March 26, 2025

Mr. Steve Grooms
President / CEO
1st Liberty Federal Credit Union
P.O. Box 5002
Great Falls, Montana 59403-5002

**Subject: Work Plan for 2025 Remedial Investigation**
**Former Bundtrock's Miracle Mile – 6221 2nd Ave N, Great Falls, Montana 59405**
**DEQ FID 07-06613 *(TID 18632)*; Release 1865; WPID 35014**
**AWS Project 18016.3**

Air Water Soil, LLC (AWS) is pleased to present this work plan for completing remedial investigation (RI) at the *Former Bundtrock's Miracle Mile* petroleum release site (hereafter, "the site"). The site is located at 6221 2nd Avenue North in Great Falls, Montana (Figures 1 and 2, Attachment A). The work plan has been prepared on behalf of 1st Liberty Federal Credit Union (1st Liberty), the property owner and "responsible party" of record for the release, in response to the Montana Department of Environmental Quality Petroleum Tank Cleanup Section (DEQ) *Additional Corrective Action Work Plan Required* letter, dated February 13, 2025.

## BACKGROUND

The following summary represents AWS's understanding of the Site's history as it pertains to the ongoing investigation required by DEQ. This summary is based on information provided to AWS by CTA Environmental (CTA) and DEQ. Select site features discussed below are illustrated on Figure 2 (Attachment A).

The site previously operated as an automotive repair and retail fuel station that utilized several underground storage tanks (USTs) for the storage of gasoline and waste oil, including:

- 6,000-gallon gasoline UST (1)
- 4,000-gallon gasoline USTs (3)
- 500-gallon waste oil UST (1)

The recorded petroleum release at the site is attributed to a loose joint associated with the 6000-gallon gasoline UST which was identified during tank closure activities in 1993. In April 1995, a Phase I Petroleum Hydrocarbon Remedial Investigation was completed at the site. This investigation confirmed that soil and groundwater at the site were contaminated with petroleum hydrocarbons, confirming a petroleum release.

In September 2003, a report of Phase II Remedial Investigation was completed. The report concluded significant groundwater impacts were limited to the general areas south and east of the former shop/office building and did not appear to have migrated off the site. Vertical extents of contamination in the former UST basin were not determined.

DEQ retained CTA under a DEQ term contract to conduct a remedial investigation to define the extent and magnitude of contamination under the shop/office building in June 2017. The findings of the investigation were to be used by DEQ to design a corrective action plan for over-excavation of contaminated soil. Groundwater flow direction during the investigation was reported to be generally to the north. Soil and groundwater data collected during the investigation indicated petroleum impacts above DEQ's then-current Risk-Based Screening Levels (RBSLs), with the majority of contamination being present on the south side of the main shop building, apparently migrating to the northwest beneath the building.

CTA completed a remedial excavation at the site from May to June 2020. Approximately 4,570 cubic yards (CY) of soil were excavated, transported, and disposed of during the project. Some residual sidewall contamination had to be left in place along the south side of the Site in order to prevent structural damage to the 2nd Avenue North roadway. Following consultation with DEQ, a small amount of petroleum contamination was also left along the northeast corner of the excavation to prevent impacting the former septic system drain field at the site.

In September 2020, CTA oversaw installation of 8 new monitoring wells within and proximate to the excavation area. The new wells replaced several wells which were abandoned and/or otherwise destroyed during excavation activities and were also necessary to evaluate the effectiveness of the remedial excavation. Soil samples collected from 3 of the borings contained analytes above then-current RBSLs: MW-1 (north edge), MW-6 (south edge), and MW-7 (former UST excavation area). However, petroleum analyte concentrations in soil samples from MW-1 were below the current (2024) RBSLs.

In December 2020 AWS completed the first post-excavation groundwater monitoring event on behalf of Andrews-Bundtrock Holdings, LLC. All site wells contained water, with depth to water (DTW) ranging from 3.65 feet below ground surface (bgs) to 10.00 feet bgs. Results showed contamination was present above then-current RBSLs in groundwater samples collected from monitoring wells MW-4, MW-5, MW-6, and MW-7. Additionally, the groundwater sample from well GP-17 (northeast of the site) exhibited a dissolved 1,2 Dichloroethane (DCA) concentration above the then-current RBSL. The reliability of the DCA data for this sample was in question due to the sample being analyzed past the method holding time; results were reported as an estimated value due to results exceeding the instrument upper quantitation value.

Following 1st Liberty's purchase of the site property from Andrews-Bundtrock Holdings, LLC, they became the Responsible Party of record with DEQ and PTRCB. AWS was retained by 1st Liberty to complete semi-annual groundwater monitoring at the site during March and June 2023. Findings were presented in AWS's December 19, 2023, *Report of 2023 Groundwater Monitoring* and indicated the previously-identified residual petroleum-impacted soil was contributing to

continued groundwater contamination at concentrations exceeding then-current RBSL. AWS's December 2023 report included recommendations for additional remedial investigation to address data gaps relating to the lateral and vertical extents of soil and groundwater contamination at and adjacent to the site property.

## OBJECTIVES

DEQ's February 13, 2025, work plan request letter referenced the findings and recommendations presented in AWS's December 2023 report and stipulated the following primary objectives for the requested work plan:

- Investigate the extent and magnitude of petroleum contamination and the potential lateral and vertical extent of remedial action that may be needed to clean up the release.
- Monitor groundwater at the facility monitoring wells. Gauge fluid levels at all facility monitoring wells. Collect groundwater samples from all monitoring wells.
- Analyze samples for petroleum constituents as required by the Montana Risk-Based Corrective Action Guidance for Petroleum Releases (RBCA). Analyze samples for intrinsic biodegradation indicators (IBIs) as necessary to assess natural attenuation and future cleanup methods. Validate data using DEQ's data validation summary form.
- Discuss ongoing work plan tasks and results with DEQ's project manager; submit written agreed-upon work plan modifications as required to complete the work plan objectives.
- Prepare and submit an updated Release Closure Plan (RCP) and discuss the results with DEQ's project manager.
- Prepare and submit a *Remedial Investigation Report (RPT_RI)* detailing results of the investigation.

## SCOPE OF WORK

In order to achieve the project objectives identified above, AWS has prepared the scope of work for this work plan to include the following 10 tasks: 1) Preliminary Coordination and Work Plan Preparation; 2) Project Management; 3) Mobilization; 4) Soil Borings and Monitoring Well Installation; 5) Monitoring Well Development; 6) Groundwater Monitoring; 7) Laboratory Analyses; 8) Survey Update; 9) Data Validation Form Preparation; 10) Release Closure Plan Update; and, 11) Report Preparation.

Implementation of the scope of work will be accomplished following a combination of AWS's Standard Operating Procedures (SOPs) and additional methods discussed below, where applicable. SOPs referenced in this work plan are presented in Attachment B.

AWS's standard task naming for petroleum release projects is intended to generally align with the PTRCB's approach to task naming, although the PTRCB staff may reassign some tasks – or portions of tasks – to different task identifiers for their own purposes. AWS anticipates utilizing the PTRCB-assigned task names during implementation and reporting for this scope of work. However, in the event 1st Liberty requests initiation of the scope of work prior to PTRCB's issuance of a funding obligation letter, AWS will use the task naming presented in this work plan.

## Task 1 – Preliminary Coordination and Work Plan Preparation

Prior to and during preparation of this work plan, AWS completed a variety of preliminary coordination efforts. These included correspondence with 1st Liberty, Cascade County, DEQ, and the Montana Department of Transportation (MDT) regarding project status, site logistics, potential work plan elements, access to adjoining roadway rights-of-way, etc. AWS also reviewed analytical data from select soil boring/monitoring well locations and compared them to current regulatory criteria. The results of the follow-up comparison were instructive in determining the scope of work for this remedial investigation, limiting the need for additional soil borings to address previously-identified data gaps in some instances.

This work plan has been created to satisfy the requirements stipulated in DEQ's *Remedial Investigation CAP (CAP_RI)* work plan format. Additionally, the general scope of work presented herein is intended to address the objectives stated in DEQ's work plan request letter, as discussed in the Objectives section above. Preliminary coordination elements have already been completed by AWS as necessary to develop the scope of work and solicit subcontractor proposals for this work plan and are understood to be actual, reasonable, and necessary to the ongoing investigation and remediation of the release.

## Task 2 – Project Management

Project management activities include correspondence with 1st Liberty and DEQ staff throughout the period of performance; coordinating the schedule for on-site activities with 1st Liberty's local personnel, as necessary; preparation of a project-specific health and safety plan (HASP); scheduling AWS's field personnel and activities; and, procuring and coordinating equipment, supplies, and subcontracted and vendor services as necessary to complete the scope of work. Project management activities also include project budget tracking and invoicing.

Note that additional project management time is anticipated to be required for coordination of off-site property access agreements for adjoining roadway rights-of-way. This is expected to include, at a minimum, preparation of an MDT Encroachment Permit application, including a traffic control plan (see Task 4 below).

## Task 3 – Mobilization

Mobilization includes labor and vehicle mileage costs for project travel necessary to complete the scope of work. This generally includes AWS personnel's travel to and from the site, as well as preparation time of up to 1 hour per mobilization event, as applicable, per PTRCB's standard reimbursement practice.

Field activities may be combined to reduce mobilization events and costs, where feasible. For the purpose of this work plan, the anticipated mobilization events necessary to complete the scope of work are summarized as follows:

- Soil Borings and Monitoring Well Installation
    - 1 mobilization event (1 preparation; 4 consecutive field day site visits)
    - Staff Engineer/Scientist + Tech II

- Soil Sample Direct Delivery (to comply with analytical hold times; see Task 4 below)
  - 2 mobilization events (0 preparation; 2 deliveries to laboratory)
  - Tech II
- Monitoring Well Development
  - 1 mobilization event (1 preparation; 1 field day site visit)
  - Tech II
- Groundwater Monitoring – 1 Event
  - 1 mobilization event (1 preparation; 2 consecutive field day site visits)
  - Tech II
- Survey Update
  - 1 mobilization event (1 preparation; 1 field day site visit)
  - Staff Engineer/Scientist + Tech II

**Task 4 – Soil Borings Monitoring Well Installation**

AWS proposes completion of soil borings in each of 6 locations at and adjacent to the site (Figure 2, Appendix A). Select borings will be completed as new groundwater monitoring wells, while other borings will be backfilled and abandoned, as discussed below. The final selection of boring locations and decisions regarding which borings are to be completed as monitoring wells will be based in part on site conditions and field observations.

Completion of Task 4 drilling and monitoring well installation activities will require coordination with MDT regarding access to the adjoining 2nd Avenue North ROW. It is understood this will require specialized traffic control throughout the work period, resulting in logistic complexities which are difficult to quantify at the time of preparation of this work plan.

Based on preliminary coordination efforts made by AWS and 1st Liberty with MDT, Cascade County, and Malmstrom Air Force Base (MAFB), it is understood MAFB controls the ROW for Perimeter Road adjacent to the site. MAFB personnel indicated access to Perimeter Road ROW may be feasible if needed. However, for the purpose of this work plan, AWS anticipates drilling activities will be completed adjacent to – but not within – Perimeter Road ROW, along the east edge of the site.

AWS anticipates retaining Poteet Construction, Inc. (Poteet) to assist with preparation and implementation of the traffic control plan expected to be required by MDT as part of their encroachment permit process. Traffic control services proposals were solicited from 3 separate firms. Poteet submitted the only qualifying proposal. A "no bid" response was provided by Mountain West Holding Company, Inc., and Highway Specialties, Inc. did not respond.

Hollow-stem auger drilling methods have been used to good effect for installation of the existing monitoring wells at the site. AWS therefore proposes using hollow-stem auger drilling for soil borings and monitoring well installation activities to be completed as part of this work plan.

AWS anticipates retaining Boland Drilling (Boland) to provide hollow-stem auger drilling services for completion of proposed soil borings and new monitoring wells included in this scope of work. Hollow-stem auger drilling services unit pricing proposals were solicited from 4 separate firms. Boland submitted the only qualifying proposal. "No bid" responses were provided by Hansen Environmental Drilling and HazTech Drilling. O'Keefe Drilling did not respond.

Drilling provider proposals were requested to include total depths of 15 feet at each of 5 select borings and a total depth of 30 feet in 1 select boring (i.e., a total drilling depth of up to 105 feet). Residual soil contamination in the study area for this work plan is generally not expected to extend past 15 feet bgs, although deeper residual soil contamination was observed at MW-7. The proposed boring located between existing wells MW-7 and MW-8 is therefore scheduled to be drilled to 30 feet in order to help evaluate the lateral extent of deeper soil contamination observed at MW-7. Actual boring locations may vary based on interpretation of field data. Additional borings may be advanced if deemed appropriate based on field data, although the total drilling depth of 105 feet will not be exceeded without prior coordination with DEQ and PTRCB, as feasible.

At least 2 full business days prior to initiating the subsurface investigation, AWS will submit a subsurface utility locate request through Montana811 (aka "Call Before You Dig" or "One-Call"). Montana811 will subsequently coordinate surface marking of public underground utilities at the site.

Public utility lines located on the service sides of meters, and any other privately owned underground utilities, are generally excluded and may not be surface marked through the Montana811 utility locate process. There are no known privately owned underground utilities at the site, or in the proposed study area. In the event 1st Liberty and/or the adjoining ROW owners are unable to surface mark or otherwise identify the locations of known private utilities within the project area, additional coordination may be required.

Boland will remove pavement at boring locations, if any, and advance soil borings using hollow-stem auger drilling methods. Continuous soil core sampling will be achieved through hydraulic-assisted, gravity-driven split-spoon sampling, or the equivalent. Reusable downhole equipment will be decontaminated by the driller before initiating each soil boring, as appropriate. Decontamination may not be necessary following completion of borings which did not exhibit evidence of petroleum contamination. Reusable sampling equipment will be decontaminated following *AWS SOP-01*.

