

December 20, 2024

Mr. Jay Shearer
Environmental Science Specialist
Petroleum Tank Cleanup Section
Montana Department of Environmental Quality
P.O. Box 200901
Helena MT 59620-0901

**RE: Corrective Action Work Plan for the Petroleum Release at Town and Country Supply Bridger
209 North Main Street, Bridger, Carbon County, Montana
Facility ID #05-04498, TID #18171, Release #3932, Work Plan ID #34951**

Owner/ Responsible Party:	Wes Burley Town and Country Supply 800 East Main Street Laurel, MT 59044 wburley@tandcsupply.com	Consultant/ Work Plan Preparer:	Pioneer Technical Services, Inc. Robyn Sargent, CHMM 2310 Broadwater Ave, Suite 1 Billings, MT 59102 rsargent@pioneer-technical.com
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Dear Mr. Shearer:

On behalf of Town and Country Supply, Pioneer Technical Services, Inc. prepared the following Corrective Action Work Plan and cost estimate for performing corrective action work at the Town and Country Supply facility in Bridger, Montana. As requested in correspondence dated October 30, 2024, from the Montana Department of Environmental Quality, our scope of work and associated proposed costs are outlined below.

If you have any questions concerning this project or the proposed scope of work, please contact me at (406) 206-7066 or rsargent@pioneer-technical.com.

Sincerely,



Robyn Sargent, CHMM
Principal Scientist
Pioneer Technical Services, Inc.

Attachment 1: Figures
Attachment 2: Cost Estimates

cc: Mr. Charles L. Peterson, P.G., Pioneer Technical Services, Inc.
Mr. Wes Burley, Town and Country Supply

EXECUTIVE SUMMARY

The purpose of this document is to provide a Corrective Action Work Plan (work plan) for the Town and Country Supply (Facility ID #05-04498) facility (Site), located at 209 North Main Street, Bridger, Carbon County, Montana, as requested in electronic correspondence from the Montana Department of Environmental Quality (DEQ) dated October 30, 2024. The purpose of the proposed work activities is to further evaluate the impacts within the saturated zone associated with Release #3932 by performing a conditions assessment and evaluating and repairing the existing monitoring well and remediation wells, conducting groundwater monitoring events, evaluating the potential for vapor intrusion, surveying the most recently installed monitoring wells, proposing additional remediation work, if needed, and determining a pathway to resolve Release #3932.

Discussions between the DEQ, Wes Burley of Town and Country Supply (Responsible Party), and Pioneer defined the scope of this work plan, which includes evaluation and repair of existing on-site monitoring and remediation wells as practicable, semi-annual groundwater monitoring, surveying the installed monitoring wells, and evaluation of the potential for petroleum vapor intrusion (PVI) at the Site to provide additional data for the assessment of remedial options for the release and help determine a pathway to remediation and resolution.

Montana DEQ outlined these recommendations in the work plan request letter dated October 30, 2024. These recommended actions are included in this work plan, which involves conducting a conditions assessment of all monitoring wells and remediation wells and remediation system associated with the release to determine if repairs, replacement, or abandonment is necessary; surveying the top of casing of the monitoring wells, including the most recently installed monitoring wells; conducting a desktop PVI evaluation for on-site and adjacent utility corridors; conducting two semi-annual groundwater monitoring events; preparing an Interim Data Summary (IDS); and preparing a Remedial Investigation (RI) Report appended with a Release Closure Plan (RCP) upon completion of all activities. These activities are detailed in the following work plan.

1 FACILITY SUMMARY AND CURRENT CONDITIONS

The Town and Country Supply facility is located at 209 North Main Street, in Bridger, Montana, at the corner of West Park Avenue and Main Street/Highway 310. The property (or Site) is fairly level with an elevation of approximately 3,670 feet above mean sea level. The Site is located at a well-traveled intersection and is surrounded by roadways and other commercial properties. The Site is a rectangular-shaped parcel that is bordered by North Main Street/Highway 310 to the west, a car wash facility to the south, a city alley to the east, and residential property to the north. This area of Bridger is served by public utility city services (potable water and sanitary and storm sewer services). The location of the Site is shown on the Location and Vicinity Map, Figure 1, and Site Map, Figure 2, in Attachment 1.

