Remedial Excavation Work Plan
35111/35112

Town Pump Inc. Superior

3961 Diamond Match Rd

Superior, MT

Facility ID 31-08719, Release 6745/6746

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WCEC Project No. 2509-0387

TABLE OF CONTENTS

1.0 Introduction

West Central Environmental Consultants (WCEC) has prepared this Work Plan (WP) for the Town Pump Inc Superior facility (Facility ID 31-08719, Release 6745/6746) located at 3961 Diamond Match Road, Superior, Montana as requested by the Montana Department of Environmental Quality (DEQ) in correspondence dated December 5, 2025. The purpose of this WP is to excavate surficial soils exhibiting staining related to Releases 6745 and 6746.

1.1 Site Location

According to Google Maps, the address for the Town Pump Inc Superior facility is 403 Diamond Road. The address on file in the DEQ underground storage tank (UST) records for the facility is 3961 Diamond Match Road, Superior, Montana. A site location map is included as Figure 1. The Public Land Survey System (PLSS) description for the site is the SE/4, NE/4 of Section 34, T17N, R26W, Mineral County. The approximate geographic coordinates are N 47.189650°, W 114.886021°. The facility is situated between the I-90 interstate corridor and the BNSF rail line, with a steeply graded slope on the north property boundary extending to the barrow pit of the Montana Department of Transportation (MDT) I-90 right-of-way (ROW). Topography generally slopes to the north-northwest towards the Clark Fork River.

The Town Pump Inc Superior facility consists of a retail convenience store/casino with a petroleum storage/distribution system that includes USTs and dispensers on both sides of the store (east and west). The UST system on the west side of the store was recently upgraded in 2025. The western two pump islands in this area distribute both gas and diesel. East of the store, the USTs are diesel only and the associated pump island dispensers are primarily used by long haul truckers.

1.2 Geologic Setting

According to the *Geologic Map of the Plains 30' x 60' Quadrangle,* the site lies on Quaternary alluvial terrace deposits (Qat) near the contact with glacial flood deposits (Qgf) containing imbricated boulders and planar cross-stratified gravel suggestive of a high energy depositional environment [Lonn et al., 2007]. The soil encountered during previous excavation activities consisted of backfill underlain by sand and silty sand with gravel/cobbles. The nearest surface water body is the Clark Fork River located approximately 1,500 feet northeast of the release [Figure 1]. The elevation of the Clark Fork River is approximately 70 feet lower than the spill site.

Based on data obtained from previous groundwater monitoring events at the site, the average depth to water is approximately 70 feet below ground surface (bgs) [WCEC, 2011]. The groundwater flow direction is to the northwest, generally parallel to the interstate and the river. According to the Source Water Delineation and Assessment Report (SWDAR) for the Town of Superior (PWS ID# MT0000339), there is an unconfined aquifer residing in alluvial sediments underneath the town that is in communication with the river [DEQ, 2003]. The public water supply (PWS) for Superior utilizes three municipal wells that are all located within the city limits. These wells are installed into deeper alluvium or Glacial Lake Missoula sediments that appear to make up a laterally extensive confined aquifer, separated from the upper unconfined alluvial aquifer by a semi-continuous confining layer [DEQ, 2003]. The locations of the PWS wells are shown on Figure 1. The PWS well completion depths range from 105.5 to 214 feet bgs, with static water levels from 44.5 to 75 feet bgs [DEQ, 2003].

1.3 Release History Summary – East of Store

On the east side of the store, there is one historical release that has been resolved and two current active releases that remain open:

1. Release 4131 – Confirmed Date: 09-09-2002, Resolved Date: 01-04-2012
2. Release 6745 – Confirmed Date: 10-24-2025, Resolved Date: Active
3. Release 6746 – Confirmed Date: 09-08-2025, Resolved Date: Active

