GORDON THOMAS HONEYWELL LLP

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November 28, 2023

VIA EMAIL (aksood1@hotmail.com) AND FIRST-CLASS MAIL

Ankur and Aditi Sood
Whitty's LLC
672 S Main St
Colville, WA 99114

PO Box 391
Colville, WA 99114-0391

RE: New petroleum releases at 370 W. 5th, Colville, Washington

Dear Mr. and Mrs. Sood:

I represent Jeff Whitten and Whitten Oil, Inc., the former owner of the 370 W. 5th service station ("the Site") that you purchased in 2005 through LDH Investments, LLC. As you know, my client hired Fulcrum to investigate and remediate historical contamination on the Site resulting from releases of petroleum products. Fulcrum's efforts had almost attained applicable regulatory levels until 2018, when contamination levels began steadily worsening. As shown by the most recent sampling in September 2023, there has been an additional significant recent spike in contamination levels that can only be explained by a new release (I believe Fulcrum has provided the report to you, but I attach it here for ease of reference). The Washington Department of Ecology has taken note of this apparent new release and issued the attached opinion letter that, among other things, requires submission within 30 days of a work plan for evaluating off-Site soil and groundwater contamination:

> Data from 2018 to present indicate a new release of petroleum hydrocarbons and VOCs to groundwater which exceeds the MTCA Method A cleanup levels for GRPH, DRPH, ORPH, and benzene. The groundwater plume has migrated beyond the property boundary to the northwest and is no longer fully delineated. Ecology has concluded that additional Site investigation is necessary to delineate the complete horizontal and vertical extent of soil and groundwater contamination. Due to the proximity of residential homes immediately downgradient of monitoring well MW-7,

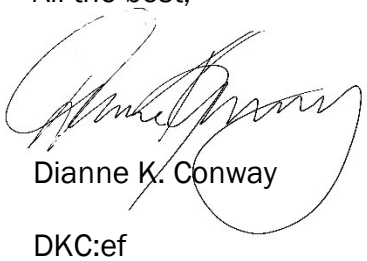
> Ecology will require an expedited response to determine whether any interim remedial actions are required to mitigate impacts to human health and the environment. Within 30 days of receiving this letter, please submit a work plan for evaluating off-property soil and groundwater contamination in accordance with Ecology's Guidance for Remediation of Petroleum Contaminated Sites (wa.gov).

As noted by Ecology, the data shows that there is a new release(s) at the Site. My client has no liability for this release(s) and is therefore looking to you to comply with Ecology's demands. Unfortunately, Fulcrum is conflicted from doing any work directly for you given that it works for my client. That said, Travis Trent at Fulcrum would be happy to discuss with you his thoughts of possible environmental consultants that you could retain; I will also check with my contacts regarding consultants who work in the Colville area.

Additionally: I strongly encourage you to file a claim with your insurance carrier relating to this release(s). UST insurance requirements in Washington State require you to have $1 million in insurance for tanks over 10,000 gallons and $500,000 for the remainder, so you presumably have coverage for the new release(s).

I am happy to speak with you regarding this matter and answer any questions you might have. I can also refer you to an environmental attorney, should you wish.

All the best,



Dianne K. Conway

DKC:ef
cc: Jeff Whitten (jeffwhitten59@gmail.com)
Travis Trent, Fulcrum (ttrent@efulcrum.net)
Ted M. Uecker, Dep't Ecology, ERO Toxics Cleanup Program (ted.uecker@ecy.wa.gov)

FULCRUM
environmental consulting

Whitten Oil
Groundwater Monitoring
September 2023
Sampling Report

Whitty's Chevron
370 West 5th Avenue
Colville, Washington 99114

Project Number: 233710.00

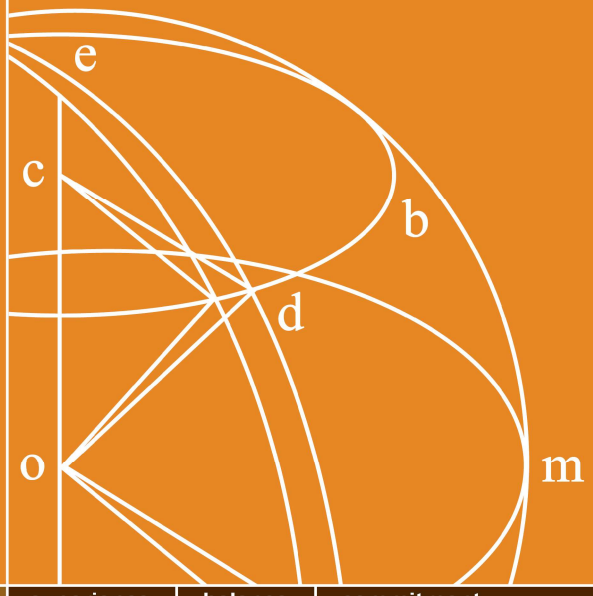
Date: November 1, 2023

Prepared for:

Whitten Oil
Attn: Jeff Whitten
1118 27th Avenue
Seattle, Washington 98122

Prepared by:

Fulcrum Environmental Consulting, Inc.
207 West Boone Avenue
Spokane, Washington 99201



Report Title: Whitten Oil Groundwater Monitoring September 2023 Sampling Report

Project Number: 233710.00

Date: November 1, 2023

Site: Whitty's Chevron
370 West 5th Avenue
Colville, Washington 99114

Prepared for: Whitten Oil
Attn: Jeff Whitten
1118 27th Avenue
Seattle, Washington 98122

Prepared by: Fulcrum Environmental Consulting, Inc.
207 West Boone Avenue
Spokane, Washington 99201
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The professionals who completed site services and prepared and reviewed this report include, but are not limited to:

Authored by: _____ Date: 11/01/2023
Abby Whitmore
Environmental Technician

Reviewed by: _____ Date: 11/01/2023
Ethan Ducken, GIT
Environmental Geologist

Reviewed by: _____ Date: 11/01/2023
Travis Trent, PG, CIH
Principal

Report Integrity

Fulcrum Environmental Consulting, Inc.'s scope of service for this project was limited to those services as established in the proposal, contract, verbal direction, and/or agreement. This report is subject to applicable federal, state, and local regulations governing project-specific conditions and was performed using recognized procedures and standards of the industry. Scientific data collected in situ may document conditions that may be specific to the time and day of service, and subject to change as a result of conditions beyond Fulcrum's control or knowledge. Fulcrum makes no warranties, expressed or implied, as to the accuracy or completeness of other's work included herein. Fulcrum has performed these services in accordance with generally accepted environmental science standards of care at the time of the inspection. No warranty, expressed or implied, is made.

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1.0 INTRODUCTION

On September 19, 2023, Fulcrum Environmental Consulting, Inc. (Fulcrum) conducted a semi-annual groundwater monitoring for seven monitoring wells located at Whitty's Chevron in Colville, Washington. The purpose of the monitoring was to evaluate petroleum hydrocarbon impacts to site groundwater associated with a historical gasoline release identified in September 1989.

Whitty's Chevron
370 West 5th Avenue, Colville, Washington

Site services were completed by Ethan Ducken, a Washington State recognized Geologist-In-Training (GIT), and Abby Whitmore, an Environmental Technician, both with Fulcrum. Work was completed under the direction of Travis Trent, a Washington State Licensed Geologist/Hydrogeologist and Principal with Fulcrum. Relevant professional certifications are presented in Appendix A.

1.1 Scope of Services

Fulcrum has been retained by Whitten Oil (Whitten) since 2017 to complete semi-annual groundwater sampling services for onsite groundwater monitoring wells at Whitty's Chevron located at 370 West 5th Avenue in Colville, Washington. Each semi-annual sampling event consists of measurement of water depths in seven onsite groundwater monitoring wells followed by collection of water samples from each well. Samples are collected in accordance with industry standard of care and submitted under chain of custody to a Washington State accredited laboratory to be analyzed for benzene, toluene, ethylbenzene, xylene (BTEX), gasoline-range organics, diesel-range organics, and heavy oil-range organics. Results of the investigation and testing from September 2023 are presented in this summary report.

1.2 Site Description

The site is located on the northeast corner of West Fifth Avenue (U.S. Highway 395) and North Lincoln Street in Colville, Washington. The subject facility functions as an active gasoline service station and car wash.

One refueling area containing one dispenser island was observed to be located south of the convenience store, while another gasoline/diesel refueling area with two dispenser islands was observed to be located north of the convenience store. A more recently constructed dispensing island is located southeast of the convenience store. Four operational underground storage tanks (USTs) were reported to be located west of the convenience store within the southern portion of the property: two 10,000-gallon diesel tanks, one 6,000-gallon premium gasoline tank, and one 10,000-gallon unleaded gasoline tank. A six-bay carwash station is located northwest of the convenience store.

The entire surface of the property was observed to be covered by building footprints, concrete, or asphalt. Historical reports and observations from Fulcrum's September 2020 groundwater monitoring well installation event identified that beneath the paved surface are three to eight feet (ft) of sandy fill material underlain by fine-grained alluvium down to 14.5 feet below ground surface (ft bgs).

1.3 Site Hydrogeology

The site sits approximately 1,586 ft above mean sea level (MSL). The inferred groundwater flow direction is to the northwest, generally following surface topography of the area, with a hydraulic gradient of 0.014. During Fulcrum's investigation, recorded site groundwater levels ranged from four to six feet below ground surface.

1.4 Background

The following information is summarized in part from prior project reporting provided by the owner. Fulcrum has made no independent investigation to verify accuracy of provided historical site information. A copy of the site's historical documentation is provided in Appendix B.

The subject facility has been in operation as a service station or bulk plant since the 1950s. Whitten Oil began operation around 1973, and the carwash was constructed around 1988. In September 1989, Petroleum Equipment Sales, Inc. (PES) was reportedly retained to decommission and replace onsite USTs during the construction of a new tank basin. Sunrise Environmental Services (SES) was retained by PES to observe the removal of the USTs and provide recommendations for corrective action. PES reportedly removed a total of six USTs from the site with one UST abandoned in place due to its location beneath the onsite office building. Three of the USTs were reported to have been suspect for leakage. Approximately 1,200 cubic yards of petroleum-contaminated soil was removed along with the USTs.

Following removal of the USTs and associated contaminated soils, additional site investigation was conducted to evaluate the potential for residual soil and/or groundwater impact. In January 1990, Delta Environmental Consultants (Delta) supervised drilling activities performed by Budinger & Associates. Six soil borings were drilled in suspected areas of petroleum hydrocarbon contamination to investigate for potential petroleum hydrocarbon impact to site soils/groundwater. The depth of soil borings ranged from 10 to 14.5 ft bgs. Soil samples were collected at 5-foot intervals during the advancement of soil borings. Soil samples that exhibited a petroleum hydrocarbon odor were submitted to the Technology Laboratory, Inc. of Fort Collins, Colorado for benzene, toluene, ethylbenzene, xylenes (BTEX) and total hydrocarbon analyses. Laboratory analysis identified petroleum hydrocarbons in only one of the collected samples (SB-5). Concentrations were reportedly below Washington State Department of Ecology's specified guidelines at the time.

All soil borings, with the exception of SB-5, were completed as groundwater monitoring wells, and groundwater samples were collected and submitted to the Technology Laboratory, Inc. of Fort Collins, Colorado, for BTEX and total hydrocarbon analyses. Laboratory analyses for BTEX and total hydrocarbons indicated that the groundwater had been impacted at the subject site. The highest hydrocarbon concentrations were detected in groundwater samples from monitoring wells MW-2 and MW-4, which were located in close proximity to the former UST basin. Detectable hydrocarbon concentrations were also found in downgradient monitoring well MW-6. It was Delta's professional opinion that site conditions posed little threat to humans or the environment due to tight soil conditions, thus preventing the contamination from migrating offsite. Therefore, no significant remedial action was recommended. Locations of the historical soil borings, monitoring wells, and approximate areas of excavation are presented as Figure 2. Historical soil boring and groundwater monitoring data is presented as Appendix B.

In December 2005, additional soil sampling was conducted by Northwest Environmental Solutions, Inc. to facilitate the change in ownership for the subject site. The investigation consisted of five soil borings drilled in areas proximal to regions of historical soil work or current UST presence. The depth of the soil borings ranged from 5 to 15 ft bgs. One soil sample was collected at the bottom of each soil boring. All five soil samples were submitted to Spectra Laboratories of Tacoma, Washington, for lead, methyl tert-butyl ether (MTBE), BTEX, and for concentrations of diesel-range hydrocarbons by Northwest Total Petroleum Hydrocarbons as diesel (NWTPH-Dx), as oil (NWTPH-Oil), and as gasoline (NWTPH-Gx). Laboratory analytical identified detectable concentrations of gasoline range petroleum hydrocarbons, ethyl benzene, toluene, xylene, and lead in soil boring 2-A and toluene and xylene were detected in soil borings 2-C and 2-D; all analytes were identified below MTCA Method A cleanup levels for soil. The 2005 historical soil boring results and locations are presented as Appendix C.

In 2017 Fulcrum was retained to conduct semi-annual groundwater sampling at the site. Monitoring wells MW-04 and MW-06 were identified to be in poor condition (poor surface seals and slow recharge). They were decommissioned and replaced by new wells under Fulcrum's oversight on September 30, 2020. Concurrent with the well replacement, Fulcrum directed the installation of two new monitoring wells to better characterize site conditions.

Monitoring well MW-02 was installed upgradient north of the gas station building where the former Leaking Underground Storage Tanks (LUSTs) were removed and monitoring well MW-07 was installed at the northwest corner of the property to act as a downgradient sentinel well. Fulcrum continues to conduct groundwater monitoring on a semi-annual basis.

In May of 2022, Ecology, observing the trend of increasing concentrations, requested additional investigation to be included in the September 2022 groundwater monitoring report. Fulcrum consulted with the project laboratory who indicated that current increasing concentrations were inconsistent with a 1980 era fuel loss and likely associated with a new release. Fulcrum spoke with the property owner about the increasing concentrations and laboratory findings. The property owner indicated that they were unaware of any spill, leak, or overfill events that would contribute to the change in conditions and proposed waiting until results of March 2023 sampling to determine a course of action.

The March 2023 sampling event showed a modest reduction in concentration and areal extent relative to the September 2022 testing event. Fulcrum discussed the results with the property owner who again confirmed that they had no indications of a leak or knowledge of any spill, overfill, or loss and recommended waiting for the results of the September 2023 event to determine a course of action.

2.0 DISCUSSION OF PERTINENT REGULATIONS AND GUIDANCE

2.1 MTCA Regulations

In Washington State, MTCA Cleanup Regulations became effective in March of 1989, with amended MTCA Cleanup Regulations effective in February of 2001.

The MTCA Cleanup Regulations set standards to ensure quality of cleanup and protection of human health and the environment. A major portion of the MTCA regulations are the development of numerical cleanup standards and requirements for cleanup actions. MTCA establishes three options for site-specific cleanup levels: Method A, B, and C. Method A defines cleanup levels for 25-30 of the most common hazardous substances found in soil and groundwater. Method B cleanup levels are established using applicable state and federal laws, risk assessment equations, and other requirements specified for each medium. Method C is similar to Method B, but cleanup levels are based on less stringent exposure assumptions, and the lifetime cancer risk is set at 1 in 100,000 rather than 1 in 1,000,000.

2.2 MTCA Cleanup Standards

Contaminants of concern at the subject site are gasoline-range hydrocarbons, diesel-range hydrocarbons, and BTEX, for which regulatory cleanup limits are provided under MTCA Method A. Based on the contaminants released at the subject site, the Method A cleanup levels are the most appropriate and conservative for determining site cleanup.

3.0 FIELD ACTIVITIES

3.1 Groundwater Sampling

On September 19, 2023, Fulcrum collected groundwater samples from each of the seven onsite monitoring wells. One field duplicate sample (WOS-091923-MW08) was collected for a total of eight groundwater samples. Prior to sample collection, Fulcrum measured the depth to groundwater (DTW) and depth to bottom (DTB) utilizing an electronic water level indicator accurate to ± 0.01 foot. Elevation corrections were made using wellhead elevation data from the subject site.

The groundwater flow direction, as determined by this sampling and monitoring event, is northwest with a hydraulic gradient of 0.014 (2.75-ft change in groundwater elevation over 190-feet), which is consistent with site geomorphology. A groundwater elevation map is presented as Figure 4. Sampling activities were completed using a peristaltic pump, submersible pump, and field water quality instruments. In each location the monitoring well was purged for a minimum of three well volumes following the stabilization of field parameters. Field parameters were measured prior to, during, and following completion of the monitoring well pumping to ensure that they stabilized, indicating a representative sample of groundwater.

Samples were placed in a pre-cooled ice chest and shipped under standard chain-of-custody for analysis to Fremont Analytical Inc. (Fremont); a Washington State certified laboratory located in Seattle, Washington. A site diagram map is presented as Figure 3.