Soil samples will be collected following the procedures outlined in *AWS SOP-02 – Soil Sample Collection*, including recording observations of lithology and the presence or absence of visual and/or olfactory evidence of petroleum impacts. Field splits will be analyzed following *AWS SOP-03 – Field Measurement of Total Organic Compounds* (VOC).

Laboratory samples will be containerized from the potential laboratory splits as summarized below. The actual number of samples to be collected will depend on observations and conditions

at the time of sampling. For this purpose of this work plan, AWS anticipates collecting up to 19 soil samples, as follows:

- Worst-Case Total VOCs (6 grab samples): 1 grab sample will be collected from the interval exhibiting the highest total VOC concentration in each boring. This sample will not be collected for a given boring with no exceedances of 100 ppm total VOCs, and for which no visual evidence of impacts is observed.
- Groundwater Interface (6 grab samples): 1 grab sample will be collected from the soil/groundwater interface within each boring, if different from the samples above.
- Bottom of Hole (6 grab samples): 1 grab sample will be collected from the bottom of each boring, if different from the samples above. AWS anticipates collecting a sample from the bottom of the boring scheduled to be completed to 30 feet bgs, in any case.
- Construction Worker Risk (0 additional samples): Select natural samples from the above lists will be used to evaluate construction worker risk.
- Waste Characterization Samples (0 additional samples): Additional waste characterization samples are not expected to be required. Data from select natural samples from the above lists are expected to suffice for this purpose.
- Duplicate Samples (1 grab sample): Duplicate samples will be collected at the rate of 1 for every 20 natural samples. Duplicate samples will consist of direct splits from the potential laboratory split samples for the respective natural samples they represent.

Laboratory samples will be containerized, preserved, and transported to the analytical laboratory following *AWS SOP-08*, and in accordance with the referenced analytical methods, using vessels and preservatives provided by the laboratory.

In order to adhere to the analytical hold time for VPH (48 hours), direct delivery of soil samples to the laboratory is expected to be required for this project. Since soil samples are expected to be collected over the course of 3 field days, soil samples will need to be transported to the laboratory in at least 2 separate sample sets. Laboratory analyses to be requested are discussed in Task 7, below.

Drill cuttings generated from borings which are completed as monitoring wells will be consolidated and temporarily stored at the site in steel drums to be provided by Boland, pending waste characterization and waste profile/manifest processes required for disposal. Drill cuttings generated from the other borings (i.e., borings which will be abandoned rather than completed as monitoring wells) will be placed back into the borings from which they were derived, as feasible. The remaining boring voids, if any, will be backfilled with chipped or granular bentonite. Cuttings which cannot be placed back into the soil borings will be handled following the procedures outlined in *AWS SOP-56*. Unimpacted soil or asphalt cold patch will be placed by Boland to match the surrounding surfaces, where applicable.

AWS anticipates directing Boland to construct a groundwater monitoring well in each of 4 select soil borings, as indicated on Figure 2. The wells will consist of 2-inch diameter, schedule 40 polyvinylchloride (PVC) well casing blank and factory-slotted (0.010-inch or 0.020-inch) well

screen. Casing joints will be flush-threaded; no PVC glue or adhesive will be used. The wells will be screened from approximately 5 to 15 feet bgs. AWS will mark the top north quadrant of each well casing with indelible ink to establish a permanent measuring point.

The annular space of the boring will be backfilled with inert filter-pack sand from the bottom of the screened interval to above the screened interval. Hydrated granular or chipped bentonite will be placed above the filter pack to create a well seal. A steel, flush-mounted well protector will be grouted in place over the well casing; concrete around the well protector will be finished smooth to match surrounding pavement, if present, and to prevent premature degradation. Alternatively, in select areas (e.g., in the ditch along Perimeter Road), an above-ground well completion will be installed, consisting of a steel protector with a lockable cap set in concrete.

**Task 5 – Monitoring Well Development**

Newly installed groundwater monitoring wells will be developed following the procedures outlined in *AWS SOP-04 – Field Measurement of Depth of Groundwater* and *AWS SOP-05 – Monitoring Well Development*. Purge water generated during development will be handled in accordance with *AWS SOP-56*. Reusable down-hole equipment will be decontaminated prior to initiating development of each well following *AWS SOP-01*.

**Task 6 – Groundwater Monitoring – 1 Event**

Groundwater monitoring will be conducted during a single (1) event as part of this work plan. The groundwater monitoring event will be completed at least 1 week following development of new monitoring wells. All existing and new monitoring wells will be included in the monitoring event, as required by DEQ. Locations of existing and planned monitoring wells are illustrated in Figure 2 (Attachment A).

The wells to be gauged and monitored under this work plan, and the analytical parameters to be evaluated for each, are summarized by event in the groundwater monitoring analytical plan presented in Attachment B.

DTW and DTP will be measured following the procedures outlined in *AWS SOP-04* and groundwater monitoring will be completed in accordance with *AWS SOP-06 – Groundwater Sampling*. AWS anticipates utilizing a peristaltic pump system to obtain samples for this project. Unused water evacuated from each well will be handled in accordance with *AWS SOP-56*. Reusable monitoring and sampling equipment will be decontaminated following *AWS SOP-01* prior to use in each monitoring well.

In the event free product is encountered in a monitoring well, a grab sample may be collected for laboratory hydrocarbon identification (HC ID) analysis. Free product grab samples may be collected using a disposable bailer and string instead of the pump system. AWS does not anticipate encountering free product during completion of this scope of work, based on previous site conditions.

Laboratory samples will be containerized, preserved, and transported to the analytical laboratory (Energy) following the procedures outlined in *AWS SOP-08*, and in accordance with the referenced analytical methods, using vessels and preservatives provided by the analytical laboratory. Laboratory analyses to be requested are discussed in Task 7, below.

## Task 7 – Laboratory Analyses

AWS anticipates submitting soil and groundwater samples collected during completion of this work plan to Energy Laboratories, Inc. (Energy) in Helena, Montana. Standard analytical turnaround time will be requested for all analyses. Laboratory analyses for soil and water samples collected under this scope of work will be requested for the respective tasks, as discussed below. Requested analyses have been selected based on historic soil and groundwater data for the site and requirements stipulated for gasoline releases in the February 2024 RBCA.

It should be noted that, although Extractable Petroleum Hydrocarbon (EPH) screen and fractionation analyses have been completed for soil and groundwater samples originating from the site during past investigations, historic and recent analytical data for soil and water samples collected from existing monitoring well locations have not exhibited exceedance of EPH RBSLs. Similarly, analysis of lead scavenger ethylene dibromide (EDB) has been completed for soil and groundwater samples collected from the site, and historic and recent data from existing monitoring well locations indicate EDB is not present at detectable concentrations. Therefore, analysis of EPH and EDB analytes has been excluded from this scope of work.

Soil Samples from Hollow-Stem Auger Drilling (Task 4)

Soil samples collected during direct-push drilling activities will be analyzed for the following parameters:

- *Volatile Petroleum Hydrocarbons (VPH)*, by the Montana VPH Method: All soil samples, including natural and duplicate samples. Up to 19 analyses.
- *1,2-Dichloroethane (DCA)*, by EPA Method 8260B: 1 natural sample per boring, from the inferred worst-case sample. No duplicate samples. 6 analyses.

Water Samples from Groundwater Monitoring (Task 6)

Laboratory analysis of select IBIs will be requested, along with laboratory analyses of petroleum analytes stipulated in the February 2024 RBCA for groundwater suspected of being contaminated by gasoline. The table in Attachment C summarizes the analyses which will be requested for natural and duplicate samples to be collected during each monitoring event.

## Task 8 – Survey Update

AWS will update the existing site survey, including mapping of the horizontal locations of abandoned soil borings and new monitoring wells expected to be installed during completion of Task 5. Vertical elevations will also be surveyed at the new monitoring well measuring points (top north of PVC well casings), relative to known elevations from the existing site survey. The site diagram will be updated with the new survey data.

**Task 9 – Data Validation Form Preparation**

Upon receipt of final laboratory analytical data for each soil and water sampling event, AWS will complete data validation in accordance with DEQ's *Data Validation Summary Form*. Data will be validated to assess the precision, accuracy, repetitiveness, comparability, and completeness of the reported parameters.

Note that PTRCB reimburses preparation of DEQ's *Data Validation Summary Form* separately from the actual validation of data, which is reimbursed as a portion of the Report Preparation task. AWS anticipates preparing a total of 3 *Data Validation Summary Forms* for this project, as discussed in the preceding sections and summarized below:

- 2 Soil Sample Analytical Reports. As noted in Task 4 above, the VPH analytical hold time for soil samples is 48 hours. Since soil samples are expected to be collected over the course of 3 field days, soil samples will need to be transported to the laboratory in at least 2 separate sample sets. The laboratory will subsequently deliver soil analytical results in separate reports for each delivered set, meaning at least 2 data validation forms are expected to be required for this scope of work.
- 1 Groundwater Sample Analytical Report. Groundwater samples collected in Task 6 are expected to be delivered in a single (1) sample set.

**Task 10 – Release Closure Plan Update**

Following completion of all Tasks 2 through 13, including receipt and review of all final analytical data, AWS will update the previous RCP. This will include assessing available historical data for the release, as well as data collected during the investigation to be completed under this work plan. The results will be evaluated to help determine an appropriate remediation plan to address residual contamination from the petroleum release at the site in light of planned site redevelopment. The updated RCP will also list identified data gaps which should be addressed during future work.

**Task 11 – Report Preparation**

Following completion of Tasks 2 through 10, including receipt and review of all final analytical data, AWS will prepare a summary report which will comply with DEQ's *Remedial Investigation Report (RPT_RI)* format. As noted above, PTRCB reimburses data validation as a portion of the Report Preparation task, so data validation will be completed under Task 11, even though completion of the *Data Validation Summary Forms* will technically be completed under Task 9.

In any case, the report will include a discussion of methods and findings from the remedial activities completed as part of this scope of work; discussion of data validation; and discussion of the updated RCP. Data will be presented in tabular form, and select information will be presented on a site diagram(s). The report will be submitted to 1st Liberty and DEQ electronically, in Portable Document Format (PDF). A hard copy of the report will not be prepared or provided.

## SCHEDULE

Note that DEQ typically requires initiation of a work plan once approved, without regard to the timing of PTRCB's obligation of funding. AWS will initiate implementation of Tasks 2 through 11 following our receipt of DEQ's work plan approval, but only after also receiving 1st Liberty's authorization to proceed. Any delay of implementation after issuance of DEQ's work plan approval letter will need to be coordinated with DEQ.

The actual project schedule will be contingent on various conditions which are indeterminable at the time of preparation of this work plan, including but not limited to approval from all listed parties, weather, and availability of AWS personnel and subcontractors. AWS will coordinate with 1st Liberty, DEQ, and other stakeholders as appropriate and will make reasonable efforts to adhere to the desired schedule.

## FEE

AWS's fee for completing the scope of work described in this Work Plan will be assessed in accordance with the cost estimate presented in Attachment D. The cost estimate includes prices for drilling, traffic control, and cutting disposal subcontractors based on unit fees provided in subcontractor proposals, as well as applicable portions of the DEQ/PTRCB groundwater monitoring unit cost tool. Services provided will be invoiced using AWS's PTRCB labor and equipment rates for the period of performance. Our estimated total fee for completing the scope of work detailed above is **$61,834.50**. The estimated total fee is based on our 2025 PTRCB billing rates and the assumptions noted herein.

Actual costs may vary somewhat, depending on a variety of factors, including but not limited to unforeseen delays or other necessary but unexpected changes to the scope of work. AWS will coordinate changes to the scope of work, if necessary, with 1st Liberty, DEQ, and PTRCB staff prior to implementing the changes.

Petroleum release 1865 at the Former Bundtrock's Miracle Mile site is eligible for PTRCB reimbursement of eligible costs, with no known penalties or reductions in eligibility. AWS understands 1st Liberty is recognized by the PTRCB as an eligible party for reimbursement of costs associated with the investigation and remediation of the release.

The PTRCB has already reimbursed 50% of the first $35,000 in eligible costs for this release (commonly referred to as the "$17,500 co-pay" for a release) and is expected to provide reimbursement of 100% of subsequent eligible costs, up to a maximum of $1 million ($982,500.00 after deductible, with no penalty). It is important to note that some costs for common tasks are considered ineligible by the PTRCB staff, including costs incurred performing tasks required by DEQ, in some cases. Examples of costs which are typically ineligible for reimbursement include, but are not limited to, the following:

- Preliminary coordination efforts and other costs incurred prior to work plan preparation.
- Investigation and remediation activities completed without prior DEQ approval.

- Costs exceeding PTRCB staff's established maximum allowable rates or task totals for project administration, groundwater sampling, work plan and report preparation, etc.
- All costs associated with closure/removal of USTs.
- Some costs associated with hazardous materials (e.g., asbestos, lead paint, etc.) assessment and abatement and subsequent building demolition.
- Some costs associated with maintenance and repair of monitoring wells and monitoring well protectors.
- Preparation of applications for PTRCB reimbursement of eligible costs.

Based on information provided by PTRCB staff on February 19, 2025, a total of $469,366.23 in eligible costs have been reimbursement for this release. Accordingly, 100% of future eligible costs are expected to be reimbursed by the PTRCB, up to the $982,500 release maximum.

AWS will submit invoices relating to this scope of work directly to 1st Liberty for payment. We anticipate preparing and submitting an application for reimbursement to the PTRCB following completion of the final report for this work plan. The reimbursement application prepared and submitted by AWS will include additional documentation required by the PTRCB, including *Acknowledgement of Payment Form 6* documents confirming AWS's receipt of payment from 1st Liberty for AWS invoices included with the application. Completed *Form 6* documents will also be included confirming AWS's payment to our subcontractors, as applicable.