A release of approximately 220 gallons of diesel occurred from the eastern fuel dispensers at the facility in September 2002 and was assigned the release number 4131. Higgins Consulting Engineers (Higgins) conducted a remedial excavation of the soils impacted by Release 4131 in April 2003 [Higgins, 2003]. A total of 1,204 cubic yards of contaminated soil was removed from the site during the April 2003 excavation. Following this excavation, DEQ required the installation of groundwater monitoring wells at the facility in a letter dated May 19, 2005. The installation of four monitoring wells (MW1-MW4) was directed by Higgins during the week of April 14, 2006. WCEC conducted quarterly groundwater monitoring of the wells between June 2010 and March 2011 [WCEC, 2011]. Groundwater concentrations were below the laboratory method reporting limits (MRLs) for all constituents of concern during each of the four consecutive quarterly monitoring events. Release 4131 was subsequently assigned No Further Corrective Action status by DEQ in correspondence dated January 4, 2012, after the monitoring wells had been properly abandoned.

Release 6745 occurred on August 27, 2025, when the fuel carrier overfilled the manifolded diesel USTs on the east side of the facility. This incident resulted in an estimated 10-15 gallons of diesel being released. The diesel ran across the paved fueling area, with a small fraction (<5 gallons) leaving the paved area and impacting soil. Onsite personnel immediately responded to the overfill and used 12 bags of floor dry

absorbents to address diesel on the pavement. Petroleum absorbent boom was placed at the corners of the paved area where runoff was occurring to minimize impacts to the soil.

Release 6746 occurred on September 8, 2025, when a customer left a nozzle unattended during fueling at dispenser D6 and released >25 gallons of diesel #2 onto the surrounding pavement and eventually the MDT slope and ditch. Onsite personnel immediately started cleanup and contained the release with floor dry. WCEC conducted a site inspection on September 9, 2025. The spill from Release 6746 flowed over top of the earlier Release 6745. Composite samples (Spill West and Spill East) were collected from the MDT side of the fence in the stained areas where the diesel drained off the pavement on the east and west sides of the concrete retaining wall [Figure 2, Tables 1-2].

2.0 Scope of Work

2.1 Required Scope of Work

The scope of work requested by the DEQ which will be completed by WCEC consists of:

- Excavate and dispose of petroleum contaminated soil.
    - Include in the work plan the estimated dimensions (lateral and vertical) and volume of the excavation, as well as screening criteria that will be used to determine the extent.

- Collect soil samples from the base and sidewalls of the excavation.

- Backfill the excavation with clean fill suitable for site restoration.

- Analyze soil samples for petroleum constituents as required by the Montana Risk-Based Corrective Action Guidance for Petroleum Releases [DEQ, 2024]. Additionally, analyze waste characterization samples for constituents required by the disposal facility.

- Validate all laboratory analytical data using DEQ's Data Validation Summary Form (DVSF) found online under the Guidance dropdown at the Petroleum Tank Cleanup Section (PTCS) webpage.

- Discuss ongoing WP tasks and results with DEQ's project manager; submit written agreed-upon WP modifications as required to complete the WP objectives.

- Prepare and submit one Cleanup Report detailing the results of the excavation. The Cleanup Report is expected to include all the discussion, tables, figures, and appendices outlined in the Montana Cleanup Guidance for Petroleum Releases.

- Use the standardized DEQ WP and Report formats found online under the Forms dropdown at the PTCS webpage.

- Submit WP and Reports electronically following the PTCS submittal requirements found under the Guidance dropdown at the PTCS webpage.

2.2 Remedial Excavation Overview

Upon project initiation, WCEC will coordinate, direct, and supervise the excavation and removal of petroleum-impacted soils from the area exhibiting staining [Figure 2]. Haskins Excavating of Superior, MT will be contracted to complete soil excavation, hauling, backfilling, and compaction activities associated with the remedial excavation. A map outlining the anticipated extent of the excavation is included as Figure 2.

WCEC will submit a waste disposal profile with Republic Services to facilitate disposal at the Class II landfill in Missoula, MT. Waste characterization samples were collected on September 9, 2025, from the downslope portion of both the east and west spill stains, north of the I-90 ROW fence on MDT property [Figure 2, Tables 1-2]. The soil samples were submitted to Energy Laboratories in Helena, Montana for analysis of VPH and EPH constituents, according to DEQ requirements [DEQ, 2024]. Based on the analytical results from the waste characterization samples, an MDT encroachment permit will be obtained and the ROW fence will be breached to access all soils exceeding RBSLs for excavation and removal from the site.