4.0 RESULTS

4.1 Laboratory Analytical Results

All groundwater samples were analyzed for concentrations of gasoline-range hydrocarbons by Northwest Total Petroleum Hydrocarbons as Gasoline (NWTPH-Gx), diesel-range and heavy oil-range hydrocarbons by Northwest Total Petroleum Hydrocarbons as diesel (NWTPH-Dx), and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8260c.

Table 1 summarizes sample identification, locations, and analyte concentrations, which are reported in micrograms per liter (µg/L). Copies of current groundwater sampling laboratory analytical results are presented in Appendix D.

Table 1: Whitty's Chevron Groundwater Analytical Results for March 28, 2023

Location	Sample Number	Ground-water Elevation	Results (µg/L)						
			NWTPH-Dx		Gasoline	Benzene	Toluene	Ethyl-benzene	Xylene
			Diesel	Oil					
CW-01	WOS-091923-CW01	94.11	292	ND	ND	3.98	ND	ND	ND
CW-02	WOS-091923-CW02	93.94	**719**	ND	162	**75.1**	5.58	0.49	2.09
MW-02	WOS-091923-MW02	93.56	**1,070**	ND	420	0.481	ND	ND	ND
MW-03	WOS-091923-MW03	93.33	**521**	ND	53.0	**15.3**	ND	ND	ND
	MW-08 Duplicate		480	ND	37.1	**10.1**	ND	ND	ND
MW-04	WOS-091923-MW04	94.05	**1,710**	ND	**1,190**	**177**	2.50	15.0	3.25
MW-06	WOS-091923-MW06	91.25	356	ND	221	ND	ND	ND	ND
MW-07	WOS-091923-MW07	90.83	**34,100**	ND	ND	ND	ND	ND	ND
Applicable Cleanup Levels (µg/L)			500		800*	5	1,000	700	1,000

Bold – MTCA Method A exceedance ND – Nondetect µg/L – Micrograms per liter (µg/L), equivalent to parts per billion (ppb)

Analytical results document concentrations of select analytes in excess of regulatory thresholds in all monitoring wells except CW-01 and MW-06. Diesel was identified at concentrations above regulatory thresholds in five of the seven wells. Gasoline was identified at concentrations above the regulatory threshold in one of the seven wells, and benzene was identified at concentrations above the regulatory threshold in three of the seven monitoring wells.

Samples were shown as received by the laboratory at an acceptable temperature. Based on laboratory reports, it is Fulcrum's opinion that field and laboratory data quality results confirm acceptable accuracy of analytical data for all samples.

5.0 DISCUSSION

Fulcrum's September 2023 semi-annual groundwater monitoring event for seven onsite groundwater monitoring wells documented presence of petroleum hydrocarbon concentrations in excess of regulatory thresholds in five of the seven monitoring wells. In addition, benzene was identified in concentrations above regulatory thresholds in three of the seven monitoring wells.

6.0 TRENDING EVALUATION

Review of monitoring data shows a trend of increased contaminant concentrations and areal extent that is inconsistent with ongoing degradation of a 1989 spill. Fulcrum specifically notes the significant increase in diesel concentrations in MW-07 for the current monitoring event. Review of data generated during Fulcrum's monitoring from December of 2017 to current shows an increasing trend in both concentration and areal extent. Results of this monitoring event and trending data indicate that that a new release(s) of petroleum product has or is occurring.

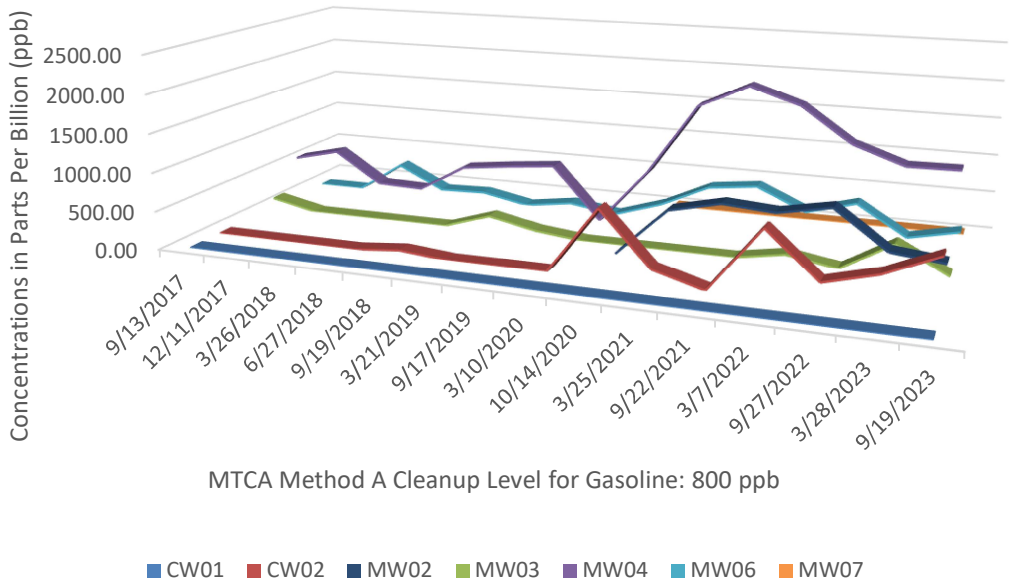
6.1 Concentration Trending

In review of concentration trending Fulcrum reviewed gasoline-range hydrocarbons, benzene, and diesel-range hydrocarbons. Fulcrum notes a variety of site conditions with potential to result in short term influence on contaminant concentrations including periodically dry wells, replacement of select monitoring wells, and placement of new monitoring wells. It is Fulcrum's opinion that review of contaminant concentrations over a longer period provides a strong understanding of site conditions.

Graph 1 as follows presents gasoline-range hydrocarbons concentrations in seven site monitoring wells over 15 consecutive events of monitoring.

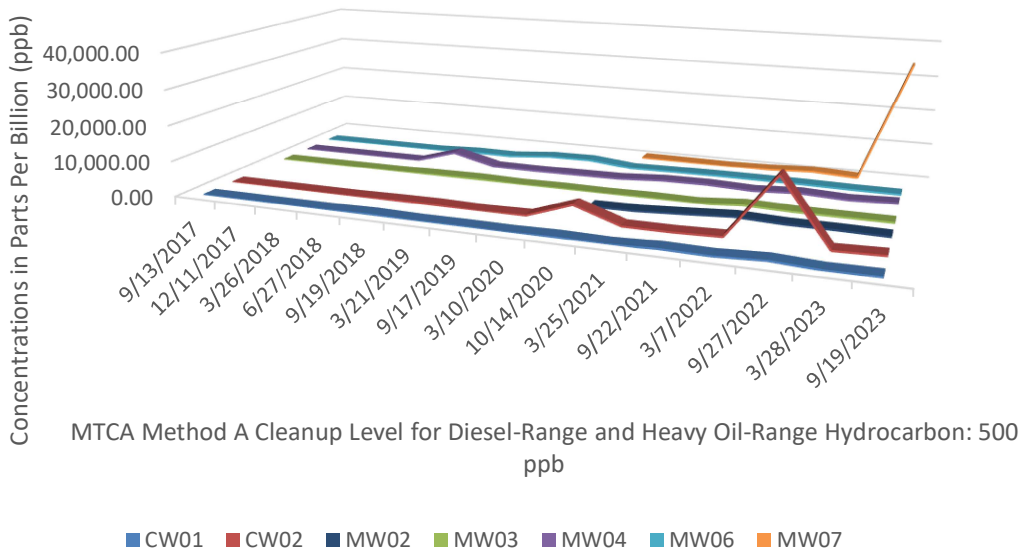
Results show a relatively stable range of concentrations in MW-04 until the October 2020 sampling event where concentrations increased significantly. During the same sampling event elevated concentrations were also identified in CW-02, a location that had been previously clean. A second notable increase in concentrations is noted in MW-02 and MW-04 in September 2021, and a third notable increase in concentrations is noted in CW-02 in March of 2022. In March 2023 gasoline concentrations in CW-02 and MW-03 are shown to increase. In September 2023 gasoline concentrations in CW-02, MW-04 and MW-06 are shown to increase, while all other wells are shown to decrease or remain non-detect.

Graph 1: September 2017-2023 Gasoline (NWTPH-Gx) Concentrations



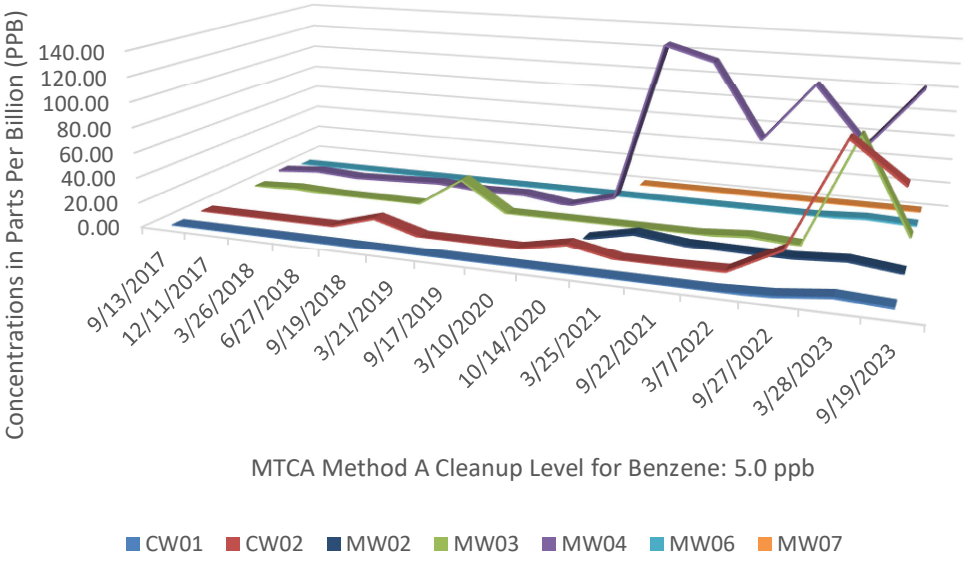
Graph 2 below presents combined diesel-range and heavy oil-range hydrocarbon concentrations in the seven monitored wells. All wells were reported as non-detect for combined diesel-range and heavy oil-range hydrocarbon concentrations until September 2018 where a notable increase is observed in MW-04. A second notable increase in concentrations is observed in CW-02 in March 2020 and again in September 2022. In September 2023 concentrations are shown to increase drastically in MW-07 while all other wells are shown to decrease.

Graph 2: September 2017-2023 Combined Diesel and Oil-Range Concentrations



Graph 3 below presents identified benzene concentrations in the seven monitored wells. All wells were reported as non-detect or below cleanup for benzene concentrations with the exception of MW-04 through September 2018. Notable concentration increases occur in CW-02 in September 2018, October 2020, and again in September 2022. A notable increase in concentrations is noted in MW-03 in March 2019. Notable increases in concentrations in MW-04 are observed in March 2021, September 2022, and September 2023. Notable increases in CW-02 and CW-03 are observed in March 2023.

Graph 3: September 2023 Benzene Concentrations



6.2 Area Extent Trending

Review of historical monitoring data shows an initial zone of contaminant concentration in the 1990 sampling data noting that the results are likely a generalization and that well placement was likely insufficient to fully characterize the exact extent of contaminant presence. In September of 2020 Fulcrum replaced two historical monitoring wells and added two additional monitoring wells to assist in better characterizing the groundwater contaminant plume at the site. Monitoring results from 2017 to 2023 show a trend of expanding contaminant presence for gasoline-range hydrocarbons, diesel-range hydrocarbons, and benzene. See Figures 5, 6, and 7 for a presentation of contaminant plume changes over time.

6.3 Laboratory Evaluation

Following the September 2022 sampling event, to further assist in evaluation of the trending data, Fulcrum contacted Fremont Analytical of Seattle, Washington to request review of the data. Fremont Analytical is a Washington State accredited laboratory (79636). Fremont has been providing analytical services for the project since the initial monitoring event in December 2017. Fremont provided a general review of chromatographic data noting that results would only be generalized in nature and not a substitute for site specific forensic chemistry. Review of chromatographic data was limited to historical data collected from monitoring well CW-02.

Following review of the historical chromatographic data, Fremont's laboratory director reported that from 2018-2019 CW-02 reported low to non-detect concentrations of gasoline. From 2020-2021 an apparent increase in gasoline-range materials with a chemical footprint indicative of old, weathered gasoline was reported. In September of 2022, an apparent new material with a unique chemical footprint likely related to diesel was identified. Fremont reported that the weathered nature of the new material indicates that a new release likely occurred after the March 2022 sampling event.

6.4 Trending Findings

Trending data shows increases in both concentrations and areal extent of contaminant presence at the site up to the September 2023 sampling event. Results indicate that a new source(s) of contaminant has likely been introduced at the site some time prior to the September 2022 sampling event. Potential sources include but are not limited to spill/overfill events associated with the current USTs, leaks from the USTs or associated piping or dispensers, spills associated with normal fuel station operations, and/or run off from carwash activities.

7.0 FINDINGS AND RECOMMENDATIONS

Current monitoring data shows that concentrations and areal extent have increased in September 2023. Review of trending data indicates the likely introduction of a new source(s) of contaminant presence in CW-02 and MW-07. Fulcrum recommends additional investigation to identify the source(s) of increasing contaminant presence.

Following identification and correction of the source/cause of increasing trends, Fulcrum recommends re-evaluation of the site monitoring plan to ensure that it is positioned and designed to effectively characterize environmental conditions of site groundwater. Remedial action may be required to protect off-site resources.

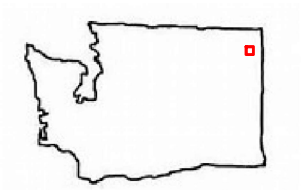
FIGURES

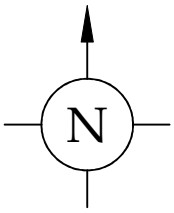
Figure 1: General Site Location Map

Second Semi-annual Groundwater Sampling Event March 2023
Whitty's Chevron
370 West 5th Avenue
Colville, Washington

LEGEND

Map Location





FULCRUM ENVIRONMENTAL CONSULTING, INC.
207 W. BOONE AVENUE
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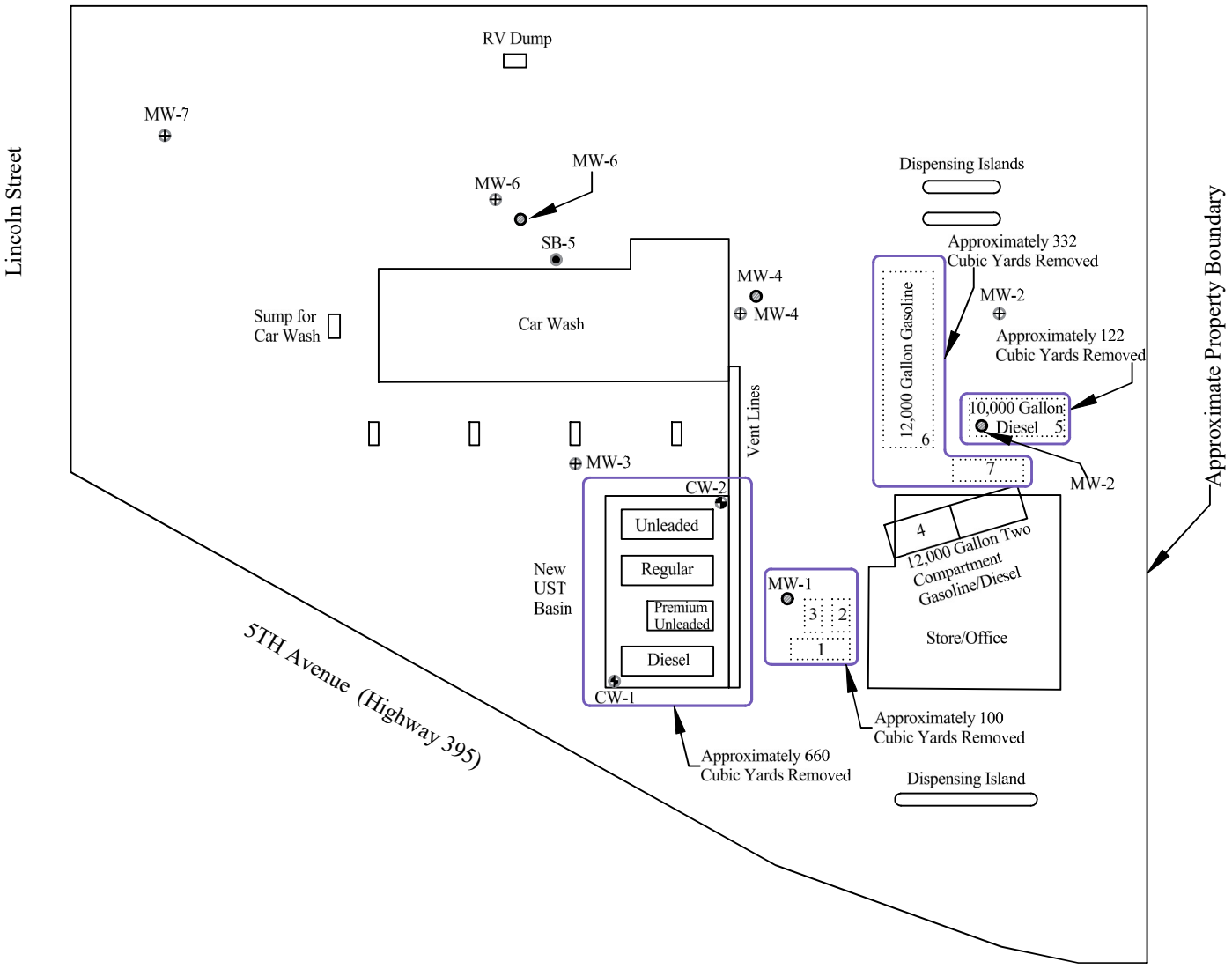
(509) 459-9220 www.efulcrum.net

