003-I

Prep Batch: XXX45255
Prep Method: SW3535A
Prep Date/Time: 07/28/21 10:30
Prep Initial Wt./Vol.: 245 mL
Prep Extract Vol: 1 mL

Print Date: 08/23/2021 8:33:55AM

J flagging is activated

Results of **GW-EC-MW1-03**

Client Sample ID: **GW-EC-MW1-03**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525003
Lab Project ID: 1214525

Collection Date: 07/22/21 11:20
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	4.94		0.625	0.188	mg/L	1		08/05/21 02:36
Surrogates								
5a Androstane (surr)	104		50-150		%	1		08/05/21 02:36

Batch Information

Analytical Batch: XFC16031
Analytical Method: AK102
Analyst: A.A
Analytical Date/Time: 08/05/21 02:36
Container ID: 1214525003-G

Prep Batch: XXX45275
Prep Method: SW3520C
Prep Date/Time: 07/30/21 14:58
Prep Initial Wt./Vol.: 240 mL
Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	0.431	J	0.521	0.156	mg/L	1		08/05/21 02:36
Surrogates								
n-Triacontane-d62 (surr)	112		50-150		%	1		08/05/21 02:36

Batch Information

Analytical Batch: XFC16031
Analytical Method: AK103
Analyst: A.A
Analytical Date/Time: 08/05/21 02:36
Container ID: 1214525003-G

Prep Batch: XXX45275
Prep Method: SW3520C
Prep Date/Time: 07/30/21 14:58
Prep Initial Wt./Vol.: 240 mL
Prep Extract Vol: 1 mL

Results of **GW-EC-MW1-03**

Client Sample ID: **GW-EC-MW1-03**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525003
Lab Project ID: 1214525

Collection Date: 07/22/21 11:20
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	1.33		0.100	0.0310	mg/L	1		07/25/21 02:14
Surrogates								
4-Bromofluorobenzene (surr)	277	*	50-150		%	1		07/25/21 02:14

Batch Information

Analytical Batch: VFC15729
Analytical Method: AK101
Analyst: MDT
Analytical Date/Time: 07/25/21 02:14
Container ID: 1214525003-A

Prep Batch: VXX37491
Prep Method: SW5030B
Prep Date/Time: 07/24/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **GW-EC-MW1-03**

Client Sample ID: **GW-EC-MW1-03**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525003
Lab Project ID: 1214525

Collection Date: 07/22/21 11:20
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 19:17
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 19:17
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		07/29/21 19:17
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
1,2,4-Trimethylbenzene	265		10.0	3.10	ug/L	10		08/02/21 17:54
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		07/29/21 19:17
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		07/29/21 19:17
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 19:17
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
1,3,5-Trimethylbenzene	90.6		1.00	0.310	ug/L	1		07/29/21 19:17
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/29/21 19:17
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/29/21 19:17
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		07/29/21 19:17
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		07/29/21 19:17
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
4-Isopropyltoluene	8.97		1.00	0.310	ug/L	1		07/29/21 19:17
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		07/29/21 19:17
Benzene	20.2		0.400	0.120	ug/L	1		07/29/21 19:17
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 19:17
Bromoform	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
Bromomethane	2.50	U	5.00	2.00	ug/L	1		07/29/21 19:17
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		07/29/21 19:17
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/29/21 19:17
Chloroethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17

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J flagging is activated

Results of **GW-EC-MW1-03**

Client Sample ID: **GW-EC-MW1-03**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525003
Lab Project ID: 1214525

Collection Date: 07/22/21 11:20
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
Chloromethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		07/29/21 19:17
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 19:17
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
Ethylbenzene	94.0		1.00	0.310	ug/L	1		07/29/21 19:17
Freon-113	5.00	U	10.0	3.10	ug/L	1		07/29/21 19:17
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
Isopropylbenzene (Cumene)	38.7		1.00	0.310	ug/L	1		07/29/21 19:17
Methylene chloride	5.00	U	10.0	3.10	ug/L	1		07/29/21 19:17
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		07/29/21 19:17
Naphthalene	385		10.0	3.10	ug/L	10		08/02/21 17:54
n-Butylbenzene	12.6		1.00	0.310	ug/L	1		07/29/21 19:17
n-Propylbenzene	66.6		1.00	0.310	ug/L	1		07/29/21 19:17
o-Xylene	81.5		1.00	0.310	ug/L	1		07/29/21 19:17
P & M -Xylene	147		2.00	0.620	ug/L	1		07/29/21 19:17
sec-Butylbenzene	16.0		1.00	0.310	ug/L	1		07/29/21 19:17
Styrene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
tert-Butylbenzene	1.56		1.00	0.310	ug/L	1		07/29/21 19:17
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
Toluene	0.388	J	1.00	0.310	ug/L	1		07/29/21 19:17
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 19:17
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		07/29/21 19:17
Vinyl chloride	0.0750	U	0.150	0.0500	ug/L	1		07/29/21 19:17
Xylenes (total)	228		3.00	1.00	ug/L	1		07/29/21 19:17
Surrogates								
1,2-Dichloroethane-D4 (surr)	101		81-118		%	1		07/29/21 19:17
4-Bromofluorobenzene (surr)	98.9		85-114		%	1		07/29/21 19:17
Toluene-d8 (surr)	99		89-112		%	1		07/29/21 19:17

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J flagging is activated

Results of **GW-EC-MW1-03**

Client Sample ID: **GW-EC-MW1-03**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525003
Lab Project ID: 1214525

Collection Date: 07/22/21 11:20
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS21008
Analytical Method: SW8260D
Analyst: JMG
Analytical Date/Time: 08/02/21 17:54
Container ID: 1214525003-B

Prep Batch: VXX37567
Prep Method: SW5030B
Prep Date/Time: 08/02/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VMS20988
Analytical Method: SW8260D
Analyst: JMG
Analytical Date/Time: 07/29/21 19:17
Container ID: 1214525003-D

Prep Batch: VXX37536
Prep Method: SW5030B
Prep Date/Time: 07/29/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **GW-EC-MW7-04**

Client Sample ID: **GW-EC-MW7-04**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525004
Lab Project ID: 1214525

Collection Date: 07/22/21 11:30
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	68.4		1.02	0.306	ug/L	20		08/04/21 15:43
2-Methylnaphthalene	83.2		1.02	0.306	ug/L	20		08/04/21 15:43
Acenaphthene	0.644		0.0510	0.0153	ug/L	1		07/29/21 16:37
Acenaphthylene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:37
Anthracene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:37
Benzo(a)Anthracene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:37
Benzo[a]pyrene	0.0102	U	0.0204	0.00633	ug/L	1		07/29/21 16:37
Benzo[b]Fluoranthene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:37
Benzo[g,h,i]perylene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:37
Benzo[k]fluoranthene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:37
Chrysene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:37
Dibenzo[a,h]anthracene	0.0102	U	0.0204	0.00633	ug/L	1		07/29/21 16:37
Fluoranthene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:37
Fluorene	1.88		0.0510	0.0153	ug/L	1		07/29/21 16:37
Indeno[1,2,3-c,d] pyrene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:37
Naphthalene	156		2.04	0.633	ug/L	20		08/04/21 15:43
Phenanthrene	0.473		0.0510	0.0153	ug/L	1		07/29/21 16:37
Pyrene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 16:37
Surrogates								
2-Methylnaphthalene-d10 (surr)	46.9		42-86		%	1		07/29/21 16:37
Fluoranthene-d10 (surr)	52		50-97		%	1		07/29/21 16:37

Batch Information

Analytical Batch: XMS12799
Analytical Method: 8270D SIM LV (PAH)
Analyst: LAW
Analytical Date/Time: 08/04/21 15:43
Container ID: 1214525004-I

Prep Batch: XXX45255
Prep Method: SW3535A
Prep Date/Time: 07/28/21 10:30
Prep Initial Wt./Vol.: 245 mL
Prep Extract Vol: 1 mL

Analytical Batch: XMS12798
Analytical Method: 8270D SIM LV (PAH)
Analyst: LAW
Analytical Date/Time: 07/29/21 16:37
Container ID: 1214525004-I

Prep Batch: XXX45255
Prep Method: SW3535A
Prep Date/Time: 07/28/21 10:30
Prep Initial Wt./Vol.: 245 mL
Prep Extract Vol: 1 mL

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J flagging is activated

Results of **GW-EC-MW7-04**

Client Sample ID: **GW-EC-MW7-04**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525004
Lab Project ID: 1214525

Collection Date: 07/22/21 11:30
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	4.71		0.625	0.188	mg/L	1		08/05/21 02:46
Surrogates								
5a Androstane (surr)	99.7		50-150		%	1		08/05/21 02:46

Batch Information

Analytical Batch: XFC16031
Analytical Method: AK102
Analyst: A.A
Analytical Date/Time: 08/05/21 02:46
Container ID: 1214525004-G

Prep Batch: XXX45275
Prep Method: SW3520C
Prep Date/Time: 07/30/21 14:58
Prep Initial Wt./Vol.: 240 mL
Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	0.531		0.521	0.156	mg/L	1		08/05/21 02:46
Surrogates								
n-Triacontane-d62 (surr)	108		50-150		%	1		08/05/21 02:46

Batch Information

Analytical Batch: XFC16031
Analytical Method: AK103
Analyst: A.A
Analytical Date/Time: 08/05/21 02:46
Container ID: 1214525004-G

Prep Batch: XXX45275
Prep Method: SW3520C
Prep Date/Time: 07/30/21 14:58
Prep Initial Wt./Vol.: 240 mL
Prep Extract Vol: 1 mL

Results of **GW-EC-MW7-04**

Client Sample ID: **GW-EC-MW7-04**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525004
Lab Project ID: 1214525

Collection Date: 07/22/21 11:30
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	1.30		0.100	0.0310	mg/L	1		07/25/21 02:31
Surrogates								
4-Bromofluorobenzene (surr)	273	*	50-150		%	1		07/25/21 02:31

Batch Information

Analytical Batch: VFC15729
Analytical Method: AK101
Analyst: MDT
Analytical Date/Time: 07/25/21 02:31
Container ID: 1214525004-A

Prep Batch: VXX37491
Prep Method: SW5030B
Prep Date/Time: 07/24/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **GW-EC-MW7-04**

Client Sample ID: **GW-EC-MW7-04**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525004
Lab Project ID: 1214525

Collection Date: 07/22/21 11:30
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 20:02
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 20:02
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		07/29/21 20:02
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02
1,2,4-Trimethylbenzene	264		10.0	3.10	ug/L	10		08/02/21 18:09
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		07/29/21 20:02
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		07/29/21 20:02
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 20:02
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02
1,3,5-Trimethylbenzene	90.1		1.00	0.310	ug/L	1		07/29/21 20:02
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/29/21 20:02
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/29/21 20:02
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		07/29/21 20:02
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		07/29/21 20:02
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02
4-Isopropyltoluene	12.8		1.00	0.310	ug/L	1		07/29/21 20:02
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		07/29/21 20:02
Benzene	20.0		0.400	0.120	ug/L	1		07/29/21 20:02
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 20:02
Bromoform	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02
Bromomethane	2.50	U	5.00	2.00	ug/L	1		07/29/21 20:02
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		07/29/21 20:02
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/29/21 20:02
Chloroethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 20:02

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J flagging is activated

Results of **GW-EC-MW7-04**

Client Sample ID: **GW-EC-MW7-04**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525004
Lab Project ID: 1214525

Collection Date: 07/22/21 11:30
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500 U		1.00	0.310	ug/L	1		07/29/21 20:02
Chloromethane	0.500 U		1.00	0.310	ug/L	1		07/29/21 20:02
cis-1,2-Dichloroethene	0.500 U		1.00	0.310	ug/L	1		07/29/21 20:02
cis-1,3-Dichloropropene	0.250 U		0.500	0.150	ug/L	1		07/29/21 20:02
Dibromochloromethane	0.250 U		0.500	0.150	ug/L	1		07/29/21 20:02
Dibromomethane	0.500 U		1.00	0.310	ug/L	1		07/29/21 20:02
Dichlorodifluoromethane	0.500 U		1.00	0.310	ug/L	1		07/29/21 20:02
Ethylbenzene	92.6		1.00	0.310	ug/L	1		07/29/21 20:02
Freon-113	5.00 U		10.0	3.10	ug/L	1		07/29/21 20:02
Hexachlorobutadiene	0.500 U		1.00	0.310	ug/L	1		07/29/21 20:02
Isopropylbenzene (Cumene)	37.6		1.00	0.310	ug/L	1		07/29/21 20:02
Methylene chloride	5.00 U		10.0	3.10	ug/L	1		07/29/21 20:02
Methyl-t-butyl ether	5.00 U		10.0	3.10	ug/L	1		07/29/21 20:02
Naphthalene	386		10.0	3.10	ug/L	10		08/02/21 18:09
n-Butylbenzene	11.8		1.00	0.310	ug/L	1		07/29/21 20:02
n-Propylbenzene	66.6		1.00	0.310	ug/L	1		07/29/21 20:02
o-Xylene	80.9		1.00	0.310	ug/L	1		07/29/21 20:02
P & M -Xylene	148		2.00	0.620	ug/L	1		07/29/21 20:02
sec-Butylbenzene	15.4		1.00	0.310	ug/L	1		07/29/21 20:02
Styrene	0.500 U		1.00	0.310	ug/L	1		07/29/21 20:02
tert-Butylbenzene	1.53		1.00	0.310	ug/L	1		07/29/21 20:02
Tetrachloroethene	0.500 U		1.00	0.310	ug/L	1		07/29/21 20:02
Toluene	0.380 J		1.00	0.310	ug/L	1		07/29/21 20:02
trans-1,2-Dichloroethene	0.500 U		1.00	0.310	ug/L	1		07/29/21 20:02
trans-1,3-Dichloropropene	0.500 U		1.00	0.310	ug/L	1		07/29/21 20:02
Trichloroethene	0.500 U		1.00	0.310	ug/L	1		07/29/21 20:02
Trichlorofluoromethane	0.500 U		1.00	0.310	ug/L	1		07/29/21 20:02
Vinyl acetate	5.00 U		10.0	3.10	ug/L	1		07/29/21 20:02
Vinyl chloride	0.0750 U		0.150	0.0500	ug/L	1		07/29/21 20:02
Xylenes (total)	229		3.00	1.00	ug/L	1		07/29/21 20:02
Surrogates								
1,2-Dichloroethane-D4 (surr)	101		81-118		%	1		07/29/21 20:02
4-Bromofluorobenzene (surr)	99.2		85-114		%	1		07/29/21 20:02
Toluene-d8 (surr)	98.6		89-112		%	1		07/29/21 20:02

