

March 28, 2025

Ms. Rachel Mindt
Petroleum Tank Cleanup Section
Montana Department of Environmental Quality
P.O. Box 200901
Helena, MT 59600-0901

Re: Investigation Work Plan, WPID# 35016
Town Pump East Helena 1, 418 W Main Street, East Helena, Lewis & Clark County,
Montana, Facility ID# 25-08697; Release# 6683; Treads ID# 23791, Olympus WO#
C3161

Dear Ms. Mindt:

This letter presents a work plan, submitted on behalf of Town Pump, Inc. (Town Pump), for the Town Pump #1 East Helena facility located at 418 West Main Street North Montana Avenue in East Helena, Montana (Site). A Site topographic map is shown on Figure 1 and a Site features map is shown on Figure 2. The release was discovered on December 30, 2024 during underground storage tank (UST) decommissioning and removal activities and was reported to the Department of Environmental Quality (DEQ) as a suspected release. Olympus Technical Services (Olympus) conducted an initial investigation from December 30, 2024 through January 2, 2025, and field screening was conducted with a photoionization detector (PID). The highest PID response measured during the soil excavation was 640 parts per million (ppm) to a depth of 12 feet below ground surface (bgs) beneath an unleaded premium gasoline UST. Olympus collected a waste characterization sample for analysis of volatile petroleum hydrocarbons (VPH) and extractable petroleum hydrocarbons (EPH). The release was confirmed by analytical data on January 20, 2025 Benzene, ethylbenzene, xylenes, naphthalene, C9-C10 aromatics, C5-C8 aliphatics, and C9-C12 aliphatics concentrations in the waste characterization sample exceeded the Release Confirmation Risk-Based Screening Levels (RBSLs).

UST closure samples collected by Mile High Petroleum from below the USTs and fuel dispenser piping were below the applicable Leaching to Groundwater and Direct Contact Construction RBSLs, except for C9-C18 aliphatics beneath the 8,000-gallon non-ethanol gasoline UST at a depth of approximately 15 feet bgs. Soil analytical results are provided as Table 1.

The excavation was backfilled with native material, including petroleum impacted soil above the Leaching to Groundwater RBSLs for benzene, ethylbenzene, xylenes, naphthalene, C9-C10 aromatics, and C5-C8 aliphatics. The Site is currently being redeveloped for a lease tenant, though the excavation area was not repaved in anticipation of a remedial excavation. All known USTs and associated piping have been removed from the property.

DEQ has requested an investigation of the petroleum impacts onsite. This work plan presents a detailed scope of work and cost estimate for excavation of the impacted soil and installation of a temporary monitoring well to conduct reconnaissance groundwater sampling.

Scope of Work

Impacted Soil Excavation

Olympus estimates that up to 1310 loose cubic yards (LCY) of soil will be displaced by the excavation at the Site. Petroleum impacted material is expected to be encountered below 5 feet in the UST basin because clean imported fill was used to backfill the top of the excavation after the USTs were removed. A total of up to 910 LCY of petroleum impacted soil is estimated to be present at the Site. This assumes the fuel dispenser south of the building and associated piping to the UST basin would be excavated to a depth of no more than 5 feet bgs to remove the impacted pea gravel (approximately 110 LCY), and the UST basin excavation is not anticipated to exceed a depth of 12 to 18 feet bgs (approximately 800 LCY). An approximate excavation boundary is shown on Figure 3. Olympus plans to use an excavator, front-end loader, and compactor to complete the project. The equipment will be mobilized to the Site by Olympus personnel using a semi and low boy trailer. Temporary fencing will be used to restrict access to the former pump island area during construction activities for public safety.

Prior to excavation activities all onsite public utilities will be located and marked through Montana One-Call. Utility location markings will be maintained throughout the duration of the project. Utilities are not expected to be encountered because all known utilities associated with the fuel system were removed.