MAP BY: Abby Whitmore	PROJECT NUMBER: 233710.00
DATE: October 09, 2023	REVIEWED BY: T. Trent



LEGEND

- Approximate extent of soil excavation
- Existing onsite UST
- Historical UST removed from site
- Historic Soil Boring
- Historical Monitoring Well
- Existing onsite Monitoring Well
- Existing onsite Compliance Well

N

0 30

Approximate Scale In Feet

Figure 2: Historical USTs, Soil Borings, and Monitoring Wells Site Diagram Map

Second Semi-annual Groundwater Sampling Event March 2023
Whitty's Chevron
370 West 5th Avenue
Colville, Washington

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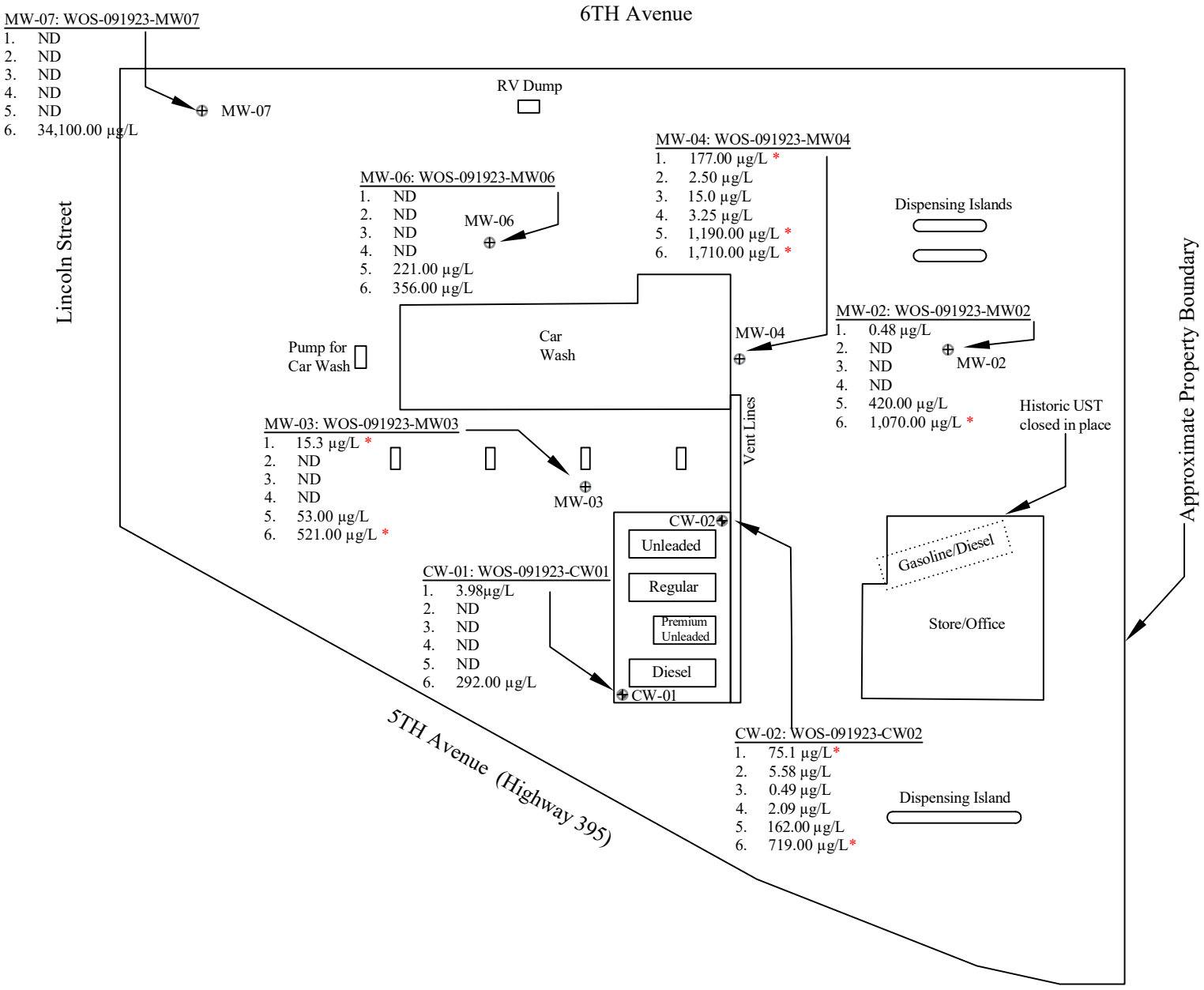


LEGEND

Parameters (µg/L)
1. Benzene
2. Toluene
3. Ethyl-benzene
4. Xylenes
5. NWTPH-GX
6. Combined Diesel-range and Heavy Oil-range Hydrocarbons

⊕ Monitoring Well

⊕ Compliance Well

* Analyte Concentration Exceeds MTCA Method A Cleanup Level

N

0 30

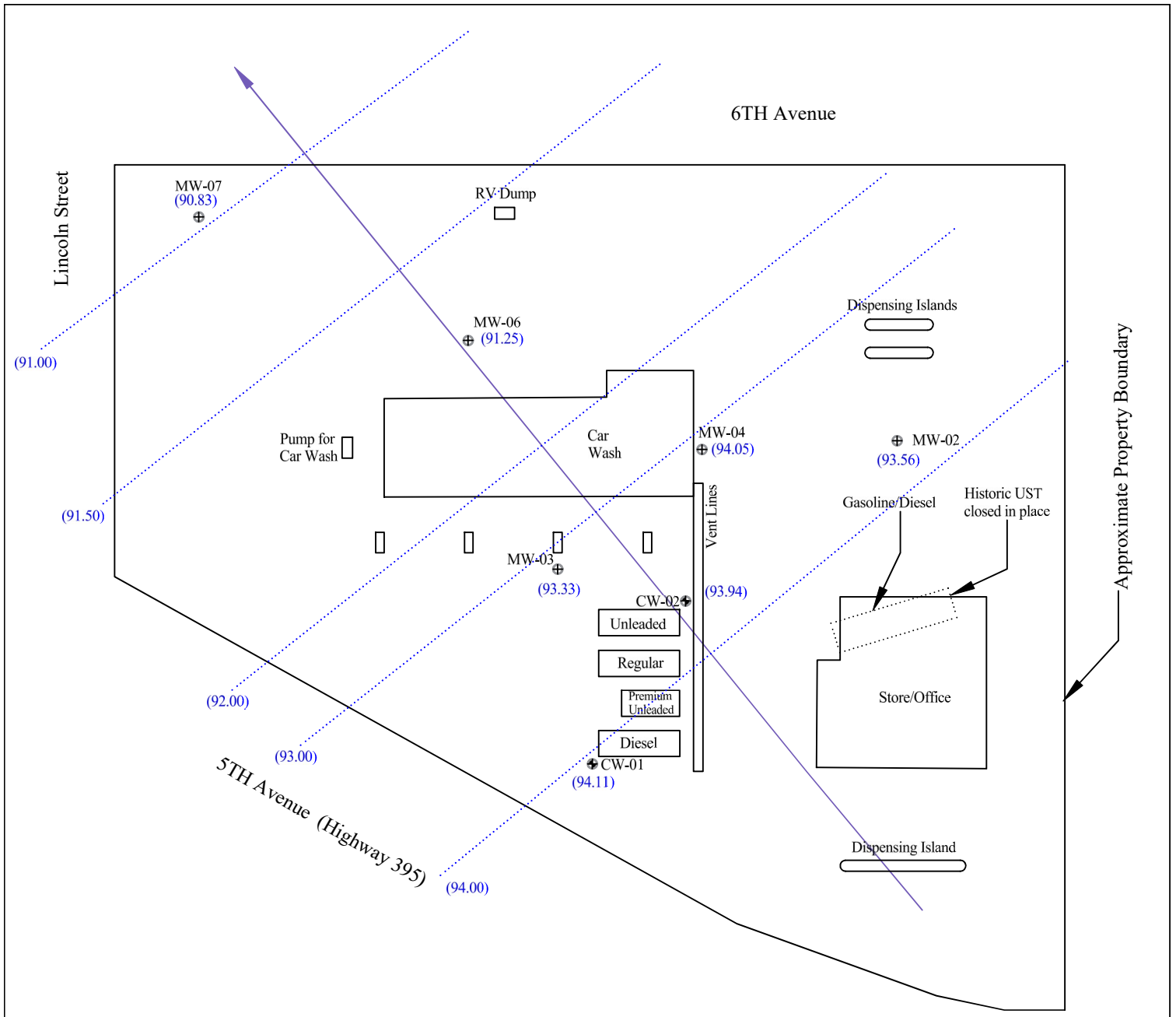
Approximate Scale In Feet

Figure 3: Site Diagram Map

Second Semi-annual Groundwater Sampling Event March 2023
Whitty's Chevron
370 West 5th Avenue
Colville, Washington

FULCRUM ENVIRONMENTAL CONSULTING, INC.
207 W. BOONE AVENUE
SPOKANE, WASHINGTON 99201
(509) 459-9220 www.efulcrum.net

MAP BY: Abby Whitmore	PROJECT NUMBER: 233710.00
DATE: October 09, 2023	REVIEWED BY: T. Trent



LEGEND

Approximate Groundwater Flow Direction & Gradient

93.00 — Groundwater Elevation Contour (In Feet)

(93.00) — Monitoring Well Groundwater Elevation (In Feet)

Monitoring Well

Compliance Well

N

0 30

Approximate Scale In Feet

Figure 4: Groundwater Elevation Map

Second Semi-annual Groundwater Sampling Event March 2023
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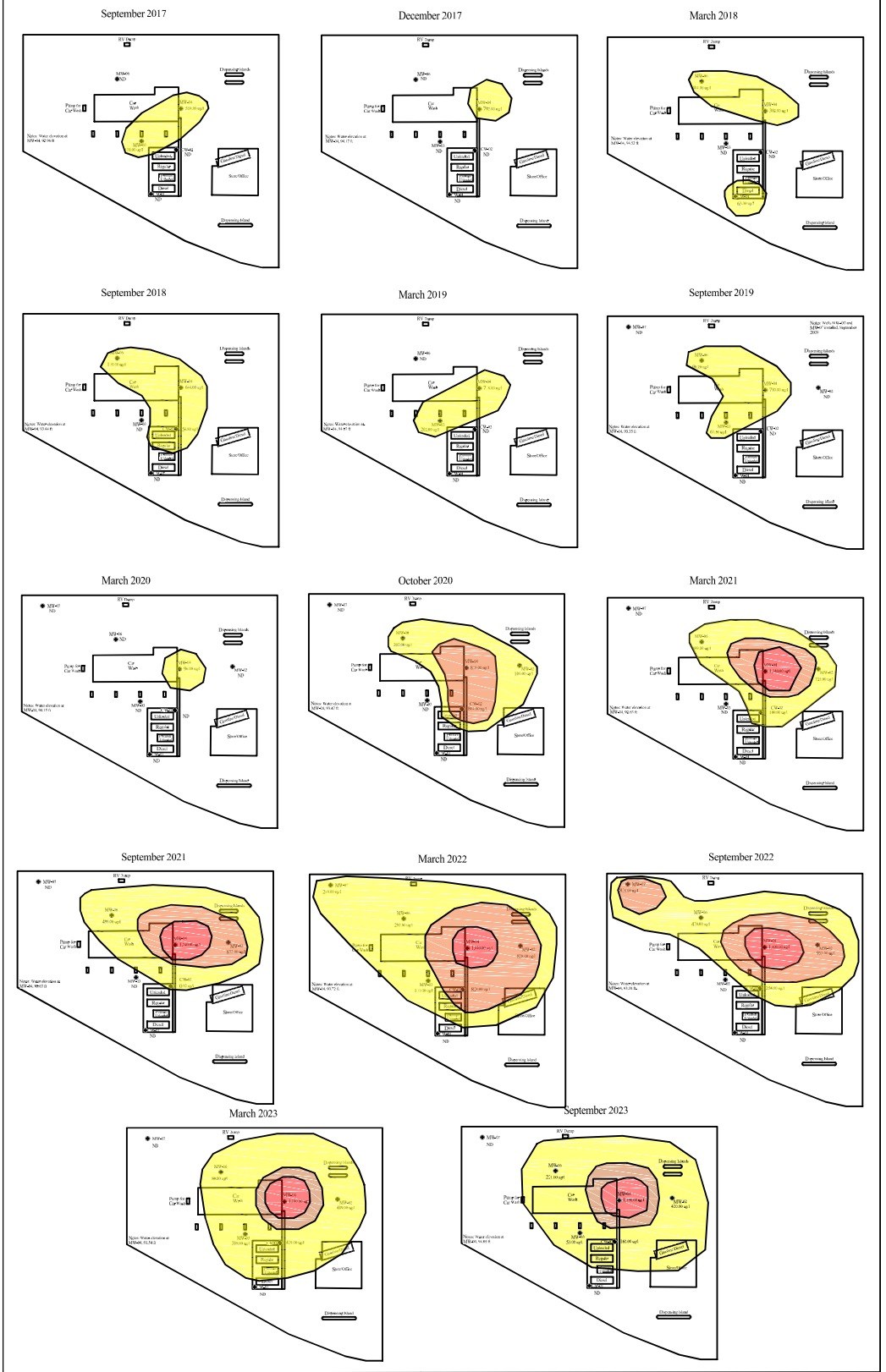

LEGEND

- Concentrations above 1000.00 ppb
- Concentrations 800.00 - 1000.00 ppb
- Detectable concentrations below the regulatory threshold of 800 ppb

N

Figure 5: Gasoline Concentrations - Areal Extent Over Time

Whitty's Chevron
370 West 5th Avenue
Colville, Washington

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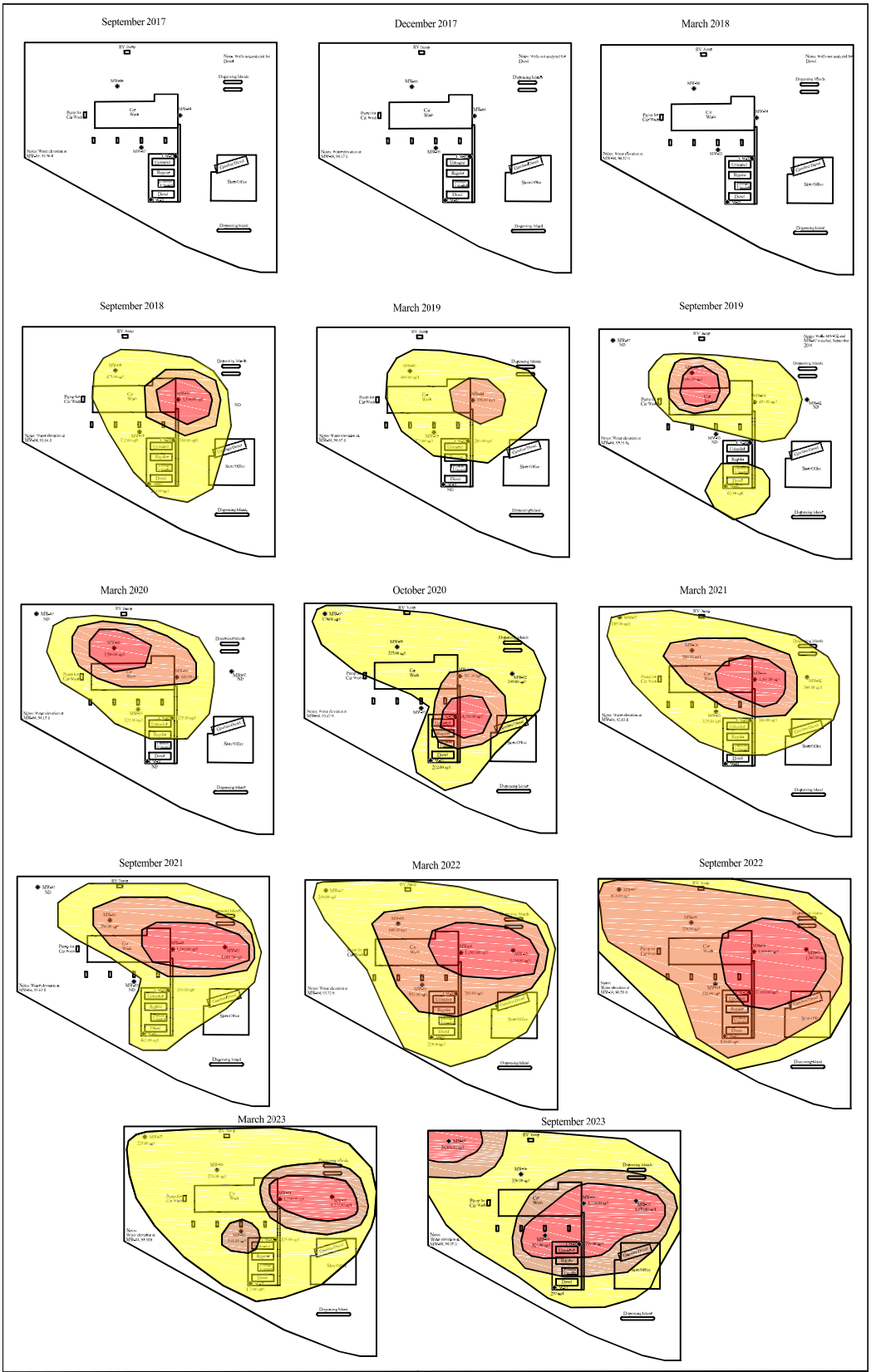