2.3 Remedial Excavation, Backfilling, Compaction, & Confirmation Soil Sampling

The remedial excavation will occur in the two areas where diesel drained off the pavement impacting soil on the east and west sides of the concrete retaining wall. The horizontal extent of excavation is anticipated to align with the evident spill stain and distressed vegetation as mapped on Figure 2. The vertical extent of excavation is predicted to be 2 to 6 feet bgs. The total volume of the proposed excavation is estimated to be 100 cubic yards (approximately 150 tons).

Soils will be field screened for petroleum hydrocarbon impacts using a photoionization detector (PID), visual, and olfactory observations. The onsite project manager will use a combination of these observations in progressing the excavation to remove soils that exhibit hydrocarbon impacts. The excavation will continue until field screening indicates PID measurements are less than 100 parts per million (ppm) or physical obstructions are encountered limiting the extent. Impacted soils will be loaded into trucks and exported from the site for disposal at the Republic Services Class II Landfill in Missoula, MT.

Following completion of the remedial excavation, WCEC will collect an appropriate number of discrete soil samples from the sidewalls and pit bottom to delineate residual soil concentrations. Sample locations will be determined in the field by the onsite project manager and will be collected according to DEQ requirements [DEQ, 2024]. It is anticipated that 8 sidewall and 4 pit bottom samples will be collected based on the proposed excavation extent [Figure 2]. The actual number of confirmation samples may vary depending on the final horizontal and vertical extent of the excavation. Soil samples will be packed on ice and submitted to

Energy Laboratories in Helena, Montana. Samples will be analyzed for VPH and EPH screen. EPH fractions analysis will be completed for any samples which exceed the EPH screening limit of 200 mg/kg.

WCEC personnel will map the extent of excavation and soil sampling locations using a Trimble Geo7X Centimeter Edition GPS unit with external antenna. The excavated areas will be backfilled and compacted to existing grade using imported, pit-run materials. Any asphalt damaged during excavation activities will be patched as necessary. The grassy areas will be finished with topsoil and reseeded with an MDT approved, weed free seed blend. Best Management Practices (BMPs) will be implemented to prevent erosion from stormwater runoff including placement of an erosion control blanket over the embankment and straw waddles at the top of the slope.

3.0 Report Preparation

Following the remedial excavation, WCEC will prepare and submit a Cleanup Report detailing the excavation activities. The report will include all the discussion, tables, figures, and appendices outlined in DEQ Cleanup Guidance for Petroleum Releases. Laboratory analytical data will be validated using DEQ's Data Validation Summary Form (DVSF) with the DVSF appended to the associated analytical data package. The Cleanup Report will include a completed Release Closure Plan (RCP) based on the cumulative knowledge of the site and a brief analysis of remedial options and recommendations to address any remaining petroleum impacts to soil, evaluation of potential receptors at and surrounding the facility, and necessary actions to progress the release towards closure. The report will be submitted within 60 days of laboratory analytical results from post-excavation soil confirmation sampling.

4.0 Time Line & Costs

The attached *Estimated Costs – Remedial Excavation* spreadsheet details anticipated project costs to complete the DEQ required scope of work. The scope of work outlined in this work plan is anticipated to be completed during spring/summer 2026, pending approval from the DEQ and obtaining the necessary permit from MDT for working in the ROW.

5.0 References

Higgins Consulting Engineers, LLC. (Higgins, 2003). *Soil Excavation Report.* Release 4131. August 15, 2003.

Lonn, J. D., Smith, L. N., McCulloch, R. B. (Lonn et al., 2007). *Geologic Map of the Plains 30' x 60' Quadrangle, Western Montana.* Montana Bureau of Mines and Geology: Open File Report MBMG 554.

Montana Department of Environmental Quality. (DEQ, 2003). *Source Water Delineation and Assessment Report, Town of Superior PWS ID # MT0000339*. DEQ Source Water Protection Program. July 31, 2003.