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Results of **GW-EC-MW7-04**

Client Sample ID: **GW-EC-MW7-04**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525004
Lab Project ID: 1214525

Collection Date: 07/22/21 11:30
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS21008
Analytical Method: SW8260D
Analyst: JMG
Analytical Date/Time: 08/02/21 18:09
Container ID: 1214525004-B

Prep Batch: VXX37567
Prep Method: SW5030B
Prep Date/Time: 08/02/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VMS20988
Analytical Method: SW8260D
Analyst: JMG
Analytical Date/Time: 07/29/21 20:02
Container ID: 1214525004-D

Prep Batch: VXX37536
Prep Method: SW5030B
Prep Date/Time: 07/29/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **GW-EC-MP3-05**

Client Sample ID: **GW-EC-MP3-05**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525005
Lab Project ID: 1214525

Collection Date: 07/22/21 13:45
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	0.133 U		0.266	0.0798	ug/L	5		08/04/21 16:03
2-Methylnaphthalene	0.133 U		0.266	0.0798	ug/L	5		08/04/21 16:03
Acenaphthene	0.133 U		0.266	0.0798	ug/L	5		08/04/21 16:03
Acenaphthylene	0.133 U		0.266	0.0798	ug/L	5		08/04/21 16:03
Anthracene	0.133 U		0.266	0.0798	ug/L	5		08/04/21 16:03
Benzo(a)Anthracene	0.133 U		0.266	0.0798	ug/L	5		08/04/21 16:03
Benzo[a]pyrene	0.0530 U		0.106	0.0330	ug/L	5		08/04/21 16:03
Benzo[b]Fluoranthene	0.133 U		0.266	0.0798	ug/L	5		08/04/21 16:03
Benzo[g,h,i]perylene	0.133 U		0.266	0.0798	ug/L	5		08/04/21 16:03
Benzo[k]fluoranthene	0.133 U		0.266	0.0798	ug/L	5		08/04/21 16:03
Chrysene	0.133 U		0.266	0.0798	ug/L	5		08/04/21 16:03
Dibenzo[a,h]anthracene	0.0530 U		0.106	0.0330	ug/L	5		08/04/21 16:03
Fluoranthene	0.133 U		0.266	0.0798	ug/L	5		08/04/21 16:03
Fluorene	0.133 U		0.266	0.0798	ug/L	5		08/04/21 16:03
Indeno[1,2,3-c,d] pyrene	0.133 U		0.266	0.0798	ug/L	5		08/04/21 16:03
Naphthalene	0.266 U		0.532	0.165	ug/L	5		08/04/21 16:03
Phenanthrene	0.133 U		0.266	0.0798	ug/L	5		08/04/21 16:03
Pyrene	0.133 U		0.266	0.0798	ug/L	5		08/04/21 16:03
Surrogates								
2-Methylnaphthalene-d10 (surr)	110	*	42-86		%	5		08/04/21 16:03
Fluoranthene-d10 (surr)	49.8	*	50-97		%	5		08/04/21 16:03

Batch Information

Analytical Batch: XMS12799
Analytical Method: 8270D SIM LV (PAH)
Analyst: LAW
Analytical Date/Time: 08/04/21 16:03
Container ID: 1214525005-I

Prep Batch: XXX45255
Prep Method: SW3535A
Prep Date/Time: 07/28/21 10:30
Prep Initial Wt./Vol.: 235 mL
Prep Extract Vol: 1 mL

Results of **GW-EC-MP3-05**

Client Sample ID: **GW-EC-MP3-05**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525005
Lab Project ID: 1214525

Collection Date: 07/22/21 13:45
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	42.3		0.625	0.188	mg/L	1		08/05/21 02:56
Surrogates								
5a Androstane (surr)	107		50-150		%	1		08/05/21 02:56

Batch Information

Analytical Batch: XFC16031
Analytical Method: AK102
Analyst: A.A
Analytical Date/Time: 08/05/21 02:56
Container ID: 1214525005-G

Prep Batch: XXX45275
Prep Method: SW3520C
Prep Date/Time: 07/30/21 14:58
Prep Initial Wt./Vol.: 240 mL
Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	3.73		0.521	0.156	mg/L	1		08/05/21 02:56
Surrogates								
n-Triacontane-d62 (surr)	108		50-150		%	1		08/05/21 02:56

Batch Information

Analytical Batch: XFC16031
Analytical Method: AK103
Analyst: A.A
Analytical Date/Time: 08/05/21 02:56
Container ID: 1214525005-G

Prep Batch: XXX45275
Prep Method: SW3520C
Prep Date/Time: 07/30/21 14:58
Prep Initial Wt./Vol.: 240 mL
Prep Extract Vol: 1 mL

Results of **GW-EC-MP3-05**

Client Sample ID: **GW-EC-MP3-05**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525005
Lab Project ID: 1214525

Collection Date: 07/22/21 13:45
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	0.0421	J	0.100	0.0310	mg/L	1		07/25/21 03:08
Surrogates								
4-Bromofluorobenzene (surr)	66.1		50-150		%	1		07/25/21 03:08

Batch Information

Analytical Batch: VFC15729
Analytical Method: AK101
Analyst: MDT
Analytical Date/Time: 07/25/21 03:08
Container ID: 1214525005-A

Prep Batch: VXX37492
Prep Method: SW5030B
Prep Date/Time: 07/24/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **GW-EC-MP3-05**

Client Sample ID: **GW-EC-MP3-05**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525005
Lab Project ID: 1214525

Collection Date: 07/22/21 13:45
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		08/02/21 17:39
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		08/02/21 17:39
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		08/02/21 17:39
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
1,2,4-Trimethylbenzene	1.41		1.00	0.310	ug/L	1		08/02/21 17:39
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		08/02/21 17:39
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		08/02/21 17:39
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		08/02/21 17:39
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
1,3,5-Trimethylbenzene	0.598	J	1.00	0.310	ug/L	1		08/02/21 17:39
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		08/02/21 17:39
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		08/02/21 17:39
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		08/02/21 17:39
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		08/02/21 17:39
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		08/02/21 17:39
Benzene	0.200	U	0.400	0.120	ug/L	1		08/02/21 17:39
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		08/02/21 17:39
Bromoform	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
Bromomethane	2.50	U	5.00	2.00	ug/L	1		08/02/21 17:39
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		08/02/21 17:39
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		08/02/21 17:39
Chloroethane	0.500	U	1.00	0.310	ug/L	1		08/02/21 17:39

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J flagging is activated

Results of **GW-EC-MP3-05**

Client Sample ID: **GW-EC-MP3-05**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525005
Lab Project ID: 1214525

Collection Date: 07/22/21 13:45
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
Chloromethane	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
cis-1,2-Dichloroethene	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
cis-1,3-Dichloropropene	0.250 U		0.500	0.150	ug/L	1		08/02/21 17:39
Dibromochloromethane	0.250 U		0.500	0.150	ug/L	1		08/02/21 17:39
Dibromomethane	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
Dichlorodifluoromethane	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
Ethylbenzene	0.423 J		1.00	0.310	ug/L	1		08/02/21 17:39
Freon-113	5.00 U		10.0	3.10	ug/L	1		08/02/21 17:39
Hexachlorobutadiene	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
Isopropylbenzene (Cumene)	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
Methylene chloride	5.00 U		10.0	3.10	ug/L	1		08/02/21 17:39
Methyl-t-butyl ether	5.00 U		10.0	3.10	ug/L	1		08/02/21 17:39
Naphthalene	1.81		1.00	0.310	ug/L	1		08/02/21 17:39
n-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
n-Propylbenzene	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
o-Xylene	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
P & M -Xylene	1.00 U		2.00	0.620	ug/L	1		08/02/21 17:39
sec-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
Styrene	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
tert-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
Tetrachloroethene	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
Toluene	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
trans-1,2-Dichloroethene	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
trans-1,3-Dichloropropene	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
Trichloroethene	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
Trichlorofluoromethane	0.500 U		1.00	0.310	ug/L	1		08/02/21 17:39
Vinyl acetate	5.00 U		10.0	3.10	ug/L	1		08/02/21 17:39
Vinyl chloride	0.0750 U		0.150	0.0500	ug/L	1		08/02/21 17:39
Xylenes (total)	1.50 U		3.00	1.00	ug/L	1		08/02/21 17:39
Surrogates								
1,2-Dichloroethane-D4 (surr)	99		81-118		%	1		08/02/21 17:39
4-Bromofluorobenzene (surr)	99.7		85-114		%	1		08/02/21 17:39
Toluene-d8 (surr)	102		89-112		%	1		08/02/21 17:39

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J flagging is activated

Results of **GW-EC-MP3-05**

Client Sample ID: **GW-EC-MP3-05**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525005
Lab Project ID: 1214525

Collection Date: 07/22/21 13:45
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS21008
Analytical Method: SW8260D
Analyst: JMG
Analytical Date/Time: 08/02/21 17:39
Container ID: 1214525005-B

Prep Batch: VXX37567
Prep Method: SW5030B
Prep Date/Time: 08/02/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **SW-EC-SW2-06**

Client Sample ID: **SW-EC-SW2-06**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525006
Lab Project ID: 1214525

Collection Date: 07/22/21 13:50
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 17:18
2-Methylnaphthalene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 17:18
Acenaphthene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 17:18
Acenaphthylene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 17:18
Anthracene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 17:18
Benzo(a)Anthracene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 17:18
Benzo[a]pyrene	0.0102	U	0.0204	0.00633	ug/L	1		07/29/21 17:18
Benzo[b]Fluoranthene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 17:18
Benzo[g,h,i]perylene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 17:18
Benzo[k]fluoranthene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 17:18
Chrysene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 17:18
Dibenzo[a,h]anthracene	0.0102	U	0.0204	0.00633	ug/L	1		07/29/21 17:18
Fluoranthene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 17:18
Fluorene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 17:18
Indeno[1,2,3-c,d] pyrene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 17:18
Naphthalene	0.0510	U	0.102	0.0316	ug/L	1		07/29/21 17:18
Phenanthrene	0.0213	J	0.0510	0.0153	ug/L	1		07/29/21 17:18
Pyrene	0.0255	U	0.0510	0.0153	ug/L	1		07/29/21 17:18
Surrogates								
2-Methylnaphthalene-d10 (surr)	58.2		42-86		%	1		07/29/21 17:18
Fluoranthene-d10 (surr)	64.1		50-97		%	1		07/29/21 17:18

Batch Information

Analytical Batch: XMS12798
Analytical Method: 8270D SIM LV (PAH)
Analyst: LAW
Analytical Date/Time: 07/29/21 17:18
Container ID: 1214525006-D

Prep Batch: XXX45255
Prep Method: SW3535A
Prep Date/Time: 07/28/21 10:30
Prep Initial Wt./Vol.: 245 mL
Prep Extract Vol: 1 mL

Print Date: 08/23/2021 8:33:55AM

J flagging is activated

Results of **SW-EC-SW2-06**

Client Sample ID: **SW-EC-SW2-06**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525006
Lab Project ID: 1214525

Collection Date: 07/22/21 13:50
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Benzene	0.250	U	0.500	0.150	ug/L	1		07/24/21 21:22
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/24/21 21:22
o-Xylene	0.500	U	1.00	0.310	ug/L	1		07/24/21 21:22
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		07/24/21 21:22
Toluene	0.500	U	1.00	0.310	ug/L	1		07/24/21 21:22
Xylenes (total)	1.50	U	3.00	0.930	ug/L	1		07/24/21 21:22
Surrogates								
1,4-Difluorobenzene (surr)	98.8		77-115		%	1		07/24/21 21:22

Batch Information

Analytical Batch: VFC15730
Analytical Method: SW8021B
Analyst: MDT
Analytical Date/Time: 07/24/21 21:22
Container ID: 1214525006-A

Prep Batch: VXX37493
Prep Method: SW5030B
Prep Date/Time: 07/24/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **SW-EC-SW1-07**

Client Sample ID: **SW-EC-SW1-07**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525007
Lab Project ID: 1214525

Collection Date: 07/22/21 14:10
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:38
2-Methylnaphthalene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:38
Acenaphthene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:38
Acenaphthylene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:38
Anthracene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:38
Benzo(a)Anthracene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:38
Benzo[a]pyrene	0.0104	U	0.0208	0.00646	ug/L	1		07/29/21 17:38
Benzo[b]Fluoranthene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:38
Benzo[g,h,i]perylene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:38
Benzo[k]fluoranthene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:38
Chrysene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:38
Dibenzo[a,h]anthracene	0.0104	U	0.0208	0.00646	ug/L	1		07/29/21 17:38
Fluoranthene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:38
Fluorene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:38
Indeno[1,2,3-c,d] pyrene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:38
Naphthalene	0.0520	U	0.104	0.0323	ug/L	1		07/29/21 17:38
Phenanthrene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:38
Pyrene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:38
Surrogates								
2-Methylnaphthalene-d10 (surr)	43.1		42-86		%	1		07/29/21 17:38
Fluoranthene-d10 (surr)	51.8		50-97		%	1		07/29/21 17:38

