



July 15, 2022

Mr. William Bergum
Petroleum Tank Cleanup Section
P.O. Box 200901
Helena, MT 59620-0901

RE: Remedial Investigation Work Plan
Valier Co-Op Supply (Ben Taylor, Inc.), 10 North Main, Valier, Montana 59486
Facility ID 37-10231 (TID 26503), Release 4383, Work Plan 34569

Dear Mr. Bergum,

In accordance with the work plan request letter from the Montana Department of Environmental Quality (DEQ) dated June 10, 2022, Big Sky Civil & Environmental, Inc. (BSCE) has prepared this Remedial Investigation Work Plan for the subject facility. The remedial investigation will include completion of direct-push soil boreholes and analytical testing of soil samples to document the horizontal and vertical limits of the remaining soil contamination. A remedial soil excavation was completed in July/August 2021, which appears to have removed a majority of the soil contamination at the subject facility.

Facility History and Release Background

The subject property is currently operated as an agricultural supply store; no active petroleum storage tanks are present at the facility. A complete site history including initial actions taken is included in Section 1.2 of the Remedial Investigation (RI) Report from June 2007.¹ The following excerpt summarizes release information:

On April 14, 1998, during the installation of new piping, contaminated soil was encountered at the Coop Supply in Valier, Montana. A licensed installer/remover was excavating underground piping and an old service island connected to six (6) above ground storage tanks (ASTs) which stored gasoline and diesel. The pipe trench was approximately 60-70 feet in total length and 2-4 feet deep. A new trench for underground piping was excavated parallel to the old trench, approximately 10-15 feet away. The excavation work uncovered soil with a petroleum-like odor and a gray to black stain. DEQ was notified immediately a 24-Hour Release Report was submitted to DEQ.

According to the RI Report, approximately 200 cubic yards of contaminated soil were excavated from the fuel line trenches and treated at a one-time landfarm near Valier, MT. Volume of petroleum products lost is unknown.

Summary of Facility Conditions

The subject facility is located at 204 Montana Street in Valier, MT. According to the Montana Cadastral website, the subject property is located in Township 30 North, Range 05 West, Section 33 in Pondera County.

The onsite building is situated along the northern and eastern property lines. The site is mainly covered with gravel-surfacing, and a concrete slab is present along the eastern property boundary where the previous fuel dispensers were located. Montana Street (US Hwy 358) adjoins the property to the east.

The subject facility is connected to the Town of Valier Public Water System (Water System No. MT0000351). According to a source water delineation and assessment report completed in 2003, the source of water is from four (4) wells, which are generally located ~0.5 miles south of the subject property.²

During previous investigations, depth to first groundwater was encountered as shallow as 0'-2' below ground surface (bgs) and as deep as 13' bgs.

Based on previous investigations and cleanup, it appears that the water service enters the onsite building from the southeast. Based on analytical results from confirmation soil samples collected during previous cleanup (summer 2021), soil contamination appears to extend beyond the limits of the excavation and toward the water service line.³ However, previous tap water sampling completed in 1999 at the subject facility indicated no petroleum impacts were present in the water supply.¹

Objectives of Investigation

The objective of this remedial investigation is to define the extent and magnitude of remaining soil contamination; mainly northeast of the 2021 excavation footprint. The extent and magnitude of contamination will be used along with site-specific characteristics (soil lithology, location of underground utilities, building location, and other potential receptors) to determine the limits of potential future remedial soil excavation to cleanup and resolve the release.

Proposed Scope of Services

BSCE proposes to conduct remedial investigation activities at the subject release site as defined herein.

- Prior to initiating fieldwork, underground utilities will be located and marked on the ground surface by U-Dig (811).
- Because U-Dig does not provide locates for private utilities (sewer services, water services, etc.), BSCE will employ a private utility locate contractor to perform a locate for private utilities, cost is included within the budget.