Currently, the Site is occupied by the Town and Country Supply convenience store and fueling facility, which consists of a one-story, slab-on-grade, metal building and is surrounded by a concrete asphalt lot with parking areas and fuel dispensers. The western boundary is bordered by sidewalks, curbs, and gutters.

It is our understanding that a petroleum release of an unknown quantity from the Bridger Town and Country Supply Store was reported to Montana DEQ on May 22, 2000. The release was discovered at the regular unleaded underground storage tank (UST) during work to retrofit the fuel systems cathodic protection (Town & Country Supply, 2000).

Beginning in 2000, Montana DEQ requested installation of seven groundwater monitoring wells at the facility (MW-1 through MW-7). Terracon Consultants, Inc. (Terracon) installed the monitoring wells in 2001, 2003, and 2005. These wells have been periodically monitored since that time. In general, concentrations of petroleum constituents have been decreasing in monitoring wells MW-1 and MW-2 closest to the fueling system associated with the release since 2003, and in the remaining monitoring wells since 2007.

Terracon conducted a soil vapor extraction (SVE) pilot test in May 2005 to assess the feasibility of employing vapor extraction as a remediation technology for the removal of volatile compounds from the unsaturated zones. The organic vapor concentrations and air quality analysis indicated efficient removal of hydrocarbon contaminated soil gas from the soil vadose zone at this location. An air sparge (air sparge wells are identified with the prefix ASI) and SVE system was installed at the Site in 2006.

In the fall of 2010, Town and Country Supply demolished its existing facility building and associated infrastructure and constructed a new convenience/farm retail store and a new fueling station on the original Site. At that time, monitoring well MW-4, air sparge well ASI-2, and SVE well SVE-2 were decommissioned because they were located within the footprint of the new building. The existing remediation building was relocated, and SVE and air sparge system piping was rerouted to the location of the new remediation building.

In January 2013, Terracon installed three additional monitoring wells (MW-8, MW-9, and MW-10) on the Site. Monitoring well MW-8 was advanced near the southern property boundary, south of the building, and was installed to assist in defining the southern extent of impacts to groundwater. Monitoring wells MW-9 and MW-10 were installed as replacements to wells that were decommissioned when the new store building was constructed. In addition to the installation of the new monitoring wells, Terracon also evaluated the condition of the existing remediation wells. A significant accumulation of soil and gravel was identified in air sparge wells ASI-3, ASI-4, and ASI-6 and monitoring well MW-1. The cover of SVE well SVE-8 was observed to be broken, and gravel was present within the protective cover. The material appeared to consist primarily of pea gravel, similar to that used to backfill tank basins or trenches for lateral lines. The entry point for this material was not known at this time. The air sparge system was reconfigured when the Site was redeveloped in the fall of 2010. It is surmised that that the material may have been introduced through the tops of wells if the caps were removed during construction activities or may have been introduced through one or more breaks in the system piping. The lines may have been damaged as a result of construction activities or inadvertently improperly capped when a portion of the system was removed from service.

In the summer of 2013, monitoring well MW-7 was paved over as a result of the replacement of asphalt on the Site and was considered abandoned. An updated well log indicating the proper abandonment of monitoring well MW-7 was completed and submitted to the Montana Bureau of Mines and Geology Groundwater Information Center ([Montana's Ground Water Information Center 2024](#)).

Prior to collecting groundwater samples in 2013, Terracon redeveloped previously existing monitoring wells MW-2, MW-3, MW-6, and MW-7 to remove accumulated soil and biofilm in the well casings and re-establish connectivity with the surrounding groundwater. Wells were redeveloped using a surge and purge technique, with purge water disposed of on Site. Monitoring well MW-1 was not redeveloped due to the presence of accumulated soil and gravel. During the surge and purge process, the surge block and 10 feet of conduit became stuck in the casing of monitoring well MW-5. The surge block and conduit have not yet been removed (Terracon, 2014).