Batch Information

Analytical Batch: XMS12798
Analytical Method: 8270D SIM LV (PAH)
Analyst: LAW
Analytical Date/Time: 07/29/21 17:38
Container ID: 1214525007-D

Prep Batch: XXX45255
Prep Method: SW3535A
Prep Date/Time: 07/28/21 10:30
Prep Initial Wt./Vol.: 240 mL
Prep Extract Vol: 1 mL

Print Date: 08/23/2021 8:33:55AM

J flagging is activated

Results of **SW-EC-SW1-07**

Client Sample ID: **SW-EC-SW1-07**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525007
Lab Project ID: 1214525

Collection Date: 07/22/21 14:10
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Benzene	0.250	U	0.500	0.150	ug/L	1		07/24/21 21:39
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/24/21 21:39
o-Xylene	0.500	U	1.00	0.310	ug/L	1		07/24/21 21:39
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		07/24/21 21:39
Toluene	0.500	U	1.00	0.310	ug/L	1		07/24/21 21:39
Xylenes (total)	1.50	U	3.00	0.930	ug/L	1		07/24/21 21:39
Surrogates								
1,4-Difluorobenzene (surr)	99.4		77-115		%	1		07/24/21 21:39

Batch Information

Analytical Batch: VFC15730
Analytical Method: SW8021B
Analyst: MDT
Analytical Date/Time: 07/24/21 21:39
Container ID: 1214525007-A

Prep Batch: VXX37493
Prep Method: SW5030B
Prep Date/Time: 07/24/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Print Date: 08/23/2021 8:33:55AM

J flagging is activated

Results of **SW-EC-SW3-08**

Client Sample ID: **SW-EC-SW3-08**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525008
Lab Project ID: 1214525

Collection Date: 07/22/21 14:20
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:58
2-Methylnaphthalene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:58
Acenaphthene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:58
Acenaphthylene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:58
Anthracene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:58
Benzo(a)Anthracene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:58
Benzo[a]pyrene	0.0104	U	0.0208	0.00646	ug/L	1		07/29/21 17:58
Benzo[b]Fluoranthene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:58
Benzo[g,h,i]perylene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:58
Benzo[k]fluoranthene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:58
Chrysene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:58
Dibenzo[a,h]anthracene	0.0104	U	0.0208	0.00646	ug/L	1		07/29/21 17:58
Fluoranthene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:58
Fluorene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:58
Indeno[1,2,3-c,d] pyrene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:58
Naphthalene	0.0520	U	0.104	0.0323	ug/L	1		07/29/21 17:58
Phenanthrene	0.0284	J	0.0521	0.0156	ug/L	1		07/29/21 17:58
Pyrene	0.0261	U	0.0521	0.0156	ug/L	1		07/29/21 17:58
Surrogates								
2-Methylnaphthalene-d10 (surr)	52.3		42-86		%	1		07/29/21 17:58
Fluoranthene-d10 (surr)	55.4		50-97		%	1		07/29/21 17:58

Batch Information

Analytical Batch: XMS12798
Analytical Method: 8270D SIM LV (PAH)
Analyst: LAW
Analytical Date/Time: 07/29/21 17:58
Container ID: 1214525008-D

Prep Batch: XXX45255
Prep Method: SW3535A
Prep Date/Time: 07/28/21 10:30
Prep Initial Wt./Vol.: 240 mL
Prep Extract Vol: 1 mL

Print Date: 08/23/2021 8:33:55AM

J flagging is activated

Results of **SW-EC-SW3-08**

Client Sample ID: **SW-EC-SW3-08**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525008
Lab Project ID: 1214525

Collection Date: 07/22/21 14:20
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Benzene	0.250 U		0.500	0.150	ug/L	1		07/24/21 21:57
Ethylbenzene	0.500 U		1.00	0.310	ug/L	1		07/24/21 21:57
o-Xylene	0.500 U		1.00	0.310	ug/L	1		07/24/21 21:57
P & M -Xylene	1.00 U		2.00	0.620	ug/L	1		07/24/21 21:57
Toluene	0.500 U		1.00	0.310	ug/L	1		07/24/21 21:57
Xylenes (total)	1.50 U		3.00	0.930	ug/L	1		07/24/21 21:57
Surrogates								
1,4-Difluorobenzene (surr)	97.8		77-115		%	1		07/24/21 21:57

Batch Information

Analytical Batch: VFC15730
Analytical Method: SW8021B
Analyst: MDT
Analytical Date/Time: 07/24/21 21:57
Container ID: 1214525008-A

Prep Batch: VXX37493
Prep Method: SW5030B
Prep Date/Time: 07/24/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Print Date: 08/23/2021 8:33:55AM

J flagging is activated

Results of **TB01**

Client Sample ID: **TB01**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525009
Lab Project ID: 1214525

Collection Date: 07/22/21 08:00
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Benzene	0.250 U		0.500	0.150	ug/L	1		07/24/21 19:17
Ethylbenzene	0.500 U		1.00	0.310	ug/L	1		07/24/21 19:17
o-Xylene	0.500 U		1.00	0.310	ug/L	1		07/24/21 19:17
P & M -Xylene	1.00 U		2.00	0.620	ug/L	1		07/24/21 19:17
Toluene	0.500 U		1.00	0.310	ug/L	1		07/24/21 19:17
Xylenes (total)	1.50 U		3.00	0.930	ug/L	1		07/24/21 19:17
Surrogates								
1,4-Difluorobenzene (surr)	97.5		77-115		%	1		07/24/21 19:17

Batch Information

Analytical Batch: VFC15730
Analytical Method: SW8021B
Analyst: MDT
Analytical Date/Time: 07/24/21 19:17
Container ID: 1214525009-A

Prep Batch: VXX37493
Prep Method: SW5030B
Prep Date/Time: 07/24/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Print Date: 08/23/2021 8:33:55AM

J flagging is activated

Results of **TB02**

Client Sample ID: **TB02**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525010
Lab Project ID: 1214525

Collection Date: 07/22/21 08:00
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 18:18
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 18:18
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		07/29/21 18:18
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		07/29/21 18:18
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		07/29/21 18:18
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 18:18
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		07/29/21 18:18
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/29/21 18:18
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		07/29/21 18:18
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		07/29/21 18:18
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		07/29/21 18:18
Benzene	0.200	U	0.400	0.120	ug/L	1		07/29/21 18:18
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		07/29/21 18:18
Bromoform	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
Bromomethane	2.50	U	5.00	2.00	ug/L	1		07/29/21 18:18
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		07/29/21 18:18
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		07/29/21 18:18
Chloroethane	0.500	U	1.00	0.310	ug/L	1		07/29/21 18:18

Results of **TB02**

Client Sample ID: **TB02**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525010
Lab Project ID: 1214525

Collection Date: 07/22/21 08:00
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
Chloromethane	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
cis-1,2-Dichloroethene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
cis-1,3-Dichloropropene	0.250 U		0.500	0.150	ug/L	1		07/29/21 18:18
Dibromochloromethane	0.250 U		0.500	0.150	ug/L	1		07/29/21 18:18
Dibromomethane	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
Dichlorodifluoromethane	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
Ethylbenzene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
Freon-113	5.00 U		10.0	3.10	ug/L	1		07/29/21 18:18
Hexachlorobutadiene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
Isopropylbenzene (Cumene)	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
Methylene chloride	5.00 U		10.0	3.10	ug/L	1		07/29/21 18:18
Methyl-t-butyl ether	5.00 U		10.0	3.10	ug/L	1		07/29/21 18:18
Naphthalene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
n-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
n-Propylbenzene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
o-Xylene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
P & M -Xylene	1.00 U		2.00	0.620	ug/L	1		07/29/21 18:18
sec-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
Styrene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
tert-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
Tetrachloroethene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
Toluene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
trans-1,2-Dichloroethene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
trans-1,3-Dichloropropene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
Trichloroethene	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
Trichlorofluoromethane	0.500 U		1.00	0.310	ug/L	1		07/29/21 18:18
Vinyl acetate	5.00 U		10.0	3.10	ug/L	1		07/29/21 18:18
Vinyl chloride	0.0750 U		0.150	0.0500	ug/L	1		07/29/21 18:18
Xylenes (total)	1.50 U		3.00	1.00	ug/L	1		07/29/21 18:18
Surrogates								
1,2-Dichloroethane-D4 (surr)	103		81-118		%	1		07/29/21 18:18
4-Bromofluorobenzene (surr)	101		85-114		%	1		07/29/21 18:18
Toluene-d8 (surr)	99.7		89-112		%	1		07/29/21 18:18

Print Date: 08/23/2021 8:33:55AM

J flagging is activated

Results of **TB02**

Client Sample ID: **TB02**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525010
Lab Project ID: 1214525

Collection Date: 07/22/21 08:00
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS20988
Analytical Method: SW8260D
Analyst: JMG
Analytical Date/Time: 07/29/21 18:18
Container ID: 1214525010-A

Prep Batch: VXX37536
Prep Method: SW5030B
Prep Date/Time: 07/29/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **TB03**

Client Sample ID: **TB03**
Client Project ID: **ADEC Eskimo Creek**
Lab Sample ID: 1214525011
Lab Project ID: 1214525

Collection Date: 07/22/21 08:00
Received Date: 07/23/21 09:32
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	0.0500	U	0.100	0.0310	mg/L	1		07/24/21 19:38
Surrogates								
4-Bromofluorobenzene (surr)	80.7		50-150		%	1		07/24/21 19:38

Batch Information

Analytical Batch: VFC15729
Analytical Method: AK101
Analyst: MDT
Analytical Date/Time: 07/24/21 19:38
Container ID: 1214525011-A

Prep Batch: VXX37491
Prep Method: SW5030B
Prep Date/Time: 07/24/21 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Method Blank

Blank ID: MB for HBN 1822953 [VXX/37491]
Blank Lab ID: 1625543

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1214525001, 1214525002, 1214525003, 1214525004, 1214525011

Results by **AK101**

Parameter	Results	LOQ/CL	DL	Units
Gasoline Range Organics	0.0500U	0.100	0.0310	mg/L
Surrogates				
1,4-Difluorobenzene (surr)	91.3	77-115		%
4-Bromofluorobenzene (surr)	74.5	50-150		%

Batch Information

Analytical Batch: VFC15729
Analytical Method: AK101
Instrument: Agilent 7890 PID/FID
Analyst: MDT
Analytical Date/Time: 7/24/2021 2:20:00PM

Prep Batch: VXX37491
Prep Method: SW5030B
Prep Date/Time: 7/24/2021 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Print Date: 08/23/2021 8:33:59AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1214525 [VXX37491]
Blank Spike Lab ID: 1625544
Date Analyzed: 07/24/2021 15:14

Spike Duplicate ID: LCSD for HBN 1214525 [VXX37491]
Spike Duplicate Lab ID: 1625545
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1214525001, 1214525002, 1214525003, 1214525004, 1214525011

Results by **AK101**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Gasoline Range Organics	1.00	0.916	92	1.00	0.857	86	(60-120)	6.60	(< 20)
Surrogates									
4-Bromofluorobenzene (surr)	0.0500		85	0.0500		83	(50-150)	3.00	

Batch Information

Analytical Batch: **VFC15729**
Analytical Method: **AK101**
Instrument: **Agilent 7890 PID/FID**
Analyst: **MDT**

Prep Batch: **VXX37491**
Prep Method: **SW5030B**
Prep Date/Time: **07/24/2021 06:00**
Spike Init Wt./Vol.: 1.00 mg/L Extract Vol: 5 mL
Dupe Init Wt./Vol.: 1.00 mg/L Extract Vol: 5 mL

SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Method Blank

Blank ID: MB for HBN 1822954 [VXX/37492]
Blank Lab ID: 1625546

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1214525005

Results by **AK101**

Parameter	Results	LOQ/CL	DL	Units
Gasoline Range Organics	0.0500U	0.100	0.0310	mg/L
Surrogates				
1,4-Difluorobenzene (surr)	91.1	77-115		%
4-Bromofluorobenzene (surr)	76	50-150		%

Batch Information

Analytical Batch: VFC15729
Analytical Method: AK101
Instrument: Agilent 7890 PID/FID
Analyst: MDT
Analytical Date/Time: 7/24/2021 11:50:00PM

Prep Batch: VXX37492
Prep Method: SW5030B
Prep Date/Time: 7/24/2021 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1214525 [VXX37492]
Blank Spike Lab ID: 1625547
Date Analyzed: 07/25/2021 02:50

Spike Duplicate ID: LCSD for HBN 1214525 [VXX37492]
Spike Duplicate Lab ID: 1625548
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1214525005

Results by **AK101**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Gasoline Range Organics	1.00	0.862	86	1.00	0.888	89	(60-120)	3.00	(< 20)
Surrogates									
4-Bromofluorobenzene (surr)	0.0500		85	0.0500		88	(50-150)	4.30	

Batch Information

Analytical Batch: **VFC15729**
Analytical Method: **AK101**
Instrument: **Agilent 7890 PID/FID**
Analyst: **MDT**

Prep Batch: **VXX37492**
Prep Method: **SW5030B**
Prep Date/Time: **07/24/2021 06:00**
Spike Init Wt./Vol.: 1.00 mg/L Extract Vol: 5 mL
Dupe Init Wt./Vol.: 1.00 mg/L Extract Vol: 5 mL

SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Method Blank

Blank ID: MB for HBN 1822961 [VXX/37493]
Blank Lab ID: 1625582

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1214525006, 1214525007, 1214525008, 1214525009