Olympus anticipates excavation activities will take approximately one week to complete. Soil will be removed using an excavator. Excavation will be guided by field screening using a PID for Volatile Organic Compounds (VOCs). Soil that does not indicate the presence of VOCs will be considered clean overburden and will be stockpiled onsite. The clean overburden stockpile or stockpiles will be measured by Olympus using a centimeter-grade Trimble GPS and the quantity of LCY will be determined based on the data files. Olympus intends to submit the LCY quantity as determined by this measurement process as the payment quantity. The data files will be available to DEQ to confirm quantities. The onsite building has been leased and is being redeveloped. If the excavation is not completed before the business opens, Olympus will need to keep a portion of the parking lot clear to avoid disruption of business activities. Having Olympus measure clean overburden is preferable due to this incremental approach so that the project will not be delayed waiting for third-party surveyor to measure the stockpiles. Measuring stockpiles is a reliable way to keep track of the amount of clean overburden. Olympus has provided a price per LCY removal, stockpiling, measuring, placement, and compaction of the overburden material.

Soil that indicates the presence of VOCs on the PID or is deemed to be impacted through visual observation will be excavated and hauled to Lewis and Clark County Landfill. The excavation will be considered complete when the remaining impacted soils exhibit VOC levels of 100 parts per million (ppm) as measured with a PID. The excavation will not extend beyond the property boundaries.

Following the completion of the excavation and confirmation soil sampling, backfill will be hauled to the Site, placed, and compacted. Backfill will be sourced from Valley Sand and Gravel of Helena, Montana.

Confirmation soil sampling will be conducted following the DEQ Enforcement Programs *Soil Sampling Guidance for Small Site Excavation*. Two discrete volatile petroleum hydrocarbon (VPH) samples and one five-point composite extractable petroleum hydrocarbon (EPH) sample

will be collected from the sidewall of the excavation every 25 feet, and from the floor of the excavation every 625 square feet. Soil confirmation sampling will not be conducted in clean overburden soil, so confirmation sampling will begin within 1 vertical foot of the impacts measuring 20 parts per million (ppm) or greater on the PID or observed visual staining. Cost estimate assumes the excavation of up to 2,080 square feet of soil to a depth ranging from 5 to 18 feet with approximately 5 feet of clean overburden in the UST basin area. The sample frequency in the cost estimate is based on the worst-case quantity and will be adjusted in the field based on impacts observed. The USTs were installed between 1968 and 1977, therefore, up to one soil sample will be collected from each sidewall and the excavation floor and analyzed for lead scavengers. The cost estimate presents the cost of soil sampling at the indicated frequency. Duplicate soil samples will be analyzed at a frequency of approximately one in 20 samples for VPH and EPH, not to exceed one duplicate EPH and two duplicate VPH soil samples.

Excavation oversight will be completed by a staff-level scientist and tasks will include time for planning and coordinating all excavation activities, overseeing the excavation, PID measurements, confirmation soil sampling, and managing post-excavation activities.

Temporary Piezometer Installation

The waste characterization sample collected on January 2, 2025 and one UST Closure soil sample collected on January 8, 2025, exceeded the Leaching to Groundwater RBSL for VPH compounds. One temporary piezometer will be installed at the source area in the vicinity of the 8,000-gallon non-ethanol UST (soil sample CPNL N) to evaluate if a release to groundwater occurred at the Site. Groundwater is assumed to be between 25 and 30 feet bgs, based on nearby monitoring wells. The piezometer will be advanced to a depth approximately 5 feet below the groundwater interface using direct-push technology and constructed of 1-inch PVC with a 10-foot slotted screen. Groundwater will be purged using a peristaltic pump under low-flow groundwater sampling procedures, and one grab groundwater sample will be collected into laboratory-supplied containers, stored on ice, and submitted under chain-of-custody procedures to Energy for VPH, EPH screen, and lead scavengers (EDB and DCA) analysis. The temporary piezometer will be removed after the groundwater sample is collected, backfilled with bentonite crumbles, and capped by gravel fill material.

Release Closure Plan

A Release Closure Plan (RCP) will be prepared for the Site based on the results of the excavation, confirmation soil sampling, and reconnaissance groundwater sampling. The RCP will be included with the Corrective Action Report and will include discussion and results of investigative, post-investigative, and corrective action work to date, as well as evaluation of the conceptual site model, exposure pathways, data gaps, and remedial alternatives.