AWS anticipates the PTRCB will subsequently issue a reimbursement payment directly to 1st Liberty. As discussed above, and in our previous correspondence, AWS anticipates a portion of the anticipated costs shown in the Cost Estimate will be deemed ineligible by the PTRCB. 1st Liberty will remain financially responsible for payment of AWS's invoices in the event costs are deemed ineligible for reimbursement by the PTRCB.

## LIMITATIONS

The scope of work included in this work plan has been prepared for 1st Liberty Federal Credit Union and includes only those services described above. This work plan does not include remedial or disposal services, or costs for such services, beyond those listed specifically in the scope of work.

Monitoring results represent a "snapshot" of conditions during the monitoring period from which the samples were collected and may not be representative of potential future conditions. AWS cannot and does not warrant that the scope of services described in this work plan will be adequate to identify all potential environmental conditions or latent conditions at the site. Our scope of work will be performed with a standard of care meeting or exceeding that of other environmental consultants performing similar work in the area.

## ACCEPTANCE

1st Liberty authorized AWS to prepare this work plan by signing our Work Order 18016.3 on February 24, 2025. Please indicate 1st Liberty's acceptance of this work plan, and authorization

for initiation of the scope of work present herein under the terms of AWS's Work Order 18016.3, by signing below and returning a signed copy to AWS.

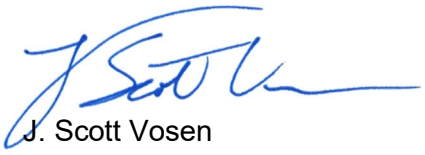
Work Plan Acceptance: _____
Signature / Printed Name Date

A copy of this work plan will be submitted to the Montana DEQ on behalf of 1st Liberty. It is understood DEQ's review of the work plan will relate only to the technical aspects of the proposed scope of work.

Assuming DEQ approves the work plan from a technical standpoint, it is presumed they will forward the work plan and cost estimate to the PTRCB staff for their review. PTRCB staff's review of the work plan is presumed to relate only to the proposed costs to implement the scope of work approved by DEQ. Note that DEQ may require implementation of the work plan prior to PTRCB's obligation of funding. Any delay of implementation after issuance of DEQ's work plan approval letter will need to be coordinated with DEQ.

If you have any questions or concerns relating to this work plan, please call me at your earliest convenience to discuss (406.315.2201).

Respectfully Submitted,



J. Scott Vosen
Principal
scott@airwatersoil.com

Attachments: A – Figures
B – AWS Standard Operating Procedures
C – Groundwater Monitoring Analytical Plan
D – Cost Estimate

cc: Donnie McCurry, Montana DEQ PTCS, P.O. Box 200901, Helena, MT 59620. Transmitted via email to DMcCurry@mt.gov.

# ATTACHMENT A

## Figures

AIR WATER SOIL
GREAT FALLS, MT
p 406.315.2201

DEQ FACILITY ID 07-06613; RELEASE 1865; WPID 35012

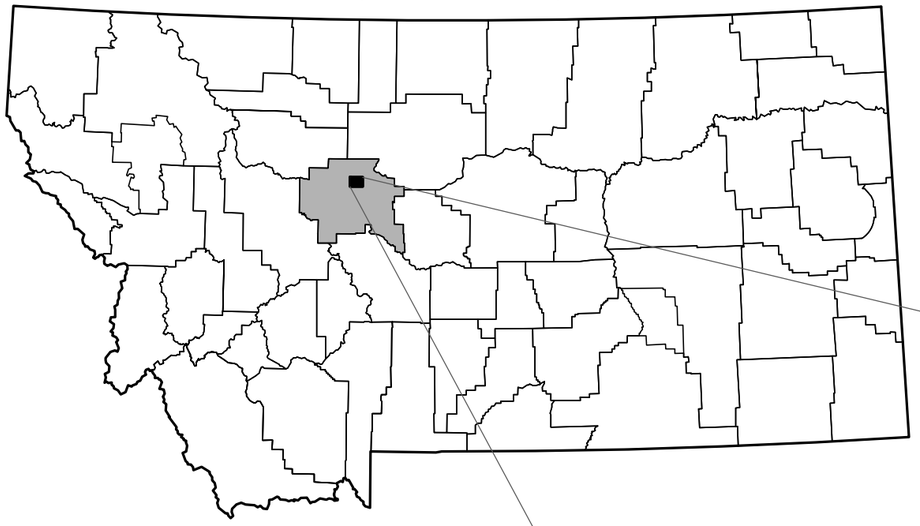
6221 2ND AVE NORTH, GREAT FALLS, MONTANA 59405

FORMER BUNDTROCK'S MIRACLE MILE

# WORK PLAN FOR 2025 REMEDIAL INVESTIGATION

# 1ST LIBERTY FEDERAL CREDIT UNION

GREAT FALLS, CASCADE COUNTY, MONTANA



PROJECT SITE


NORTH

1
FIG 1

## SITE VICINITY MAP

SCALE: NONE



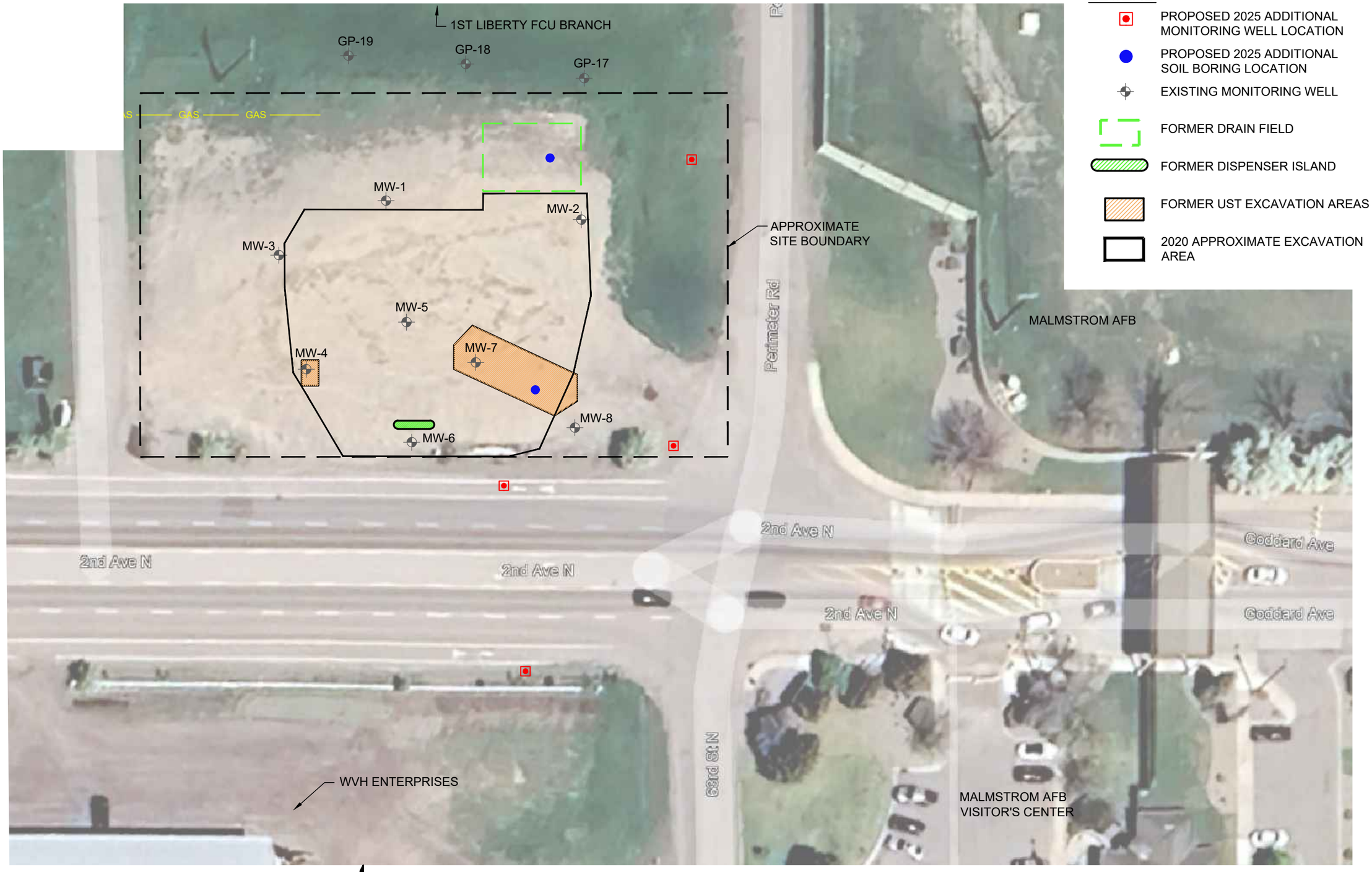
**3.26.2025**
**18016.3**

DRAWN BY
DRESCH

CHECKED BY
JSV

SITE VICINITY MAP

FIGURE
**1**




## LEGEND

- PROPOSED 2025 ADDITIONAL MONITORING WELL LOCATION
- PROPOSED 2025 ADDITIONAL SOIL BORING LOCATION
- EXISTING MONITORING WELL
- FORMER DRAIN FIELD
- FORMER DISPENSER ISLAND
- FORMER UST EXCAVATION AREAS
- 2020 APPROXIMATE EXCAVATION AREA

NORTH

1
FIG 2

# SITE MAP

0 20 40 80

SCALE: 1" = 40'

AWS
AIR WATER SOIL
GREAT FALLS, MT
p 406.315.2201

DEQ FACILITY ID 07-06613; RELEASE 1865; WPID 35012

6221 2ND AVE NORTH, GREAT FALLS, MONTANA 59405
FORMER BUNDTROCK'S MIRACLE MILE

WORK PLAN FOR 2025 REMEDIAL INVESTIGATION

1ST LIBERTY FEDERAL CREDIT UNION



**3.26.2025**
**18016.3**

DRAWN BY
DRESCH

CHECKED BY
JSV

SITE MAP

FIGURE
**2**

# ATTACHMENT B

## AWS Standard Operating Procedures

# STANDARD OPERATING PROCEDURE

## Field Sampling Equipment Decontamination

**AWS SOP-01**

**EQUIPMENT:**

- Disposable gloves (e.g., latex, nitrile)
- Eye protection
- Phosphorus-free detergent concentrate (e.g., Alconox®, Liquinox®)
- Concentrated alcohol (e.g., isopropyl, methanol) to make 10% solution
- Concentrated nitric acid to make 10% solution
- Deionized (DI), distilled, or potable tap water
- Spray bottles, collapsible dispensers, buckets, basins
- Scrub brushes
- Disposable wet-wipes
- Paper towels
- HEPA-filtered vacuum
- Garbage bags

**PROCEDURE:**

Decontamination of asbestos sampling tools and equipment is generally accomplished using HEPA-filtered vacuums, disposable wet-wipes, or water and paper towels. Cleaning is continued until visible contaminants are removed to prevent cross contamination between samples, and to prevent potential fiber exposure.

Decontamination of petroleum investigation sampling equipment generally includes a 3-step process: 1) detergent scrub; 2) alcohol/acid rinse; and 3) water rinse.

Prepare detergent solution by mixing detergent concentrate with potable water in a large cooler or basin. Keep this mixture free from contaminants; draw small portions out into smaller basins/buckets as needed. Prepare 10% alcohol-in-water and 10% nitric acid-in-water solutions in collapsible containers and/or spray bottles. Methanol and nitric acid solutions should be prepared using DI or distilled water.

Decontamination should be performed in an area upwind of the contamination zone or otherwise reasonably free from contaminants of concern. Gross contaminants/debris should be removed from equipment and left in the sampling area(s) if practicable. Remove remaining gross contamination by scrubbing equipment with detergent solution in a small basin. Empty basin and refill with fresh detergent solution as necessary. Rinse with alcohol solution, nitric acid solution (when sampling for metals), and DI/distilled water.

Dry decontaminated equipment using paper towels or place in an area as free from contaminants of concern as practicable an allow to air dry.

Caution should be used to avoid direct contact with contaminated materials; gloves and eye protection should be worn during preparation of decontamination fluids and during decontamination of sampling equipment. Decontamination fluids should be prepared in a location as free from contamination as practicable.

**DISPOSAL:**

All disposable items (soiled wipes, used paper towels, vacuum filters, etc.) should be deposited into a garbage bag and properly disposed. Decontamination waste from asbestos decontamination may require disposal as asbestos waste.

Decontamination fluids for petroleum investigations do not need to be collected under most circumstances. Spread decontamination fluids over a paved surface, if practicable.

# STANDARD OPERATING PROCEDURE

**Soil Sample Collection**

**AWS SOP-02**

**EQUIPMENT:**

- Shovels, spades, hoes, trowels, etc.
- Stainless steel mixing bowl
- Stainless steel hand auger
- Excavation equipment (e.g., backhoe, trackhoe)
- Drill rig sample equipment (e.g., steel split spoons, MacroCore® tubes)
- Field forms
- Disposable gloves and decontamination fluids (per AWS SOP-01)
- Leak-tight cooler with ice

**GENERAL:**

Soil samples should be described according to the procedures outlined in the Unified Soil Classification System (USCS – method ASTM D2487) or the Soil Conservation Service (SCS) classification system. Soil texture should be classified by either the USCS or USDA classification.