The results of the 2013 groundwater monitoring indicated the presence of volatile petroleum hydrocarbon (VPH) and extractable petroleum hydrocarbon (EPH) constituents above the DEQ Risk-Based Screening Levels (DEQ, 2024). Based upon the findings of the most recent and previous investigations, Terracon recommended repairing SVE-8 and MW-5, installing a new monitoring well northwest of the store building, surveying the new monitoring wells, and conducting additional groundwater sampling prior to completion of further evaluation and repair of the existing remediation system (Terracon, 2014). No monitoring or remediation activities have been conducted at the Site since 2013.

2 OBJECTIVES OF CORRECTIVE ACTION WORK PLAN

The primary objective of the work plan is to evaluate the condition of the existing monitoring well and remediation well network and associated remediation system, evaluate the potential for PVI, and to further define the current extent and magnitude of the groundwater contamination at the Site to help determine a pathway to remediation and resolution of the Release.

3 PROPOSED SCOPE OF SERVICES

In summary, this work plan involves conducting a condition assessment of all monitoring wells, remediation wells, and the remediation system associated with the release to determine if repairs, replacement, or abandonment is necessary and completing the required maintenance as practicable; surveying the top of casing of the installed monitoring wells; conducting a desktop PVI evaluation for on-Site and adjacent utility corridors; conducting two semi-annual groundwater monitoring events; preparing an IDS; and preparing a RI Report appended with a RCP upon completion of all activities. These activities are detailed in the following work plan.

Specifically, this work plan proposes the following actions to achieve these goals:

- Completing, as practical given Site conditions, a physical assessment of all monitoring and remediation wells associated with the release to determine if repairs, replacement, or abandonment is necessary and completing the required maintenance.
- Surveying the on-Site monitoring wells, including the most recently installed monitoring wells (MW-8, MW-9, and MW-10).
- Performing two semi-annual groundwater monitoring events.
- Preparing a desktop PVI study next to the former on-Site building and on-Site and adjacent utility corridors.
- Validating all laboratory analytical data using DEQ's Data Validation Summary Form.
- Discussing work plan tasks and results with DEQ's project manager; any modifications required to complete the work plan objectives will be submitted and agreed upon.
- Updating the RCP and discussing the results with DEQ's project manager.
- Submitting an IDS and a RI Report that details the results of the monitoring events.
- Work plan and reports will be submitted electronically following the Petroleum Tank Cleanup Section submittal requirements.

These investigation activities will be provided to delineate the current magnitude and extent of the release in order to recommend further remedial actions to resolve Release #3932. As requested by DEQ, Pioneer proposes the following scope of work:

- Task 1: Project Management, Permitting, and Planning.
- Task 2: Monitoring and Remediation Well Assessment.
- Task 3: Survey On-Site Monitoring Wells.

- Task 4: Semi-Annual Groundwater Monitoring.
- Task 5: Performing a PVI Study.
- Task 6: Reporting.

The following sections describe each task for the proposed work along with Pioneer's cost estimate and proposed schedule.

3.1 Task 1 – Project Management and Planning

Task 1 Project Management and Planning work will include:

- Preparing a work plan and cost estimate.
- Project scheduling.
- Preparing a Health and Safety Plan.
- Coordinating with subcontractors, owners, and regulators.
- Site work preparation.

3.2 Task 2 – Monitoring and Remediation Well Assessment

Under this task, Pioneer will assess the existing monitoring and remediation wells for necessary repairs, review potential frost heave damage, and determine redevelopment requirements prior to proceeding with Task 3. At this time, it is Pioneer's understanding that SVE-8 requires repair, including the removal and replacement of the flush-mount well casing, and the surge block stuck in MW-5 needs to be removed. A Pioneer licensed water well driller will oversee the repair of SVE-8 and MW-5. In addition, Pioneer will evaluate the remaining monitoring and remediation wells on the Site, including the wells that have soil and gravel present, likely due to the most recent construction activities on the Site. If any additional monitoring wells require repairs due to frost heave or other damage, we will discuss the work with the DEQ project manager before contracting out any additional monitoring well repair and/or installation work.