LEGEND

- Concentrations above 1000.00 ppb
- Concentrations 500.00 - 1000.00 ppb
- Detectable concentrations below the regulatory threshold of 500 ppb

N

Figure 6: Combined Diesl-Range and Heavy Oil-Range Hydrocarbons - Areal Extent Over Time

Whitty's Chevron
370 West 5th Avenue
Colville, Washington

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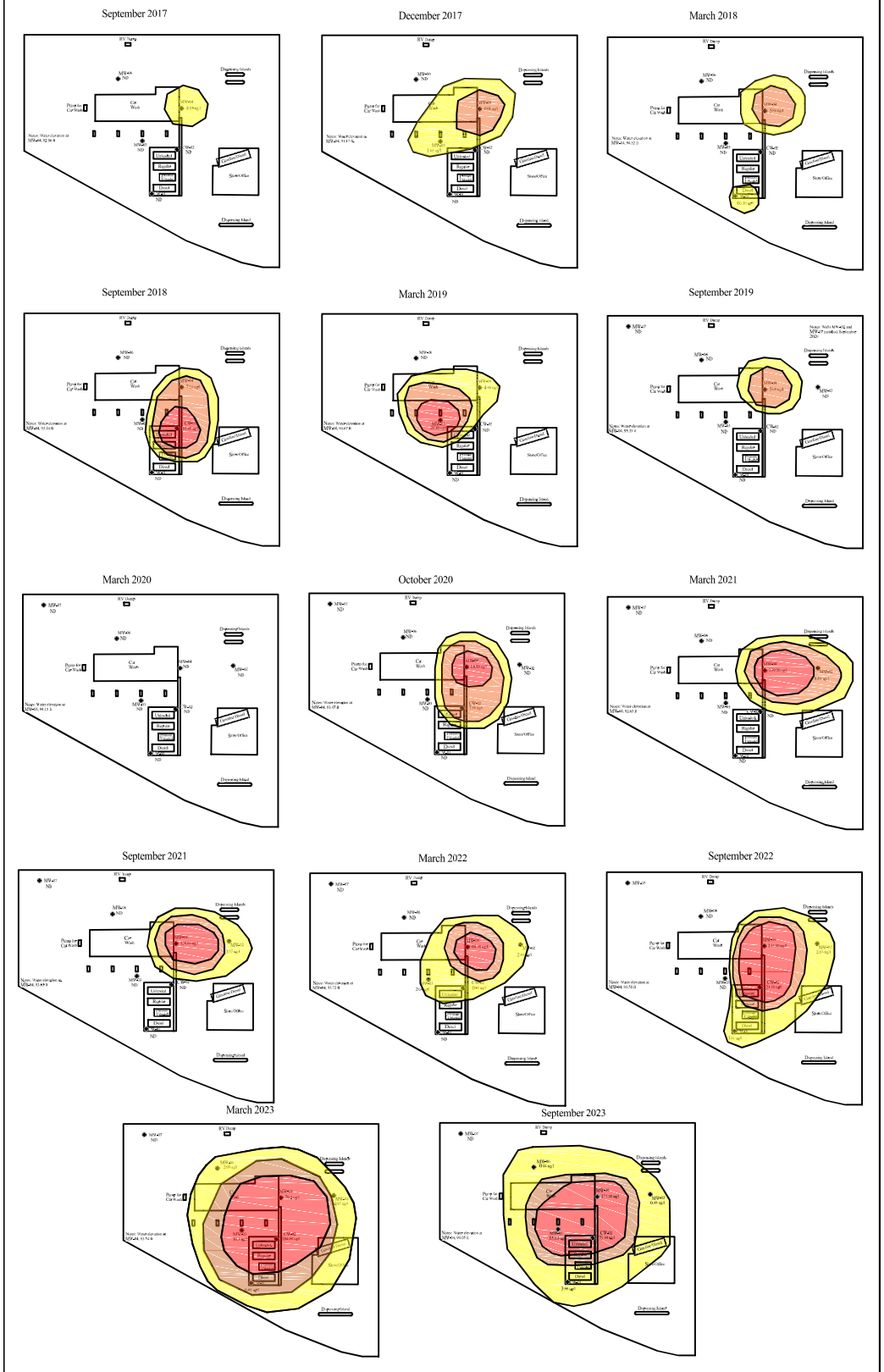
DATE: October 09, 2023	REVIEWED BY: T. Trent



LEGEND

- Concentrations above 10.00 ppb
- Concentrations 5.00 - 10.00 ppb
- Detectable concentrations below the regulatory threshold of 5.0 ppb

N

Figure 7: Benzene Concentrations - Areal Extent Over Time

Whitty's Chevron
370 West 5th Avenue
Colville, Washington

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SPOKANE, WASHINGTON 99201
(509) 459-9220 www.efulcrum.net

MAP BY: Abby Whitmore	PROJECT NUMBER: 233710.00
DATE: October 09, 2023	REVIEWED BY: T. Trent

APPENDIX A

Professional Certifications

State of Washington
DEPARTMENT OF LICENSING
BUSINESS AND PROFESSIONS DIVISION
GEOLOGIST PROGRAM
PO Box 9012
Olympia, WA 98507-9012

TRAVIS L TRENT
1127 W 8TH AVE
SPOKANE WA 99204-3107

STATE OF WASHINGTON

DEPARTMENT OF LICENSING - BUSINESS AND PROFESSIONS DIVISION
THIS CERTIFIES THE PERSON OR BUSINESS NAMED BELOW IS AUTHORIZED AS A

WASHINGTON STATE DEPARTMENT OF LICENSING

GEOLOGIST
HYDROGEOLOGIST

TRAVIS L TRENT

License Number	Issue Date	Expiration Date
364	01/08/2002	06/06/2024

Marcus J Glasper, Director

(R/4/23)

STATE OF WASHINGTON

DEPARTMENT OF LICENSING – BUSINESS AND PROFESSIONS DIVISION

WASHINGTON STATE DEPARTMENT OF LICENSING

THIS CERTIFIES THAT THE PERSON OR BUSINESS NAMED BELOW IS AUTHORIZED AS A

GEOLOGIST IN TRAINING

ETHAN JEFFREY DUCKEN
510 E 33rd Ave
Spokane WA 99203-2611

22010959	05/04/2022	//
License Number	Issue Date	Expiration Date

Teresa Berntsen

Teresa Berntsen, Director

APPENDIX B

Summary of Historical Data

FULCRUM environmental consulting

HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL DATA
Whitty's Chervon

370 West Fifth Avenue
Colville, Washington

Boring ID	Sampling Date	ERP (feet)	DS (feet)	TD (feet)	TPH (µg/L)	Diesel-range hydrocarbons (µg/L)	Heavy oil-range hydrocarbons (µg/L)	Combined Diesel-range and Heavy oil-range hydrocarbons (µg/L)	NWTPH-Gx (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
SB-1	1/8/1990	*100.20*	---	*15.00*	--	--	---	---	---	---	--	--	---
SB-2	1/8/1990	*99.39*	*10.00*	*15.00*	ND	--	---	---	ND	ND	ND	ND	ND
SB-3	1/9/1990	*99.30*	---	*15.00*	--	--	---	---	---	---	--	--	---
SB-4	1/9/1990	*98.96*	*5.00*	*15.00*	ND	--	---	---	ND	ND	ND	ND	ND
SB-5	1/9/1990	*99.29*	*5.00*	*15.00*	*1,220*	--	---	---	---	*0.476*	*1.38*	*5.62*	*50.2*
SB-6	1/9/1990	*97.87*	---	*15.00*	--	--	---	---	---	---	--	--	---

Well ID	Sampling Date	ERP (feet)	DTW (feet)	GWE (feet)	TPH (µg/L)	Diesel-range hydrocarbons (µg/L)	Heavy oil-range hydrocarbons (µg/L)	Combined Diesel-range and Heavy oil-range hydrocarbons (µg/L)	NWTPH-Gx (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
CW-01	1/10/1990	*99.50*	*5.82*	*93.68*	--	--	---	---	---	---	--	--	---
	9/13/2017	*99.50*	5.91	*93.59*	--	--	---	---	ND	ND	ND	ND	ND
	12/11/2017	*99.50*	4.96	*94.54*	--	--	---	---	ND	ND	ND	ND	ND
	3/26/2018	*99.50*	4.71	*94.79*	--	--	---	---	ND	ND	ND	ND	ND
	3/26/2018	*99.50*	4.71	*94.79*	--	--	---	---	ND	ND	ND	ND	ND
	6/27/2018	*99.50*	5.53	*93.97*	--	--	---	---	ND	ND	ND	ND	ND
	9/19/2018	*99.50*	5.86	*93.64*	--	214.00	ND	214.00	ND	ND	ND	ND	ND
	3/21/2019	*99.50*	4.84	*94.66*	--	ND	ND	ND	ND	ND	ND	ND	ND
	9/17/2019	*99.50*	5.85	*93.65*	--	63.30	ND	63.30	ND	ND	ND	ND	ND
	3/10/2020	*99.50*	4.89	*94.61*	--	ND	ND	ND	ND	ND	ND	ND	ND
	10/14/2020	*99.50*	5.81	*93.69*	--	212.00	ND	212.00	ND	ND	ND	ND	ND
	3/25/2021	*99.50*	5.81	*93.69*	--	ND	ND	ND	ND	ND	ND	ND	ND
	9/22/2021	*99.50*	6.03	*93.47*	--	441.00	ND	441.00	ND	ND	ND	ND	ND
	3/7/2022	*99.50*	4.65	*94.85*	--	253.00	ND	253.00	ND	ND	ND	ND	ND
	9/27/2022	*99.50*	5.97	*93.53*	--	**830.00**	ND	**830.00**	ND	1.61	ND	ND	ND
	3/28/2023	*99.50*	4.85	*94.65*	--	173.00	ND	173.00	ND	6.05	ND	ND	ND
	9/19/2023	*99.50*	5.39	*94.11*	--	292.00	ND	292.00	ND	3.98	ND	ND	ND
CW-02	1/10/1990	*99.01*	*5.33*	*93.68*	--	--	---	---	---	---	--	--	---
	9/13/2017	*99.01*	5.64	*93.36*	--	--	---	---	ND	ND	ND	ND	ND
	12/11/2017	*99.01*	4.65	*94.36*	--	--	---	---	ND	ND	ND	ND	ND
	3/26/2018	*99.01*	4.39	*94.62*	--	--	---	---	ND	ND	ND	ND	ND
	6/27/2018	*99.01*	5.24	*93.77*	--	--	---	---	ND	ND	ND	ND	ND
	9/19/2018	*99.01*	5.56	*93.45*	--	ND	ND	ND	50.60	**10.60**	16.60	ND	ND
	9/19/2018	*99.01*	5.56	*93.45*	--	ND	188.00	188.00	56.80	**9.94**	15.90	ND	ND
	3/21/2019	*99.01*	4.53	*94.48*	--	ND	261.00	261.00	ND	ND	ND	ND	ND
	9/17/2019	*99.01*	5.54	*93.46*	--	ND	ND	ND	ND	ND	ND	ND	ND
	3/10/2020	*99.01*	5.20	*93.81*	--	ND	255.00	255.00	ND	ND	ND	ND	ND
	10/14/2020	*99.01*	5.54	*93.47*	--	ND	**777.00**	**777.00**	**864.00**	**7.58**	1.89	8.41	43.10
	10/14/2020	*99.01*	5.54	*93.47*	--	**4,570.00**	ND	**4,570.00**	**818.00**	**7.45**	1.89	8.26	42.20
	3/25/2021	*99.01*	5.41	*93.60*	--	364.00	ND	364.00	180.00	**ND**	ND	0.49	0.94
	9/22/2021	*99.01*	5.72	*93.29*	--	354.00	ND	354.00	0.72	ND	ND	ND	ND
	3/7/2022	*99.01*	4.91	*94.10*	--	**703.00**	ND	**703.00**	**828.00**	0.95	ND	ND	ND
	9/27/2022	*99.01*	5.68	*93.33*	--	**17,600**	ND	**17,600**	256.00	**21.50**	5.81	ND	ND
	3/28/2023	*99.01*	4.53	*94.48*	--	355.00	ND	355.00	429.00	**104.00**	20.50	0.46	10.32
	9/19/2023	*99.01*	5.08	*93.94*	--	**719.00**	ND	**719.00**	162.00	**75.10**	5.58	0.49	0.91
2001 MTCA Method A Cleanup Levels for Groundwater					**NE**	**500**			**800**	**5**	**1000**	**700**	**1000**