Pertinent soil sample information should be recorded on sampling forms or on specific documents identified in the SAP. Information should be recorded in a way to facilitate preparation of an overall soil sample summary. Information to be recorded for individual soil samples typically includes the following:

- Sample name/I.D.
- Collection date and time
- Sample type (grab/composite; natural/duplicate)
- Sample location, including diagram reference, if applicable
- Sample preservation, if applicable
- Analysis(es) to be performed
- Notation of deviations from SOP, if applicable

Decisions regarding sample collection and analyses will be guided by project-specific parameters and conditions. Collection and analysis of soil samples for evaluation of suspected or confirmed petroleum releases will generally be completed in accordance with the Montana Department of Environmental Quality (DEQ) *Final February 2024 Montana Risk-Based Corrective Action Guidance for Petroleum Releases (RBCA)*. Sampling requirements stipulated in the RBCA are shown in *Table B – Testing Procedures for Soils and Water* from the RBCA, which is presented on the following page of this SOP.

Decontamination will be completed following procedures outlined in AWS SOP-01.

| Petroleum Product | VPH | EPH Screen | EPH Fractionation | EPH for PAHs | RCRA Metals + Zinc | EPA Method 8260B – Oxygenates /VOCs | Lead Scavengers |
|---|---|---|---|---|---|---|---|
| Gasoline/Aviation Gasoline | R | | | | | | SS |
| Diesel (#1 & #2) | R | R | X | SS | | | |
| #1 - #2 Heating Oils | R | R | X | SS | | | |
| #3 - #6 Fuel Oils | | R | X | X | | | |
| Used/Waste Oil | R | R | X | X | SS | R | SS |
| Kerosene, Jet Fuel (Jet-A, JP-4, JP-5, JP-8, etc.) | R | R | X | SS | | | |
| Mineral/Dielectric Oils | | R | X | | | | |
| Heavier Wastes | | R | X | X | | | |
| Crude Oil | R | R | X | X | | | |
| Unknown Oils/Sources | R | R | X | X | SS | R | SS |
| | | | | | | | |

**Table B - Testing Procedures for Soils and Water**

R - required analysis

X - analysis to be run if the EPH screen concentration in is >200 mg/kg TEH or >1,000 µg/L TEH in soil and water, respectively.

SS - Site-specific determination.

## SURFACE SAMPLING:

Surface soil samples are collected from the surface to depths of approximately 6 inches below ground surface (bgs), unless otherwise specified in the project specific SAP. Sufficient sample will be collected for the analysis that will be performed, but generally, this will be less than 1 quart. Soil samples will be collected in either wide mouth glass jars or re-sealable polyethylene bags (Ziploc® or equivalent).

Samples should be collected from an area of approximately 1 square foot or less using shovels, trowels, etc., as appropriate. Where composite samples are desired for petroleum samples, care should be taken to minimize volatilization while mixing. Field mixing may be accomplished in the mixing bowl or in a sealed Ziploc bag for EPH and metals samples. Field compositing should not be completed for VPH or VOC samples. Aliquots may be containerized individually and submitted for laboratory compositing, if necessary.

If a sod or duff layer is present, this layer should be peeled back to the top of the mineral soil. Likewise, larger aggregate (e.g. > ¾" diameter) should generally be removed from the sample.

The sample must be well mixed, with a representative portion placed in the sample container. Quarter the sample in the bowl/bag and place an equal volume of soil from each quarter in the sample container(s) provided by the laboratory. Label sample containers (location, depths, etc.) and place on ice as quickly as practicable and keep cool until receipt by laboratory. Transfer to laboratory using chain-of-custody (COC) protocol and overnight shipping or direct delivery, if applicable.

**SUBSURFACE SAMPLING:**

Ensure subsurface utilities, including any private utilities (e.g., electrical for signs, water & controls for irrigation, etc.) have been surface-marked prior to initiation of subsurface sampling activities. Consider utilizing "daylighting" techniques where utility locations are unknown.

Arrange for disposal of cuttings/waste material prior to initiation of sampling (e.g., return to boring/excavation; transport/dispose at a landfill; etc.), including waste manifesting, if appropriate. Where waste materials must be temporarily left on site, arrange for storage in drums, lined berms, etc., as appropriate.

Ensure equipment (drill rigs, backhoes, trackhoes, etc.) can safely access the areas to be sampled. Minimize damage to the surface (landscaping, pavement, etc.) as feasible, or arrange for repair prior to on-site activities.

Subsurface sampling will generally be completed using a hand auger, excavator, or drill rig. Sampling procedures for each type of equipment are described below. Sample collection, homogenization, compositing, transfer to sampling containers, and transmittal to the laboratory should follow the same procedures as outlined for collection of surface samples.

**Hand auger:** Auger holes can be drilled at a consistent diameter or in a telescoping manner, if contamination between sample intervals is a concern. The telescoping method includes advancing the largest auger to an approximate depth of 3 feet bgs, collecting specified depth increment samples as the auger is advanced. Install temporary casing (e.g., new or decontaminated PVC) with a diameter slightly smaller than the borehole to keep the hole open and reduce possible cross-contamination between depth intervals. Using the next size smaller bucket auger, repeat the process. Record lithology from recovered cuttings throughout. Select sample intervals for field screening and packaging for laboratory analysis in accordance with procedures described in the SAP. Return cuttings to the boring as feasible, or abandon the boring with hydrated bentonite chips. Restore the site in accordance with the project plan.

**Drill Rig:** Retrieve sampler from driller. Split spoon samplers are generally utilized by advancing alternating larger samplers (~3-inch diameter) and small samplers (~1.5-inch diameter), both being approximately 2.5-feet long, using hollow-stem auger drilling methods. MacroCore® samples are generally obtained by advancing 4-foot-long sample tubes of approximately 1.5-inch diameter using a direct-push drilling method. In either case, record lithology and percent recovery from cores retrieved. Collect at least 1 sample interval from each recovered interval for field screening, and select sample intervals for packaging for laboratory analysis in accordance with procedures described in the SAP. Return cuttings to the boring as feasible, or abandon the boring with hydrated bentonite chips. Restore the site in accordance with the project plan.

**Excavations:** Excavate to the prescribed depth. If the excavation depth exceeds 5 feet, OSHA construction standards for shoring or sloping must be followed to prevent accidental injury. Sampling personnel should enter the excavation only as necessary, and always with care, during and after excavation. Soil profile descriptions shall be made from a freshly

scraped surface along the excavation wall or base, as feasible. Soil samples shall be collected from depth intervals specified in the SAP.

After sampling is completed, the excavation should be backfilled with excavation material in the reverse order that it was excavated so topsoil material is returned to the surface. Alternatively, if excavated material is being disposed, backfill with imported fill material. Backfill material should be mechanically compacted to extents feasible, or in accordance with project-specific requirements in the SAP. Restore the site in accordance with the project plan.

**PREPARATION AND PRESERVATION:**

All soil samples will be packaged and preserved in accordance with the respective analytical method(s), using containers and preservatives provided by the analytical laboratory, where applicable. Samples will be placed in coolers with ice (or refrigerators) as soon as practicable following collection and will be kept cool until received by the laboratory, as required for the respective method(s).

Samples will be containerized and shipped using chain-of-custody protocol, as outlined in AWS SOP-08. This includes placement of custody seals on coolers (or on individual sample containers).

Standard analytical methods, sample container and preservation requirements, and analytical hold times are presented in *Table A – Soil Sampling and Preservation Protocol* on the following page of this SOP. The provided *Table A* has been taken from DEQ's *Final February 2024 RBCA*.

| Parameter | Analytical Method | Sample Container/ Preservation | Holding Time |
|---|---|---|---|
| **Soil Samples** | | | |
| VPH | Montana Method VPH | 60 mL or 40 mL VOA vials or 4 oz wide mouth jar. Collect at least 10 g of soil, cool to 4 ±2° C. Must be preserved at the lab in methanol within 48 hours of collection.<br>or<br>Methanol preservation in the field.1 mL methanol for every g soil, +/- 25%; lab can provide appropriate vials with methanol for easy collection; cool to 4 ±2° C.<br><br>If preserving with methanol in the field, a sample containing no methanol must also be submitted for determining moisture percentage. | 28 Days to analysis from collection.<br><br>If collecting in the field without methanol, lab preservation in methanol w/in 48 hours and 28 days to analysis from collection. |
| EPH Screen | Montana Method EPH | 4-oz wide-mouth amber glass jar, cool to 4±2° C | Extracted within 14 days of collection. Analyzed within 40 days of extraction. |
| EPH Fractionation with or without PAH's | Montana Method EPH (PAHs: 8270)) | One 4-oz glass jar, cool to (4 ± 2) ºC | Following EPH Screen 14-day to extraction, 40 days to analysis. |
| VOCs/Oxygenates/ 1,2 DCA/lead scavengers EDB | EPA Method 8260 /SW-846-5035A | One 4-oz. glass jar, cool to (4 ± 2) ºC<br><br>Preserve in methanol in field or at lab within 48 hours of collection. | 48 hours to lab extraction. 14-day hold time from collection<br><br>MeOH preservation: 14 days to extraction and analysis from collection. |
| RCRA Metals plus zinc (Except Hg)<br><br>Mercury (Hg) | EPA Method 6010 or 6020<br><br>EPA Method 7471 B | One 4-oz. plastic or glass jar, no preservation<br><br>One 4-oz. plastic or glass jar, no preservation | 6 months<br><br>28 days |
| % Moisture-required for all soil samples | USDA Handbook 60 method 26 (or equivalent) | | |

**Table A - Soil Sampling and Preservation Protocol**

Alternate approved versions of the methods are allowed.

# STANDARD OPERATING PROCEDURE

## Field Measurement of Total Volatile Organic Compounds

**AWS SOP-03**

**EQUIPMENT:**

AWS measures total volatile organic compounds (VOC) using a photoionization detector (PID) with a 10.6 electron volt (eV) lamp, following a "heated headspace" method. The PID should be fully charged the day prior to field usage, and extra batteries or field chargers should be available, as feasible. Calibration equipment and supplies should be included in the field kit based on the recommendations of the manufacturer. These generally include a cylinder of compressed calibration gas, a pressure/flow regulator, and an activated carbon "zero" filter.

Field screening sample containers may consist of either heavy zip-top plastic bags (e.g., Ziploc® Freezer bags or equivalent) or glass canning jars fitted with aluminum foil under the metal lid rings. Plastic bags and aluminum foil should never be reused. When using canning jars, the jars and rings should be decontaminated between sample analyses (see AWS SOP-01). Whether plastic bags or glass jars are used, sample vessels and sample amounts should be consistent in composition and volume for all field total VOC samples collected for a given project. This will facilitate consistent sample headspace for all field screening samples, increasing data reliability.

Use of personal protective equipment (e.g., disposable latex or nitrile gloves, eye protection, etc.) and decontamination fluids and equipment should be consistent with AWS SOP-01 and AWS SOP-02.

**CALIBRATION:**

The PID should be field calibrated prior to use at least once per day, at a minimum. Bump testing and/or recalibration should be completed if the accuracy of field data are questioned by the operator, or if the duration of field activities following initial calibration exceeds 8 hours.

In an upwind or otherwise vapor-free atmosphere, turn the instrument on and initiate the calibration procedure per the manufacturer's instructions. Ensure the calibration span setting in the instrument matches that of the calibration gas. The calibration span gas utilized for field screening of total VOCs at petroleum release investigation projects is 100 parts per million (ppm) isobutylene in air.

**PROCEDURE:**

Collect soil samples following AWS SOP-02, including labeling of field screening sample containers with the appropriate sample name/identification (ID). Field screening samples are often collected from the same locations as laboratory samples. In such instances, the portions to be containerized for field screening are referred to as field "split" samples.

Ensure field split samples are kept out of direct sunlight, allowing them to warm to approximately 70-80 degrees Fahrenheit (°F) as determined by feel (approximately room temperature). This may be accomplished by placing the sample vessel on the floor board of a running vehicle with the heater turned on. In this scenario, caution should be used to avoid exposing vehicle occupants to VOCs (roll-down windows to provide cross-ventilation). To ensure data precision, warm all samples for a given project to approximately the same temperature over approximately the same amount of time, if practicable.

Attach the sample probe to the PID and allow the instrument to complete its warm-up cycle, if necessary. Opening the sample vessel as little as possible, insert the probe into the "headspace" of the sample vessel. This can be accomplished by opening the zip-top plastic bag enclosure approximately ¼-inch or by poking the probe through the foil jar cover. In either instance, avoid inserting the sample probe directly into the soil. Samples should be analyzed in order of assumed impacts, beginning with the samples inferred to be least impacted and finishing with the samples inferred to be most-impacted.

Continually observe the instrument readout and record the highest concentration (or use the instruments "Max" function, if available, taking care to reset the instrument's "Max" value after each sample reading). Sample name/ID and observed total VOC concentrations should be recorded in a way to facilitate preparation of an overall soil sample and field screening data summary for the project.

Heated and analyzed soil samples must never be containerized for laboratory analysis. Laboratory samples must be split from the original sample and containerized and preserved separately, immediately following collection. Alternatively, laboratory samples may be collected and containerized separately following completion of field analyses.

**MAINTENANCE:**

The instrument should always be stored in the case provided by the manufacturer when not in use. Maintenance and storage of the instrument and batteries should be conducted in accordance with the manufacturer's recommendations.

Periodic instrument maintenance should be completed as recommended by the manufacturer, including occasional partial disassembly and removal, cleaning, or replacement of in-line filters and or lamps. Other failed components should be replaced as necessary as well. Some maintenance may need to be completed by the manufacturer or authorized service center.

# STANDARD OPERATING PROCEDURE

## Field Measurement of Depth to Groundwater

**AWS SOP-04**

**EQUIPMENT:**

- Electric Water Level Indicator (well probe)
- Electronic Oil-Water Interface Probe (interface probe)
- Extra batteries
- Field sampling forms
- Decontamination equipment

**CALIBRATION:**

The well probe and interface probe should be checked annually at a minimum, or more frequently as needed, for proper operation prior to completing field activities. The well probe should be checked by lowering the probe into a cup of clean water and confirming the probe's proper response. The interface probe should be checked by lowering the probe into a cup containing both vegetable oil and clean water, and where the oil and water have had time to separate into two distinct layers, and confirming the probe's proper response to each layer.