3.3 Task 3 – Semi-Annual Groundwater Monitoring

This work plan proposes performing two semi-annual groundwater monitoring events. During each semi-annual event, Pioneer will collect groundwater samples from the existing wells. For each event, we will gauge and purge the wells and collect groundwater samples. We will attempt to complete the sample events in conjunction with the typically high and low groundwater conditions.

Prior to groundwater sample collection, we will gauge each of the six monitoring wells for the presence of light non-aqueous phase liquid (LNAPL). Each well will be gauged using an electronic interface probe capable of detecting water or LNAPL hydrocarbons to within 0.01 feet. If the well does not contain LNAPL, the team will collect groundwater samples. If LNAPL is

detected, the team will not collect any samples, will note the conditions in a logbook, and notify the DEQ project manager.

The groundwater samples will be collected according to low-flow sample techniques. To ensure representative groundwater samples are collected, we will monitor the water quality parameters for the following intrinsic bioremediation indicators and allow them to stabilize during the purging process prior to sample collection: temperature (plus or minus 3%), pH (plus or minus 0.1), dissolved oxygen (plus or minus 10%), specific conductance (plus or minus 3%), oxidation-reduction potential (plus or minus 10 millivolts), and turbidity (plus or minus 10%). To complete groundwater sampling according to DEQ's low-flow sampling guidance, the wells will be gauged at each field parameter monitoring interval with a water level meter to ensure that excessive drawdown (plus or minus 0.3 feet) does not occur prior to sampling.

We will collect the groundwater samples with a peristaltic pump and disposable tubing and transfer the samples to the appropriate laboratory containers. The laboratory will supply new, decontaminated containers prior to sample collection. Groundwater samples from all seven monitoring wells will be submitted for laboratory analysis of VPH. Based on the absence during the historical sampling at the Site, lead scavengers have been excluded.

Analysis of groundwater samples will be in accordance with DEQ's *Risk-Based Corrective Action (RBCA) Guidance for Petroleum Releases* (DEQ, 2024). We will collect one field duplicate during each sample event. Each sample container will be preserved as directed by the laboratory, labeled, and packaged on ice. The samples will be delivered to Energy Laboratories, Inc. Chain of custody documentation will accompany the samples.

Purge water generated during the sampling activities will be infiltrated into the grassy areas available at the Site in accordance with Montana DEQ standards.

3.4 Task 4 – Well Surveying

Based on the age of the wells, the redevelopment and paving activities on the Site subsequent to the installation of the original monitoring wells, and the absence of survey data for the three monitoring wells installed by Terracon in 2013 (MW-8, MW-9, and MW-10), all of the monitoring wells will be surveyed by a licensed surveyor, and the top of casings will be determined to be within 0.01 feet of mean sea level. The survey crew will also survey nearby structures, utilities, Site features, and appurtenances.

3.5 Task 5 – Perform Petroleum Vapor Intrusion Study

Pioneer personnel will complete a desktop evaluation of the potential for PVI in the vicinity of the former on-Site building and adjacent utility corridors using the new soil data, historical data (cumulative soil analytical data), current and past groundwater monitoring analytical data, and

sample location and depth data according to Section 2.4 of DEQ's *Montana Vapor Intrusion Guide* (DEQ, 2021a).

3.6 Task 6 – Reporting

Pioneer will prepare two separate reports for this work plan: one IDS, which will include the well and remediation system evaluation and the first groundwater sampling event, and one Cleanup Report detailing the results of the second groundwater sampling event, the desktop PVI, and an updated RCP.

Interim Data Submittal

Following the evaluation of the monitoring and remediation wells, completion of the first round of groundwater monitoring, and survey of the existing wells, Pioneer will prepare and submit an IDS in accordance with DEQ's *Montana Report Guidance for Petroleum Releases* (DEQ, 2021b). The report will follow the Montana DEQ report format and include the following:

- Cover Letter with brief (one page or less) executive summary including a discussion of the groundwater monitoring event and field evaluation of the existing monitoring wells and associated remediation system and wells.
- Updated facility maps illustrating the locations of the former fuel systems, Site building, locations of petroleum source material areas, receptors including underground utilities, locations of groundwater monitoring wells, and potentiometric surface maps.
- Tables summarizing field data and cumulative laboratory analytical data for groundwater samples.
- Laboratory analytical reports for the groundwater and tap water samples.
- Field sample data sheets and related field data.
- Data validation documentation using DEQ's Data Validation Summary Forms.