FULCRUM environmental consulting

Well ID	Sampling Date	ERP (feet)	DTW (feet)	GWE (feet)	TPH (µg/L)	Diesel-range hydrocarbons (µg/L)	Heavy oil-range hydrocarbons (µg/L)	Combined Diesel-range and Heavy oil-range hydrocarbons (µg/L)	NWTPH-Gx (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-1	1/10/1990	*100.00*	*5.59*	*94.41*	*ND*	--	---	---	---	ND	ND	ND	ND
	Decommissioned												
MW-2	1/10/1990	*98.92*	*4.51*	*94.41*	*2,460*		---	---	---	***1,643.0***	*409.00*	*ND*	***2955.00***
	Decommissioned												
New Well Installed	10/14/2020	*98.92*	5.83	93.09	---	249.00	ND	249.00	106.00	*ND*	*ND*	*ND*	*ND*
MW-02	3/25/2021	*98.92*				**534.00**	**3,300.00**	**3,834.00**	725.00	***8.04***	*ND*	*27.70*	*1.74*
	9/22/2021	*98.92*				**1,010.00**	ND	**1,010.00**	**872.00**	*3.57*	*ND*	*4.73*	*ND*
	3/25/2022	*98.92*				**1,750.00**	ND	**1,750.00**	**828.00**	*2.95*	*ND*	*4.10*	*ND*
	9/27/2022	*98.92*				**1,260.00**	ND	**1,260.00**	**953.00**	*2.63*	*ND*	*1.49*	*ND*
	3/28/2023	*98.92*	4.59	94.33	--	**1,250.00**	ND	**1,250.00**	489.00	*4.97*	*ND*	*1.58*	*ND*
	9/19/2023	*98.92*	5.36	93.56	--	**1,070.00**	ND	**1,070.00**	420.00	*0.48*	*ND*	*ND*	*ND*
MW-03	1/10/1990	*98.56*	*5.77*	*92.79*	*ND*	--	---	---	---	*ND*	*ND*	*ND*	*ND*
	9/13/2017	*98.56*	5.55	93.02	--	--	---	---	131.00	ND	ND	ND	ND
	12/11/2017	*98.56*	5.05	93.51	--	--	---	---	ND	1.65	ND	ND	ND
	12/11/2017	*98.56*	5.05	93.51	--	--	---	---	ND	1.60	ND	ND	ND
	3/26/2018	*98.56*	4.44	94.12	--	--	---	---	ND	ND	ND	ND	ND
	6/27/2018	*98.56*	5.26	*93.30*	--	--	---	---	ND	ND	ND	ND	ND
	9/19/2018	*98.56*	5.56	*93.01*	--	ND	172.00	172.00	ND	ND	ND	ND	ND
	3/21/2019	*98.56*	4.80	*93.76*	--	273	ND	273	202.00	**24.40**	32.00	1.10	16.54
	9/17/2019	*98.56*	5.55	*93.01*	--	ND	ND	ND	67.30	ND	ND	ND	ND
	3/10/2020	*98.56*	5.57	*92.99*	--	ND	122.00	122.00	ND	ND	ND	ND	ND
	10/14/2020	*98.56*	5.86	*92.70*	--	ND	ND	ND	ND	ND	ND	ND	ND
	3/25/2021	*98.56*	6.11	*92.45*	--	ND	135.00	135.00	ND	ND	ND	ND	ND
	9/22/2021	*98.56*	5.58	*92.28*	--	159.00	ND	ND	ND	ND	ND	ND	ND
	3/7/2022	*98.56*	4.41	*94.15*	--	**913.00**	ND	913.00	111.00	2.64	ND	0.94	ND
	9/27/2022	*98.56*	5.56	*92.91*	--	**552.00**	ND	**552.00**	ND	ND	ND	ND	ND
	3/28/2023	*98.56*	5.32	*93.24*	--	**518.00**	ND	**518.00**	389.00	**88.30**	20.30	0.54	3.00
	9/19/2023	*98.56*	5.23	*93.33*	--	**521.00**	ND	**521.00**	53.00	**15.30**	0.52	ND	ND
MW-04	1/10/1990	*98.27*	*4.06*	*94.21*	--	--	---	---	---	***118***	*23.00*	*ND*	*284.00*
	9/13/2017	*98.27*	5.32	92.96	--	--	---	---	558.00	4.03	ND	1.51	1.46
	9/13/2017	*98.27*	5.32	92.96	--	--	---	---	547.00	ND	ND	ND	ND
	12/11/2017	*98.27*	4.13	94.17	--	--	---	---	702.00	**6.81**	1.07	9.07	ND
	3/26/2018	*98.27*	3.75	94.52	--	--	---	---	302.00	4.63	1.34	15.70	ND
	6/27/2018	*98.27*	4.80	*93.47*	--	--	---	---	284.00	**5.84**	1.32	16.60	ND
	9/19/2018	*98.27*	4.83	*93.44*	--	**1,450.00**	**2,080.00**	**3,530.00**	644.00	**7.25**	2.61	25.80	2.72
	3/21/2019	*98.27*	3.60	*94.67*	--	220.00	376.00	**596.00**	718.00	4.46	1.78	18.10	2.70
	9/17/2019	*98.27*	4.92	*93.35*	--	181.00	310.00	491.00	780.00	**5.09**	ND	3.08	1.16
	3/10/2020	*98.27*	4.12	*94.15*	--	ND	**552.00**	**552.00**	96.00	ND	ND	2.60	ND
Lab Filtered	3/10/2020	*98.27*	4.12	*94.15*	--	ND	**602.00**	**602.00**	80.10	ND	ND	2.61	ND
New Well Installed	10/14/2020	*98.27*	4.80	*93.47*	--	**707.00**	ND	**707.00**	**818.00**	**10.50**	1.19	9.92	1.91
	3/25/2021	*98.27*	5.64	*92.63*	--	**497.00**	**964.00**	**1,461.00**	**1,740.00**	**139.00**	3.84	56.20	12.02
	9/22/2021	*98.27*	4.64	*93.63*	--	**1,580.00**	ND	**1,580.00**	**2,050.00**	**128.00**	3.10	36.50	6.07
	3/7/2022	*98.27*	4.55	*93.72*	--	**1,130.00**	ND	**1,130.00**	**1,840.00**	**68.70**	2.48	33.00	5.93
	9/27/2022	*98.27*	4.69	*93.58*	--	**1,800.00**	ND	**1,800.00**	**1,400.00**	**115.00**	2.47	35.60	4.30
	3/28/2023	*98.27*	4.73	*93.54*	--	**1,250.00**	ND	**1,250.00**	**1,180.00**	**70.20**	ND	15.50	3.94
	9/19/2023	*98.27*	4.22	*94.05*	--	**1,710.00**	**ND**	**1,710.00**	**1,190.00**	**117.00**	2.50	15.00	ND
MW-06	1/10/1990	*97.27*	*9.01*	*88.26*	*ND*	--	---	---	---	***9.00***	*5.00*	*15.00*	*80.00*
	9/13/2017	*97.27*	---	---	--	--	---	---	ND	ND	ND	ND	ND
2001 MTCA Method A Cleanup Levels for Groundwater					**NE**	**500**			**800**	**5**	**1,000**	**700**	**1,000**

FULCRUM environmental consulting

Well ID	Sampling Date	ERP (feet)	DTW (feet)	GWE (feet)	TPH (µg/L)	Diesel-range hydrocarbons (µg/L)	Heavy oil-range hydrocarbons (µg/L)	Combined Diesel-range and Heavy oil-range hydrocarbons (µg/L)	NWTPH-Gx (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-06	12/11/2017	*97.27*	---	---	--	--	---	---	---	---	--	--	---
	3/26/2018	*97.27*	5.24	*92.03*	--	--	---	---	404.00	ND	ND	ND	ND
	6/27/2018	*97.27*	5.31	*91.96*	--	--	---	---	101.00	ND	ND	ND	ND
	9/19/2018	*97.27*	6.36	*90.92*	--	102.00	369.00	471.00	119.00	ND	ND	ND	ND
	3/21/2019	*97.27*	5.08	*92.19*	--	ND	409.00	409.00	ND	ND	ND	ND	ND
	9/17/2019	*97.27*	4.95	*92.32*	--	ND	**1,440.00**	**1,440.00**	90.20	ND	ND	ND	ND
	3/10/2020	*97.27*	4.51	*92.76*	--	ND	**1,580.00**	**1,580.00**	ND	ND	ND	ND	ND
Lab Filtered	3/10/2020	*97.27*	4.51	*92.76*	--	ND	**1,350.00**	**1,350.00**	ND	ND	ND	ND	ND
New well installed	10/14/2020	*97.27*	*9.65*	*87.62*	--	357.00	ND	357.00	202	ND	ND	ND	ND
	3/25/2021	*97.27*	*5.91*	*91.36*	--	128.00	372.00	**500.00**	499	4.01	ND	1.70	1.33
	9/22/2021	*97.27*	*6.10*	*91.17*	--	**597.00**	ND	**597.00**	575	2.32	ND	0.75	ND
	3/7/2022	*97.27*	*5.48*	*91.79*	--	**600.00**	ND	**600.00**	292	1.34	ND	ND	ND
	9/27/2022	*97.27*	*6.12*	*91.15*	--	**550.00**	ND	**550.00**	470	2.69	ND	ND	ND
	3/28/2023	*97.27*	*5.65*	*91.62*	--	374.00	ND	374.00	80	2.09	ND	ND	ND
	9/19/2023	*97.27*	*6.02*	*91.25*	--	356.00	ND	356.00	221	0.44	ND	0.21	ND
MW-07													
New well installed	10/14/2020	*95.27*	*8.72*	*86.55*	--	179.00	ND	179.00	ND	ND	ND	ND	ND
	3/25/2021	*95.27*	*5.95*	*89.32*	--	ND	105.00	105.00	ND	ND	ND	ND	ND
	9/22/2021	*95.27*	*5.47*	*89.80*	--	ND	112.00	ND	ND	ND	ND	ND	ND
	3/7/2022	*95.27*	*4.45*	*93.86*	--	244.00	ND	244.00	ND	ND	ND	ND	ND
	9/27/2022	*95.27*	*5.81*	*89.46*	--	**838.00**	ND	**838.00**	ND	ND	ND	ND	ND
	3/28/2023	*95.27*	*5.34*	*89.93*	--	**225.00**	ND	225.00	ND	ND	ND	ND	ND
	9/19/2023	*95.27*	4.44	*90.83*	--	**34,100.00**	ND	**34,100.00**	ND	ND	ND	ND	ND
2001 MTCA Method A Cleanup Levels for Groundwater					**NE**		**500**		**800**	**5**	**1000**	**700**	**1000**

Notes :

MTCA Method A exceedences shown in bold

Historic Data not collected by Fulcrum shown in italics

NE Not Established. Indvidual analyte thresholds for Total Petroleum Hydrocarbons (TPH) have not been established and are referenced as the appropriate regulatory values above

TPH Total Petroleum Hydrocarbons

TD Total Boring Depth

Notes :

DS Depth Sampled

ERP Elevation of riser pipe based on an arbitrary datum of 100.00 feet

DTW Depth to water

GWE Groundwater elevation based on an arbitrary datum of 100.00 feet

NWTPHGx Northwest total petroleum hydrocarbons as gasoline;

BTEX Benzene, toluene, ethylbenzene and total xylenes

µg/L micrograms per liter or parts per billion

ND Not detected in concentrations exceeding laboratory method detection limit

--- Not available, not tested, not measured

APPENDIX C

2005 Soil Sampling Results

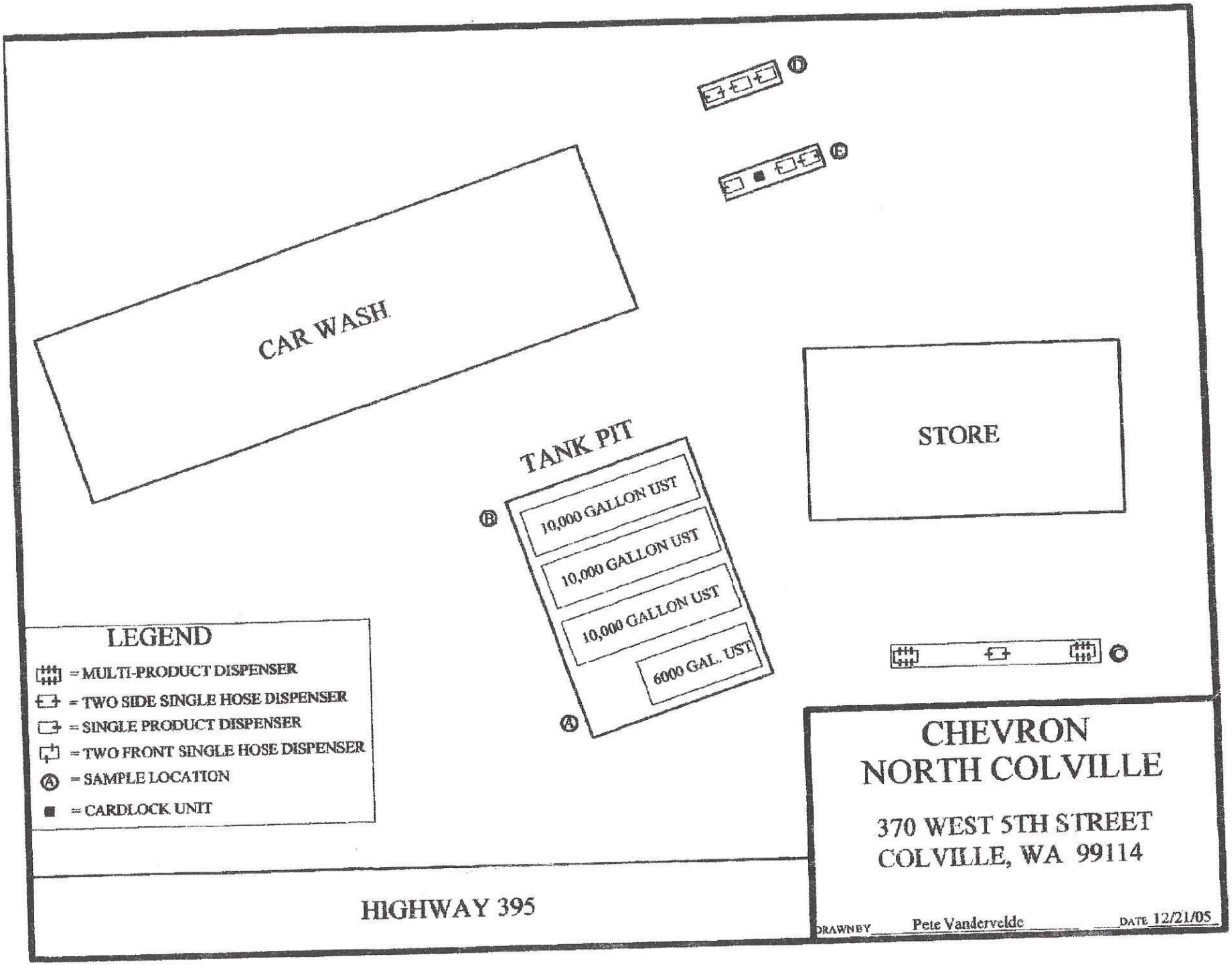

TABLE 1
SOIL SAMPLE RESULTS
CHEVRON
NORTH COLVILLE

DEPTH OF SAMPLE	15'	14	5'	5'	5'	*CLEANUP STANDARD*
ANALYSES	2-A	2-B	2-C	2-D	2-E	
NWTPH-OIL	<100	<100	<100	<100	<100	*2000 mg/Kg*
NWTPH-DIESEL	<10	<10	<10	<10	<10	*2000 mg/Kg*
NWTPH-GAS	8	<5.0	<5.0	<5.0	<5.0	*100 mg/Kg OR 30mg/Kg*
BENZENE	<0.025	<0.025	<0.025	<0.025	<0.025	*0.03 mg/Kg*
ETHYLBENZENE	0.12	<0.025	<0.025	<0.025	<0.025	*6.0 mg/Kg*
MTBE	<0.025	<0.025	<0.025	<0.025	<0.025	*0.1 mg/Kg*
TOLUENE	0.229	<0.05	0.111	0.066	<0.05	*7.0 mg/Kg*
XYLENE	0.69	<0.05	0.099	0.081	<0.05	*9.0 mg/Kg*
TOTAL LEAD	13	N/A	N/A	N/A	N/A	*250 mg/Kg*

N/A = NOT ANALYZED (verifys analyte is below cleanup standards for highest NWTPH-G concentration reported)

BOLDED RESULTS = ABOVE CLEANUP STANDARDS

ITALICIZED RESULTS = ESTIMATED CONCENTRATION. RESULT IS ABOVE NORMAL CALIBRATION RANGE. FINAL RESULT IS MOST LIKELY HIGHER

<1.25 ? = SAMPLE METHOD DETECTION LIMIT WAS DILUTED ABOVE CLEANUP STANDARD DUE TO HIGH CONCENTRATION OF OTHER ANALYTE DETECTED

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12/16/2005

Northwest Environmental Solutions, Inc
PO Box 1583
Sumner, WA 98390
Attn: Pete Vanderveide

P.O.#: Pd Ck #7160319036
Project: Whitton Oil
Client ID: 2-A
Sample Matrix: Soil
Date Sampled: 12/08/2005
Date Received: 12/12/2005
Spectra Project: 2005120166
Spectra Number: 1
Rush

Analyte	Result	Units	Method
Diesel	<10	mg/Kg	NWTPH-D
Oil	<100	mg/Kg	NWTPH-D
Gasoline	8	mg/Kg	NWTPH-G
Benzene	<0.025	mg/Kg	SW846 8260B
Ethylbenzene	0.12	mg/Kg	SW846 8260B
Methyl-tert-Butyl Ether	<0.025	mg/Kg	SW846 8260B
Toluene	0.229	mg/Kg	SW846 8260B
Total Xylenes	0.69	mg/Kg	SW846 8260B

Surrogate	Recovery	Method
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	NWTPH-G
[illegible]	[illegible]	[illegible]

SPECTRA LABORATORIES

[illegible], Laboratory Director

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12/16/2005

Northwest Environmental Solutions, Inc
PO Box 1583
Sumner, WA 98390
Attn: Pete Vandervelde

P.O.#: Pd Ck #7160319036
Project: Whitton Oil
Client ID: 2-B
Sample Matrix: Soil
Date Sampled: 12/08/2005
Date Received: 12/12/2005
Spectra Project: 2005120166
Spectra Number: 2
Rush

Analyte	Result	Units	Method
Diesel	<10	mg/Kg	NWTPH-D
Oil	<100	mg/Kg	NWTPH-D
Gasoline	<5	mg/Kg	NWTPH-G
Benzene	<0.025	mg/Kg	SW846 8260B
Ethylbenzene	<0.025	mg/Kg	SW846 8260B
Methyl-tert-Butyl Ether	<0.025	mg/Kg	SW846 8260B
Toluene	<0.05	mg/Kg	SW846 8260B
Total Xylenes	<0.05	mg/Kg	SW846 8260B

Surrogate	Recovery	Method
Toluene-d8	118	NWTPH-G
4-Bromofluorobenzene	111	NWTPH-G
p-Terphenyl	60	NWTPH-D

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
sh/lrb

FROM

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12/16/2005

Northwest Environmental Solutions, Inc
PO Box 1583
Sumner, WA 98390
Attn: Pete Vandervelde

P.O.#: Pd Ck #7160319036
Project: Whitton Oil
Client ID: 2-C
Sample Matrix: Soil
Date Sampled: 12/08/2005
Date Received: 12/12/2005
Spectra Project: 2005120166
Spectra Number: 3
Rush

Analyte	Result	Units	Method
Diesel	<10	mg/Kg	NWTPH-D
Oil	<100	mg/Kg	NWTPH-D
Gasoline	<5	mg/Kg	NWTPH-G
Benzene	<0.025	mg/Kg	SW846 8260B
Ethylbenzene	<0.025	mg/Kg	SW846 8260B
Methyl-tert-Butyl Ether	<0.025	mg/Kg	SW846 8260B
Toluene	0.111	mg/Kg	SW846 8260B
Total Xylenes	0.099	mg/Kg	SW846 8260B