**GENERAL:**

Measure the depth to water in all wells , using the well probe, from the north quadrant of the top of the well casing or from a designated measuring point, as appropriate. Measure and record vertical distance from measuring point to ground level (unless measuring point has been surveyed for elevation). Make sure the measuring point is labeled or marked on the well casing so future measurements can be made from the same location. Obtain a depth to water from the established measuring point to the nearest hundredth of a foot. Record data on appropriate field forms.

Decontaminate the well probe between each well in accordance with AWS SOP-01 and/or the project-specific SAP.

If free-product petroleum is known or suspected to be present in a well, an interface probe should be used to measure the depth to water and thickness of free product in the well.

Using the interface probe, measure the depth to the top of free-product below the designated measuring point. Continue to lower the probe until the bottom of the product/top of groundwater interface is reached. Record both measurements on field forms. Product thickness can be calculated by subtracting the depth to the top of free-product measurement from the depth to groundwater/free-product interface measurement.

Decontaminate the interface probe between each well in accordance with the AWS SOP-01 and/or the project-specific SAP.

# STANDARD OPERATING PROCEDURE

**Monitoring Well Development**

**AWS SOP-05**

**EQUIPMENT:**

- 5-gallon bucket graduated in quarter gallons
- Electric Oil-Water Interface Probe (interface probe)
- Bailer(s)
- Disposable bailer rope or reusable Teflon cable on a reel
- Field forms
- Decontamination equipment

**GENERAL:**

Groundwater will be allowed to equilibrate in the new monitoring well for several days before development. Immediately prior to initiation of development activities, depth to water (DTW) will be measured relative to the previously established measuring point using an interface probe, in accordance with AWS SOP-04 and/or the project-specific SAP. DTW data will be recorded on field forms and will be used to calculate the casing water volume for well development purposes.

A new, disposable, polyethylene bailer will be used to develop the new well. A surge and bail technique will be used to remove sediment from the filter pack. Bailed water and sediment will be contained in a graduated 5-gallon bucket and DTW measurements will be intermittently collected after bailing events to monitor infiltration of groundwater into the well. If sufficient groundwater infiltration to the well occurs, development will continue until purge water turbidity is visibly decreased, or until 10 casing volumes of water have been evacuated. Following development of the well, the post-development DTW will be measured. DTW measurements, purge volumes, and visual observations (qualitative turbidity descriptions) will be recorded on a field form.

If free product petroleum is present in the new well, it will not be developed. In this instance, the thickness of the free product layer would be measured with the interface probe and the measurement recorded on a field form. If the interface probe measurement is inconsistent or if the interface probe is unavailable, an approximate measurement of visible product thickness will be determined using a bailer and tape measure. Recovery, sampling, and analysis of free product petroleum will not be performed under this scope of work.

If specified in the SAP to be completed during the evacuation process, collect water samples for field determinations of temperature, specific conductivity, and pH. Continue developing the well until field parameters stabilize to within ±5% on 3 consecutive measurements. Report field observations and volume of water removed on the field forms.

Dispose purge water in accordance with AWS SOP-56.

# STANDARD OPERATING PROCEDURE

**Groundwater Sampling**

**AWS SOP-06**

**EQUIPMENT:**

- 5-gallon bucket graduated in gallons
- Low-flow cell or 12-ounce glass jar
- Hydrogen potential (pH) and temperature meter
- Specific conductance (SC) meter
- Dissolved oxygen (DO) meter
- Oxidation/reduction potential (ORP) meter
- Turbidity meter
- Coolers and ice
- Sample bottles
- Sampling pump – Peristaltic or Bladder-type with controller and compressor
- Disposable bladders (if using bladder pump)
- Disposable tubing
- Bailer(s)
- Bailer rope or Teflon cable reel
- Preservatives
- Disposable in-line filters or filter apparatus with filter media
- Field sampling forms
- Decontamination equipment and indelible marker
- Fluids
- Stopwatch
- Electronic Oil-Water Interface Probe (interface probe)
- Graduated vessel

**MAINTENANCE:**

All equipment should be inspected for damage and proper functionality (including battery charge) prior to use in the field. Unstable or "drifting" measurement readouts may be indicative of damaged probes/sensors, especially if the problem persists following recalibration. Damaged or improperly functioning equipment should be repaired or replaced as appropriate.

All meters, probes, pumps, sampling equipment, and sample vessels should be decontaminated in accordance with AWS SOP- 01 and following completion of sampling.

**CALIBRATION:**

Instruction manuals should always be kept with meters, especially sections pertaining to calibration and trouble shooting. Keep spare batteries with each meter. Calibration fluids appropriate for the anticipated sample ranges (pH 4.01 buffer solutions for acidic samples) should be kept with meters and should not be used if marked expiration dates have been exceeded. Several small sample vessels should be kept with meters for calibration and sample analyses.

Calibration of individual meters will vary; calibration should always be performed in accordance with the manufacturer's recommendations. In general, most meters should be calibrated at the beginning of each field day, at a minimum. Additional calibrations may be necessary if meter readings become questionable. Performance of "bump testing" to

determine whether meters are within acceptable calibration ranges is advisable for sampling events longer than approximately 6 hours.

DO meters calibrate with barometric pressure. ORP and SC meters may only require periodic calibration using calibration solutions appropriate for the anticipated sample ranges. Two or three-point calibration is advisable for most pH meters; for two-point calibrations, consideration should be given to the anticipated sample range. Turbidity meters use four standards for calibration (800 NTU, 100 NTU, 20 NTU, and 0.02 NTU), if 20, 100, or 800 NTU drifts more than 10% the solution needs to be replaced. Temperature sensors for most meters do not require calibration.

**PROCEDURE:**

AWS will complete groundwater sampling in accordance with the procedures presented below. Where applicable, groundwater sampling procedures will also be completed in accordance with the current version of DEQ's *Groundwater Sampling Guidance.*

**Initial Measurements -** Begin by determining the depth-to-water (DTW) in accordance with the AWS SOP-04, and/or the project-specific SAP. If DO is a desired field analysis, gently lower the DO meter's probe, calibrated per manufacturer's guidelines, to just beyond the DTW observed in the previous step. Once submerged, readings will begin trending in a consistent increasing or decreasing manor, until a transitional point is reached and the initial trend is reversed. This transitional point should be recorded on the appropriate sampling form as the pre-purge DO.

**Well Purging -** Purging must be performed on all wells prior to sample collection. Well purging will be accomplished using a peristaltic pump, bladder pump, or with a disposable polyethylene bailer. The specific purging method shall be chosen based on the following: DTW; diameter of well; existing well configuration; contaminant(s) of concern; and/or, the project-specific SAP. Sampling is generally not conducted when free product (e.g., light non-aqueous phase liquid, or LNAPL) is present.

Where pumping methods are used, field water quality indicators (WQIs) will be observed and recorded in approximate five-minute intervals. Evacuation of fluids will continue until DO, pH, SC, ORP, and turbidity readings stabilize. Stabilized readings will include changes of no more than 0.1 standard unit (su) for pH and no more than 3 percent (%) for SC, no more than 10 percent (%) for DO and turbidity, and 10 millivolts (mV) for ORP.

Where bailer methods are used, purging should remove at least three (3) casing volumes of fluid from the well and until stabilized WQIs are achieved. The following equation is used to calculate well casing volume in gallons:

$$V = 3.14 \times (r^2) \times h \times 7.48$$

Where: V = volume (gallons)
r = well radius (feet)
h = height of water column in well (feet)

The radius of the well pack will be used for the well radius (r) for calculating volumes. For example, a 2-inch diameter PVC monitoring well installed in a 6-inch diameter borehole with sand filter pack would use a well radius of 3 inches or 0.25 feet.

The height of the water column (h) is calculated as the total well depth minus the DTW measurement for the well.

WQIs will be observed during bailing of each well, if feasible. Stabilized readings will include changes of no more than 0.1 su for pH, no more than 3% for SC, no more than 10% for DO or turbidity, and no more than 10 mV for ORP. If WQIs have not stabilized after five (5) casing volumes have been evacuated, it is at the discretion of the AWS field technician whether to collect a sample or to continue purging.

The actual pumping duration and/or volume of water purged from the well, along with the WQI readings, must be recorded on appropriate sampling forms for all methods of purging.

Wells with documented or expected low yield/slow recovery may require sample collection without prior purging due to limited available water volume.

If the recovery of a low-yield well exceeds 2 hours after purging, a sample shall be extracted as soon as sufficient volume is available in the well. At no time will a monitoring well be pumped dry if the recharge rate causes formation water to cascade down interior portions of the well casing, causing an accelerated loss of volatile organics and change in pH.

**General Well Sampling -** Wells must be sampled from the least contaminated to the most contaminated, if known. Open well and measure DTW in accordance with the AWS SOP-04. Decontaminate all sampling/down-well equipment in accordance with the AWS SOP-01. Use disposable nitrile gloves throughout decontamination and sampling procedures and use new gloves for each sampling point.

The actual pumping duration and/or volume of water removed from the well, along with all WQI readings, must be recorded on appropriate sampling forms for all methods of sampling.

**Low-Flow Method -** The goal of low flow purging and sampling is to collect water samples that reflect the total mobile organic and inorganic loads transported through the subsurface under ambient flow conditions, with minimal physical and chemical alterations from sampling operations. During this procedure, emphasis is placed on minimizing hydraulic stress at the well-aquifer interface by maintaining low water-level drawdowns, and by using low pumping rates during purging and sampling operations.

WQIs are monitored during purging to identify stabilized conditions to determine when sample collection may begin. Stabilized readings will include changes of no more than 0.1 su for pH, no more than 3% for SC, no more than 10% for DO or turbidity, and no more than 10 mV for ORP.

The low-flow method should be implemented with a positive-lift pump (e.g., peristaltic or bladder pump). The pump intake should be located within the well-screen interval and at a depth that will remain under water at all times. It is recommended that the intake depth and pumping rate remain the same for all sampling events. The following equation is used to calculate the pump intake depth or sampling depth:

$$SD = DTW + [(TD - DTW) \div 3]$$

Where: SD = Sampling depth (feet)
DTW = Depth to water (feet)
TD = Total well depth (feet)

Note this equation places the pump intake in the upper one-third of the water column and should be modified to sample from deeper depths, accordingly (e.g., if wanting to sample from the middle of the water column, replace the value of 3 with 2 in the equation).

The low-flow cell should be set up over the 5-gallon bucket so that the pump tubing discharge flows into the cell and overflows into the bucket. The pH, temperature, SC, and ORP (if used) meters should be set up to monitor water quality in the low-flow cell during purging and sampling.

Disposable tubing should be cut to a length that extends from the down-well bladder pump, or sampling depth for peristaltic pump, to the low-flow cell discharge point.

DTW should be measured before installing the pump and continuously recorded during purging at consistent intervals (e.g., 5 or 10 minutes). Pumping rates should, as needed, be reduced to the minimum capabilities of the pump to ensure drawdown of less than 0.3 foot or stabilization of the water level. If the minimal drawdown that can be achieved exceeds 0.3 foot, but remains stable, continue purging until the three (3) casing volumes are removed and/or water quality parameters stabilize.

The final purge volume must be greater than the stabilized drawdown volume plus the pump's tubing volume. If the drawdown has exceeded 0.3 foot and WQIs have stabilized, calculate the volume of water between the initial water level and the stabilized water level. Add the volume of the water which occupies the pump's tubing to this calculation. This combined volume of water needs to be purged from the well after the water level has stabilized before samples are collected.

**Bailer Method –** Removal of water from the well by bailing will be accomplished using a new, disposable, polypropylene (or other material specified in the SAP), bailer and a spool of polypropylene rope or equivalent bailer cord (e.g., Teflon-coated stainless-steel cable). The length of the bailer and cord should be sufficient for the bailer intake to reach the middle of the well-screen section, and to allow evacuation of water from the lower one-third of the well casing, if needed.

Bailing should be a semi-continuous procedure of removing water from the upper one-half of the water column. Care should be taken not to disturb sediment in the bottom of the well.

Bailed water should be gently poured into a decontaminated, 12-ounce glass jar equipped with pH, temperature, SC, and ORP (if used) meters to monitor water quality. Bailing will continue until the purging requirements stated previously are achieved.

**Domestic Well Sampling –** If an active domestic or irrigation well needs to be sampled, then the water needs to be initially purged. First, the total volume of water in the well casing is calculated using equation provided on Page 2 of this SOP. Thereafter, a minimum of three (3) casing volumes of water should be evacuated from the well prior to sampling.

Well purging should be accomplished by opening a faucet connected to the well pump. A faucet location should be selected as close to the well pump as possible. The faucet shall not be located after water treatment systems such as softeners or filtration units.

Flow from the faucet should be measured using a graduated vessel and stopwatch. Several measurements should be taken to monitor possible changing flows during the purging procedure.

If desired, WQIs may be monitored in the discharged fluid during the well purging.

**Collecting Water Samples -** Label each sample container with project number, sample location, well owner, date, time, sampler's initials, preservative, and analysis required. Wear new disposable nitrile gloves immediately prior to obtaining the sample.

For low-flow samples, several inches should be cut from the end of the sample effluent tubing (i.e., removing the portion in contact with the flow-through monitoring cell) before collecting water samples. A disposable in-line filter should be attached to the cut end of the tubing, as needed, prior to collection of filtered samples.

For domestic well sampling, pump flow should be reduced so that a constant minimal flow is achieved from the faucet. Samples should be collected directly from the faucet and not through rubber hoses. Filtered samples may be obtained by using a filter apparatus fitted with new filter media.

When using a bailer, take care to minimize degassing or contamination of the sample by submerging and withdrawing the bailer slowly to avoid splashing. Do not place the bailer on the ground. Filtered samples may be obtained by using a filter apparatus fitted with new filter media.