Corrective Action Report

Olympus will present the results for the excavation and reconnaissance groundwater sampling in one Corrective Action Report following receipt of the soil and groundwater analytical results. The summary report will include a discussion of the results, site maps, tabulated analytical data, soil boring log, analytical laboratory reports, QA/QC review of the analytical data, RCP, and conclusions and recommendations based on the investigation results.

Cost Estimate

The cost estimate is divided into 12 tasks as shown on the attached detailed cost estimate. The costs for project management, excavation oversight, and temporary well installation are at approved hourly rates. The costs for soil excavation, overburden excavation and replacement, and backfill related tasks are based on unit rates and estimated quantities. The actual quantities for soil excavation will be based on the tonnage from weight tickets from the Lewis and Clark County Landfill. Overburden quantities will be based on field surveys of backfill stockpiles. Backfill quantities will be based on weight tickets from Valley Sand and Gravel. Costs for other tasks are based on units and rates as shown on the detailed cost estimate.

Work Plan development, groundwater sampling, and reporting will be invoiced at unit cost rates approved by the Petroleum Tank Release Compensation Board (PTRCB). A unit cost worksheet for groundwater monitoring is attached to this work plan which lists PTRCB approved rates for 2025. Work completed beyond 2025 will be invoiced at PTRCB rates approved at the time the work takes place.

Schedule

Soil excavation would ideally begin in May 2025, upon DEQ approval of this work plan. The excavation and backfill activities are expected to be completed in one to two weeks, including installation and removal of temporary fencing and mobilization/demobilization of heavy equipment. Asphalt patching is not included in this work plan and will be scheduled by Town Pump directly to complete their UST system removal project. Olympus will provide at least one week advance notice of Site work. Please contact me at 406-443-3087 with comments or questions regarding the proposed scope of work or the project.

Sincerely,
Olympus Technical Services, Inc.



Diane Tackett, PG
Project Geologist

Attachments: Figures 1, 2, and 3
Table 1
Detailed Cost Estimate
Soil Boring Unit Cost Worksheet
Groundwater Monitoring and Sampling Unit Cost Work Sheet
Backfill and Hauling Bids



Olympus Technical Services, Inc.

Site Topographic Map
Town Pump #1
East Helena, Montana

FIGURE
1



Olympus Technical Services, Inc.



Site Features Map
Town Pump #1
East Helena, Montana

FIGURE
2



Table 1. Soil Analytical Results for VPH and EPH (mg/kg)