Surrogate	Recovery	Method
Trifluorotoluene	111	NWTPH-G
4-Bromofluorobenzene	119	NWTPH-G
p-Terphenyl	62	NWTPH-D

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
ns/jjb

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12/16/2005

Northwest Environmental Solutions, Inc
PO Box 1583
Sumner, WA 98390
Attn: Pete Vandervelde

P.O.#: Pd Ck #7160319036
Project: Whitton Oil
Client ID: 2-D
Sample Matrix: Soil
Date Sampled: 12/08/2005
Date Received: 12/12/2005
Spectra Project: 2005120166
Spectra Number: 4
Rush

Analyte	Result	Units	Method
Diesel	<10	mg/Kg	NWTPH-D
Oil	<100	mg/Kg	NWTPH-D
Gasoline	<5	mg/Kg	NWTPH-G
Benzene	<0.025	mg/Kg	SW846 8260B
Ethylbenzene	<0.025	mg/Kg	SW846 8260B
Methyl-tert-Butyl Ether	<0.025	mg/Kg	SW846 8260B
Toluene	0.066	mg/Kg	SW846 8260B
Total Xylenes	0.081	mg/Kg	SW846 8260B

Surrogate	Recovery	Method
Toluene d8	116	NWTPH-G
4-Bromofluorobenzene	112	NWTPH-G
p-Terphenyl	76	NWTPH-D

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
sG/jb

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12/16/2005

Northwest Environmental Solutions, Inc
PO Box 1583
Sumner, WA 98390
Attn: Pete Vandervelde

P.O.#: Pd Ck #7160319036
Project: Whitton Oil
Client ID: 2-E
Sample Matrix: Soil
Date Sampled: 12/08/2005
Date Received: 12/12/2005
Spectra Project: 2005120166
Spectra Number: 5
Rush

Analyte	Result	Units	Method
Diesel	<10	mg/Kg	NWTPH-D
Oil	<100	mg/Kg	NWTPH-D
Gasoline	<5	mg/Kg	NWTPH-G
Benzene	<0.025	mg/Kg	SW846 8260B
Ethylbenzene	<0.025	mg/Kg	SW846 8260B
Methyl-tert-Butyl Ether	<0.025	mg/Kg	SW846 8260B
Toluene	<0.05	mg/Kg	SW846 8260B
Total Xylenes	<0.05	mg/Kg	SW846 8260B

Surrogate	Recovery	Method
Toluene-d8	112	NWTPH-G
4-Bromofluorobenzene	113	NWTPH-G
p-Terphenyl	62	NWTPH-D

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager

APPENDIX D

Laboratory Analytical Results

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Fulcrum Environmental
Scott Groat
406 N 2nd Street
Yakima, WA 98901

RE: Whitten Oil
Work Order Number: 2309302

October 03, 2023

Attention Scott Groat:

Fremont Analytical, Inc. received 8 sample(s) on 9/21/2023 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
Gasoline by NWTPH-Gx
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

CC:
Ethan Ducken

Date: *10/03/2023*

CLIENT: Fulcrum Environmental
Project: Whitten Oil
Work Order: 2309302

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2309302-001	WOS-091923-CW01	09/19/2023 11:00 AM	09/21/2023 10:16 AM
2309302-002	WOS-091923-CW02	09/19/2023 9:00 AM	09/21/2023 10:16 AM
2309302-003	WOS-091923-MW02	09/19/2023 6:00 PM	09/21/2023 10:16 AM
2309302-004	WOS-091923-MW03	09/19/2023 3:00 PM	09/21/2023 10:16 AM
2309302-005	WOS-091923-MW04	09/19/2023 9:00 AM	09/21/2023 10:16 AM
2309302-006	WOS-091923-MW06	09/19/2023 11:00 AM	09/21/2023 10:16 AM
2309302-007	WOS-091923-MW07	09/19/2023 3:00 PM	09/21/2023 10:16 AM
2309302-008	WOS-091923-MW08	09/19/2023 3:00 PM	09/21/2023 10:16 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2309302**
Date: **10/3/2023**

CLIENT: Fulcrum Environmental
Project: Whitten Oil

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Associated LCS is outside of control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Method Detection Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2309302**
Date Reported: **10/3/2023**

Client: Fulcrum Environmental
Collection Date: 9/19/2023 11:00:00 AM
Project: Whitten Oil
Lab ID: 2309302-001
Matrix: Groundwater
Client Sample ID: WOS-091923-CW01

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 41594			Analyst: AP
Diesel Range Organics	292	94.0	35.1		µg/L	1	09/27/23 18:45:07
Heavy Oil	ND	94.0	26.8		µg/L	1	09/27/23 18:45:07
Total Petroleum Hydrocarbons	292	188	61.9		µg/L	1	09/27/23 18:45:07
Surr: 2-Fluorobiphenyl	90.1	50 - 150			%Rec	1	09/27/23 18:45:07
Surr: o-Terphenyl	102	50 - 150			%Rec	1	09/27/23 18:45:07

NOTES:
Chromatographic pattern indicates an unresolved complex mixture, which may be weathered and/or organic material

Gasoline by NWTPH-Gx				Batch ID: 41624			Analyst: CC
Gasoline Range Organics	ND	50.0	21.6		µg/L	1	09/30/23 9:21:26
Surr: Toluene-d8	94.5	65 - 135			%Rec	1	09/30/23 9:21:26
Surr: 4-Bromofluorobenzene	99.9	65 - 135			%Rec	1	09/30/23 9:21:26
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41624			Analyst: CC
Benzene	3.98	0.440	0.179		µg/L	1	09/30/23 9:21:26
Toluene	ND	1.00	0.346		µg/L	1	09/30/23 9:21:26
Ethylbenzene	ND	0.400	0.143		µg/L	1	09/30/23 9:21:26
m,p-Xylene	ND	1.00	0.375		µg/L	1	09/30/23 9:21:26
o-Xylene	ND	0.500	0.144		µg/L	1	09/30/23 9:21:26
Surr: Dibromofluoromethane	108	79.4 - 125			%Rec	1	09/30/23 9:21:26
Surr: Toluene-d8	106	79 - 124			%Rec	1	09/30/23 9:21:26
Surr: 1-Bromo-4-fluorobenzene	98.2	85.5 - 112			%Rec	1	09/30/23 9:21:26

Analytical Report

Work Order: **2309302**
Date Reported: **10/3/2023**

Client: Fulcrum Environmental
Collection Date: 9/19/2023 9:00:00 AM
Project: Whitten Oil
Lab ID: 2309302-002
Matrix: Groundwater
Client Sample ID: WOS-091923-CW02

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 41594			Analyst: AP
Diesel Range Organics	719	94.3	35.2		µg/L	1	09/27/23 18:56:00
Heavy Oil	ND	94.3	26.9		µg/L	1	09/27/23 18:56:00
Total Petroleum Hydrocarbons	719	189	62.1		µg/L	1	09/27/23 18:56:00
Surr: 2-Fluorobiphenyl	94.3	50 - 150			%Rec	1	09/27/23 18:56:00
Surr: o-Terphenyl	97.8	50 - 150			%Rec	1	09/27/23 18:56:00

NOTES:
Chromatographic pattern indicates an unresolved complex mixture, which may be weathered and/or organic material

Gasoline by NWTPH-Gx				Batch ID: 41624			Analyst: CC
Gasoline Range Organics	162	50.0	21.6		µg/L	1	09/30/23 9:51:32
Surr: Toluene-d8	92.5	65 - 135			%Rec	1	09/30/23 9:51:32
Surr: 4-Bromofluorobenzene	103	65 - 135			%Rec	1	09/30/23 9:51:32
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41624			Analyst: CC
Benzene	75.1	4.40	1.79	D	µg/L	10	10/02/23 13:46:16
Toluene	5.58	1.00	0.346		µg/L	1	09/30/23 9:51:32
Ethylbenzene	0.490	0.400	0.143		µg/L	1	09/30/23 9:51:32
m,p-Xylene	0.907	1.00	0.375	J	µg/L	1	09/30/23 9:51:32
o-Xylene	1.18	0.500	0.144		µg/L	1	09/30/23 9:51:32
Surr: Dibromofluoromethane	107	79.4 - 125			%Rec	1	09/30/23 9:51:32
Surr: Toluene-d8	104	79 - 124			%Rec	1	09/30/23 9:51:32
Surr: 1-Bromo-4-fluorobenzene	102	85.5 - 112			%Rec	1	09/30/23 9:51:32

Analytical Report

Work Order: **2309302**
Date Reported: **10/3/2023**

Client: Fulcrum Environmental
Collection Date: 9/19/2023 6:00:00 PM
Project: Whitten Oil
Lab ID: 2309302-003
Matrix: Groundwater
Client Sample ID: WOS-091923-MW02

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 41594			Analyst: AP
Diesel Range Organics	1,070	95.1	35.5		µg/L	1	09/27/23 19:06:53
Heavy Oil	ND	95.1	27.1		µg/L	1	09/27/23 19:06:53
Total Petroleum Hydrocarbons	1,070	190	62.6		µg/L	1	09/27/23 19:06:53
Surr: 2-Fluorobiphenyl	104	50 - 150			%Rec	1	09/27/23 19:06:53
Surr: o-Terphenyl	109	50 - 150			%Rec	1	09/27/23 19:06:53

NOTES:
Chromatographic pattern indicates an unresolved complex mixture, which may be weathered and/or organic material
Detection is biased high by overlap with gasoline-range material

Gasoline by NWTPH-Gx				Batch ID: 41624			Analyst: CC
Gasoline Range Organics	420	50.0	21.6		µg/L	1	09/30/23 10:21:47
Surr: Toluene-d8	93.3	65 - 135			%Rec	1	09/30/23 10:21:47
Surr: 4-Bromofluorobenzene	104	65 - 135			%Rec	1	09/30/23 10:21:47
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41624			Analyst: CC
Benzene	0.481	0.440	0.179		µg/L	1	09/30/23 10:21:47
Toluene	ND	1.00	0.346		µg/L	1	09/30/23 10:21:47
Ethylbenzene	ND	0.400	0.143		µg/L	1	09/30/23 10:21:47
m,p-Xylene	ND	1.00	0.375		µg/L	1	09/30/23 10:21:47
o-Xylene	ND	0.500	0.144		µg/L	1	09/30/23 10:21:47
Surr: Dibromofluoromethane	106	79.4 - 125			%Rec	1	09/30/23 10:21:47
Surr: Toluene-d8	106	79 - 124			%Rec	1	09/30/23 10:21:47
Surr: 1-Bromo-4-fluorobenzene	102	85.5 - 112			%Rec	1	09/30/23 10:21:47

Client: Fulcrum Environmental
Collection Date: 9/19/2023 3:00:00 PM
Project: Whitten Oil
Lab ID: 2309302-004
Matrix: Groundwater
Client Sample ID: WOS-091923-MW03

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 41594			Analyst: AP
Diesel Range Organics	521	95.1	35.5		µg/L	1	09/27/23 19:17:54
Heavy Oil	ND	95.1	27.1		µg/L	1	09/27/23 19:17:54
Total Petroleum Hydrocarbons	521	190	62.6		µg/L	1	09/27/23 19:17:54
Surr: 2-Fluorobiphenyl	94.2	50 - 150			%Rec	1	09/27/23 19:17:54
Surr: o-Terphenyl	100	50 - 150			%Rec	1	09/27/23 19:17:54

NOTES:
Chromatographic pattern indicates an unresolved complex mixture, which may be weathered and/or organic material

Gasoline by NWTPH-Gx				Batch ID: 41624			Analyst: CC
Gasoline Range Organics	53.0	50.0	21.6		µg/L	1	09/30/23 11:22:04
Surr: Toluene-d8	94.5	65 - 135			%Rec	1	09/30/23 11:22:04
Surr: 4-Bromofluorobenzene	101	65 - 135			%Rec	1	09/30/23 11:22:04

NOTES:
Detection is due to non-petroleum compounds

Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41624			Analyst: CC
Benzene	15.3	0.440	0.179		µg/L	1	09/30/23 11:22:04
Toluene	0.524	1.00	0.346	J	µg/L	1	09/30/23 11:22:04
Ethylbenzene	ND	0.400	0.143		µg/L	1	09/30/23 11:22:04
m,p-Xylene	ND	1.00	0.375		µg/L	1	09/30/23 11:22:04
o-Xylene	ND	0.500	0.144		µg/L	1	09/30/23 11:22:04
Surr: Dibromofluoromethane	107	79.4 - 125			%Rec	1	09/30/23 11:22:04
Surr: Toluene-d8	105	79 - 124			%Rec	1	09/30/23 11:22:04
Surr: 1-Bromo-4-fluorobenzene	99.4	85.5 - 112			%Rec	1	09/30/23 11:22:04

Analytical Report

Work Order: **2309302**
Date Reported: **10/3/2023**

Client: Fulcrum Environmental
Collection Date: 9/19/2023 9:00:00 AM
Project: Whitten Oil
Lab ID: 2309302-005
Matrix: Groundwater
Client Sample ID: WOS-091923-MW04

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 41594			Analyst: AP
Diesel Range Organics	1,710	95.2	35.6		µg/L	1	09/27/23 19:28:46
Heavy Oil	ND	95.2	27.2		µg/L	1	09/27/23 19:28:46
Total Petroleum Hydrocarbons	1,710	190	62.7		µg/L	1	09/27/23 19:28:46
Surr: 2-Fluorobiphenyl	109	50 - 150			%Rec	1	09/27/23 19:28:46
Surr: o-Terphenyl	116	50 - 150			%Rec	1	09/27/23 19:28:46

NOTES:
Chromatographic pattern indicates an unresolved complex mixture, which may be weathered and/or organic material
Detection is biased high by overlap with gasoline-range material

Gasoline by NWTPH-Gx				Batch ID: 41624			Analyst: CC
Gasoline Range Organics	1,190	500	216	D	µg/L	10	10/02/23 14:16:30
Surr: Toluene-d8	86.8	65 - 135		D	%Rec	10	10/02/23 14:16:30
Surr: 4-Bromofluorobenzene	108	65 - 135		D	%Rec	10	10/02/23 14:16:30
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41624			Analyst: CC
Benzene	177	4.40	1.79	D	µg/L	10	10/02/23 14:16:30
Toluene	2.50	1.00	0.346		µg/L	1	09/30/23 11:52:09
Ethylbenzene	15.0	0.400	0.143		µg/L	1	09/30/23 11:52:09
m,p-Xylene	3.25	1.00	0.375		µg/L	1	09/30/23 11:52:09
o-Xylene	ND	0.500	0.144		µg/L	1	09/30/23 11:52:09
Surr: Dibromofluoromethane	107	79.4 - 125			%Rec	1	09/30/23 11:52:09
Surr: Toluene-d8	104	79 - 124			%Rec	1	09/30/23 11:52:09
Surr: 1-Bromo-4-fluorobenzene	103	85.5 - 112			%Rec	1	09/30/23 11:52:09

Analytical Report

Work Order: **2309302**
Date Reported: **10/3/2023**

Client: Fulcrum Environmental
Collection Date: 9/19/2023 11:00:00 AM
Project: Whitten Oil
Lab ID: 2309302-006
Matrix: Groundwater
Client Sample ID: WOS-091923-MW06

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.					Batch ID: 41594		Analyst: AP
Diesel Range Organics	356	94.6	35.3		µg/L	1	09/27/23 20:23:29
Heavy Oil	ND	94.6	27.0		µg/L	1	09/27/23 20:23:29
Total Petroleum Hydrocarbons	356	189	62.3		µg/L	1	09/27/23 20:23:29
Surr: 2-Fluorobiphenyl	93.9	50 - 150			%Rec	1	09/27/23 20:23:29
Surr: o-Terphenyl	99.9	50 - 150			%Rec	1	09/27/23 20:23:29

NOTES:
Chromatographic pattern indicates an unresolved complex mixture, which may be weathered and/or organic material
Detection is biased high by overlap with gasoline-range material

Gasoline by NWTPH-Gx					Batch ID: 41624		Analyst: CC
Gasoline Range Organics	221	50.0	21.6		µg/L	1	09/30/23 12:22:17
Surr: Toluene-d8	93.8	65 - 135			%Rec	1	09/30/23 12:22:17
Surr: 4-Bromofluorobenzene	105	65 - 135			%Rec	1	09/30/23 12:22:17
Volatile Organic Compounds by EPA Method 8260D					Batch ID: 41624		Analyst: CC
Benzene	0.440	0.440	0.179	J	µg/L	1	09/30/23 12:22:17
Toluene	ND	1.00	0.346		µg/L	1	09/30/23 12:22:17
Ethylbenzene	0.209	0.400	0.143	J	µg/L	1	09/30/23 12:22:17
m,p-Xylene	ND	1.00	0.375		µg/L	1	09/30/23 12:22:17
o-Xylene	ND	0.500	0.144		µg/L	1	09/30/23 12:22:17
Surr: Dibromofluoromethane	105	79.4 - 125			%Rec	1	09/30/23 12:22:17
Surr: Toluene-d8	106	79 - 124			%Rec	1	09/30/23 12:22:17
Surr: 1-Bromo-4-fluorobenzene	103	85.5 - 112			%Rec	1	09/30/23 12:22:17