Add preservatives to the sample container prior to sample collection. Remove water from the well and transfer sample water directly into sample bottles (using an in-line filter or filter apparatus, as necessary), maintaining a slow linear flow with as little agitation as possible.

For volatile analyses, fill vials at the rate of about 100 milliliters per minute (24 seconds for 40 mL vial) or less. Fill each sample vial completely so the water forms a convex meniscus at the top to ensure no air space exists in the vial after it has been capped. After filling, immediately cap, invert, and gently tap the vial to check for trapped air. If air bubbles are present, un-cap vial, add more sample water and repeat procedure. If air bubbles continue to be present after repeated filling attempts, cap the vial, keep for laboratory analyses, and note the condition on the field form.

For inorganics samples not requiring preservatives, rinse sample containers three (3) times with sample water before final collection. Do not rinse containers for organics analysis.

Water samples should be preserved as described in the following table, or in accordance with instructions from the analytical laboratory, if different:

| PARAMETER | NUMBER | CONTAINER | PRESERVATION | MAXIMUM HOLDING TIME UNTIL EXTRACTION / ANALYSIS |
|---|---|---|---|---|
| VOCs | 3 | 40 mL glass VOA | 6°C and HCL | 14 days |
| VPH | 2 | 40 mL glass VOA | 6°C and HCL | 14 days for extraction/ 28 days for analysis |
| EPH | 2 | 1000 mL glass bottle | 6°C | 14 days for extraction/ 28 days for analysis |
| SVOCs | 2 | 1000 mL glass bottle | 6°C | 7 days for extraction/ 40 days for analysis |
| Metals | 1-2* | 250 mL plastic bottle | 6°C and $HNO_3$ | 6 months 28 days for mercury |
| Inorganics | 1 | Varies | varies | Varies – contact laboratory |

Notes: VOCs – Volatile Organic Compounds; VPH – Volatile Petroleum Hydrocarbons; EPH – Extractable Petroleum Hydrocarbons; SVOCs – Synthetic Volatile Organic Compounds; mL – milliliter; °C – degrees Celsius; HCL – hydrochloric acid; $HNO_3$ – nitric acid. *Filtered and/or unfiltered.

Dispose purge water in accordance with AWS SOP-56.

Replace well cap and lock (if present) when sampling is complete, and replace all appurtenances on domestic wells (if present prior to work), when sampling is complete.

Prepare all necessary chain-of-custody forms, sampling forms, and other documentation. Package and ship samples in accordance with AWS SOP-08.

# STANDARD OPERATING PROCEDURE

**Sample Packaging and Shipping**

**AWS SOP-08**

## CHAIN-OF-CUSTODY PROCEDURES:

A chain-of-custody (COC) form must be prepared for all samples collected in the field for laboratory analysis. Multiple samples from the same sampling event, relating to a specific single project, may be included on a COC form. Samples from more than one project should not be included on the same COC form. The sampler should use a COC form provided by the laboratory performing sample analyses.

Completed COC forms must be maintained from the time of sample collection until the time of sample delivery to the analytical laboratory. The completed COC form should accompany the samples through analysis and final disposition. A copy(ies) of the COC form(s) should be maintained in the project file.

Information to be included on the COC form will include, but is not limited to:

- Project number / name
- Sampler's name and signature
- Date and time of sample collection, per sample
- Unique sample name/identification (ID)
- Number of containers per sample
- Sample media (e.g., soil, water, vapor)
- Sample preservative (if applicable)
- Requested analysis(es)
- Comments or special instructions to the laboratory

All samples must be assigned unique sample names/IDs. The information on the COC form, including the ID for a specific sample, must correspond to the information recorded by the sampler on the field forms, and the sample ID label on the sample container, for the respective sample.

A sample is considered under a person's control when it is in their possession. When custody of a sample is relinquished by the sampler, the sampler will sign and date the COC form and note the time that custody was relinquished. The person receiving custody of the sample will also sign and date the form and note the time that the sample was accepted into custody. The goal is to provide a complete record of control of the samples. Should the chain be broken (signed by the relinquisher, but not receiver, or vice versa), the integrity of the sample is lost and the reliability of the resulting analytical data may be degraded.

Samples must be packaged and shipped (or directly transported) to the laboratory following the procedures described below. If an overnight shipping service is used to transport the samples to the laboratory, custody of the samples must be relinquished to the shipping service. If possible, have the shipping service sign the COC form prior to placing the COC form in the sample cooler. If this is not possible (i.e., form placed in sealed cooler), a note should be included on the COC that the shipping company will receive the samples with the COC form inside the sample container.

## PACKAGING:

All environmental samples should be packaged and shipped using the following procedures:

- Label all sample containers with indelible ink (on the side of the container, not on the cap or lid).
- Place labeled sample containers in a sturdy outer shipping box or cooler. When samples must remain refrigerated, use a well-insulated cooler containing an adequate amount of ice, making sure the cooler drain plug is taped shut (if applicable). Water ice should be used whenever feasible. Use of dry ice is more likely to result in freezing of samples, and use of reusable (e.g., "blue") ice packs is likely to result in samples exceeding the allowable temperature range.
- Place soil and water sample containers in an upright position and wrap the containers with cushioning material for stability during transport. Samples should not be loose; the cooler and packed samples should be able to withstand rough handling during shipment without sample container breakage. If feasible, all sample containers and ice bags should be placed inside at least 1 heavy plastic bag, inside the cooler. The top of the outer bag should be twisted and taped in a "goose neck" fashion to help prevent leaks. It is advisable to place absorbent materials in the outer bag when liquids (including water ice) will be shipped.
- Fill out the appropriate shipping forms and place the paperwork in a Ziploc® bag (or equivalent) and tape it to the inside lid of the shipping container. Shipping forms usually include: 1) a COC form, documenting the samples included in the shipment; 2) an analysis request form, specifying the laboratory analyses for each sample (these are usually on the same form but may be separate).
- If more than one cooler is used per COC, put a photocopy in each of the additional coolers and mark them as a copy. Clearly identify on the COC (and copies) the total number of coolers included in the sample group.
- Complete and apply a custody seal to the exterior of each cooler where the lid meets the cooler container. Close and seal the cooler using clear packing tape. Secure the shipment label with address, phone number and return address clearly visible.

**SHIPPING HAZARDOUS MATERIALS / WASTE:**

Hazardous materials need to be shipped using procedures specified under Federal Law.

Transportation regulations for shipping of hazardous substances and dangerous goods are defined by the U.S. DOT in 49 CFR, Subchapter C, Part 171 (October 1, 1988); IATA and ICAO. These regulations are accepted by Federal Express and other ground and air carriers.

According to U.S. DOT regulations, environmental samples are classified as Other Regulated Substances (ORS). ORS are articles, samples, or materials that are suspected or known to contain contaminants and/or are capable of posing a risk to health, safety, or property when transported by ground or air. Samples, substances, or materials from sources other than material drums, leachate streams, and sludges should be considered as ORS or environmental samples. Materials shipped under the classification of ORS must not meet any of the following definitions:

- Class 1: explosives
- Class 2: gases (compressed, liquefied, dissolved under pressure, or refrigerated)
- Class 3: flammable liquids
- Class 4: substances susceptible to spontaneous combustion

- Class 5: oxidizing substances
- Class 6: poisonous (toxic and infectious)
- Class 7: radioactive materials
- Class 8: corrosives.

Coordinate special shipping or direct-delivery arrangements with the Project Manager for samples meeting any of the definitions above.

# STANDARD OPERATING PROCEDURE

**Disposal of Investigation-Derived Waste**

**AWS SOP-56**

**EQUIPMENT:**

- Disposal drums (typically steel)
- Adjustable wrench, end wrench, or ratchet/socket for drum lids
- Buckets
- Funnels
- Plastic sheeting (typically 6-mil or heavier)
- Utility knife or scissors
- Shovels (flat, spade, etc.)
- Plastic garbage bags

**SOLID WASTE:**

Solid investigation-derived waste (IDW) generally includes small quantities of soil generated from drilling or test pit excavations. Larger quantities of waste generated from remedial actions are excluded from this SOP.

Soil cuttings are typically placed back in the holes from which they originated, thereby negating the need for disposal. Similarly, if drill or test pit cuttings do not demonstrate evidence of contamination, as determined through visual or olfactory observations, or through field analysis of total volatile organic compounds (VOC; see AWS SOP-03), the cuttings may instead be spread on unpaved areas of the site. In such instances, coordinate with project stakeholders (e.g., the client, site owner, regulatory personnel, etc.) to determine acceptable areas for placement.

Cuttings which demonstrate evidence of contamination must be transported to an appropriate solid waste disposal facility, such as a licensed landfill or permitted land farm. Characterization of cuttings waste should be completed in accordance with the requirements of the disposal facility selected for the project, as requirements often vary by facility.

Contaminated cuttings may be temporarily stored at the site in steel drums, or stockpiled on paved surfaces or plastic sheeting, when characterization has been completed in advance. Care should be taken to limit the potential for runoff of contaminant from uncovered stockpiles in the event of a precipitation event. For example, berms under plastic sheeting around the perimeter of the stockpile will help prevent runoff. In any case, stockpiled cuttings should be loaded and transported for disposal as quickly as feasible.

Alternatively, when advanced characterization is not feasible, the cuttings may be placed in steel drums and temporarily stored at the site. In some cases, temporary storage of stockpiled soil may be required, in which case stockpiles should be placed on and covered by plastic sheeting, with covered berms utilized as appropriate to limit the potential for runoff of contaminant. Coordinate the temporary storage approach and locations with project

stakeholders, and complete waste characterization, transport, and disposal as promptly as feasible.

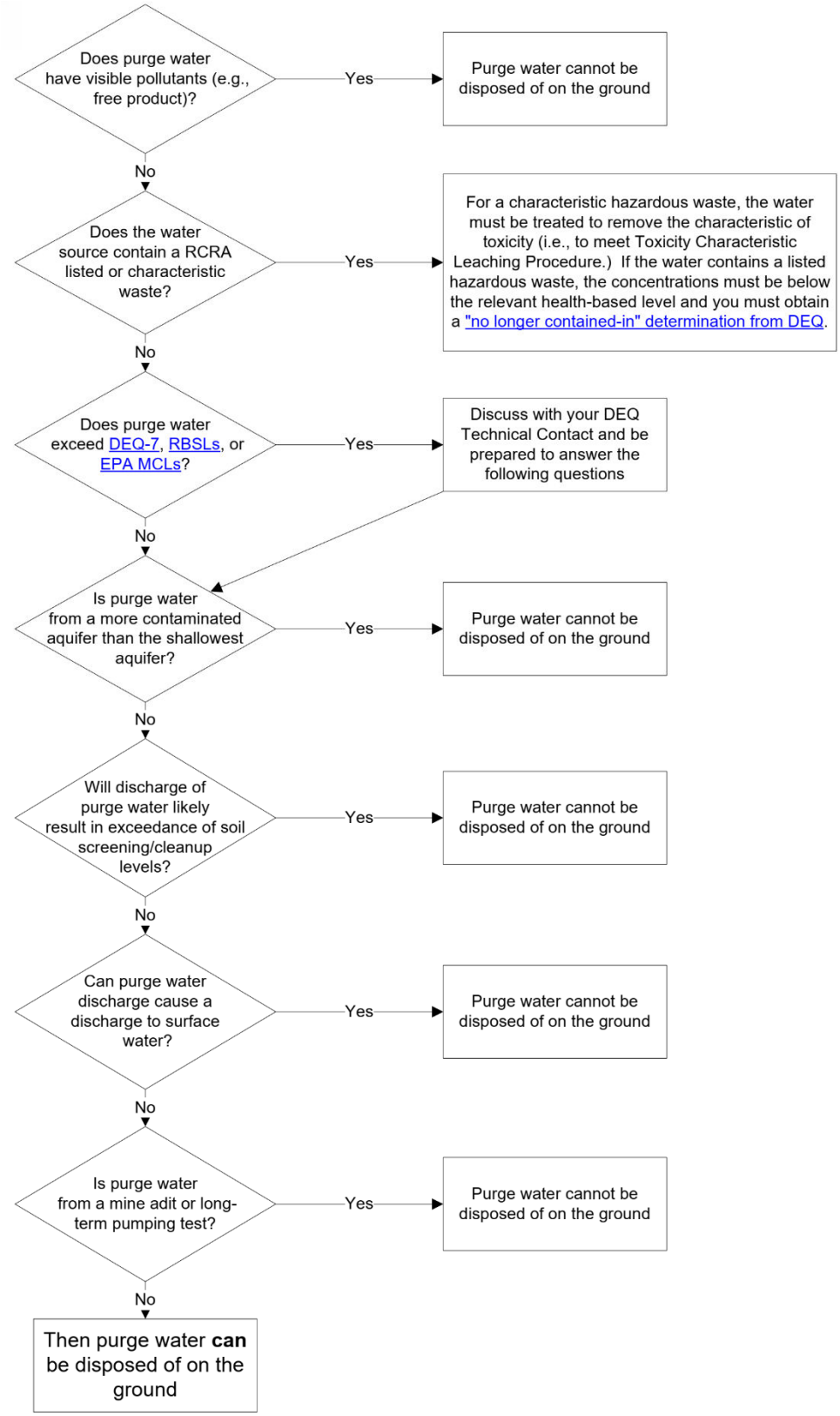
General trash and personal protective equipment waste shall be cleansed of any gross contaminated soil accumulation and shall be placed in plastic garbage bags and properly disposed at a licensed solid waste disposal facility.

**LIQUIDS:**

Liquid IDW includes purge water generated during well development and groundwater monitoring activities. Purge water shall be assessed in accordance with the Montana Department of Environmental Quality (DEQ) flow chart provided below.

Purge water assessed via the DEQ flow chart and determined not to contain known contaminants may be spread on the ground surface near the source well or boring. Where feasible, such purge water will be surface applied on paved surfaces. Purge water shall not be poured into storm water inlets, sewer manholes, natural drainages, or surface water bodies.