Results by **SW8021B**

Parameter	Results	LOQ/CL	DL	Units
Benzene	0.250U	0.500	0.150	ug/L
Ethylbenzene	0.500U	1.00	0.310	ug/L
o-Xylene	0.500U	1.00	0.310	ug/L
P & M -Xylene	1.00U	2.00	0.620	ug/L
Toluene	0.500U	1.00	0.310	ug/L
Xylenes (total)	1.50U	3.00	0.930	ug/L
Surrogates				
1,4-Difluorobenzene (surr)	98.6	77-115		%

Batch Information

Analytical Batch: VFC15730
Analytical Method: SW8021B
Instrument: Agilent 7890A PID/FID
Analyst: MDT
Analytical Date/Time: 7/24/2021 2:18:00PM

Prep Batch: VXX37493
Prep Method: SW5030B
Prep Date/Time: 7/24/2021 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1214525 [VXX37493]
Blank Spike Lab ID: 1625583
Date Analyzed: 07/24/2021 14:54

Spike Duplicate ID: LCSD for HBN 1214525 [VXX37493]
Spike Duplicate Lab ID: 1625584
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1214525006, 1214525007, 1214525008, 1214525009

Results by **SW8021B**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Benzene	100	110	110	100	111	111	(80-120)	1.40	(< 20)
Ethylbenzene	100	98.7	99	100	98.2	98	(75-125)	0.50	(< 20)
o-Xylene	100	97.4	97	100	96.4	96	(80-120)	1.00	(< 20)
P & M -Xylene	200	197	98	200	194	97	(75-130)	1.40	(< 20)
Toluene	100	104	104	100	105	105	(75-120)	0.94	(< 20)
Xylenes (total)	300	294	98	300	290	97	(79-121)	1.30	(< 20)
Surrogates									
1,4-Difluorobenzene (surr)	50		102	50		104	(77-115)	1.70	

Batch Information

Analytical Batch: **VFC15730**
Analytical Method: **SW8021B**
Instrument: **Agilent 7890A PID/FID**
Analyst: **MDT**

Prep Batch: **VXX37493**
Prep Method: **SW5030B**
Prep Date/Time: **07/24/2021 06:00**
Spike Init Wt./Vol.: 100 ug/L Extract Vol: 5 mL
Dupe Init Wt./Vol.: 100 ug/L Extract Vol: 5 mL

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Method Blank

Blank ID: MB for HBN 1823253 [VXX/37536]
Blank Lab ID: 1626797

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1214525001, 1214525002, 1214525003, 1214525004, 1214525010

Results by **SW8260D**

Parameter	Results	LOQ/CL	DL	Units
1,1,1,2-Tetrachloroethane	0.250U	0.500	0.150	ug/L
1,1,1-Trichloroethane	0.500U	1.00	0.310	ug/L
1,1,2,2-Tetrachloroethane	0.250U	0.500	0.150	ug/L
1,1,2-Trichloroethane	0.200U	0.400	0.120	ug/L
1,1-Dichloroethane	0.500U	1.00	0.310	ug/L
1,1-Dichloroethene	0.500U	1.00	0.310	ug/L
1,1-Dichloropropene	0.500U	1.00	0.310	ug/L
1,2,3-Trichlorobenzene	0.500U	1.00	0.310	ug/L
1,2,3-Trichloropropane	0.500U	1.00	0.310	ug/L
1,2,4-Trichlorobenzene	0.500U	1.00	0.310	ug/L
1,2,4-Trimethylbenzene	0.500U	1.00	0.310	ug/L
1,2-Dibromo-3-chloropropane	5.00U	10.0	3.10	ug/L
1,2-Dibromoethane	0.0375U	0.0750	0.0180	ug/L
1,2-Dichlorobenzene	0.500U	1.00	0.310	ug/L
1,2-Dichloroethane	0.250U	0.500	0.150	ug/L
1,2-Dichloropropane	0.500U	1.00	0.310	ug/L
1,3,5-Trimethylbenzene	0.500U	1.00	0.310	ug/L
1,3-Dichlorobenzene	0.500U	1.00	0.310	ug/L
1,3-Dichloropropane	0.250U	0.500	0.150	ug/L
1,4-Dichlorobenzene	0.250U	0.500	0.150	ug/L
2,2-Dichloropropane	0.500U	1.00	0.310	ug/L
2-Butanone (MEK)	5.00U	10.0	3.10	ug/L
2-Chlorotoluene	0.500U	1.00	0.310	ug/L
2-Hexanone	5.00U	10.0	3.10	ug/L
4-Chlorotoluene	0.500U	1.00	0.310	ug/L
4-Isopropyltoluene	0.500U	1.00	0.310	ug/L
4-Methyl-2-pentanone (MIBK)	5.00U	10.0	3.10	ug/L
Benzene	0.200U	0.400	0.120	ug/L
Bromobenzene	0.500U	1.00	0.310	ug/L
Bromochloromethane	0.500U	1.00	0.310	ug/L
Bromodichloromethane	0.250U	0.500	0.150	ug/L
Bromoform	0.500U	1.00	0.310	ug/L
Bromomethane	2.50U	5.00	2.00	ug/L
Carbon disulfide	5.00U	10.0	3.10	ug/L
Carbon tetrachloride	0.500U	1.00	0.310	ug/L
Chlorobenzene	0.250U	0.500	0.150	ug/L
Chloroethane	0.500U	1.00	0.310	ug/L
Chloroform	0.500U	1.00	0.310	ug/L

Method Blank

Blank ID: MB for HBN 1823253 [VXX/37536]
Blank Lab ID: 1626797

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1214525001, 1214525002, 1214525003, 1214525004, 1214525010

Results by **SW8260D**

Parameter	Results	LOQ/CL	DL	Units
Chloromethane	0.500U	1.00	0.310	ug/L
cis-1,2-Dichloroethene	0.500U	1.00	0.310	ug/L
cis-1,3-Dichloropropene	0.250U	0.500	0.150	ug/L
Dibromochloromethane	0.250U	0.500	0.150	ug/L
Dibromomethane	0.500U	1.00	0.310	ug/L
Dichlorodifluoromethane	0.500U	1.00	0.310	ug/L
Ethylbenzene	0.500U	1.00	0.310	ug/L
Freon-113	5.00U	10.0	3.10	ug/L
Hexachlorobutadiene	0.500U	1.00	0.310	ug/L
Isopropylbenzene (Cumene)	0.500U	1.00	0.310	ug/L
Methylene chloride	5.00U	10.0	3.10	ug/L
Methyl-t-butyl ether	5.00U	10.0	3.10	ug/L
Naphthalene	0.500U	1.00	0.310	ug/L
n-Butylbenzene	0.500U	1.00	0.310	ug/L
n-Propylbenzene	0.500U	1.00	0.310	ug/L
o-Xylene	0.500U	1.00	0.310	ug/L
P & M -Xylene	1.00U	2.00	0.620	ug/L
sec-Butylbenzene	0.500U	1.00	0.310	ug/L
Styrene	0.500U	1.00	0.310	ug/L
tert-Butylbenzene	0.500U	1.00	0.310	ug/L
Tetrachloroethene	0.500U	1.00	0.310	ug/L
Toluene	0.500U	1.00	0.310	ug/L
trans-1,2-Dichloroethene	0.500U	1.00	0.310	ug/L
trans-1,3-Dichloropropene	0.500U	1.00	0.310	ug/L
Trichloroethene	0.500U	1.00	0.310	ug/L
Trichlorofluoromethane	0.500U	1.00	0.310	ug/L
Vinyl acetate	5.00U	10.0	3.10	ug/L
Vinyl chloride	0.0750U	0.150	0.0500	ug/L
Xylenes (total)	1.50U	3.00	1.00	ug/L
Surrogates				
1,2-Dichloroethane-D4 (surr)	99.2	81-118		%
4-Bromofluorobenzene (surr)	101	85-114		%
Toluene-d8 (surr)	100	89-112		%

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Method Blank

Blank ID: MB for HBN 1823253 [VXX/37536]
Blank Lab ID: 1626797

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1214525001, 1214525002, 1214525003, 1214525004, 1214525010

Results by **SW8260D**

Parameter	Results	LOQ/CL	DL	Units

Batch Information

Analytical Batch: VMS20988
Analytical Method: SW8260D
Instrument: Agilent 7890-75MS
Analyst: JMG
Analytical Date/Time: 7/29/2021 1:48:00PM

Prep Batch: VXX37536
Prep Method: SW5030B
Prep Date/Time: 7/29/2021 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Print Date: 08/23/2021 8:34:13AM

Leaching Blank

Blank ID: LB for HBN 1822917 [TCLP/11296
Blank Lab ID: 1625408

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1214525001, 1214525002, 1214525003, 1214525004, 1214525010

Results by **SW8260D**

Parameter	Results	LOQ/CL	DL	Units
1,1-Dichloroethene	25.0U	50.0	15.5	ug/L
1,2-Dichloroethane	12.5U	25.0	7.50	ug/L
1,4-Dichlorobenzene	12.5U	25.0	7.50	ug/L
2-Butanone (MEK)	250U	500	155	ug/L
Benzene	10.0U	20.0	6.00	ug/L
Carbon tetrachloride	25.0U	50.0	15.5	ug/L
Chlorobenzene	12.5U	25.0	7.50	ug/L
Chloroform	25.0U	50.0	15.5	ug/L
Hexachlorobutadiene	25.0U	50.0	15.5	ug/L
Tetrachloroethene	25.0U	50.0	15.5	ug/L
Trichloroethene	25.0U	50.0	15.5	ug/L
Vinyl chloride	25.0U	50.0	15.5	ug/L
Surrogates				
1,2-Dichloroethane-D4 (surr)	101	81-118		%
4-Bromofluorobenzene (surr)	102	85-114		%
Toluene-d8 (surr)	99.7	89-112		%

Batch Information

Analytical Batch: VMS20988
Analytical Method: SW8260D
Instrument: Agilent 7890-75MS
Analyst: JMG
Analytical Date/Time: 7/29/2021 9:16:00PM

Prep Batch: VXX37536
Prep Method: SW5030B
Prep Date/Time: 7/29/2021 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1214525 [VXX37536]
Blank Spike Lab ID: 1626798
Date Analyzed: 07/29/2021 14:03

Spike Duplicate ID: LCSD for HBN 1214525 [VXX37536]
Spike Duplicate Lab ID: 1626799
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1214525001, 1214525002, 1214525003, 1214525004, 1214525010

Results by **SW8260D**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,1,1,2-Tetrachloroethane	30	29.1	97	30	28.9	96	(78-124)	0.76	(< 20)
1,1,1-Trichloroethane	30	28.4	95	30	28.9	96	(74-131)	1.70	(< 20)
1,1,2,2-Tetrachloroethane	30	29.0	97	30	29.1	97	(71-121)	0.59	(< 20)
1,1,2-Trichloroethane	30	29.3	98	30	29.2	97	(80-119)	0.44	(< 20)
1,1-Dichloroethane	30	28.2	94	30	28.3	94	(77-125)	0.37	(< 20)
1,1-Dichloroethene	30	28.7	96	30	29.1	97	(71-131)	1.50	(< 20)
1,1-Dichloropropene	30	29.1	97	30	29.5	98	(79-125)	1.30	(< 20)
1,2,3-Trichlorobenzene	30	27.0	90	30	27.9	93	(69-129)	3.60	(< 20)
1,2,3-Trichloropropane	30	29.0	97	30	29.2	97	(73-122)	0.48	(< 20)
1,2,4-Trichlorobenzene	30	27.7	92	30	28.6	95	(69-130)	3.30	(< 20)
1,2,4-Trimethylbenzene	30	27.4	92	30	27.9	93	(79-124)	1.80	(< 20)
1,2-Dibromo-3-chloropropane	30	27.4	92	30	27.7	92	(62-128)	1.00	(< 20)
1,2-Dibromoethane	30	28.8	96	30	28.7	96	(77-121)	0.31	(< 20)
1,2-Dichlorobenzene	30	28.7	96	30	29.2	97	(80-119)	1.60	(< 20)
1,2-Dichloroethane	30	27.1	90	30	27.4	91	(73-128)	1.00	(< 20)
1,2-Dichloropropane	30	28.6	95	30	28.9	96	(78-122)	0.87	(< 20)
1,3,5-Trimethylbenzene	30	28.8	96	30	28.8	96	(75-124)	0.18	(< 20)
1,3-Dichlorobenzene	30	28.8	96	30	29.4	98	(80-119)	2.10	(< 20)
1,3-Dichloropropane	30	29.1	97	30	28.9	96	(80-119)	0.83	(< 20)
1,4-Dichlorobenzene	30	28.8	96	30	29.2	97	(79-118)	1.50	(< 20)
2,2-Dichloropropane	30	27.6	92	30	27.9	93	(60-139)	1.10	(< 20)
2-Butanone (MEK)	90	83.1	92	90	81.8	91	(56-143)	1.70	(< 20)
2-Chlorotoluene	30	28.7	96	30	29.6	99	(79-122)	3.10	(< 20)
2-Hexanone	90	80.4	89	90	80.1	89	(57-139)	0.31	(< 20)
4-Chlorotoluene	30	28.6	95	30	29.7	99	(78-122)	3.80	(< 20)
4-Isopropyltoluene	30	28.9	96	30	29.4	98	(77-127)	1.70	(< 20)
4-Methyl-2-pentanone (MIBK)	90	80.8	90	90	81.2	90	(67-130)	0.49	(< 20)
Benzene	30	28.3	94	30	29.0	97	(79-120)	2.50	(< 20)
Bromobenzene	30	29.1	97	30	29.2	97	(80-120)	0.26	(< 20)
Bromochloromethane	30	28.4	95	30	28.7	96	(78-123)	0.93	(< 20)
Bromodichloromethane	30	28.5	95	30	28.8	96	(79-125)	1.10	(< 20)
Bromoform	30	29.0	97	30	29.4	98	(66-130)	1.70	(< 20)
Bromomethane	30	29.4	98	30	31.2	104	(53-141)	6.10	(< 20)
Carbon disulfide	45	42.4	94	45	43.0	96	(64-133)	1.40	(< 20)