Sample ID	Sample Date	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Naph- thylene	C9-C10 Aromatics	C5-C8 Aliphatics	C9-C12 Aliphatics	TPH	EPH screen	C9-C18 Aliphatics	C19-C36 Aliphatics	C11-C22 Aromatics	TEH
Release Confirmation RBSL ¹		0.078	0.07	21	8.4	75	2.9	60	90	160	--	--	290	25,000	370	--
Leaching to Groundwater (0-10) ²		0.078	0.07	21	26	320	12	130	220	11,000	NSL	NSL	53,000	NA	370	NSL
Direct Contact Construction ³		9,100	190	14,000	1,200	1,900	120	4,000	2,000	3,000	NSL	NSL	6,000	1,600,000	33,000	NSL
Waste Characterization																
C3161-WC	1/2/2025	<0.12	0.082	4.3	44	359	60	3,170	540	2,560	5,320	2,070	--	--	--	--
UST Closure Samples																
NL2N	12/30/2024	<0.10	<0.052	<0.052	<0.052	<0.052	<0.10	<2.1	<2.1	<2.1	<2.1	<20	--	--	--	--
NL2S	12/30/2024	<0.11	<0.053	<0.053	<0.053	<0.053	<0.11	<2.1	<2.1	<2.1	<2.1	<20	--	--	--	--
PT1	12/30/2024	<0.11	<0.057	0.076	0.040 J	0.31	0.084 J	8.9	1.2 J	11	28	398	213	66	53	341
PNLN	12/30/2024	<0.10	<0.052	<0.052	<0.052	<0.052	<0.10	<2.1	<2.1	<2.1	<2.1	<20	--	--	--	--
PNLS	12/30/2024	<0.12	<0.060	<0.060	<0.060	0.27	<0.12	2.0 J	2.7	4.3	9.9	10 J	--	--	--	--
DSL2 N	12/31/2024	<0.11	<0.054	<0.054	<0.054	<0.054	<0.11	<2.1	<2.1	1.8 J	2.8	7.8 J	--	--	--	--
DSL2 S	12/31/2024	<0.11	<0.054	<0.054	<0.054	<0.054	<0.11	<2.2	<2.2	<2.2	<2.2	<20	--	--	--	--
DSL1 N	12/31/2024	<0.10	<0.052	0.13	0.40	3.1	0.94	110	25	106	217	7.7 J	--	--	--	--
DSL1 S	12/31/2024	<0.11	<0.054	<0.054	<0.054	0.10	<0.11	7.1	<2.2	10	19	14 J	--	--	--	--
DSL2 EN	12/31/2024	<0.10	<0.052	<0.052	<0.052	<0.052	<0.10	<2.1	0.78 J	3.3	4.9	9.2 J	--	--	--	--
DSL2 ES	12/31/2024	<0.11	<0.054	<0.054	<0.054	<0.054	<0.11	<2.2	<2.2	<2.2	<2.2	<20	--	--	--	--
CPNL N	1/2/2025	<0.11	<0.053	0.14	2.5	28	9.1	375	24	329	649	215	54	<11	45	163
CPNL S	1/2/2025	<0.11	<0.054	<0.054	<0.054	<0.054	<0.11	<2.1	<2.1	<2.1	<2.1	<20	--	--	--	--
NL E	1/2/2025	<0.10	<0.052	<0.052	<0.052	<0.052	<0.10	<2.1	<2.1	1.5 J	2.2	38	--	--	--	--
NL W	1/2/2025	<0.11	<0.056	<0.056	<0.056	0.074	<0.11	<2.2	<2.2	1.4 J	2.0 J	32	--	--	--	--
Disp1	1/8/2025	<0.12	<0.060	0.057 J	0.052 J	0.74	0.18	38	7.0	37	86	1,250	587	222	167	991
Disp2	1/8/2025	<0.11	<0.053	<0.053	<0.053	<0.053	<0.11	<2.1	<2.1	<2.1	<2.1	<20	--	--	--	--
Disp3	1/8/2025	<0.12	<0.059	<0.059	<0.059	<0.059	<0.12	<2.3	<2.3	<2.3	<2.3	<20	--	--	--	--
Disp4	1/8/2025	<0.12	<0.061	<0.061	<0.061	0.080	0.17	17	<2.5	18	54	458	165	102	36	306
Disp5	1/8/2025	<0.12	<0.058	<0.058	<0.058	0.068	0.18	24	1.9 J	26	79	277	106	59	40	207
Disp6	1/8/2025	<0.12	<0.062	<0.062	<0.062	<0.062	<0.12	<2.5	<2.5	<2.5	<2.5	16 J	--	--	--	--
Disp7	1/8/2025	<0.11	<0.055	<0.055	<0.055	<0.055	<0.11	<2.2	<2.2	<2.2	<2.2	<20	--	--	--	--
Disp8	1/8/2025	<0.10	<0.052	0.58	0.18	0.92	<0.10	6.1	15	7.2	34	2,330	699	701	200	1,600
Vents	1/8/2025	<0.12	<0.061	<0.061	0.048 J	0.11	0.083 J	24	1.6 J	24	70	377	182	82	56	321
PT	1/8/2025	<0.12	<0.059	<0.059	<0.059	<0.059	<0.12	<2.4	<2.4	2.6	4.8	207	79	58	16	152

1 - Release Confirmation RBSL, DEQ February 2024

2 - Tier 1 RBSL for leaching to groundwater (0-10 feet), DEQ February 2024

3 - Tier 1 RBSL for Direct Contact Construction Workers, DEQ February 2024

NSL - No screening level

< indicates concentration not detected above the referenced laboratory reporting limit.

-- not analyzed

BOLD values indicate concentration exceeds RBSL or Leaching to Groundwater

622 Release confirmed to soil onsite

872 Concentration exceeds Tier 1 Leaching to Groundwater (0-10 ft) RBSLs

2,370 Concentration exceeds Tier 1 Direct Contact to Construction Worker RBSLs