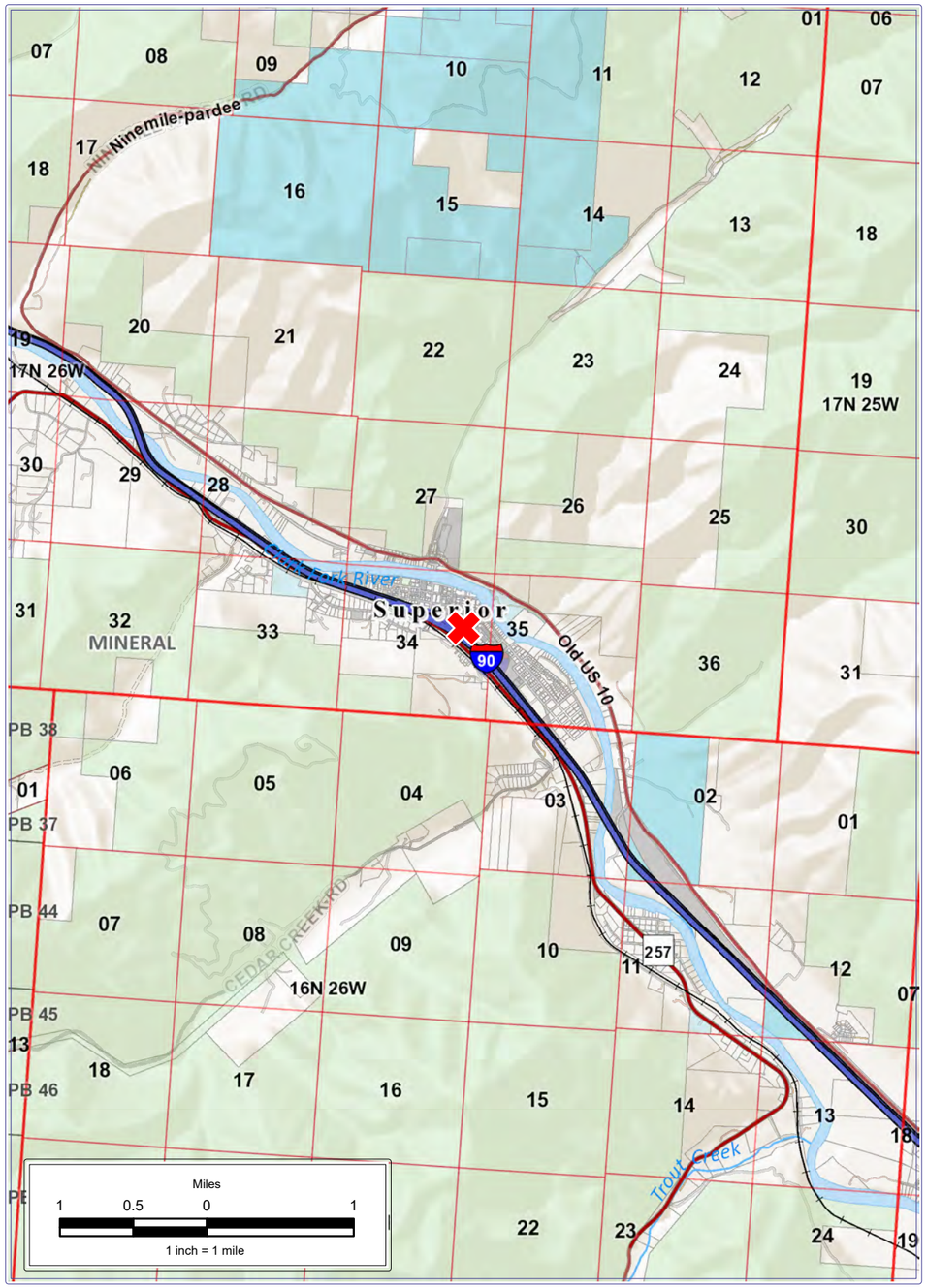
Montana Department of Environmental Quality. (DEQ, 2024). *Montana Risk-Based Corrective Action Guidance for Petroleum Releases*. February 2024.