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1214525 [VXX37536]
Blank Spike Lab ID: 1626798
Date Analyzed: 07/29/2021 14:03

Spike Duplicate ID: LCSD for HBN 1214525 [VXX37536]
Spike Duplicate Lab ID: 1626799
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1214525001, 1214525002, 1214525003, 1214525004, 1214525010

Results by **SW8260D**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Carbon tetrachloride	30	28.8	96	30	29.4	98	(72-136)	2.00	(< 20)
Chlorobenzene	30	28.4	95	30	28.6	96	(82-118)	0.88	(< 20)
Chloroethane	30	32.9	110	30	30.6	102	(60-138)	7.10	(< 20)
Chloroform	30	27.5	92	30	27.8	93	(79-124)	0.98	(< 20)
Chloromethane	30	26.5	88	30	26.8	89	(50-139)	1.10	(< 20)
cis-1,2-Dichloroethene	30	28.1	94	30	28.5	95	(78-123)	1.30	(< 20)
cis-1,3-Dichloropropene	30	28.3	95	30	28.6	96	(75-124)	1.00	(< 20)
Dibromochloromethane	30	29.1	97	30	29.0	97	(74-126)	0.26	(< 20)
Dibromomethane	30	28.4	95	30	28.6	95	(79-123)	0.72	(< 20)
Dichlorodifluoromethane	30	28.6	95	30	28.9	96	(32-152)	1.00	(< 20)
Ethylbenzene	30	28.5	95	30	28.4	95	(79-121)	0.36	(< 20)
Freon-113	45	44.3	98	45	44.9	100	(70-136)	1.40	(< 20)
Hexachlorobutadiene	30	29.0	97	30	29.7	99	(66-134)	2.40	(< 20)
Isopropylbenzene (Cumene)	30	29.0	97	30	29.4	98	(72-131)	1.50	(< 20)
Methylene chloride	30	28.6	95	30	28.9	96	(74-124)	1.20	(< 20)
Methyl-t-butyl ether	45	42.4	94	45	42.6	95	(71-124)	0.31	(< 20)
Naphthalene	30	24.5	82	30	25.5	85	(61-128)	4.10	(< 20)
n-Butylbenzene	30	29.5	98	30	29.9	100	(75-128)	1.50	(< 20)
n-Propylbenzene	30	29.0	97	30	29.4	98	(76-126)	1.30	(< 20)
o-Xylene	30	28.2	94	30	28.5	95	(78-122)	1.10	(< 20)
P & M -Xylene	60	56.2	94	60	56.2	94	(80-121)	0.09	(< 20)
sec-Butylbenzene	30	29.3	98	30	29.8	99	(77-126)	1.80	(< 20)
Styrene	30	27.8	93	30	28.0	93	(78-123)	0.49	(< 20)
tert-Butylbenzene	30	28.9	96	30	29.7	99	(78-124)	2.80	(< 20)
Tetrachloroethene	30	29.4	98	30	29.3	98	(74-129)	0.38	(< 20)
Toluene	30	27.7	92	30	27.8	93	(80-121)	0.43	(< 20)
trans-1,2-Dichloroethene	30	28.3	94	30	28.8	96	(75-124)	1.80	(< 20)
trans-1,3-Dichloropropene	30	29.1	97	30	29.0	97	(73-127)	0.22	(< 20)
Trichloroethene	30	28.8	96	30	29.1	97	(79-123)	1.10	(< 20)
Trichlorofluoromethane	30	29.6	99	30	29.6	99	(65-141)	0.26	(< 20)
Vinyl acetate	30	27.9	93	30	28.1	94	(54-146)	0.71	(< 20)
Vinyl chloride	30	27.6	92	30	27.8	93	(58-137)	0.64	(< 20)
Xylenes (total)	90	84.4	94	90	84.8	94	(79-121)	0.44	(< 20)

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1214525 [VXX37536]
Blank Spike Lab ID: 1626798
Date Analyzed: 07/29/2021 14:03

Spike Duplicate ID: LCSD for HBN 1214525 [VXX37536]
Spike Duplicate Lab ID: 1626799
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1214525001, 1214525002, 1214525003, 1214525004, 1214525010

Results by **SW8260D**

	Blank Spike (%)			Spike Duplicate (%)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Surrogates									
1,2-Dichloroethane-D4 (surr)	30		99	30		99	(81-118)	0.33	
4-Bromofluorobenzene (surr)	30		99	30		100	(85-114)	0.84	
Toluene-d8 (surr)	30		100	30		99	(89-112)	0.52	

Batch Information

Analytical Batch: **VMS20988**
Analytical Method: **SW8260D**
Instrument: **Agilent 7890-75MS**
Analyst: **JMG**

Prep Batch: **VXX37536**
Prep Method: **SW5030B**
Prep Date/Time: **07/29/2021 06:00**
Spike Init Wt./Vol.: 30 ug/L Extract Vol: 5 mL
Dupe Init Wt./Vol.: 30 ug/L Extract Vol: 5 mL

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Method Blank

Blank ID: MB for HBN 1823445 [VXX/37567]
Blank Lab ID: 1627697

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1214525003, 1214525004, 1214525005

Results by **SW8260D**

Parameter	Results	LOQ/CL	DL	Units
1,1,1,2-Tetrachloroethane	0.250U	0.500	0.150	ug/L
1,1,1-Trichloroethane	0.500U	1.00	0.310	ug/L
1,1,2,2-Tetrachloroethane	0.250U	0.500	0.150	ug/L
1,1,2-Trichloroethane	0.200U	0.400	0.120	ug/L
1,1-Dichloroethane	0.500U	1.00	0.310	ug/L
1,1-Dichloroethene	0.500U	1.00	0.310	ug/L
1,1-Dichloropropene	0.500U	1.00	0.310	ug/L
1,2,3-Trichlorobenzene	0.500U	1.00	0.310	ug/L
1,2,3-Trichloropropane	0.500U	1.00	0.310	ug/L
1,2,4-Trichlorobenzene	0.500U	1.00	0.310	ug/L
1,2,4-Trimethylbenzene	0.500U	1.00	0.310	ug/L
1,2-Dibromo-3-chloropropane	5.00U	10.0	3.10	ug/L
1,2-Dibromoethane	0.0375U	0.0750	0.0180	ug/L
1,2-Dichlorobenzene	0.500U	1.00	0.310	ug/L
1,2-Dichloroethane	0.250U	0.500	0.150	ug/L
1,2-Dichloropropane	0.500U	1.00	0.310	ug/L
1,3,5-Trimethylbenzene	0.500U	1.00	0.310	ug/L
1,3-Dichlorobenzene	0.500U	1.00	0.310	ug/L
1,3-Dichloropropane	0.250U	0.500	0.150	ug/L
1,4-Dichlorobenzene	0.250U	0.500	0.150	ug/L
2,2-Dichloropropane	0.500U	1.00	0.310	ug/L
2-Butanone (MEK)	5.00U	10.0	3.10	ug/L
2-Chlorotoluene	0.500U	1.00	0.310	ug/L
2-Hexanone	5.00U	10.0	3.10	ug/L
4-Chlorotoluene	0.500U	1.00	0.310	ug/L
4-Isopropyltoluene	0.500U	1.00	0.310	ug/L
4-Methyl-2-pentanone (MIBK)	5.00U	10.0	3.10	ug/L
Benzene	0.200U	0.400	0.120	ug/L
Bromobenzene	0.500U	1.00	0.310	ug/L
Bromochloromethane	0.500U	1.00	0.310	ug/L
Bromodichloromethane	0.250U	0.500	0.150	ug/L
Bromoform	0.500U	1.00	0.310	ug/L
Bromomethane	2.50U	5.00	2.00	ug/L
Carbon disulfide	5.00U	10.0	3.10	ug/L
Carbon tetrachloride	0.500U	1.00	0.310	ug/L
Chlorobenzene	0.250U	0.500	0.150	ug/L
Chloroethane	0.500U	1.00	0.310	ug/L
Chloroform	0.500U	1.00	0.310	ug/L

Method Blank

Blank ID: MB for HBN 1823445 [VXX/37567]
Blank Lab ID: 1627697

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1214525003, 1214525004, 1214525005

Results by **SW8260D**

Parameter	Results	LOQ/CL	DL	Units
Chloromethane	0.500U	1.00	0.310	ug/L
cis-1,2-Dichloroethene	0.500U	1.00	0.310	ug/L
cis-1,3-Dichloropropene	0.250U	0.500	0.150	ug/L
Dibromochloromethane	0.250U	0.500	0.150	ug/L
Dibromomethane	0.500U	1.00	0.310	ug/L
Dichlorodifluoromethane	0.500U	1.00	0.310	ug/L
Ethylbenzene	0.500U	1.00	0.310	ug/L
Freon-113	5.00U	10.0	3.10	ug/L
Hexachlorobutadiene	0.500U	1.00	0.310	ug/L
Isopropylbenzene (Cumene)	0.500U	1.00	0.310	ug/L
Methylene chloride	5.00U	10.0	3.10	ug/L
Methyl-t-butyl ether	5.00U	10.0	3.10	ug/L
Naphthalene	0.500U	1.00	0.310	ug/L
n-Butylbenzene	0.500U	1.00	0.310	ug/L
n-Propylbenzene	0.500U	1.00	0.310	ug/L
o-Xylene	0.500U	1.00	0.310	ug/L
P & M -Xylene	1.00U	2.00	0.620	ug/L
sec-Butylbenzene	0.500U	1.00	0.310	ug/L
Styrene	0.500U	1.00	0.310	ug/L
tert-Butylbenzene	0.500U	1.00	0.310	ug/L
Tetrachloroethene	0.500U	1.00	0.310	ug/L
Toluene	0.500U	1.00	0.310	ug/L
trans-1,2-Dichloroethene	0.500U	1.00	0.310	ug/L
trans-1,3-Dichloropropene	0.500U	1.00	0.310	ug/L
Trichloroethene	0.500U	1.00	0.310	ug/L
Trichlorofluoromethane	0.500U	1.00	0.310	ug/L
Vinyl acetate	5.00U	10.0	3.10	ug/L
Vinyl chloride	0.0750U	0.150	0.0500	ug/L
Xylenes (total)	1.50U	3.00	1.00	ug/L
Surrogates				
1,2-Dichloroethane-D4 (surr)	100	81-118		%
4-Bromofluorobenzene (surr)	99.7	85-114		%
Toluene-d8 (surr)	101	89-112		%

Method Blank

Blank ID: MB for HBN 1823445 [VXX/37567]
Blank Lab ID: 1627697

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1214525003, 1214525004, 1214525005

Results by **SW8260D**

Parameter	Results	LOQ/CL	DL	Units

Batch Information

Analytical Batch: VMS21008
Analytical Method: SW8260D
Instrument: Agilent 7890-75MS
Analyst: JMG
Analytical Date/Time: 8/2/2021 2:01:00PM

Prep Batch: VXX37567
Prep Method: SW5030B
Prep Date/Time: 8/2/2021 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1214525 [VXX37567]
Blank Spike Lab ID: 1627698
Date Analyzed: 08/02/2021 14:16

Spike Duplicate ID: LCSD for HBN 1214525 [VXX37567]
Spike Duplicate Lab ID: 1627699
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1214525003, 1214525004, 1214525005

Results by **SW8260D**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,1,1,2-Tetrachloroethane	30	29.0	97	30	28.6	96	(78-124)	1.10	(< 20)
1,1,1-Trichloroethane	30	29.1	97	30	28.6	95	(74-131)	1.80	(< 20)
1,1,2,2-Tetrachloroethane	30	27.9	93	30	28.4	95	(71-121)	1.80	(< 20)
1,1,2-Trichloroethane	30	28.8	96	30	29.0	97	(80-119)	0.85	(< 20)
1,1-Dichloroethane	30	28.1	94	30	27.7	92	(77-125)	1.40	(< 20)
1,1-Dichloroethene	30	29.0	97	30	28.2	94	(71-131)	2.70	(< 20)
1,1-Dichloropropene	30	29.6	99	30	29.0	97	(79-125)	2.10	(< 20)
1,2,3-Trichlorobenzene	30	28.3	94	30	29.4	98	(69-129)	3.80	(< 20)
1,2,3-Trichloropropane	30	28.1	94	30	28.5	95	(73-122)	1.60	(< 20)
1,2,4-Trichlorobenzene	30	28.6	95	30	29.2	97	(69-130)	2.20	(< 20)
1,2,4-Trimethylbenzene	30	29.9	100	30	29.7	99	(79-124)	0.70	(< 20)
1,2-Dibromo-3-chloropropane	30	26.9	90	30	28.0	93	(62-128)	4.20	(< 20)
1,2-Dibromoethane	30	28.5	95	30	28.8	96	(77-121)	1.20	(< 20)
1,2-Dichlorobenzene	30	28.5	95	30	28.7	96	(80-119)	0.73	(< 20)
1,2-Dichloroethane	30	26.7	89	30	27.0	90	(73-128)	1.20	(< 20)
1,2-Dichloropropane	30	28.7	96	30	28.6	95	(78-122)	0.33	(< 20)
1,3,5-Trimethylbenzene	30	30.1	100	30	29.6	99	(75-124)	1.70	(< 20)
1,3-Dichlorobenzene	30	29.1	97	30	28.7	96	(80-119)	1.40	(< 20)
1,3-Dichloropropane	30	28.6	95	30	28.7	96	(80-119)	0.62	(< 20)
1,4-Dichlorobenzene	30	28.9	96	30	28.7	96	(79-118)	0.44	(< 20)
2,2-Dichloropropane	30	29.8	99	30	28.7	96	(60-139)	3.50	(< 20)
2-Butanone (MEK)	90	79.0	88	90	85.1	95	(56-143)	7.50	(< 20)
2-Chlorotoluene	30	28.8	96	30	29.1	97	(79-122)	1.30	(< 20)
2-Hexanone	90	83.2	93	90	86.2	96	(57-139)	3.50	(< 20)
4-Chlorotoluene	30	28.9	96	30	28.6	95	(78-122)	1.00	(< 20)
4-Isopropyltoluene	30	30.5	102	30	30.1	100	(77-127)	1.30	(< 20)
4-Methyl-2-pentanone (MIBK)	90	85.8	95	90	88.4	98	(67-130)	2.90	(< 20)
Benzene	30	28.9	96	30	28.4	95	(79-120)	1.70	(< 20)
Bromobenzene	30	29.0	97	30	28.7	96	(80-120)	1.00	(< 20)
Bromochloromethane	30	28.3	95	30	28.3	95	(78-123)	0.01	(< 20)
Bromodichloromethane	30	28.4	95	30	28.3	94	(79-125)	0.34	(< 20)
Bromoform	30	29.1	97	30	28.9	96	(66-130)	0.74	(< 20)
Bromomethane	30	23.9	80	30	25.1	84	(53-141)	5.20	(< 20)
Carbon disulfide	45	42.8	95	45	41.4	92	(64-133)	3.40	(< 20)