Analytical Report

Work Order: **2309302**
Date Reported: **10/3/2023**

Client: Fulcrum Environmental
Collection Date: 9/19/2023 3:00:00 PM
Project: Whitten Oil
Lab ID: 2309302-007
Matrix: Groundwater
Client Sample ID: WOS-091923-MW07

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 41594			Analyst: AP
Diesel Range Organics	34,100	939	351	D	µg/L	10	09/29/23 19:04:14
Heavy Oil	ND	939	268	D	µg/L	10	09/29/23 19:04:14
Total Petroleum Hydrocarbons	34,100	1,880	619	D	µg/L	10	09/29/23 19:04:14
Surr: 2-Fluorobiphenyl	139	50 - 150		D	%Rec	10	09/29/23 19:04:14
Surr: o-Terphenyl	108	50 - 150		D	%Rec	10	09/29/23 19:04:14

NOTES:
Chromatographic pattern indicates an unresolved complex mixture, which may be weathered and/or organic material
Detection is biased high by overlap with gasoline-range material

Gasoline by NWTPH-Gx				Batch ID: 41624			Analyst: CC
Gasoline Range Organics	ND	1,000	432	D	µg/L	20	10/02/23 15:16:44
Surr: Toluene-d8	88.9	65 - 135		D	%Rec	20	10/02/23 15:16:44
Surr: 4-Bromofluorobenzene	104	65 - 135		D	%Rec	20	10/02/23 15:16:44
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41624			Analyst: CC
Benzene	ND	8.80	3.57	D	µg/L	20	10/02/23 15:16:44
Toluene	ND	20.0	6.92	D	µg/L	20	10/02/23 15:16:44
Ethylbenzene	ND	8.00	2.87	D	µg/L	20	10/02/23 15:16:44
m,p-Xylene	ND	20.0	7.51	D	µg/L	20	10/02/23 15:16:44
o-Xylene	ND	10.0	2.87	D	µg/L	20	10/02/23 15:16:44
Surr: Dibromofluoromethane	112	79.4 - 125		D	%Rec	20	10/02/23 15:16:44
Surr: Toluene-d8	117	79 - 124		D	%Rec	20	10/02/23 15:16:44
Surr: 1-Bromo-4-fluorobenzene	103	85.5 - 112		D	%Rec	20	10/02/23 15:16:44

Client: Fulcrum Environmental
Collection Date: 9/19/2023 3:00:00 PM
Project: Whitten Oil
Lab ID: 2309302-008
Matrix: Groundwater
Client Sample ID: WOS-091923-MW08

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 41594			Analyst: AP
Diesel Range Organics	480	96.1	35.9		µg/L	1	09/27/23 20:34:21
Heavy Oil	ND	96.1	27.4		µg/L	1	09/27/23 20:34:21
Total Petroleum Hydrocarbons	480	192	63.3		µg/L	1	09/27/23 20:34:21
Surr: 2-Fluorobiphenyl	97.7	50 - 150			%Rec	1	09/27/23 20:34:21
Surr: o-Terphenyl	99.4	50 - 150			%Rec	1	09/27/23 20:34:21

NOTES:
Chromatographic pattern indicates an unresolved complex mixture, which may be weathered and/or organic material

Gasoline by NWTPH-Gx				Batch ID: 41624			Analyst: CC
Gasoline Range Organics	37.1	50.0	21.6	J	µg/L	1	09/30/23 12:52:25
Surr: Toluene-d8	92.7	65 - 135			%Rec	1	09/30/23 12:52:25
Surr: 4-Bromofluorobenzene	103	65 - 135			%Rec	1	09/30/23 12:52:25
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41624			Analyst: CC
Benzene	10.1	0.440	0.179		µg/L	1	09/30/23 12:52:25
Toluene	ND	1.00	0.346		µg/L	1	09/30/23 12:52:25
Ethylbenzene	ND	0.400	0.143		µg/L	1	09/30/23 12:52:25
m,p-Xylene	ND	1.00	0.375		µg/L	1	09/30/23 12:52:25
o-Xylene	ND	0.500	0.144		µg/L	1	09/30/23 12:52:25
Surr: Dibromofluoromethane	107	79.4 - 125			%Rec	1	09/30/23 12:52:25
Surr: Toluene-d8	107	79 - 124			%Rec	1	09/30/23 12:52:25
Surr: 1-Bromo-4-fluorobenzene	102	85.5 - 112			%Rec	1	09/30/23 12:52:25

Work Order: 2309302
CLIENT: Fulcrum Environmental
Project: Whitten Oil

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: **MB-41594**	SampType: **MBLK**			Units: **µg/L**		Prep Date: **9/26/2023**		RunNo: **86850**			
Client ID: **MBLKW**	Batch ID: **41594**					Analysis Date: **9/27/2023**		SeqNo: **1812395**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	ND	94.9									
Heavy Oil	35.7	94.9									J
Total Petroleum Hydrocarbons	ND	190									
Surr: 2-Fluorobiphenyl	19.2		23.73		80.9	50	150				
Surr: o-Terphenyl	19.1		23.73		80.7	50	150				

Sample ID: **LCS-41594**	SampType: **LCS**			Units: **µg/L**		Prep Date: **9/26/2023**		RunNo: **86850**			
Client ID: **LCSW**	Batch ID: **41594**					Analysis Date: **9/27/2023**		SeqNo: **1812396**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	934	187	1,171	0	79.8	38.3	125				
Surr: 2-Fluorobiphenyl	18.3		23.41		78.1	50	150				
Surr: o-Terphenyl	23.8		23.41		102	50	150				

Sample ID: **2309302-008BMS**	SampType: **MS**			Units: **µg/L**		Prep Date: **9/26/2023**		RunNo: **86850**			
Client ID: **WOS-091923-MW08**	Batch ID: **41594**					Analysis Date: **9/27/2023**		SeqNo: **1812405**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	1,550	188	1,174	480.0	91.5	25.4	127				
Surr: 2-Fluorobiphenyl	24.6		23.47		105	50	150				
Surr: o-Terphenyl	28.0		23.47		119	50	150				

Sample ID: **2309302-008BMSD**	SampType: **MSD**			Units: **µg/L**		Prep Date: **9/26/2023**		RunNo: **86850**			
Client ID: **WOS-091923-MW08**	Batch ID: **41594**					Analysis Date: **9/27/2023**		SeqNo: **1812406**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	1,680	187	1,170	480.0	103	25.4	127	1,554	7.99	30	
Surr: 2-Fluorobiphenyl	23.0		23.39		98.5	50	150		0		
Surr: o-Terphenyl	30.1		23.39		129	50	150		0		

Work Order: 2309302
CLIENT: Fulcrum Environmental
Project: Whitten Oil

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: **LCS-41624**	SampType: **LCS**			Units: **µg/L**		Prep Date: **9/28/2023**		RunNo: **86868**		
Client ID: **LCSW**	Batch ID: **41624**					Analysis Date: **9/30/2023**		SeqNo: **1813282**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	520	50.0	500.0	0	104	65	135				
Surr: Toluene-d8	24.2		25.00		96.6	65	135				
Surr: 4-Bromofluorobenzene	25.2		25.00		101	65	135				

Sample ID: **MB-41624**	SampType: **MBLK**			Units: **µg/L**		Prep Date: **9/28/2023**		RunNo: **86868**		
Client ID: **MBLKW**	Batch ID: **41624**					Analysis Date: **9/30/2023**		SeqNo: **1813281**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	ND	50.0									
Surr: Toluene-d8	23.8		25.00		95.3	65	135				
Surr: 4-Bromofluorobenzene	25.0		25.00		100	65	135				

Sample ID: **2309302-003ADUP**	SampType: **DUP**			Units: **µg/L**		Prep Date: **9/28/2023**		RunNo: **86868**		
Client ID: **WOS-091923-MW02**	Batch ID: **41624**					Analysis Date: **9/30/2023**		SeqNo: **1813260**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	443	50.0						419.7	5.43	30	
Surr: Toluene-d8	23.5		25.00		93.9	65	135		0		
Surr: 4-Bromofluorobenzene	26.0		25.00		104	65	135		0		

Sample ID: **2309492-002AMS**	SampType: **MS**			Units: **µg/L**		Prep Date: **9/28/2023**		RunNo: **86868**		
Client ID: **BATCH**	Batch ID: **41624**					Analysis Date: **9/30/2023**		SeqNo: **1813277**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	408	50.0	500.0	99.73	61.7	65	135				S
Surr: Toluene-d8	23.0		25.00		92.2	65	135				
Surr: 4-Bromofluorobenzene	25.6		25.00		102	65	135				

Work Order: 2309302
CLIENT: Fulcrum Environmental
Project: Whitten Oil

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-41624**	SampType: **LCS**	Units: **µg/L**	Prep Date: **9/28/2023**	RunNo: **86867**
Client ID: **LCSW**	Batch ID: **41624**		Analysis Date: **9/30/2023**	SeqNo: **1812992**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.7	0.440	20.00	0	109	80	120				
Toluene	22.0	1.00	20.00	0	110	80	120				
Ethylbenzene	20.6	0.400	20.00	0	103	80	120				
m,p-Xylene	41.0	1.00	40.00	0	102	80	120				
o-Xylene	20.1	0.500	20.00	0	101	80	120				
Surr: Dibromofluoromethane	27.1		25.00		108	79.4	125				
Surr: Toluene-d8	26.3		25.00		105	79	124				
Surr: 1-Bromo-4-fluorobenzene	24.8		25.00		99.1	85.5	112				

Sample ID: **MB-41624**	SampType: **MBLK**	Units: **µg/L**	Prep Date: **9/28/2023**	RunNo: **86867**
Client ID: **MBLKW**	Batch ID: **41624**		Analysis Date: **9/30/2023**	SeqNo: **1812989**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.440									
Toluene	ND	1.00									
Ethylbenzene	ND	0.400									
m,p-Xylene	ND	1.00									
o-Xylene	ND	0.500									
Surr: Dibromofluoromethane	25.3		25.00		101	80	120				
Surr: Toluene-d8	26.4		25.00		106	80	120				
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.3	80	120				

Sample ID: **2309302-003ADUP**	SampType: **DUP**	Units: **µg/L**	Prep Date: **9/28/2023**	RunNo: **86867**
Client ID: **WOS-091923-MW02**	Batch ID: **41624**		Analysis Date: **9/30/2023**	SeqNo: **1812970**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.438	0.440						0.4812	9.36	30	J
Toluene	ND	1.00						0	0	30	
Ethylbenzene	ND	0.400						0	0	30	
m,p-Xylene	ND	1.00						0	0	30	
o-Xylene	ND	0.500						0	0	30	

Work Order: 2309302
CLIENT: Fulcrum Environmental
Project: Whitten Oil

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2309302-003ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **9/28/2023** RunNo: **86867**
Client ID: **WOS-091923-MW02** Batch ID: **41624** Analysis Date: **9/30/2023** SeqNo: **1812970**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	26.4		25.00		105	79.4	125		0		
Surr: Toluene-d8	26.5		25.00		106	79	124		0		
Surr: 1-Bromo-4-fluorobenzene	25.6		25.00		102	85.5	112		0		

Sample ID: **2309302-008AMS** SampType: **MS** Units: **µg/L** Prep Date: **9/28/2023** RunNo: **86867**
Client ID: **WOS-091923-MW08** Batch ID: **41624** Analysis Date: **9/30/2023** SeqNo: **1812976**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	37.7	0.440	20.00	10.10	138	68	136				S
Toluene	24.7	1.00	20.00	0	123	78.9	121				S
Ethylbenzene	21.8	0.400	20.00	0	109	74.9	128				
m,p-Xylene	43.0	1.00	40.00	0	107	75.7	128				
o-Xylene	20.7	0.500	20.00	0	104	75.9	124				
Surr: Dibromofluoromethane	27.6		25.00		110	79.4	125				
Surr: Toluene-d8	26.8		25.00		107	79	124				
Surr: 1-Bromo-4-fluorobenzene	25.5		25.00		102	85.5	112				

NOTES:
S - Outlying spike recovery(ies) observed.

Fremont Analytical
An Alliance Technical Group Company

Sample Log-In Check List

Client Name:	FE	Work Order Number:	2309302
Logged by:	Morgan Wilson	Date Received:	9/21/2023 10:16:00 AM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	FedEx		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☑	NA ☐
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

Item Information

Item #	Temp °C
Sample	5.8

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Fremont Analytical
An Alliance Technical Group Company
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Chain of Custody Record & Laboratory Services Agreement

Date: 09/20/2023 | Page: | of:

Laboratory Project No (internal): 2309302

Project Name: Whitten 0.1

Special Remarks:

Client: Fulcrum Environmental

Project No: 233710.00

Address: 207 W Boone Ave

Collected by: Ethan Ducken

City, State, Zip: Spokane, WA 99201

Location: Colville, WA

Telephone: 509 459 9220

Report To (PM): Scott Grant

Disposal: Samples will be disposed in 30 days unless otherwise requested.
☐ Retain volume (specify above) ☐ Return to client

Email(s): ethan.ducken@fulcrum.net & sgrant@fulcrum.net

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1 WOS-091923-GW01	09/19/23	1100	GW	4		X	X		X								
2 -GW02		0900		4		X	X		X								
3 -MW02		1800		4		X	X		X								
4 -MW03		1500		4		X	X		X								
5 -MW04		0900		4		X	X		X								
6 -MW06		1100		4		X	X		X								
7 -MW07		1500		4		X	X		X								
8 -MW08		1500		10		X	X		X								Extra Volume
9																	
10																	

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:
☐ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day ☐ _____ (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x [signature]	Ethan J Ducken	09/20/2023 1400	x [signature]	9/21/23	1016
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x			x		

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Eastern Region Office
4601 North Monroe St., Spokane, WA 99205-1295 • 509-329-3400

November 20, 2023

Travis Trent
Fulcrum Environmental Consulting
207 West Boone Avenue
Spokane, WA 99201

Re: Further Action at the following Site:

- **Site Name:** Whitten Oil 1
- **Site Address:** 370 West 5th Avenue, Colville
- **Cleanup Site ID:** 9440
- **Facility/Site ID:** 49354234
- **VCP Project ID:** EA0340

Dear Travis Trent:

The Washington State Department of Ecology (Ecology) has reviewed the report documenting your remedial actions at the Whitten Oil 1 facility (Site) under the Voluntary Cleanup Program (VCP).[1] This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), chapter 70A.305 RCW.[2]

Opinion

Ecology has determined that further remedial action is necessary to clean up contamination at the Site.

Ecology bases this opinion on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70A.305 RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

[1] https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Voluntary-Cleanup-Program
[2] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305

Site Description

This opinion applies only to the Site described here. The Site is defined by the nature and extent of contamination associated with the following release:

- Gasoline, diesel, and oil-range petroleum hydrocarbons (GRPH, DRPH, and ORPH) into the soil and groundwater.
- Volatile organic compounds (VOCs) into the soil and groundwater.

Enclosure A includes a detailed description and diagram of the Site, as currently known to Ecology.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel(s) associated with this Site are affected by other sites.

Basis for the opinion

This opinion is based on the information contained in the documents list in **Enclosure B**. You can request these documents by filing a records request.[3] For help making a request, contact the Public Records Officer at recordsofficer@ecy.wa.gov or call (360) 407-6040. Before making a request, check whether the documents are available on the Site webpage.[4]

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the cleanup

Ecology has concluded that further remedial action is necessary to clean up contamination at the Site. Ecology bases this conclusion on the following analysis:

Suspected new release

Data from 2018 to present indicate a new release of petroleum hydrocarbons and VOCs to groundwater which exceeds the MTCA Method A cleanup levels for GRPH, DRPH, ORPH, and benzene. The groundwater plume has migrated beyond the property boundary to the northwest and is no longer fully delineated. Ecology has concluded that additional Site investigation is necessary to delineate the complete horizontal and vertical extent of soil and groundwater contamination. Due to the proximity of residential homes immediately downgradient of monitoring well MW-7, Ecology will require an expedited response to

[3] https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests
[4] https://apps.ecology.wa.gov/cleanupsearch/site/9440

determine whether any interim remedial actions are required to mitigate impacts to human health and the environment. Within 30 days of receiving this letter, please submit a work plan for evaluating off-property soil and groundwater contamination in accordance with Ecology's Guidance for Remediation of Petroleum Contaminated Sites (wa.gov).[5]

Vapor intrusion evaluation

Ecology has determined benzene concentrations in groundwater exceed the MTCA Method B vapor intrusion (VI) screening level established using procedures in WAC 173-340-750[6]. Therefore, a Tier 2 VI evaluation is required to assess indoor air quality in any occupied buildings within 30 feet of groundwater exceeding the VI screening levels for all petroleum VOCs. Please refer to Ecology's Guidance for Evaluating Vapor Intrusion in Washington State: Investigation and Remedial Action.[7]

Updated RI/FS

Once the additional Site characterization has been completed, please submit an updated Remedial Investigation (RI) and conceptual site model (CSM) identifying the nature and extent of all contaminated media and exposure pathways. The RI should also include groundwater contour maps and hydrographs representing the last 5 years of monitoring data. The completed RI should be the basis for preparing a feasibility study (FS) that meets the MTCA requirements for selection of a cleanup action. Visit the Ecology webpage [8] for RI/FS report format and content requirements.