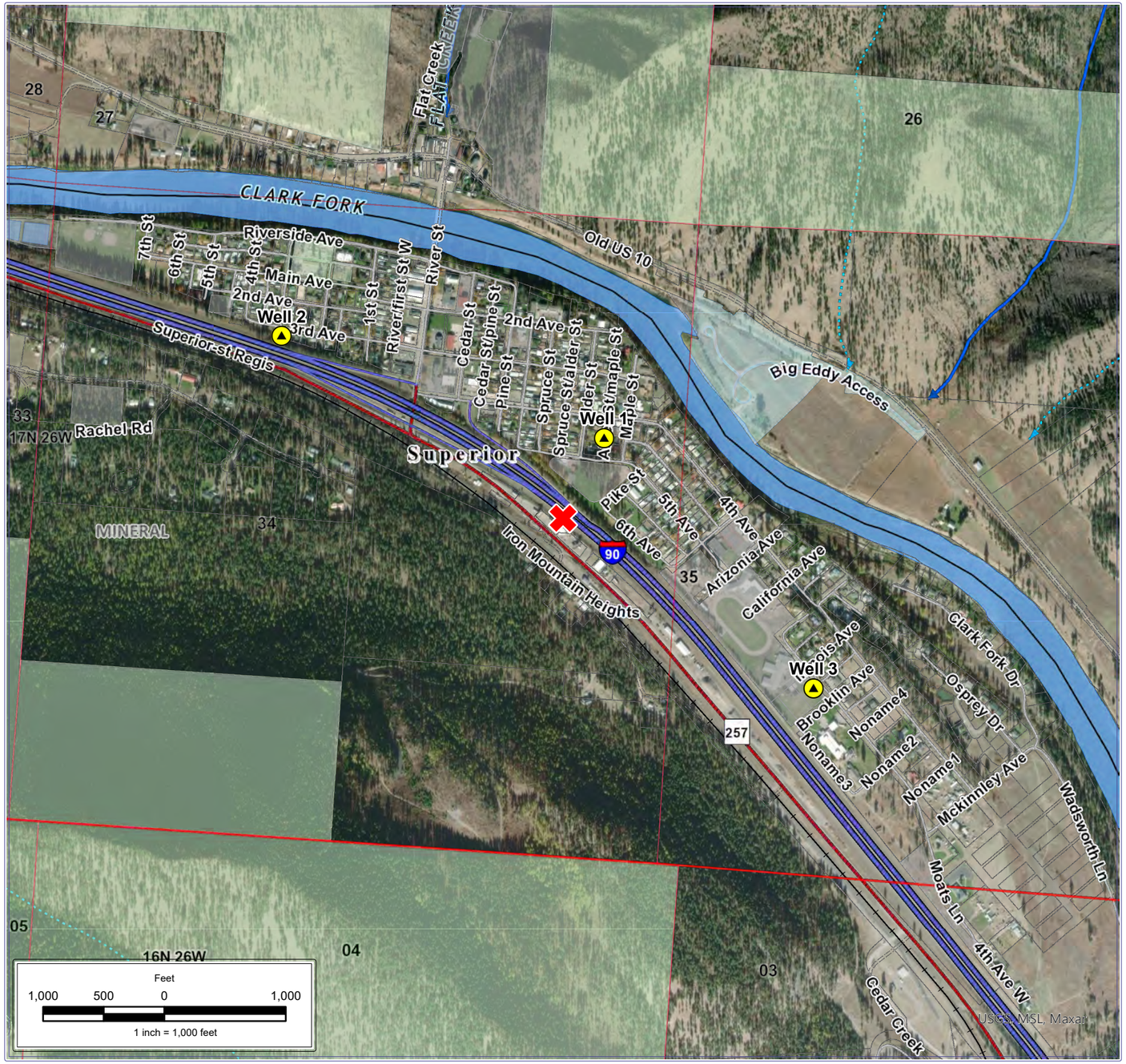
West Central Environmental Consultants. (WCEC, 2011). *March 2011 Quarterly Groundwater Monitoring Report.* Release 4131. April 13, 2011.