Blank Spike Summary

Blank Spike ID: LCS for HBN 1214525 [VXX37567]
Blank Spike Lab ID: 1627698
Date Analyzed: 08/02/2021 14:16

Spike Duplicate ID: LCSD for HBN 1214525 [VXX37567]
Spike Duplicate Lab ID: 1627699
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1214525003, 1214525004, 1214525005

Results by **SW8260D**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Carbon tetrachloride	30	29.6	99	30	28.8	96	(72-136)	2.70	(< 20)
Chlorobenzene	30	28.7	96	30	28.3	94	(82-118)	1.60	(< 20)
Chloroethane	30	33.5	112	30	27.9	93	(60-138)	18.20	(< 20)
Chloroform	30	27.6	92	30	27.3	91	(79-124)	1.10	(< 20)
Chloromethane	30	25.4	85	30	25.2	84	(50-139)	0.74	(< 20)
cis-1,2-Dichloroethene	30	28.4	95	30	28.1	94	(78-123)	0.88	(< 20)
cis-1,3-Dichloropropene	30	28.8	96	30	28.9	96	(75-124)	0.43	(< 20)
Dibromochloromethane	30	28.7	96	30	28.8	96	(74-126)	0.51	(< 20)
Dibromomethane	30	27.9	93	30	28.2	94	(79-123)	1.30	(< 20)
Dichlorodifluoromethane	30	28.4	95	30	27.8	93	(32-152)	2.30	(< 20)
Ethylbenzene	30	29.0	97	30	28.6	95	(79-121)	1.60	(< 20)
Freon-113	45	44.4	99	45	43.4	96	(70-136)	2.40	(< 20)
Hexachlorobutadiene	30	30.7	102	30	30.2	101	(66-134)	1.60	(< 20)
Isopropylbenzene (Cumene)	30	29.6	99	30	29.6	99	(72-131)	0.06	(< 20)
Methylene chloride	30	27.8	93	30	27.7	92	(74-124)	0.30	(< 20)
Methyl-t-butyl ether	45	43.5	97	45	43.9	98	(71-124)	0.85	(< 20)
Naphthalene	30	28.5	95	30	30.4	101	(61-128)	6.30	(< 20)
n-Butylbenzene	30	30.4	101	30	29.9	100	(75-128)	1.70	(< 20)
n-Propylbenzene	30	29.7	99	30	29.1	97	(76-126)	2.10	(< 20)
o-Xylene	30	28.9	97	30	28.6	95	(78-122)	1.10	(< 20)
P & M -Xylene	60	57.8	96	60	57.0	95	(80-121)	1.50	(< 20)
sec-Butylbenzene	30	30.0	100	30	29.5	99	(77-126)	1.40	(< 20)
Styrene	30	29.9	100	30	29.4	98	(78-123)	1.90	(< 20)
tert-Butylbenzene	30	29.8	99	30	29.4	98	(78-124)	1.50	(< 20)
Tetrachloroethene	30	29.9	100	30	29.1	97	(74-129)	2.80	(< 20)
Toluene	30	28.4	95	30	27.8	93	(80-121)	2.00	(< 20)
trans-1,2-Dichloroethene	30	28.8	96	30	28.2	94	(75-124)	2.10	(< 20)
trans-1,3-Dichloropropene	30	29.2	97	30	29.2	97	(73-127)	0.24	(< 20)
Trichloroethene	30	29.1	97	30	28.6	95	(79-123)	1.70	(< 20)
Trichlorofluoromethane	30	29.3	98	30	28.0	93	(65-141)	4.40	(< 20)
Vinyl acetate	30	28.8	96	30	29.3	98	(54-146)	1.70	(< 20)
Vinyl chloride	30	26.9	90	30	26.3	88	(58-137)	2.40	(< 20)
Xylenes (total)	90	86.8	96	90	85.6	95	(79-121)	1.30	(< 20)

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1214525 [VXX37567]
Blank Spike Lab ID: 1627698
Date Analyzed: 08/02/2021 14:16

Spike Duplicate ID: LCSD for HBN 1214525 [VXX37567]
Spike Duplicate Lab ID: 1627699
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1214525003, 1214525004, 1214525005

Results by **SW8260D**

	Blank Spike (%)			Spike Duplicate (%)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Surrogates									
1,2-Dichloroethane-D4 (surr)	30		98	30		98	(81-118)	0.52	
4-Bromofluorobenzene (surr)	30		99	30		100	(85-114)	0.37	
Toluene-d8 (surr)	30		100	30		100	(89-112)	0.07	

Batch Information

Analytical Batch: **VMS21008**
Analytical Method: **SW8260D**
Instrument: **Agilent 7890-75MS**
Analyst: **JMG**

Prep Batch: **VXX37567**
Prep Method: **SW5030B**
Prep Date/Time: **08/02/2021 06:00**
Spike Init Wt./Vol.: 30 ug/L Extract Vol: 5 mL
Dupe Init Wt./Vol.: 30 ug/L Extract Vol: 5 mL

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Method Blank

Blank ID: MB for HBN 1823119 [XXX/45255]
Blank Lab ID: 1626176

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1214525001, 1214525002, 1214525003, 1214525004, 1214525005, 1214525006, 1214525007, 1214525008

Results by **8270D SIM LV (PAH)**

Parameter	Results	LOQ/CL	DL	Units
1-Methylnaphthalene	0.0250U	0.0500	0.0150	ug/L
2-Methylnaphthalene	0.0250U	0.0500	0.0150	ug/L
Acenaphthene	0.0250U	0.0500	0.0150	ug/L
Acenaphthylene	0.0250U	0.0500	0.0150	ug/L
Anthracene	0.0250U	0.0500	0.0150	ug/L
Benzo(a)Anthracene	0.0250U	0.0500	0.0150	ug/L
Benzo[a]pyrene	0.0100U	0.0200	0.00620	ug/L
Benzo[b]Fluoranthene	0.0250U	0.0500	0.0150	ug/L
Benzo[g,h,i]perylene	0.0250U	0.0500	0.0150	ug/L
Benzo[k]fluoranthene	0.0250U	0.0500	0.0150	ug/L
Chrysene	0.0250U	0.0500	0.0150	ug/L
Dibenzo[a,h]anthracene	0.0100U	0.0200	0.00620	ug/L
Fluoranthene	0.0250U	0.0500	0.0150	ug/L
Fluorene	0.0250U	0.0500	0.0150	ug/L
Indeno[1,2,3-c,d] pyrene	0.0250U	0.0500	0.0150	ug/L
Naphthalene	0.0500U	0.100	0.0310	ug/L
Phenanthrene	0.0193J	0.0500	0.0150	ug/L
Pyrene	0.0250U	0.0500	0.0150	ug/L
Surrogates				
2-Methylnaphthalene-d10 (surr)	60.3	42-86		%
Fluoranthene-d10 (surr)	75.1	50-97		%

Batch Information

Analytical Batch: XMS12798
Analytical Method: 8270D SIM LV (PAH)
Instrument: SVA Agilent 780/5975 GC/MS
Analyst: LAW
Analytical Date/Time: 7/29/2021 1:53:00PM

Prep Batch: XXX45255
Prep Method: SW3535A
Prep Date/Time: 7/28/2021 10:30:55AM
Prep Initial Wt./Vol.: 250 mL
Prep Extract Vol: 1 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1214525 [XXX45255]
Blank Spike Lab ID: 1626177
Date Analyzed: 07/29/2021 14:13

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1214525001, 1214525002, 1214525003, 1214525004, 1214525005, 1214525006, 1214525007, 1214525008

Results by **8270D SIM LV (PAH)**

Blank Spike (ug/L)

Parameter	Spike	Result	Rec (%)		CL
1-Methylnaphthalene	2	1.07	54		(41-115)
2-Methylnaphthalene	2	1.06	53		(39-114)
Acenaphthene	2	1.19	60		(48-114)
Acenaphthylene	2	1.27	63		(35-121)
Anthracene	2	1.21	61		(53-119)
Benzo(a)Anthracene	2	1.05	53	*	(59-120)
Benzo[a]pyrene	2	1.29	65		(53-120)
Benzo[b]Fluoranthene	2	1.18	59		(53-126)
Benzo[g,h,i]perylene	2	1.59	80		(44-128)
Benzo[k]fluoranthene	2	1.32	66		(54-125)
Chrysene	2	1.16	58		(57-120)
Dibenzo[a,h]anthracene	2	1.67	84		(44-131)
Fluoranthene	2	0.974	49	*	(58-120)
Fluorene	2	1.23	62		(50-118)
Indeno[1,2,3-c,d] pyrene	2	1.55	77		(48-130)
Naphthalene	2	1.09	55		(43-114)
Phenanthrene	2	1.24	62		(53-115)
Pyrene	2	0.990	50	*	(53-121)
Surrogates					
2-Methylnaphthalene-d10 (surr)	2		54		(42-86)
Fluoranthene-d10 (surr)	2		52		(50-97)

Batch Information

Analytical Batch: **XMS12798**
Analytical Method: **8270D SIM LV (PAH)**
Instrument: **SVA Agilent 780/5975 GC/MS**
Analyst: **LAW**

Prep Batch: **XXX45255**
Prep Method: **SW3535A**
Prep Date/Time: **07/28/2021 10:30**
Spike Init Wt./Vol.: 2 ug/L Extract Vol: 1 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1214580004
MS Sample ID: 1626178 MS
MSD Sample ID: 1626179 MSD

Analysis Date: 07/29/2021 20:01
Analysis Date: 07/29/2021 20:22
Analysis Date: 07/29/2021 20:42
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1214525001, 1214525002, 1214525003, 1214525004, 1214525005, 1214525006, 1214525007, 1214525008

Results by **8270D SIM LV (PAH)**

		Matrix Spike (ug/L)				Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)		Spike	Result	Rec (%)		CL	RPD (%)	RPD CL
1-Methylnaphthalene	0.0255U	1.89	.973	52		1.92	0.944	49		41-115	3.00	(< 20)
2-Methylnaphthalene	0.0255U	1.89	.949	50		1.92	0.932	49		39-114	1.80	(< 20)
Acenaphthene	0.0255U	1.89	1.05	56		1.92	1.00	52		48-114	4.60	(< 20)
Acenaphthylene	0.0255U	1.89	1.13	60		1.92	1.09	57		35-121	4.20	(< 20)
Anthracene	0.0255U	1.89	1.1	58		1.92	1.03	54		53-119	6.60	(< 20)
Benzo(a)Anthracene	0.0255U	1.89	1.07	57	*	1.92	1.03	53	*	59-120	4.00	(< 20)
Benzo[a]pyrene	0.0102U	1.89	1.11	59		1.92	1.09	57		53-120	1.80	(< 20)
Benzo[b]Fluoranthene	0.0255U	1.89	1.14	60		1.92	1.10	57		53-126	2.90	(< 20)
Benzo[g,h,i]perylene	0.0255U	1.89	1.13	60		1.92	1.12	58		44-128	1.30	(< 20)
Benzo[k]fluoranthene	0.0255U	1.89	1.11	59		1.92	1.11	58		54-125	0.19	(< 20)
Chrysene	0.0255U	1.89	1.1	58		1.92	1.07	56	*	57-120	3.10	(< 20)
Dibenzo[a,h]anthracene	0.0102U	1.89	1.22	65		1.92	1.20	62		44-131	2.00	(< 20)
Fluoranthene	0.0255U	1.89	.987	52	*	1.92	0.936	49	*	58-120	5.30	(< 20)
Fluorene	0.0255U	1.89	1.07	57		1.92	1.03	53		50-118	4.30	(< 20)
Indeno[1,2,3-c,d] pyrene	0.0255U	1.89	1.17	62		1.92	1.15	60		48-130	1.40	(< 20)
Naphthalene	0.0510U	1.89	1.01	54		1.92	1.01	52		43-114	0.45	(< 20)
Phenanthrene	0.0255U	1.89	1.1	58		1.92	1.03	54		53-115	6.80	(< 20)
Pyrene	0.0255U	1.89	.986	52	*	1.92	0.939	49	*	53-121	5.00	(< 20)
Surrogates												
2-Methylnaphthalene-d10 (surr)		1.89	1.01	54		1.92	0.946	49		42-86	6.90	
Fluoranthene-d10 (surr)		1.89	1.06	56		1.92	0.997	52		50-97	6.20	