Terrestrial Ecological Evaluation

A Terrestrial Ecological Evaluation (TEE) has not been performed at the Site. The TEE is necessary to meet substantive requirements of MTCA, to set cleanup levels that are protective of terrestrial species, and to determine an appropriate cleanup action. Please conduct the TEE and provide the associated documentation forms to Ecology. Additional information on satisfying this requirement can be found at the following link: https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Terrestrial-ecological-evaluation

Data submittal

Please note that electronic submittal of all sampling data into Ecology's electronic Environmental Information Management (EIM) database is a requirement in order to receive a final Ecology opinion for this Site. For questions regarding EIM, please see the Ecology web

[5] https://apps.ecology.wa.gov/publications/summarypages/1009057.html
[6] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340-750
[7] https://apps.ecology.wa.gov/publications/summarypages/0909047.html
[8] https://fortress.wa.gov/ecy/publications/SummaryPages/1609007.html

page: https://ecology.wa.gov/Research-Data/Data-resources/Environmental-Information-Management-database

Limitations of the Opinion

Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70A.305.040(4).[9]

Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70A.305.080[10] and WAC 173-340-545.[11]

State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70A.305.170(6).[12]

Contact Information

Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). After you have addressed our concerns, you may request another review of your cleanup. Please do not hesitate to request additional services as your cleanup progresses. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion, please contact me by phone at (509) 342-5564 or e-mail at ted.uecker@ecy.wa.gov.

[9] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.040
[10] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.080
[11] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340-545
[12] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.170

Sincerely,

Ted M. Uecker
ERO Toxics Cleanup Program

tmu: hg

Enclosures (2): A – Description and Diagrams of the Site
B – List of Site Diagrams

cc: Jeff Whitten, Whitten Oil
Christer Loftenius, Ecology
Nicholas Acklam, Ecology

Enclosure A

Description and Diagrams of the Site

Site description

The site is located at the northeast corner of West Fifth Avenue (U.S. Highway 395) and North Lincoln Street in Colville, WA. The site has been in operation as a service station or bulk plant since the 1950s. The site is an active gasoline service station and car wash with three dispenser islands and four underground storage tanks (USTs), including two 10,000-gallon diesel tanks, one 6,000-gallon premium gasoline tank, and one 10,000-gallon unleaded gasoline tank. The entire site is paved, with sandy fill material from 3-8 feet below ground surface (bgs) underlain by fine-grained alluvium. Bedrock depth is unknown, but greater than 14.5 feet bgs. Groundwater is encountered from 3.75 to 5.24 feet bgs, flowing to the northwest at a gradient of 0.032. The flow generally follows topography.

Site history

In September 1989, six USTs were removed from the site, with one UST abandoned in place due to its location beneath the office building. Three of the USTs removed were suspected of leakage, and approximately 1,200 cubic yards of petroleum-contaminated soil (PCS) were removed along with the USTs.

In January 1990, six soil borings ranging from 10 to 14.5 feet bgs were advanced in suspect areas to investigate the potential for soil or groundwater contamination. Soil samples were collected at five-foot vertical intervals and analyzed for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and xylenes (BTEX). Only one sample contained detectable TPH, and all samples were below the 1990 MTCA cleanup levels. Seven groundwater monitoring wells were installed (CW-01, CW-02, MW-01, MW-02, MW-03, MW-04, and MW-06) and samples were analyzed for TPH and BTEX. The highest TPH concentrations were found in wells MW-2 and MW-4 (close to the UST basin) and downgradient MW-6. Despite groundwater contamination above MTCA cleanup levels, no further remedial actions were planned or completed.

In December 2005, a change in ownership of the site led to additional soil sampling. Five soil borings were advanced between 5 and 15 feet bgs near the active USTs. Five soil samples were collected and analyzed for gasoline-range petroleum hydrocarbons (GRPH), diesel- and oil-range petroleum hydrocarbons (GRPH and ORPH), lead, methyl tert-butyl ether (MTBE), and BTEX. GRPH, ethylbenzene, toluene, xylene, and lead were all detected but below MTCA Method A cleanup levels.

In September 2017, groundwater monitoring was resumed from the five onsite wells (CW-01, CW-02, MW-03, MW-04, and MW-06) and analyzed for NTWPH-Gx and BTEX. MW-01 and MW-02 could not be located and it was suggested they were likely decommissioned or paved over. Diesel and oil-range hydrocarbons were added to the analytical regime in September 2018, and were detected in MW-04 and MW-06 to a maximum concentration of 1580 ug/L.

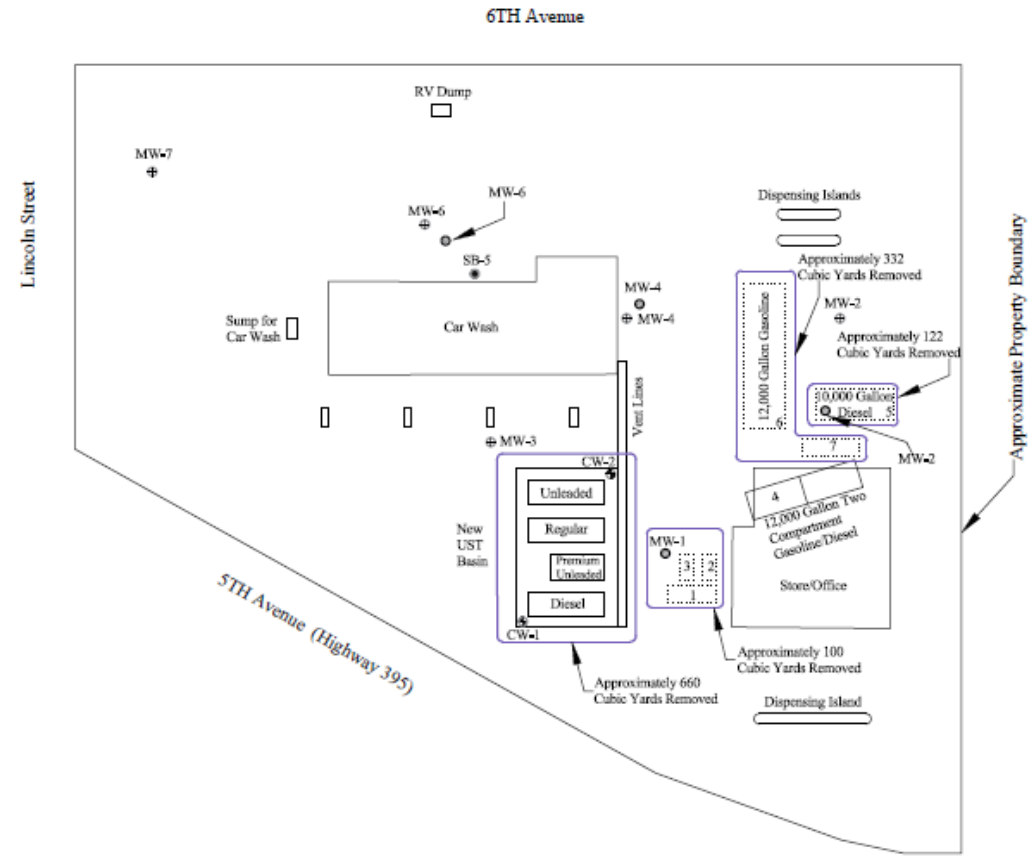
During groundwater monitoring in March 2020, duplicate samples were collected from MW-04 and MW-06 and filtered prior to analyses to demonstrate whether high turbidity of groundwater samples was contributing to elevated petroleum hydrocarbon concentrations. Results indicate that the filtered and unfiltered sample have comparable oil-range hydrocarbon concentrations. Gasoline and benzene concentrations were below the Method A CULs for all samples.

In September and October 2020, monitoring wells MW-04 an MW-06 were decommissioned due to failing surface seals and poor recharge rates. Four monitoring wells (MW-02, MW-04, MW-06, and MW-07 were installed to replace the decommissioned wells and provide additional downgradient and source data points. Samples were collected from all seven onsite monitoring wells. GRPH, combined DRPH and ORPH, and benzene exceeded the Method A cleanup levels in CW-02 and MW-04. These constituents were also detected below cleanup levels in CW-01, MW-02, MW-06, and MW-07.

During groundwater monitoring events in March and September 2021, all seven onsite wells were sampled. There was a significant increase in the combined DRPH and ORPH concentrations in MW-04, which follow a sharp decrease in September 2019 followed by relative stability through 2020. A similar increasing trend was observed with benzene. MW-06 showed a slight increase in DRPH and ORPH to above the MTCA Method A cleanup level during the same time period. MW-02 also remained above the cleanup levels for DRPH and GRPH. All other wells were below the cleanup levels for DRPH, ORPH, GRPH, and BTEX. Groundwater monitoring in March 2022 showed exceedances of DRPH in CW-02, MW-02, MW-03, MW-04, and MW06, ORPH in MW-04, GRPH in MW-02 and MW-04, and benzene in MW-04. This sampling event saw an increase of DRPH to above the Method A cleanup level in MW-03 and MW-6.

Results from the September 2022 and March 2023 groundwater sampling were relatively consistent with previous exceedances, except for increasing GRPH in CW02 and MW03, a sharp increase and decrease of DRPH in CW02, and a sharp increase in benzene CW02. An evaluation of groundwater contaminant concentrations and areal extent from September 2017 to March 2023 indicates a new release of DRPH and benzene sometime prior to the September 2022 sampling event.

Site Diagrams



LEGEND

- Approximate extent of soil excavation
- Existing onsite UST
- Historical UST removed from site
- Historic Soil Boring
- Historical Monitoring Well
- Existing onsite Monitoring Well
- Existing onsite Compliance Well

N

0 30

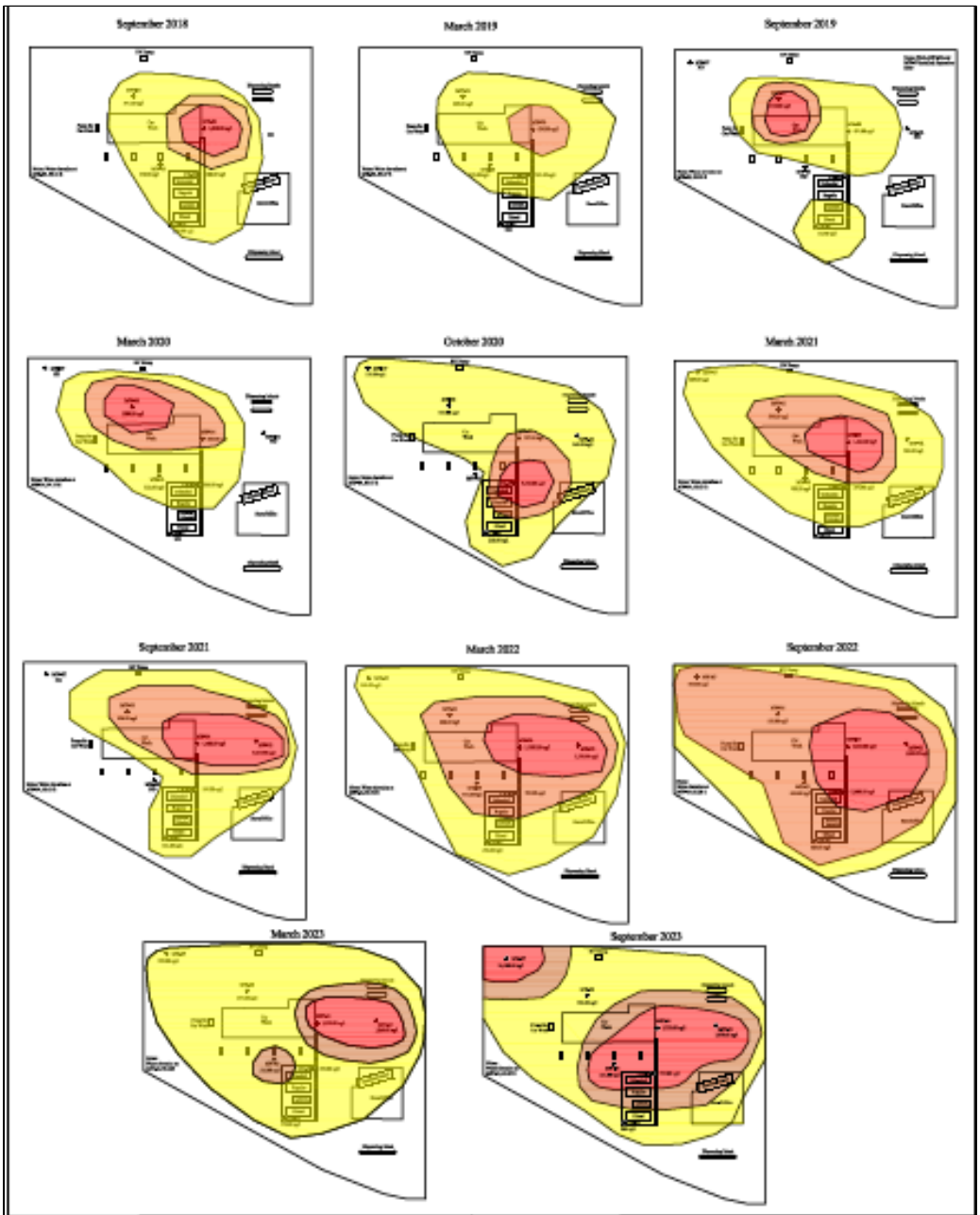
Approximate Scale In Feet

Figure 2: Historical USTs, Soil Borings, and Monitoring Wells Site Diagram Map

Second Semi-annual Groundwater Sampling Event March 2023
Whitty's Chevron
370 West 5th Avenue
Colville, Washington

FULCRUM ENVIRONMENTAL CONSULTING, INC.
207 W. BOONE AVENUE
SPOKANE, WASHINGTON 99201
(509) 459-9220 www.efulcrum.net

MAP BY: Abby Whitmore	PROJECT NUMBER: 233710.00
DATE: October 09, 2023	REVIEWED BY: T. Trent



LEGEND

Concentrations above 1000.00 ppb

Concentrations 500.00 - 1000.00 ppb

Detectable concentrations below the regulatory threshold of 500 ppb

N

Figure 6: Combined Diesl-Range and Heavy Oil-Range Hydrocarbons - Areal Extent Over Time

Whitty's Chevron
370 West 5th Avenue
Colville, Washington

FULCRUM ENVIRONMENTAL CONSULTING, INC.
207 W. BOONE AVENUE
SPOKANE, WASHINGTON 99201
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MAP BY: Abby Whitmore	PROJECT NUMBER: 233710.00
DATE: October 09, 2023	REVIEWED BY: T. Trent

Enclosure B

List of Site Documents

1. Fulcrum Environmental Consulting, Inc., Whitten Oil Groundwater Monitoring September 2023 Sampling Report, November 1, 2023.

2. Fulcrum Environmental Consulting, Inc., Whitten Oil Groundwater Monitoring March 2023 Sampling Report, May 2, 2023.

3. Fulcrum Environmental Consulting, Inc., Whitten Oil Groundwater Monitoring March 2022 Sampling Report, April 20, 2022.

4. Fulcrum Environmental Consulting, Inc., Whitten Oil Groundwater Monitoring September 2021 Sampling Report, November 8, 2021.

5. Fulcrum Environmental Consulting, Inc., Whitten Oil Groundwater Monitoring March 2021 Sampling Report, March 24, 2021.

6. Fulcrum Environmental Consulting, Inc., Whitten Oil Monitoring Well Decommissioning/Installation and Groundwater Monitoring Event for September/October 2020, January 8, 2021.

7. Fulcrum Environmental Consulting, Inc., Whitten Oil Groundwater Monitoring March 2020 Sampling Report, April 1, 2020.

8. Fulcrum Environmental Consulting, Inc., Whitten Oil Groundwater Monitoring September 2019 Sampling Report, October 18, 2019.

9. Fulcrum Environmental Consulting, Inc., Whitten Oil Groundwater Monitoring June 2018 Sampling Report, September 11, 2018.

10. Fulcrum Environmental Consulting, Inc., Whitten Oil Groundwater Monitoring March 2018 Sampling Report, June 19, 2018.

11. Fulcrum Environmental Consulting, Inc., Whitten Oil Groundwater Monitoring December 2017 Sampling Report, June 19, 2018.

12. Fulcrum Environmental Consulting, Inc., Whitten Oil Groundwater Monitoring September 2017 Sampling Report, June 19, 2018.