Purge water which is assessed via the DEQ flow chart and is determined to be contaminated shall be contained in drums and disposed at a licensed liquid waste disposal facility in accordance with that facility's disposal requirements. Alternatively, options for disposal of contaminated purge water may be discussed with DEQ in accordance with the flow chart on the following page. Temporary on-site storage of liquid waste in drums should be coordinated with project stakeholders. Characterization of liquid waste should be completed in accordance with the requirements of the disposal facility selected for the project, as requirements often vary by facility. Waste characterization and disposal should be completed as quickly as feasible.


Does purge water have visible pollutants (e.g., free product)?
Yes
Purge water cannot be disposed of on the ground
No
Does the water source contain a RCRA listed or characteristic waste?
Yes
For a characteristic hazardous waste, the water must be treated to remove the characteristic of toxicity (i.e., to meet Toxicity Characteristic Leaching Procedure.) If the water contains a listed hazardous waste, the concentrations must be below the relevant health-based level and you must obtain a "no longer contained-in" determination from DEQ.
No
Does purge water exceed DEQ-7, RBSLs, or EPA MCLs?
Yes
Discuss with your DEQ Technical Contact and be prepared to answer the following questions
No
Is purge water from a more contaminated aquifer than the shallowest aquifer?
Yes
Purge water cannot be disposed of on the ground
No
Will discharge of purge water likely result in exceedance of soil screening/cleanup levels?
Yes
Purge water cannot be disposed of on the ground
No
Can purge water discharge cause a discharge to surface water?
Yes
Purge water cannot be disposed of on the ground
No
Is purge water from a mine adit or long-term pumping test?
Yes
Purge water cannot be disposed of on the ground
No
Then purge water **can** be disposed of on the ground

# ATTACHMENT C

## Groundwater Monitoring Analytical Plan

AIR WATER SOIL

# GROUNDWATER MONITORING ANALYTICAL PLAN

**Work Plan for 2025 Remedial Investigation**
**Former Bundtrock's Miracle Mile**
**DEQ Facility 07-06613 (TID 18632); Release 1865; WPID 35014**

| Wells | Depth to Water (DTW) | Volatile Petroleum Hydrocarbons (VPH) *(MT VPH Method)* | Extractable Petroleum Hydrocarbons (EPH) Screen *(MT EPH Method)* | EPH Fractions *(MT EPH Method)* | 1,2-dichloroethane (DCA) *(Method 8260B)* | Ethylene Dibromide (EDB) *(Method 8011)* | Alkalinity *(Method A2320B)* | Dissolved Methane *(Method SW8015M)* | Sulfates *(Method E300.0)* | Sulfides *(Method A4500-SF)* | Nitrogen, Nitrate + Nitrite *(Method E353.2)* | Dissolved + Total Iron and Manganese *(Methods E200.7/E200.8)* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Event #1:** | **Schedule TBD, pending well installation and development.** | | | | | | | | | | | |
| MW-1 | ✓ | ✓ | -- | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| MW-2 | ✓ | ✓ | -- | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| MW-3 | ✓ | ✓ | -- | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| MW-4 | ✓ | ✓ | -- | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| MW-5 | ✓ | ✓ | -- | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| MW-6 | ✓ | ✓ | -- | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| MW-7 | ✓ | ✓ | -- | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| MW-8 | ✓ | ✓ | -- | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| GP-17 | ✓ | ✓ | -- | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| GP-18 | ✓ | ✓ | -- | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| GP-19 | ✓ | ✓ | -- | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| *MW-9* | ✓ | ✓ | -- | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| *MW-10* | ✓ | ✓ | -- | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| *MW-11* | ✓ | ✓ | -- | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| *MW-12* | ✓ | ✓ | -- | -- | ✓ | -- | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Duplicate | -- | ✓ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Notes:

MW-## / GP-## Existing monitoring wells are shown in black text.

*MW-##* Planned new monitoring wells are shown in brown italic text.

EPH EPH screen and fraction analyses have been removed from the groundwater monitoring analytical plan based on available historic and recent analytical data for samples collected from monitoring wells throughout the site well network.

EDB EDB analysis has been removed from the groundwater monitoring analytical plan based on available historic and recent analytical data for samples collected from monitoring wells throughout the site well network.

AIR WATER SOIL

# ATTACHMENT D

## Cost Estimate

# Petroleum Tank Release Compensation Board

## Soil Boring/Monitoring Well Installation Unit Cost Worksheet

**Contractor Information**

Company Name: Boland Drilling
Address: 4701 N Star Blvd
City, State, Zip: Great Falls, MT 59405
Cost Estimator: Chris Boland Phone: 406-761-1063
Signature: Chris Boland Date: mo/day/year 3/24/2025

**Project Information and Specifications**

Former Bundtrocks Miracle Mile
6221 2nd Avenue North
Great Falls, MT 59405

Facility ID # 07-06613
Release # 1865
WP ID # 35014

**Type of Drilling Equipment**

| | |
|---|---|
| Hollow-Stem Augers | x |
| Air Rotary | |
| Direct Push | |
| Other (please specify) | |

**Soil Boring**

| | |
|---|---|
| Number of Borings | 6 |
| Boring Diameter (inches) | 8 |
| Depth (per boring - ft) | 15' & 30' |

Surface: Concrete Asphalt Barren
Soil Disposal: Onsite Stockpile Drums
Abandonment: Bentonite Soil Cuttings

**Soil Sampling**

| | |
|---|---|
| Continuous Soil Sampling | x |
| Interval Soil Sampling (specify interval) | |
| No Sampling | |

**Monitoring Well Specifications**

| | |
|---|---|
| Number of Wells | 4 |
| Surface: Concrete Asphalt Barren | |
| Depth (per well) | 15 |
| Estimated Depth to Groundwater (ft) | |
| Boring Diameter (inches) | 8 |
| Casing Diameter and type (inches) | 2" pvc |
| Surface Completion: Flush Mount Aboveground | |

**Cost Estimate Explanation:**

(1) Mobilization/Demobilization: Includes all costs and mileage to transport equipment, materials, and personnel to and from the site location. More than one mobilization event of either the drilling rig or support vehicle will require justification and pre-approval by the DEQ-PRS and Board staffs. This item should be estimated on a per mile unit rate

(2) Soil Boring Installation: Includes all costs (labor, equipment, and materials) to drill, collect soil samples and abandon soil borings, as well as decontaminate equipment. Drilling costs should be estimated using a per foot unit rate. Unit cost should include handling of contaminated soil by stockpiling or placing in drums. Assume level "C" personal protective equipment.

(3) Monitoring Well Installation: Includes all costs (labor, equipment, and materials) to drill, collect soil samples, and complete monitoring well to specifications and according to Montana Well Drillers Board rules, as well as decontaminate equipment. Drilling costs should be estimated using a per foot unit rate. Unit cost should include handling of contaminated soil by stockpiling or placing in drums. Assume level "C" personal protective equipment.

(4) Drilling Standy: Drilling standby should be estimated on an hourly basis. Prior approval and justification for accumulating standby time is needed prior to billing.

(5) Well Development: Includes all costs (labor, equipment, and materials) to develop monitoring wells. This task should be estimated using a per well unit rate.

(6) Monitoring Well Abandonment: Includes all costs (labor, equipment, and materials) to properly abandon a well location according to the Montana Well Drillers Board rules. Abandonment costs should be estimated using a per well unit rate.

# Soil Boring/Monitoring Well Installation Unit Cost Worksheet

| TASK | | UNIT COST | | NUMBER OF UNITS | TOTAL COST |
|---|---|---|---|---|---|
| **Mobilization/Demobilization** (1) | | | | | |
| Mobilization/Demobilization: Drilling Rig | $ | 25.00 | /mile | 10 | $ 250.00 |
| Mobilization/Demobilization: Support Vehicle | $ | 20.00 | /mile | 10 | $ 200.00 |
| **Soil Boring Installation** (2) | | | | | |
| Drilling (0'-50' range per boring) | $ | 48.00 | /foot | 105 | $ 5,040.00 |
| Drilling (50'-100' range per boring) | | | /foot | | $ - |
| Other (please specify) _____ | | | | | $ - |
| **Monitoring Well Installation** (3) | | | | | |
| Drilling (0'-50' range per well) | $ | 48.00 | /foot | 60 | $ 2,880.00 |
| Drilling (50'-100' range per well) | | | /foot | | $ - |
| Other (please specify) _____ | | | | | $ - |
| **Drilling Standby** (4) | | | | | |
| -prior approval needed | $ | 150.00 | /hour | 0 | $ - |
| **Well Development** (5) | | | | | |
| Well Development | $150 | | /hour | | $ - |
| **Monitoring Well Abandonment** (6) | | | | | |
| Abandonment | $ | 300.00 | /well | 0 | $ - |
| **Lodging may only be paid at actual costs when documented by receipts.** | | | | | |
| **Per Diem** | | | | | |
| Lodging: number of individuals = | 2 | $ 225.00 | /person per day | 0 | $ - |
| Food: number of individuals = | 2 | $ 30.50 | /person per day | 0 | $ - |
| | | | **TOTAL PROJECT EXPENSE** | | **$ 8,370.00** |
| D.O.T. Drums | $120 | | | 6 | $ 720.00 |

Additional Conditions/Comments/Costs:

Drill 6 soil borings (5 -15' & 1-30'), construct 4 monitor wells (2") to 15' each at the Former Bundtrocks Miracle Mile in Great Falls, MT.

If you require assistance, call 406-841-5090.

Submit completed form to:

Petroleum Tank Release Compensation Board PO Box 200902, Helena MT 59620-0902

## Scott Vosen

**From:** Stephen Hansen <hansenps@nemont.net>
**Sent:** Wednesday, March 19, 2025 7:36 PM
**To:** Scott Vosen
**Subject:** RE: Request for Proposal - Former Bundtrock's Miracle Mile - Great Falls

Scott:

No Bid.

Thanks,

Steve Hansen

> On 03/19/2025 2:11 PM MDT Scott Vosen <scott@airwatersoil.com> wrote:
>
> All:
>
> We have revised our planned drilling scope of work for the upcoming remedial investigation at the *Former Bundtrock's Miracle Mile* petroleum release site. Accordingly, I have prepared the attached *Revision 1* version of our drilling RFP for your review and consideration. The attached *Revision 1* document replaces the original.
>
> Please give me a call with any questions.
>
> Thank you.
>
> **J. Scott Vosen**
>
> Principal - Air Water Soil
>
> 406.315.2201 office | 406.217.3774 mobile

**From:** Scott Vosen
**Sent:** Friday, March 14, 2025 3:15 PM
**Subject:** Request for Proposal - Former Bundtrock's Miracle Mile - Great Falls

All:

Please find the attached *Request for Proposal* for environmental drilling and monitoring well installation, relating to the ***Former Bundtrock's Miracle Mile*** petroleum release property **in Great Falls**, Montana.

The RFP is intended to include sufficient information to facilitate your preparation of a proposal, but please feel free to give me a call if you have any questions or concerns after reviewing the RFP and attachments.

*** If you do not plan to submit a proposal for this work, please let me know that at your earliest convenience. ***

I appreciate your time in reviewing and considering this RFP.

Thank you!

AIR WATER SOIL

**J. Scott Vosen**

*Principal*

406.315.2201 office

406.217.3774 mobile

airwatersoil.com

## Scott Vosen

**From:** Paul Bray <mthaztech@gmail.com>
**Sent:** Wednesday, March 19, 2025 6:44 PM
**To:** Scott Vosen
**Subject:** Re: Request for Proposal - Former Bundtrock's Miracle Mile - Great Falls

Scott,
I am still going to decline to bid on this project. As large as my rig is, it would be difficult to get on some of the boring locations.
Thank You,
Paul

On Wed, Mar 19, 2025 at 9:43 AM Scott Vosen <scott@airwatersoil.com> wrote:

> Paul,
>
> I may need to change up the number and locations of borings/MWs for this project bit. I think the total effort will be similar in the end.
>
> Are you interested in seeing a revised RFP? Or would you still be passing on this project?
>
> **J. Scott Vosen**
>
> Principal - Air Water Soil
>
> 406.315.2201 office | 406.217.3774 mobile
>
> ---
>
> **From:** mthaztech@gmail.com <mthaztech@gmail.com>
> **Sent:** Friday, March 14, 2025 3:19 PM
> **To:** Scott Vosen <scott@airwatersoil.com>
> **Subject:** RE: Request for Proposal - Former Bundtrock's Miracle Mile - Great Falls
>
> Scott,
>
> At this time I am going to decline to bid on this one.

Thanks,

Paul

---

**From:** Scott Vosen <scott@airwatersoil.com>
**Sent:** Friday, March 14, 2025 3:15 PM
**Subject:** Request for Proposal - Former Bundtrock's Miracle Mile - Great Falls

All:

Please find the attached *Request for Proposal* for environmental drilling and monitoring well installation, relating to the ***Former Bundtrock's Miracle Mile*** petroleum release property **in Great Falls**, Montana.

The RFP is intended to include sufficient information to facilitate your preparation of a proposal, but please feel free to give me a call if you have any questions or concerns after reviewing the RFP and attachments.

*** If you do not plan to submit a proposal for this work, please let me know that at your earliest convenience. ***

I appreciate your time in reviewing and considering this RFP.

Thank you!