Batch Information

Analytical Batch: XMS12798
Analytical Method: 8270D SIM LV (PAH)
Instrument: SVA Agilent 780/5975 GC/MS
Analyst: LAW
Analytical Date/Time: 7/29/2021 8:22:00PM

Prep Batch: XXX45255
Prep Method: 3535 Solid Phase Ext for 8270 PAH SIM LV
Prep Date/Time: 7/28/2021 10:30:55AM
Prep Initial Wt./Vol.: 265.00mL
Prep Extract Vol: 1.00mL

Print Date: 08/23/2021 8:34:26AM

Method Blank

Blank ID: MB for HBN 1823263 [XXX/45275]
Blank Lab ID: 1626887

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1214525001, 1214525002, 1214525003, 1214525004, 1214525005

Results by **AK102**

Parameter	Results	LOQ/CL	DL	Units
Diesel Range Organics	0.300U	0.600	0.180	mg/L
Surrogates				
5a Androstane (surr)	100	60-120		%

Batch Information

Analytical Batch: XFC16031
Analytical Method: AK102
Instrument: Agilent 7890B R
Analyst: A.A
Analytical Date/Time: 8/5/2021 1:17:00AM

Prep Batch: XXX45275
Prep Method: SW3520C
Prep Date/Time: 7/30/2021 2:58:35PM
Prep Initial Wt./Vol.: 250 mL
Prep Extract Vol: 1 mL

Print Date: 08/23/2021 8:34:28AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1214525 [XXX45275]
Blank Spike Lab ID: 1626888
Date Analyzed: 08/05/2021 01:27

Spike Duplicate ID: LCSD for HBN 1214525 [XXX45275]
Spike Duplicate Lab ID: 1626889
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1214525001, 1214525002, 1214525003, 1214525004, 1214525005

Results by **AK102**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Diesel Range Organics	20	19.7	99	20	21.6	108	(75-125)	9.10	(< 20)
Surrogates									
5a Androstane (surr)	0.4		110	0.4		117	(60-120)	6.10	

Batch Information

Analytical Batch: **XFC16031**
Analytical Method: **AK102**
Instrument: **Agilent 7890B R**
Analyst: **A.A**

Prep Batch: **XXX45275**
Prep Method: **SW3520C**
Prep Date/Time: **07/30/2021 14:58**
Spike Init Wt./Vol.: 20 mg/L Extract Vol: 1 mL
Dupe Init Wt./Vol.: 20 mg/L Extract Vol: 1 mL

SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Method Blank

Blank ID: MB for HBN 1823263 [XXX/45275]
Blank Lab ID: 1626887

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1214525001, 1214525002, 1214525003, 1214525004, 1214525005

Results by **AK103**

Parameter	Results	LOQ/CL	DL	Units
Residual Range Organics	0.250U	0.500	0.150	mg/L
Surrogates				
n-Triacontane-d62 (surr)	109	60-120		%

Batch Information

Analytical Batch: XFC16031
Analytical Method: AK103
Instrument: Agilent 7890B R
Analyst: A.A
Analytical Date/Time: 8/5/2021 1:17:00AM

Prep Batch: XXX45275
Prep Method: SW3520C
Prep Date/Time: 7/30/2021 2:58:35PM
Prep Initial Wt./Vol.: 250 mL
Prep Extract Vol: 1 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1214525 [XXX45275]
Blank Spike Lab ID: 1626888
Date Analyzed: 08/05/2021 01:27

Spike Duplicate ID: LCSD for HBN 1214525 [XXX45275]
Spike Duplicate Lab ID: 1626889
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1214525001, 1214525002, 1214525003, 1214525004, 1214525005

Results by **AK103**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Residual Range Organics	20	20.8	104	20	22.0	110	(60-120)	5.60	(< 20)
Surrogates									
n-Triacontane-d62 (surr)	0.4		113	0.4		112	(60-120)	0.67	

Batch Information

Analytical Batch: **XFC16031**
Analytical Method: **AK103**
Instrument: **Agilent 7890B R**
Analyst: **A.A**

Prep Batch: **XXX45275**
Prep Method: **SW3520C**
Prep Date/Time: **07/30/2021 14:58**
Spike Init Wt./Vol.: 20 mg/L Extract Vol: 1 mL
Dupe Init Wt./Vol.: 20 mg/L Extract Vol: 1 mL

SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
t 907.562.2343 **f** 907.561.5301 www.us.sgs.com

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD

1214525

KING SALMON

PM 341971 AD

Page 1 of 2

Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Section 1

CLIENT: ADEC Weston Solutions, Inc.

CONTACT: Martin Mylet — PHONE #: 907-343-2709, 907-231-7902

PROJECT NAME: ADEC Eskimo Creek — PROJECT/PWSID/PERMIT#: Eddies Fireside Inn

REPORTS TO: Martin Mylet — E-MAIL: martin.mylet@westonsolutions.com — Profile #: Weston Solutions.com

INVOICE TO: Weston Solutions C/O Martin Mylet — QUOTE #: — P.O. #: 13345.017.002.0010

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Comp Grab MI (Multi-incremental)	Preservative					Analysis*									NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS
							HCl	HCl	HCl	HCl	none										
							GRO AK101	VOC 8260	DRO/RRO AK102/103	BTEX 8021B	PAH 8270 SIM										REMARKS/LOC ID
1A-S	GW-EC-MW4-01	7/22/21	0850	W	10	Grab	X	X	X		X										
2A-S	GW-EC-MW3-02		1005				X	X	X		X										
3A-S	GW-EC-MW1-03		1120				X	X	X		X										
4A-S	GW-EC-MW7-04		1130				X	X	X		X										
5A-S	GW-EC-MP3-05		1345				X	X	X		X										
6A-D	SW-EC-SW2-06		1350		5					X	X										
7A-D	SW-EC-SW1-07		1410							X	X										
8A-D	SW-EC-SW3-08		1420							X	X										
9A-O	TB01	7/11/21	0900		3					X											
10A-O	TB02				3			X													

Section 3 — Preservative

Section 4

DOD Project? Yes (No)

Cooler ID: _____

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Standard

Temp Blank °C: 2-2 D62

or Ambient [ ]

Chain of Custody Seal: (Circle) (IF) INTACT BROKEN ABSENT

Delivery Method: Hand Delivery [ ] Commerical Delivery [ ]

Section 5

	Date	Time	
Relinquished By: (1)	7/23/21	0915	Received By:
Relinquished By: (2)			Received By:
Relinquished By: (3)			Received By:
Relinquished By: (4)	7/23/21	9:32	Received For Laboratory By:

http://www.sgs.com/terms-and-conditions

SGS North America Inc.
CHAIN OF CUSTODY RECORD

KINGSTEMON

www.us.sgs.com

Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Section 1

CLIENT: Weston Solutions, Inc.	
CONTACT: Martin Mylet	**PHONE #:** 907-343-2700 907-231-7902
PROJECT NAME: ADEC Eskimo Creek	**PROJECT/ PWSID/ PERMIT#:** Eddies Fireside Inn
REPORTS TO: Martin Mylet	**E-MAIL:** Martin.Mylet@ **Profile #:** WestonSolutions.com
INVOICE TO: Weston Solutions c/o Martin Mylet	**QUOTE #:** **P.O. #:** 13345.017.002.0010

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Comp Grab MI (Multi-incremental)	Analysis* 1014 AK101									REMARKS/LOC ID
	IA-GT803	7/11/21	0800	W	3	G	X									

Preservative: HCl

NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS

Section 5

	Date	Time	
Relinquished By: (1)	7/23/21	0915	**Received By:**
Relinquished By: (2)			**Received By:**
Relinquished By: (3)			**Received By:**
Relinquished By: (4)	7/23/21	9:32	**Received For Laboratory By:** RSC

Section 4

DOD Project? Yes No

Cooler ID:

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 2.2 D62

or Ambient [ ]

Chain of Custody Seal: (Circle) (IF) **INTACT** **BROKEN** **ABSENT**

Delivery Method: Hand Delivery [ ] Commerical Delivery [ ]

e-Sample Receipt Form

SGS Workorder #: **1214525**

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		N/A Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	Yes	1F
COC accompanied samples?	Yes	
DOD: Were samples received in COC corresponding coolers?	N/A	
N/A **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	Yes	Cooler ID: 1 @ 2.2 °C Therm. ID: D62
If samples received without a temperature blank, the "cooler temperature" will be documented instead & "COOLER TEMP" will be noted to the right. "ambient" or "chilled" will be noted if neither is available.		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?	N/A	
If <0°C, were sample containers ice free?	N/A	
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	Yes	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	Yes	
**Note: If times differ <1hr, record details & login per COC.		
***Note: If sample information on containers differs from COC, SGS will default to COC information		
Were analytical requests clear? (i.e., method is specified for analyses with multiple option for analysis (Ex: BTEX, Metals)	Yes	
		N/A ***Exemption permitted for metals (e.g,200.8/6020B).
Were proper containers (type/mass/volume/preservative***)used?	Yes	
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	N/A	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	N/A	
Were all soil VOAs field extracted with MeOH+BFB?	N/A	

Note to Client: Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition
1214525001-A	HCL to pH < 2	OK
1214525001-B	HCL to pH < 2	OK
1214525001-C	HCL to pH < 2	OK
1214525001-D	HCL to pH < 2	OK
1214525001-E	HCL to pH < 2	OK
1214525001-F	HCL to pH < 2	OK
1214525001-G	HCL to pH < 2	OK
1214525001-H	HCL to pH < 2	OK
1214525001-I	No Preservative Required	OK
1214525001-J	No Preservative Required	OK
1214525002-A	HCL to pH < 2	OK
1214525002-B	HCL to pH < 2	OK
1214525002-C	HCL to pH < 2	OK
1214525002-D	HCL to pH < 2	OK
1214525002-E	HCL to pH < 2	OK
1214525002-F	HCL to pH < 2	OK
1214525002-G	HCL to pH < 2	OK
1214525002-H	HCL to pH < 2	OK
1214525002-I	No Preservative Required	OK
1214525002-J	No Preservative Required	OK
1214525003-A	HCL to pH < 2	OK
1214525003-B	HCL to pH < 2	OK
1214525003-C	HCL to pH < 2	OK
1214525003-D	HCL to pH < 2	OK
1214525003-E	HCL to pH < 2	OK
1214525003-F	HCL to pH < 2	OK
1214525003-G	HCL to pH < 2	OK
1214525003-H	HCL to pH < 2	OK
1214525003-I	No Preservative Required	OK
1214525003-J	No Preservative Required	OK
1214525004-A	HCL to pH < 2	OK
1214525004-B	HCL to pH < 2	OK
1214525004-C	HCL to pH < 2	OK
1214525004-D	HCL to pH < 2	OK
1214525004-E	HCL to pH < 2	OK
1214525004-F	HCL to pH < 2	OK
1214525004-G	HCL to pH < 2	OK
1214525004-H	HCL to pH < 2	OK
1214525004-I	No Preservative Required	OK
1214525004-J	No Preservative Required	OK
1214525005-A	HCL to pH < 2	OK
1214525005-B	HCL to pH < 2	OK
1214525005-C	HCL to pH < 2	OK
1214525005-D	HCL to pH < 2	OK
1214525005-E	HCL to pH < 2	OK
1214525005-F	HCL to pH < 2	OK
1214525005-G	HCL to pH < 2	OK
1214525005-H	HCL to pH < 2	OK
1214525005-I	No Preservative Required	OK
1214525005-J	No Preservative Required	OK
1214525006-A	HCL to pH < 2	OK
1214525006-B	HCL to pH < 2	OK
1214525006-C	HCL to pH < 2	OK
1214525006-D	No Preservative Required	OK
1214525006-E	No Preservative Required	OK
1214525007-A	HCL to pH < 2	OK
1214525007-B	HCL to pH < 2	OK
1214525007-C	HCL to pH < 2	OK
1214525007-D	No Preservative Required	OK
1214525007-E	No Preservative Required	OK
1214525008-A	HCL to pH < 2	OK
1214525008-B	HCL to pH < 2	OK
1214525008-C	HCL to pH < 2	OK
1214525008-D	No Preservative Required	OK
1214525008-E	No Preservative Required	OK
1214525009-A	HCL to pH < 2	OK
1214525009-B	HCL to pH < 2	OK
1214525009-C	HCL to pH < 2	OK
1214525010-A	HCL to pH < 2	OK
1214525010-B	HCL to pH < 2	OK
1214525010-C	HCL to pH < 2	OK
1214525011-A	HCL to pH < 2	OK
1214525011-B	HCL to pH < 2	OK
1214525011-C	HCL to pH < 2	OK

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.
PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
QN - Insufficient sample quantity provided.

ADEC DATA REVIEW CHECKLIST AND QAR MEMO

Laboratory Data Review Checklist

Completed By:

Gloria Beckman

Title:

Senior Chemist

Date:

11/18/2021

Consultant Firm:

Corvid, LLC

Laboratory Name:

SGS Alaska

Laboratory Report Number:

1214525

Laboratory Report Date:

8/25/2021

CS Site Name:

Eskimo Creek/Eddies Fire Place Inn

ADEC File Number:

2569.38.008

Hazard Identification Number:

2152

1214525

Laboratory Report Date:

8/25/2021

CS Site Name:

Eskimo Creek/Eddies Fire Place Inn

Note: Any N/A or No box checked must have an explanation in the comments box.

1. Laboratory

   a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

   Yes☒ No☐ N/A☐ Comments:

   b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

   Yes☐ No☐ N/A☒ Comments:

2. Chain of Custody (CoC)

   a. CoC information completed, signed, and dated (including released/received by)?