Following the second round of groundwater sampling, we will analyze the results and compile and submit a Cleanup Report, prepared according to DEQ's *Montana Report Guidance for Petroleum Releases* (DEQ, 2021b), that will include the following:

- Updated Site maps illustrating the locations of the new and existing monitoring wells, underground utilities, and surface features.
- Tables summarizing locations/depths of field data and laboratory analytical data for the new monitoring wells and the first and second round of groundwater monitoring.
- Desktop PVI evaluation.
- Laboratory analytical reports for groundwater samples.
- Logs, field data sheets, and related field data.

- Laboratory data validation.
- Recommendations relevant for further investigation or remedial action.
- An updated RCP.

4 COST ESTIMATE

A detailed cost estimate to perform this scope of work is presented on the worksheet in Attachment 2.

5 SCHEDULES

Pioneer proposes to perform the well and remediation system evaluation, survey, and first groundwater sampling event (Task 2) during the spring of 2025. The IDS will be completed and submitted within 45 days of receipt of all laboratory analytical reports for the groundwater sampling event. The second groundwater sampling event will be completed 6 months following the initial groundwater monitoring event. The RI Report will be completed and submitted within 45 days of receipt of all laboratory analytical reports for groundwater samples. The full duration of the project is approximately 8 to 12 months, and the final report will be issued sometime in the late winter of 2025.

6 REFERENCES

DEQ, 2021a. Montana Vapor Intrusion Guide. Montana Department of Environmental Quality. September 2021. Available at [MontanaVI_Guide_FINAL.pdf \(mt.gov\)](#).

DEQ, 2021b. Montana Groundwater Monitoring Work Plan and Report Guidance for Petroleum Releases. Montana Department of Environmental Quality, Waste Management and Remediation Division Petroleum Tank Cleanup Section. March 2021.

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

Town & Country Supply, 2000. Petroleum Release Section, 30-Day Release Report. Prepared by Wes Burley, Town and Country Supply Association. June 22, 2000. Town and Country Supply, 209 North Main Street, Bridger, Montana. Facility ID#05-04498, Release 3932.

Terracon, 2014. Soil Boring and Monitoring Well Installation Report. Town and Country Supply, 209 West Main Street, Bridger, Montana. Facility ID#05-04498, Release 3932. September 23, 2014.