- All fieldwork will be scheduled and coordinated with property owners, staff and the case manager from Montana DEQ.
- Soil Borehole Investigation: up to 10 boreholes will be completed to a depth of ~15' below ground surface (bgs) by subcontractor Enviro Probe Services using a Geoprobe 3100 direct-push drilling rig. Based on a discussion with DEQ staff of analytical results from 2021 confirmation soil sampling, it was decided that petroleum-impacts to the west of the 2021 soil excavation footprint are not considered significant and no further investigation will be completed in this area as part of fieldwork. Therefore, the soil boreholes will be situated northeast of the 2021 excavation footprint; estimated locations of soil boreholes are depicted on **Figure 1**. Final borehole locations will be determined in the field based on location of underground utilities and field observations.
- During drilling, BSCE will collect soil samples in ~2'-3' intervals and field screen the samples using heated head-space screening with a Photoionization Detector (PID). Samples from the interval containing the highest PID reading, from the soil-groundwater interface or from the bottom of the borehole will be submitted for analytical testing.
- Soil samples will be sent to Energy Laboratories in Helena, MT and analyzed for volatile petroleum hydrocarbons (VPH), extractable petroleum hydrocarbons (EPH) screen (with fractionation if the screen exceeds 200 mg/kg) and lead scavengers: 1,2-dichloroethane (1,2-DCA) via Method 8260 and ethylene dibromide (EDB) via Method 8011.
- Investigation derived waste (IDW) from the soil boring investigation (petroleum-impacted soil) will be disposed of at the Northern Montana Joint Refuse Landfill near Valier, MT. Clean soil will be segregated from petroleum-impacted soil and spread onsite.
- After the completion of fieldwork and lab testing, a Remedial Investigation Report will be prepared and submitted to MDEQ. At a minimum the report will include the following: exhibits depicting the location of site features, utilities, borehole locations, boring logs, all pertinent data tables including analytical data in tabular format, lab reports, data validation summary forms, updated Release Closure Plan (RCP), receptor survey, data interpretations, conclusions, and recommendations.
- Reports and supporting documentation will be submitted following DEQ submittal requirements.
- Standardized report formats will be used for all documents.

All sampling will be completed in strict accordance with BSCE's standard QA/QC procedures. The following procedures will be used during sample collection to provide quality assurance and quality control (QA/QC), to minimize loss of volatiles, and to maintain the suitability of samples for analysis. Sample collection and analytical procedures were consistent with SW-846: *Test Methods for Evaluating Solid Waste*, November 1986, and updates published by the U.S. EPA. QA/QC methods used are defined below:

- All sample containers/preservatives will be supplied by a state-certified laboratory. Analyses will be performed by a state-certified laboratory.
- All samples will be handled in a manner which minimizes the loss of organic compounds to volatilization and biodegradation.
- All samples for analyses will be placed in a cooler on ice (at a temperature of 4° C) immediately following collection.
- Chain-of-custody procedures will be utilized during sampling and delivery.
- Documentation of the sampling and QA/QC procedures including notes will be available for DEQ inspection. These notes will document the procedures for sampling and all other routine activities, along with field notes describing the sequence of activities that took place during the corrective action cleanup and the following monitoring well construction and sampling.

For the soil boring investigation, BSCE sent bid invitations to: West Central Environmental Consultants of Missoula, Pioneer Technical Services of Butte, and Enviro Probe Services of Butte. After review of the bids, Enviro Probe Services appeared to be the most competitive and therefore is included in the attached cost estimate.

Schedule and Reporting

Fieldwork will take place after work plan approval and once funding obligation is received from the Petroleum Tank Release Compensation Board (PTRCB). Fieldwork is estimated to begin fall 2022. In order to allow for receipt of analytical results and completion of the report, BSCE requests a due date of December 31, 2022.

Please feel free to contact us with any questions or concerns you may have.

Respectfully,
Big Sky Civil & Environmental, Inc.



Joseph N. Murphy, P.E.



Paxton Ellis, P.E.