   Yes☒ No☐ N/A☐ Comments:

   b. Correct analyses requested?

   Yes☒ No☐ N/A☐ Comments:

3. Laboratory Sample Receipt Documentation

   a. Sample/cooler temperature documented and within range at receipt (0° to 6° C)?

   Yes☒ No☐ N/A☐ Comments:

   b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

   Yes☒ No☐ N/A☐ Comments:

1214525

Laboratory Report Date:

8/25/2021

CS Site Name:

Eskimo Creek/Eddies Fire Place Inn

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

Yes☒ No☐ N/A☐ Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

Yes☐ No☐ N/A☒ Comments:

e. Data quality or usability affected?

Comments:

No

4. Case Narrative

a. Present and understandable?

Yes☒ No☐ N/A☐ Comments:

b. Discrepancies, errors, or QC failures identified by the lab?

Yes☒ No☐ N/A☐ Comments:

c. Were all corrective actions documented?

Yes☒ No☐ N/A☐ Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Not addressed

1214525

Laboratory Report Date:

8/25/2021

CS Site Name:

Eskimo Creek/Eddies Fire Place Inn

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

Yes☒ No☐ N/A☐ Comments:

b. All applicable holding times met?

Yes☒ No☐ N/A☐ Comments:

c. All soils reported on a dry weight basis?

Yes☐ No☐ N/A☒ Comments:

d. Are the reported LOQs less than the Cleanup Level or the minimum required detection level for the project?

Yes☐ No☒ N/A☐ Comments:

Limits were elevated in sample GW-EC-MP3-05 for PAHs when sample was diluted due to interference with internal standards. The LOQ for 1,2,3-trichloropropane is above the established cleanup criteria. Because chlorinated compounds have not been detected at the site, this compound is not a concern. However, if it does become a concern in the future a more sensitive method should be used to achieve a lower LOQ.

e. Data quality or usability affected?

None

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

Yes☒ No☐ N/A☐ Comments:

1214525

Laboratory Report Date:

8/25/2021

CS Site Name:

Eskimo Creek/Eddies Fire Place Inn

ii. All method blank results less than limit of quantitation (LOQ) or project specified objectives?

Yes☒ No☐ N/A☐ Comments:

iii. If above LOQ or project specified objectives, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes☐ No☐ N/A☒ Comments:

v. Data quality or usability affected?

Comments:

No

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

Yes☒ No☐ N/A☐ Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

Yes☐ No☐ N/A☒ Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

Yes☐ No☒ N/A☐ Comments:

1214525

Laboratory Report Date:

8/25/2021

CS Site Name:

Eskimo Creek/Eddies Fire Place Inn

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? RPD reported from LCS/LCSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

Yes☒ No☐ N/A☐ Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

GW-EC-MW4-01, MW3-02, MW1-03, MW7-04, MP3-05, SW2-06, SW1-07, and SW3-08, all samples impacted as recoveries were below acceptance limits.

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes☒ No☐ N/A☐ Comments:

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

Results are considered low biased

c. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Note: Leave blank if not required for project

i. Organics – One MS/MSD reported per matrix, analysis and 20 samples?

Yes☒ No☐ N/A☐ Comments:

ii. Metals/Inorganics – one MS and one MSD reported per matrix, analysis and 20 samples?

Yes☐ No☐ N/A☒ Comments:

1214525

Laboratory Report Date:

8/25/2021

CS Site Name:

Eskimo Creek/Eddies Fire Place Inn

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

Yes☐ No☒ N/A☐ Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? RPD reported from MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

Yes☒ No☐ N/A☐ Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Sample results were previously qualified due to low LCS recovery. Chrysene was not qualified because LCS was in control.

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes☒ No☐ N/A☐ Comments:

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

No

d. Surrogates – Organics Only or Isotope Dilution Analytes (IDA) – Isotope Dilution Methods Only

i. Are surrogate/IDA recoveries reported for organic analyses – field, QC and laboratory samples?

Yes☒ No☐ N/A☐ Comments:

1214525

Laboratory Report Date:

8/25/2021

CS Site Name:

Eskimo Creek/Eddies Fire Place Inn

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

Yes☐ No☒ N/A☐ Comments:

iii. Do the sample results with failed surrogate/IDA recoveries have data flags? If so, are the data flags clearly defined?

Yes☒ No☐ N/A☐ Comments:

iv. Data quality or usability affected?

Comments:

Positive results for GRO are considered estimated as high bias.

e. Trip Blanks

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

Yes☒ No☐ N/A☐ Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

Yes☒ No☐ N/A☐ Comments:

iii. All results less than LOQ and project specified objectives?

Yes☒ No☐ N/A☐ Comments:

iv. If above LOQ or project specified objectives, what samples are affected?

Comments:

NA

1214525

Laboratory Report Date:

8/25/2021

CS Site Name:

Eskimo Creek/Eddies Fire Place Inn

v. Data quality or usability affected?

Comments:

No

f. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

Yes☒ No☐ N/A☐ Comments:

ii. Submitted blind to lab?

Yes☒ No☐ N/A☐ Comments:

iii. Precision – All relative percent differences (RPD) less than specified project objectives? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

Yes☒ No☐ N/A☐ Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

No

g. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below)?

Yes☐ No☐ N/A☒ Comments:

Not required for the annual groundwater program.

1214525

Laboratory Report Date:

8/25/2021

CS Site Name:

Eskimo Creek/Eddies Fire Place Inn

i. All results less than LOQ and project specified objectives?

Yes☒ No☐ N/A☐ Comments:

ii. If above LOQ or project specified objectives, what samples are affected?

Comments:

None

iii. Data quality or usability affected?

Comments:

No

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

Yes☐ No☐ N/A☒ Comments:

M E M O R A N D U M

Date:	November 18/2021
From:	Gloria Beckman, Corvid, LLC., Anchorage, Alaska
To:	Martin Mylet, Project Manager, Weston Solutions, Inc., Anchorage, Alaska
Subject:	**Quality Assurance Review, 2021 Eskimo Creek - Eddie's Fireplace Inn**
ADEC File No:	**2569.38.008**

Laboratory Quality Assurance/Quality Control (QA/QC) data associated with the analysis of project samples was reviewed to evaluate the integrity of the analytical data generated during the July 2021 groundwater and surface water monitoring event for Eskimo Creek - Eddie's Fireplace Inn project. Environmental samples were delivered to SGS North America, Inc. in Anchorage, Alaska and reported as a single sample delivery group (SDG), 1195021.

Sample collection, transportation/handling, and reporting as well as the analytical data were reviewed in accordance with appropriate United States Environmental Protection Agency (EPA) procedural guidance documents (EPA 2017) and ADEC regulatory guidance documents (ADEC.2017; 2019). This data review focuses on criteria for the following QA/QC parameters and their effect on the quality of data and usability: sample handling and chain-of-custody (CoC) documentation; holding time compliance; field QA/QC (trip blanks, field duplicates) results; laboratory QA/QC (method blanks, laboratory control samples, surrogates, laboratory duplicates, matrix spike and matrix spike duplicate [MS/MSD]) results and analytical methods; method reporting limits; precision and accuracy; and completeness. In the absence of other regulatory QC guidance, method- and/or standard operating procedure-specific QC limits were utilized to apply qualifiers to the data.

Samples were tested using the following methods for the associated analytes:

- Polycyclic Aromatic Hydrocarbons (PAH) by EPA Solid Waste (SW) Method 8270D Sim
- Volatile Organic Compounds (VOC) by EPA Solid Waste (SW) Method 8260B
- Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) by EPA Solid Waste (SW) Method 8260B
- Gasoline Range Organics (GRO) by Alaska (AK) Method 101
- Diesel Range Organics (DRO) by Alaska (AK) Method 102
- Residual Range Organics (RRO) by Alaska (AK) Method 103

All sample results are considered usable and meet project objectives. The completeness for this project is 100%. The details of this review and qualification of the data are summarized in the following sections.

SAMPLE HANDLING AND CHAIN OF CUSTODY

A single sample cooler was hand delivered with COC forms to SGS North America Anchorage laboratory (SGS). The COC form, laboratory sample receipt form and case narrative were reviewed to determine if any sample handling activities might affect the integrity of the samples and the quality of the associated data.

All sample containers in the sample cooler were received at the laboratory intact and with proper documentation.

FIELD QA/QC

Field QA/QC protocols are designed to monitor for possible contamination during collection and transport of samples collected in the field. Collection and analysis of field duplicates also facilitates an evaluation of precision that takes into account potential variables associated with sampling procedures and laboratory analyses. For this project trip blanks and field duplicates were submitted for analysis. Equipment blanks were not required by the annual groundwater monitoring project.

Trip Blanks

Water trip blanks were prepared by the laboratory, shipped to the site with the empty sample bottles/containers, stored with sample containers during the field event, and transported with the collected samples back to the laboratory for analysis. Three trip blanks were placed in the same cooler as the project volatile samples.

A separate trip blank was submitted for each of the following parameters VOCs, BTEX and GRO and results were less than the limit of quantitation limits of quantitation (LOQ) for all analytes.

Field Duplicates

GW-EC-MW7-04 was a duplicate of GW-EC-MW1-03. No surface water sample duplicates were collected. All RPDs were acceptable.

LABORATORY QA/QC

Method Blanks

Method blanks were analyzed concurrent with each batch of 20 or fewer primary samples for each of the analytical procedures performed for this project. Method blanks were analyzed at the required frequency and target analytes were not detected in the blanks at concentrations above the LOQ.

Laboratory Control Samples

The laboratory monitors internal precision and accuracy for each analytical batch with a set of laboratory control samples (LCS/LCSD). A known quantity of target analytes are added to blank laboratory control samples prior to extraction and analysis and recoveries and relative percent differences (RPDs) are calculated. Acceptable recovery criteria vary with each analytical method, analyte and matrix.

LCS/LCSD percent recoveries did not meet acceptance criteria for fluoranthene, benzo(a)anthracene, and pyrene:

- The non -detected results or limit of detection (LODs) for the above mentioned analytes in all groundwater and surface water samples are considered low biased and estimated (UJ-L). This data flag was placed in the analytical data tables provided with the report.

Matrix Spikes

Extra volumes of primary field samples were collected and submitted to the laboratory for MS/MSD analyses. Matrix spikes have a known quantity of target analytes added (spiked) to field samples. Spike recoveries are calculated and are used to evaluate both site conditions and laboratory quality control. Matrix spike and matrix spike duplicate values did not meet acceptance criteria for fluoranthene, benzo(a)anthracene, chrysene and pyrene in the MS/MSD sample associated with all samples. Because fluoranthene, benzo(a)anthracene, and pyrene results in all samples were previous qualified due to out of control LCS/LCSD quality control criteria, sample results were not qualified for MS/MSD exceedances. The LCS/LCSD criteria were met for chrysene; therefore, the non-detected results were not qualified due to matrix interference.

Surrogates

System monitoring compounds (surrogates) are specified for organic chromatographic analytical procedures. These compounds are added to each sample prior to collection or during extraction. Subsequent surrogate recovery indicates overall method performance.

Surrogate recoveries were within prescribed control limits for all primary samples, LCS/LCSD and MS/MSD with the following exceptions:

- The GRO surrogate for GW-EC-MW1-03 and GW-EC-MW7-04 were recovered above acceptance criteria; therefore, the associated sample results are considered estimated (J-S) and high biased.
- The PAH surrogate recovery in sample GW-EC-MP3-05 was below acceptance criteria. Therefore, all non-detected results in the sample are considered estimated (UJ-S).

Detection Limits

The laboratory established detection limits were below the ADEC cleanup levels except for 1,2,3-trichloropropane by method SW8260; however, there is no significant impact to the project objectives as this is not a known contaminant of concern at this site. Should it become one in the future, more sensitive methodology should be used to achieve lower laboratory limits.

PRECISION AND ACCURACY

Precision criteria monitor analytical reproducibility. Accuracy criteria monitor agreement of measured results with "true values" established by spiking applicable samples with a known quantity of analyte or surrogate. Precision and accuracy were evaluated by comparing LCS/LCSDs, MS/MSDs for this project. MS/MSD samples were collected in accordance with Work Plan specifications. Recoveries and RPDs for all LCS/LSCD and MS/MSD samples were within required limits, with any exceptions noted in previous sections.

COMPLETENESS

Data completeness is defined as the percentage of usable data (usable data divided by the total possible data). The overall project completeness goal is 100%:

$$\% \text{ completeness} = \frac{\text{number of valid (i.e., non-R flagged) results}}{\text{number of possible results}}$$

All requested analyses were performed in accordance with work plan specifications. Completeness for this project is 100%.

REPRESENTATIVENESS

Data representativeness expresses the degree to which sample data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, or environmental condition. The number and selection of samples were specified in the work plan and verified in the field to account accurately for site variations and sample matrices. The data quality objectives (DQO) for representativeness were met.

COMPARABILITY

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared to another. Data produced for this project followed applicable field sampling techniques and specific analytical methodology. The DQO for comparability was met.

DATA SUMMARY

Based upon the information provided, all data are acceptable to support the project decision. All requested analyses were performed in accordance with work plan specifications. Completeness for this project is 100%. The EPA National Functional Guidelines (EPA 2017) were used to evaluate the acceptability of the data. Overall, data quality meets DQOs established in the work plan for this project.

REFERENCES:

ADEC. 2017. Technical Memorandum: Data Quality Objectives, Checklists, Quality Assurance Requirements for Laboratory Data, and Sample Handling. March.

ADEC. 2019 Laboratory Data Review Checklist. Version 2.7. July.

USEPA. 2017. Contract Laboratory Program National Functional Guidelines for Organic Data Review (EPA 540-R-2017-002). January.