Maps

Figure 1: Site Location Maps

Figure 2: Proposed Excavation





Site Location

Public Water Supply Wells

N

Site Location Maps

Town Pump Superior
3961 Diamond Match Road
Superior, MT

DRAWN BY: MM
DATE: 09/21/23
SCALE: 1:12,000

PROJECT NUMBER: 22-14552-70

IMAGE SOURCE: ESRI BASEMAPS

WCEC
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FIGURE 1

Town Pump Superior
403 Diamond Road
Superior, MT

Proposed Excavation

JOB NO.: 2509-0387 | DATE: 01/02/26 | DRAWN BY: TCP | IMAGE DATE: 08/26/14

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FIGURE 2

Tables

Table 1

Soil Analytical Results - VPH/EPH (mg/kg)

Town Pump Inc Superior, Facility ID 31-08719, Release 6745/6746, Superior, MT

Sample ID	Date Sampled	Sample Depth (feet bgs)	VPH Constituents										EPH Constituents				PID (ppm)
			MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Naphthalene	C_9-C_{10} Aromatics	C_5-C_8 Aliphatics	C_9-C_{12} Aliphatics	TPH	C_9-C_{18} Aliphatics	C_{19}-C_{36} Aliphatics	C_{11}-C_{22} Aromatics	TEH	
Spill East	09/09/25	0.25	<0.16	**0.3**	**11**	**13**	**68**	**24**	**685**	**145**	**835**	**2,040**	**20,200**	**8,050**	**11,800**	**41,200**	331
Spill West	09/09/25	0.25	<0.87	**0.61**	**19**	**20**	**105**	**27**	**1,000**	**124**	**941**	**2,310**	**27,200**	**9,210**	**14,500**	**52,700**	604
RBSLs (DC commercial, 0-2 ft)			**310**	**7.6**	**6,300**	**38**	**330**	**13**	**300**	**450**	**800**		**1,600**	**330,000**	**6,200**		
RBSLs (DC construction, 0-10 ft)			**9,100**	**190**	**14,000**	**1,200**	**1,900**	**120**	**4,000**	**2,000**	**3,000**		**6,000**	**1,600,000**	**33,000**		
RBSLs (>20 ft to groundwater)			**0.25**	**0.33**	**100**	**130**	**1,600**	**62**	**720**	**1,200**	**60,000**		**270,000**		**2,000**		

Bold indicates that the constituent was detected above the laboratory method reporting limits (MRLs).

Orange shading indicates that the constituent exceeds the DEQ Tier 1 RBSL for direct contact.

(--) Sample was not analyzed for the constituent.

2509-0387

Table 2

Soil Analytical Results - 8270 SVOCs (mg/kg)

Town Pump Inc Superior, Facility ID 31-08719, Release 6745/6746, Superior, MT

Sample ID	Date Sampled	Sample Depth (feet bgs)	Semi-Volatile Organic Compounds (SVOCs)																
			1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
Spill East	09/09/25	0.25	<0.37	**21**	<0.37	<0.37	**0.4**	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	**1.9**	**2.8**
Spill West	09/09/25	0.25	<0.46	**33**	<0.46	<0.46	**0.73**	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	**2.8**	**3.2**
RBSLs (DC commercial, 0-2 ft)			**110**	**400**	**6,000**		**30,000**	**31.0**	**3.1**	**31**		**310**	**3,100**	**3.1**	**4,000**	**4,000**	**31**	**13**		**3,000**
RBSLs (DC construction, 0-10 ft)			**1,400**	**200**	**10,000**		**50,000**	**390**	**15**	**390**		**3,900**	**39,000**	**39**	**5,000**	**40**	**390**	**120**		**15,000**
RBSLs (>20 ft to groundwater)			**11**	**35**	**140**		**14,000**	**35**	**12**	**120**		**1,200**	**3,500**	**38**	**440**	**180**	**380**	**62**		**430**

Bold indicates that the constituent was detected above the laboratory method reporting limits (MRLs).

2509-0387

Estimated Costs – Remedial Excavation Work Plan 35111/35112