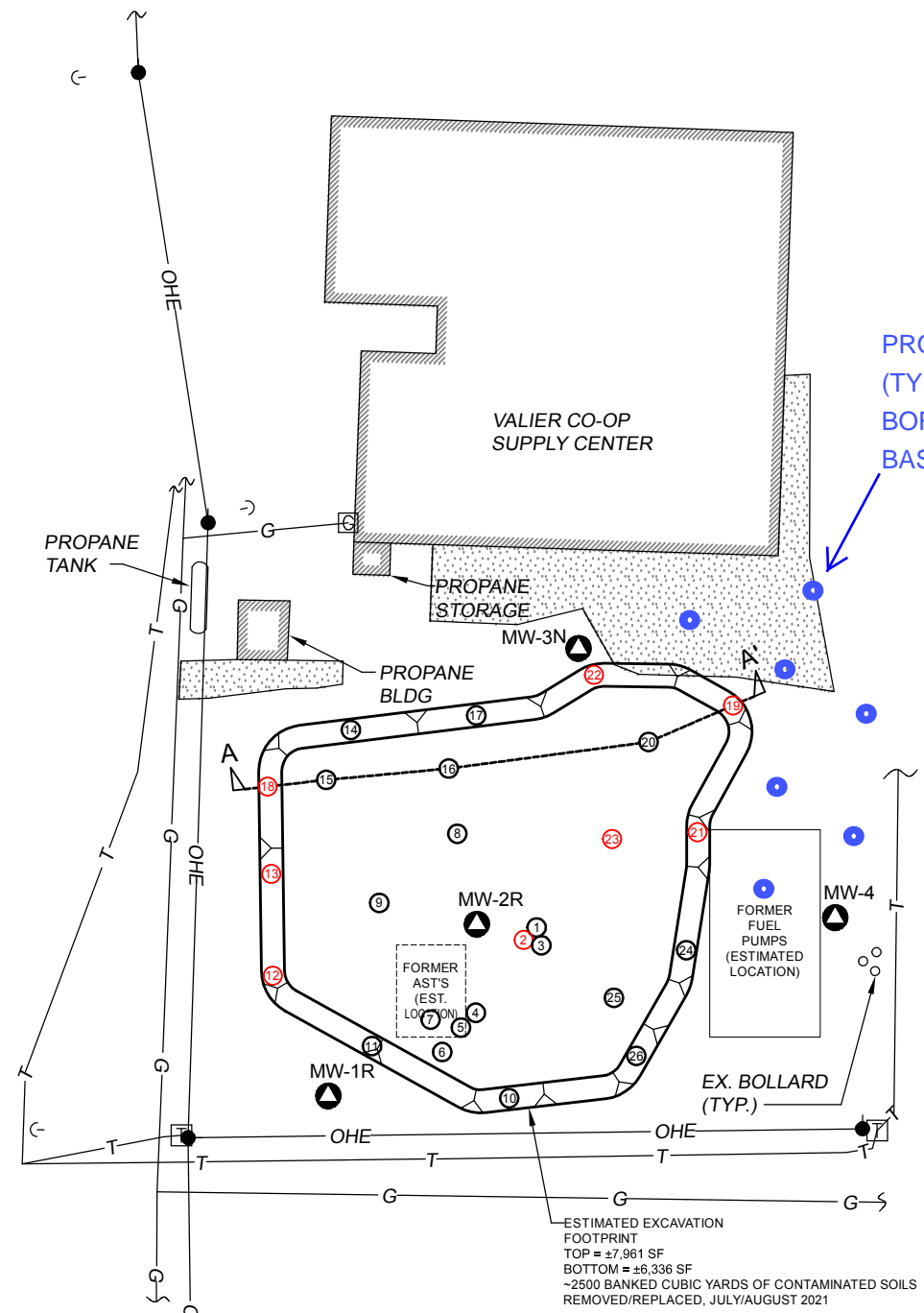
encl. Fig. 1 – Proposed Boring Locations
Cost Estimate
Drilling Bids

cc: Scott Curry, Ben Taylor, Inc., PO Box 810, Shelby, MT 59474
Carlo Arendt, CityServiceValcon, LLC, PO Box 1, Kalispell, MT 59903

References

- ¹ NCI Engineering Co., 2007. *Remedial Investigation Report, Valier Coop Supply Center*
- ² Montana Department of Environmental Quality, 2003. *Town of Valier Public Water System, Source Water Delineation and Assessment Report*
- ³ Big Sky Civil & Environmental, Inc., 2022. *Cleanup Report for Petroleum Release, Former Valier Co-Op Supply Center*

- LEGEND**
- MONITORING WELL
 - OVERHEAD POWER
 - POWER POLE
 - GUY WIRE
 - ELECTRICAL BOX/TRANSFORMER
 - NATURAL GAS LINE
 - GAS METER
 - VALVE OR YARD HYDRANT
 - UNDERGROUND TELEPHONE
 - TELEPHONE PEDESTAL
 - ASPHALT EDGE
 - BUILDING
 - CONCRETE
 - SUBSURFACE SOIL SAMPLE LOCATION
 - RED INDICATES EXCEEDANCE OF RBLS'S



ESTIMATED EXCAVATION FOOTPRINT
 TOP = ±7.961 SF
 BOTTOM = ±6.336 SF
 ~2500 BANKED CUBIC YARDS OF CONTAMINATED SOILS REMOVED/REPLACED, JULY/AUGUST 2021

HWY 358 (NORTH MAIN STREET)