AIR WATER SOIL

**J. Scott Vosen**

*Principal*

406.315.2201 office

406.217.3774 mobile

airwatersoil.com

# POTEET CONSTRUCTION INC.

**3460 Grant Creek Road**
**Missoula, MT 59808**
**CONTACT GAYLEN BAUMBERGER**
**Phone: Office (406) 728-9370 Cell (406) 830-5076**
**Fax: (406) 721-4165**


Quote to CONTRACTORS

BID DATE: MARCH 2025
PROJECT NAME: AWS
GREAT FALLS

| ITEM | DESCRIPTION | QUANTITY | UNIT | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 1 | MOBILIZATION | 1.00 | LS | 2,250.00 | 2,250.00 |
| 2 | TRAFFIC CONTROL (PER DAY) | 1.00 | DY | 2,500.00 | 2,500.00 |
| 4 | FLAGGING (PER HOUR) | 1.00 | HR | 80.00 | 80.00 |
| **GRAND TOTAL** | | | | | **$4,830.00** |

**NOTES:**

This quote is valid with all items of work quoted for the next 10 days. For exceptions to this call Poteet Construction. All work requires a minimum of 5 days notice for performance.

Traffic control is performed as directed by the Prime Contractor. Any work required that is not paid for by the Owner is to be paid for by the prime contractor at contract prices. Paint Striping, line removal, railroad flagging, or dust control, are not included. Notifications to the public or emergency services are not included. Winter maintenance of traffic control is not included. Prime Contractor will be billed for Traffic Contol devices damaged by the Prime Contractor.

Traffic control is bid per DAY for the Poteet Construction Supervisor,signing and devices. All temporary signing will be set using temporary sign stands. Flag hours or pilot hours will be billed at 8 hours minimum per day. Detour maintenance or any other Traffic Control work not stated above will be at the quoted rates. Message boards and temporary barrier are available but not included in these prices.

This quote and conditions must be incorporated into all corresponding subcontracts. Prices include a bond and liability insurance (no builder's risk, OCP, railroad, watercraft, aircraft, pollutionn or professional liability policies). If bond is not required, call for deduct. Payments are to be per Montana Law 28-2-2103 MCA, no retainage. Permits or TERO FEES are not included.

Work on Sundays or Holidays will be billed at one and a half times the quoted rates.

# CORRESPONDENCE RECORD

**Project:** Bundrock's Miracle Mile **Project No.:** 18016.3

**Call To:** Gaylen Baumberger **Phone No.:** 406.830.5076 m

**Of:** Poteet Construction **Date:** March 24, 2025

**Call From:** JSV **Time:** 11:40am

**Message:**

Called Gaylent to request clarifications regarding the traffic control proposal he emailed earlier today. Left a VM, and he called me back at 12:07pm.

Discussed and confirmed the following:

1) The proposed mobilization fee is a 1-time lump sum, including deliver, setup, and tear-down.

2) The proposed per-day traffic control fee is per day of use, in full-day increments. This is specifically for 2nd Avenue North ("base scope" area). However, if some limited setup is required along Perimeter Road (e.g., road work ahead, a few cones, etc.), that will be included in the listed per-day fee. He anticipates that is all that would be required.

3) The listed fees INCLUDE preparation of the traffic control plan for AWS to submit with the MDT encroachment permit application.

4) He included per-hour pricing (8-hour minimum) for a flagger, just in case. However, he does NOT anticipate that a flagger will be required for this work.

**Signed:**

## Scott Vosen

**From:** Cody Cunningham <cpcunningham12@gmail.com>
**Sent:** Monday, March 24, 2025 7:49 AM
**To:** Scott Vosen
**Subject:** Re: Request for Proposal - Traffic Control Services - Former Bundtrock's Miracle Mile

Scott,

We are not interested in this one.

Thanks for the opportunity.

Cody Cunningham
Mountain West Holding Company

On Mon, Mar 24, 2025, 7:45 AM Scott Vosen <scott@airwatersoil.com> wrote:

> Cody,
>
> I am following up on the email below. I had hoped to visit with you about your potential interest in the project, but I haven't been able to connect via phone.
>
> Please email or give me a call (406.217.3774m) to let me know if you anticipate submitting a proposal for this work, or if you have questions.
>
> Thank you. I appreciate your time.
>
> **J. Scott Vosen**
>
> Principal - Air Water Soil
>
> 406.315.2201 office | 406.217.3774 mobile

# CORRESPONDENCE RECORD

**Project:** 1st Liberty FCU - Miracle Mile **Project No.:** 18016.3

**Call To:** Rhett Hulett **Phone No.:** 406.590.0350

**Of:** M & D Construction **Date:** March 17, 2025

**Call From:** JSV **Time:** 15:10

**Message:**

Called to request a fee proposal to transport and dispose drill cuttings for the Former Bundtrock's Miracle Mile 2025 Additonal RI work.

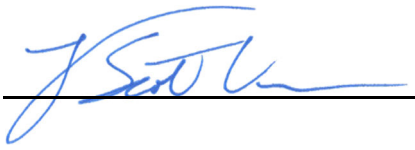
Note I am currently anticipating 6 soil borings to 15'. Calculating a total of ~1.2 CY (in-situ volume), which is expected to be placed in a total of 6 55-gallon drums. The drums will be temporarily stored at the site, pending waste characterization and manifesting. Once that is completed, we would request M&D transport and dispose the drums. The cuttings are expected to contain a mixture of "clean" and petroleum-impacted soil (VPH / EPH analytes).

Disposal would be expected at Republic. AWS would coordinate the characterization and waste profile/manifesting.

The work would potentially be completed during the fall of 2025, pending approvals and funding obligations, etc.

I noted he will need to submit a Form 2 - Assent to Audit and a Form 6 - Acknowledgement of Payment, since this is PTRCB reimbursed.

Rhett said his fixed-fee proposal for all of the above is $1,200.

**Signed:** 

Petroleum Tank Release Compensation Board — Groundwater

# Monitoring and Sampling Unit Cost Worksheet

Cost Estimate Expl. | Work Plan Tasks | Unit Cost Worksheet | Help

**Contractor Information**

| | | | |
|---|---|---|---|
| Company Name: | Air Water Soil, LLC | | |
| Address: | 1321 8th Avenue North, Suite 104 | | |
| City, State, Zip: | Great Falls, Montana 59401 | | |
| Cost Estimator/Print Name: | J. Scott Vosen | Phone: | 406.315.2201 |
| Signature: | | Date: | 3/26/2025 |

**Project Information**

| | | | |
|---|---|---|---|
| Site Name: | Former Bundtrock's Miracle Mile | Facility ID# | 07-06613 |
| Address: | 6221 2nd Avenue North | Release # | 1865 |
| City: | Great Falls, Montana 59401 | WP ID# | 35014 |
| | | Treads ID# | 18632 |

**Monitoring Well Details**

| | |
|---|---|
| 15 | Total Number of Wells at Site |
| 0 | Number of Fluid Level Measurements Only (2) |
| 15 | Number of Wells to be Monitored/Sampled (4-11) |
| 2 | Average Well Casing Diameter (inches) |
| 5 | Average Depth to Groundwater (ft) |
| 15 | Average Depth of Wells (ft) |

**Sampling Method**

- ☑ Low-Flow
- ☐ Low-Flow (Low Yield Aquifer)
- ☐ No Purge
- ☐ Other (please specify)

**# of Events - Monitoring/Sampling Interval**

Estimated Start Date: 6/1/2025

| | |
|---|---|
| | Semi-Annual |
| 1 | Annual |
| | Bi-Annual |
| | Other |

**Sampling Instrument**

- ☑ Peristaltic Pump
- ☐ Bladder Pump
- ☐ Submersible Pump
- ☐ Bailer
- ☐ Other (please specify)

**1 Total Events**

Cost Estimate Expl. | Unit Cost Worksheet | Site Information | Help

# Work Plan Task List

| Task | Total Cost |
|---|---|
| **Work Plan Preparation** | $0.00 |
| **Project Management** | $0.00 |
| **Mobilization/Demobilization** [1] | $0.00 |
| **Fluid Level Measurements** [2] | $0.00 |
| **Groundwater Monitoring** [4-6] | $3,520.50 |
| **Miscellaneous (Groundwater Monitoring Modifiers)** [7-11] | $1,708.72 |
| **Lodging & Per Diem (Lodging - actual only)** | $0.00 |
| **Laboratory Analysis** [12-13] | $0.00 |
| **Report Preparation** [14-17] | $0.00 |
| **Release Closure Plan (RCP) Preparation** [18] | $0.00 |
| | |
| **Other Services** | |
| Miscellaneous () | $0.00 |
| Miscellaneous () | $0.00 |
| | |
| **Monitoring & Sampling Subtotal:** | **$5,229.22** |
| **Additional Costs Subtotal:** | **$0.00** |
| **Grand Total:** | **$5,229.22** |

Cost Estimate Expl. | Site Information | Work Plan Tasks | Help

# Groundwater Monitoring and Sampling Unit Cost Worksheet

| Task | Events | | | | | | | | | | | | Totals | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | | | |
| | Units | Unit Cost | Units | Unit Cost | Units | Unit Cost | Units | Unit Cost | Units | Unit Cost | Units | Unit Cost | Units | Unit Cost | Total Cost |
| **Sampling Frequency** | Annual | | | | | | | | | | | | | | |
| **Work Plan Type** | | | | | | | | | | | | | | | |
| **Work Plan Preparation** | | | | | | | | | | | | | | /work plan | |
| **Project Management** | | | | | | | | | | | | | | /hr | |
| **Mobilization/Demobilization** (1) | | | | | | | | | | | | | | /mile | |
| **Field Work** | | | | | | | | | | | | | | | |
| Fluid Level Measurements (2) | | | | | | | | | | | | | | /well | |
| Groundwater Monitoring Setup (3) | 2 | $110.25 | | | | | | | | | | | 2 | $110.25 /site/day | $220.50 |
| Groundwater Monitoring (<25ft total depth) - Peristaltic (4) | 15 | $220.00 | | | | | | | | | | | 15 | $220.00 /well | $3,300.00 |
| Groundwater Monitoring (<25ft total depth) - Bladder (5) | | | | | | | | | | | | | | /well | |
| Groundwater Monitoring (25-50ft total depth) - Bladder (5) | | | | | | | | | | | | | | /well | |
| Groundwater Monitoring (50-75ft total depth) - Bladder (5) | | | | | | | | | | | | | | /well | |
| Groundwater Monitoring (75-100ft total depth) - Bladder (5) | | | | | | | | | | | | | | /well | |
| Groundwater Monitoring - No Purge (6) | | | | | | | | | | | | | | /well | |
| **Modifiers** | | | | | | | | | | | | | | | |
| Groundwater Monitoring - Low Yield Modifier (7) | | | | | | | | | | | | | | /well | |
| Groundwater Monitoring - IBI Modifier (8) | 15 | $55.12 | | | | | | | | | | | 15 | $55.12 /well | $826.80 |
| Groundwater Monitoring - Filters (9) | 15 | $55.12 | | | | | | | | | | | 15 | $55.12 /filter/well | $826.80 |
| Contaminated Purge Water - Offsite Disposal (10) | | | | | | | | | | | | | | /each | |
| Duplicate Sample Modifier (11) | 1 | $55.12 | | | | | | | | | | | 1 | $55.12 /each | $55.12 |
| **Other Services** | | | | | | | | | | | | | | | |
| Other Service (please specify) | | | | | | | | | | | | | | /each | |
| Other Service (please specify) | | | | | | | | | | | | | | /each | |
| | | | | | | | | | | | | | | | |
| **Lodging & Per Diem (Lodging - actual only)** | | | | | | | | | | | | | | | |
| Lodging: # of people | | | | | | | | | | | | | | /person/night | |
| Food: # of people | | | | | | | | | | | | | | /person/day | |
| (Breafast $7.50, Lunch $8.50, Dinner $14.50) | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| **Laboratory Analysis** (12) | Annual | | | | | | | | | | | | | | |
| Volatile Petroleum Hydrocarbons (VPH) | | | | | | | | | | | | | | /sample | |
| Extractable Petroleum Hydrocarbons (EPH) | | | | | | | | | | | | | | | |
| EPH "screen" | | | | | | | | | | | | | | /sample | |
| EPH "fractions" | | | | | | | | | | | | | | /sample | |
| Polycyclic Aromatic Hydrocarbons (PAHs) | | | | | | | | | | | | | | /sample | |
| Lead Scavengers | | | | | | | | | | | | | | | |
| Ethylene dibromide (EDB) | | | | | | | | | | | | | | /sample | |
| 1,2-Dichloroethane (DCA) | | | | | | | | | | | | | | /sample | |
| Drinking Water - EPA 524.3 | | | | | | | | | | | | | | /sample | |
| Intrinsic Biological Indicator Analyses (IBI) | | | | | | | | | | | | | | /sample | |
| Other Analytical Methods | | | | | | | | | | | | | | /sample | |
| Other Service (please specify) | | | | | | | | | | | | | | /each | |
| PTRCB sampling fee (13) ($10.00 allowed) | | | | | | | | | | | | | | /sample | |
| | | | | | | | | | | | | | | | |
| **Report Preparation** | | | | | | | | | | | | | | | |
| Groundwater Monitoring Report - Type (14-15) | | | | | | | | | | | | | | | |
| Groundwater Monitoring Report - Base Cost (14) | | | | | | | | | | | | | | /report | |
| IBI Modifier (16) | | | | | | | | | | | | | | /event | |
| Additional Wells Modifier (17) | | | | | | | | | | | | | | /event | |
| | | | | | | | | | | | | | | | |
| **Release Closure Plan (RCP) Preparation** (18) | | | | | | | | | | | | | | | |
| Create RCP | | | | | | | | | | | | | | /RCP-C | |
| Update RCP | | | | | | | | | | | | | | /RCP-U | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | **Monitoring & Sampling Subtotal:** | **$5,229.22** |

**Additional Conditions/Comments/Costs:**

| | |
|---|---|
| | |
| **Additional Costs Subtotal:** | |
| **Grand Total:** | **$5,229.22** |

If you require assistance, call 406-444-9710

Submit completed form to:

Petroleum Tank Release Compensation Board

PO Box 200902, Helena MT 59620-0902