Attachment 1

Figures

Figure 1. Location and Vicinity Map
Figure 2. Site Map



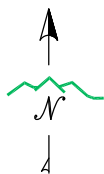
**PROJECT
LOCATION**



SITE VICINITY MAP

DEQ FACILITY ID: 05-04498
 RELEASE NUMBER: 3932
 WORK PLAN NUMBER: 34951

TOWN AND COUNTRY SUPPLY
 209 NORTH MAIN ST
 BRIDGER MT, 59014



DISPLAYED AS:
 COORD SYS/ZONE: NAD83, NAVD88
 DATUM: MSP
 UNITS: INT. FEET
 SOURCE: BING



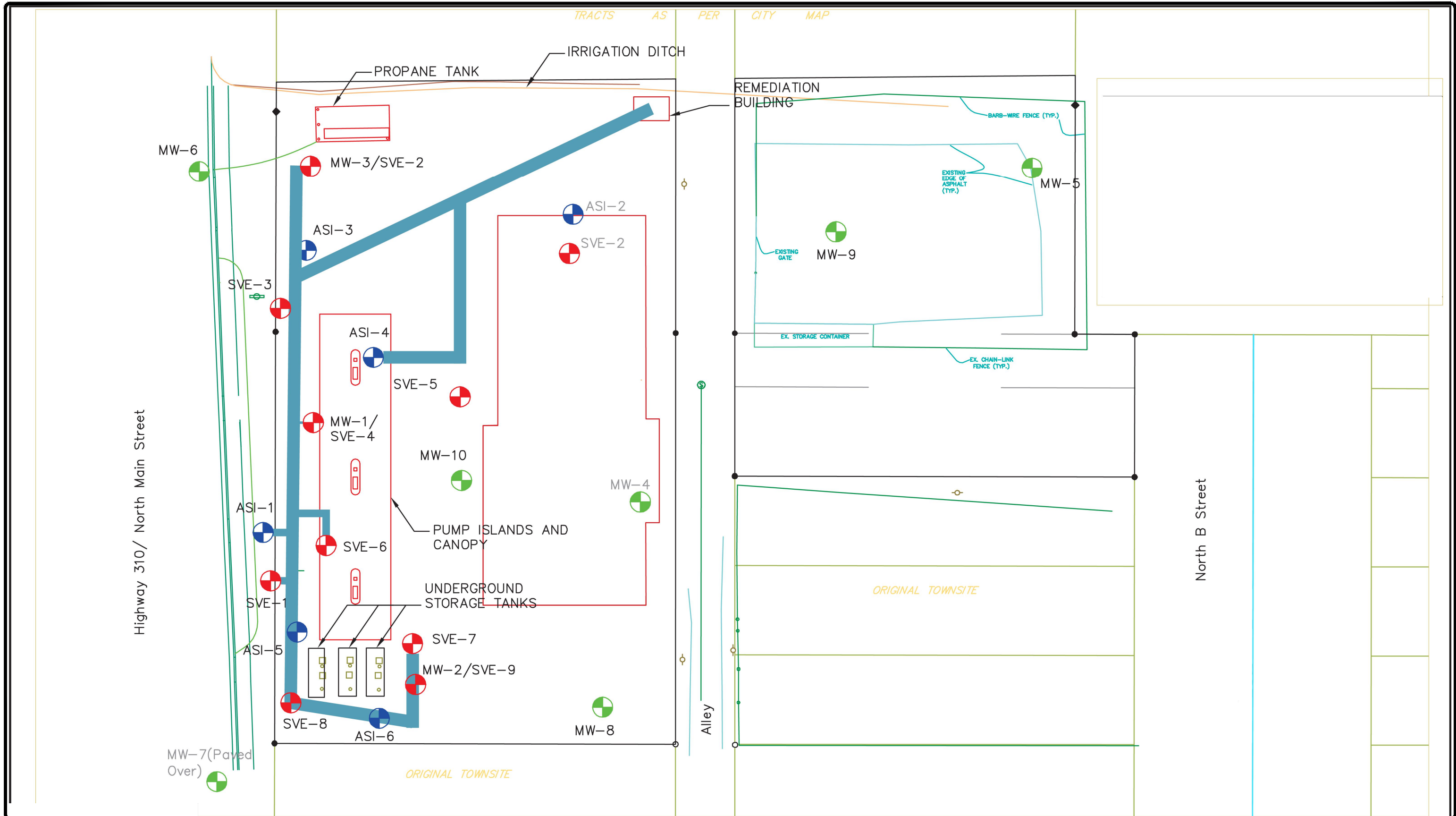
FIGURE 1



(406) 545-4805

LOCATION AND SITE
 VICINITY MAP
 TOWN AND COUNTRY
 SUPPLY BRIDGER

DATE: DECEMBER 2024



LEGEND

- MONITORING WELL
- SOIL VAPOR EXTRACTION WELL
- AIR SPARGE WELL
- APPROXIMATE SVE TRENCH/PIPING LOCATIONS.

GRAY TEXT INDICATES ABANDONED WELLS

DEQ FACILITY ID: 05-04498
 RELEASE NUMBER: 3932
 WORK PLAN NUMBER: 34951

TOWN AND COUNTRY SUPPLY
 209 NORTH MAIN ST
 BRIDGER MT, 59014

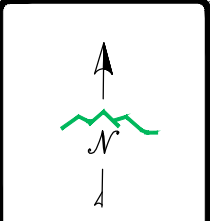


FIGURE 2

SITE MAP
 TOWN AND COUNTRY
 SUPPLY BRIDGER

DATE: DECEMBER 2024



Attachment 2

Cost Estimate