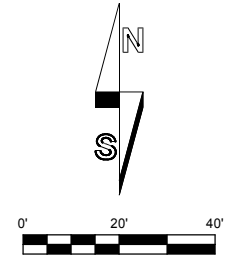
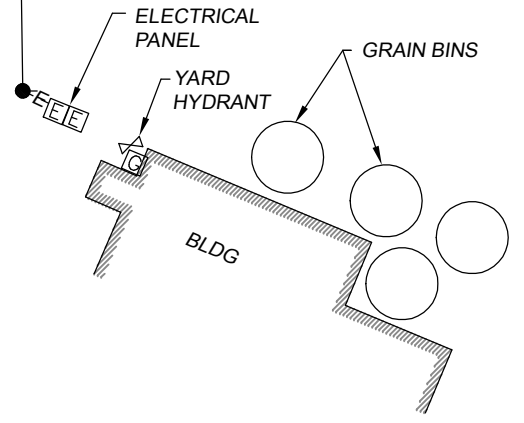
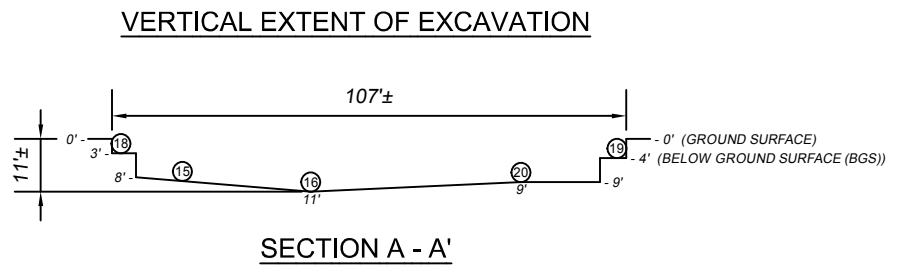
MAP ID	CONFIRMATION SAMPLE	PID	DEPTH	DATE
1	-----	121.1*	2'	7/19/21
2	BCS-1	0.0	10'	
3	-----	420.0*	5'	
4	-----	766.7*	6'	
5	BCS-2	1.8	9'	7/20/21
6	-----	880.7*	6'	
7	-----	357.2*	1.5'	
8	BCS-3	0.0	11'	
9	BCS-4	0.4	9'	7/21/21
10	WCS-1	0.8	5' - 7'	
11	WCS-4	115.8	5' - 7'	
12	WCS-5	202.1	5' - 7'	
13	WCS-6	241.8	5' - 7'	
14	WCS-2	0.5	5' - 7'	
15	BCS-5	1.0	8'	
16	BCS-6	10.3	11'	7/22/21
17	WCS-3	0.5	5' - 9'	
18	WCS-7	279.5	3'	
19	WCS-8	806.0	4'	7/26/21
20	BCS-7	0.1	9'	
21	WCS-9	876.6	5'	
22	WCS-10	414.6	3' - 9'	
23	BCS-8	0.8	9'	
24	WCS-11	112.1(+)	5' - 7'	7/27/21
25	BCS-9	0.0	-	
26	WCS-12	0.5	5' - 7'	

----- INDICATES NO CONFIRMATION SAMPLE WAS COLLECTED
 * INDICATES ADDITIONAL EXCAVATION COMPLETED
 (+) OR GREATER

RBSL EXCEEDANCES

MAP ID	SAMPLE ID	VPH				LEAD SCAVENGERS DCA	EPH	
		BENZENE	NAPHTHALENE	C9-C10 AROMATICS	C5-C8 ALIPHATICS		C9-C18 ALIPHATICS	C11-C22 AROMATICS
2	BCS-1	-----	-----	-----	-----	0.030	-----	-----
23	BCS-8	-----	-----	-----	-----	0.045	-----	-----
12	WCS-5	-----	19 H	437 H	-----	-----	1270	432
13	WCS-6	-----	-----	229 H	-----	-----	-----	-----
18	WCS-7	-----	-----	370 H	-----	-----	-----	-----
19	WCS-8	7.7	-----	538	465	-----	1510	421
21	WCS-9	1.9	-----	532	286	-----	1260	447
22	WCS-10	0.12	-----	276	-----	0.028	-----	-----
	RBLS'S	0.07	12	130	220	0.019	900	370

H - ANALYZED BEYOND METHOD SPECIFIED HOLD TIME. SEE TABLE 1 IN THE REPORT FOR DETAILS.
 ----- INDICATES NO EXCEEDANCE OF RBSL ENCOUNTED



bsc&e
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PROFESSIONAL SEAL
 BY: CJM
 DATE: 1/26/22

OWNER:
 BEN TAYLOR, INC.

PROJECT NAME:
 VALIER CO-OP

SHEET TITLE:
 PROPOSED BORING LOCATIONS

DRAWING INFORMATION:
 OFFICE PROJECT NUMBER: 120
 OWNER FILE NUMBER: XXXX
 CADD FILE NAME: XXXX
 ASSOCIATED PROJECTS: XXXX

FIGURE:
 1