



Resource Technologies, Inc.

1050 East Main Street Suite 4, Bozeman, Montana 59715
Voice: (406) 585-8005 • Fax: (406) 585-0069 • e-mail: mail@rtimt.com

April 16, 2025

Mr. Jonathan Love
Montana Department of Environmental Quality
Petroleum Tank Cleanup Section
P. O. Box 200901
Helena, MT 59620-0901

Subject: Corrective Action Work Plan; Former SOCO Express 15th and Broadwater, 1503 Broadwater Ave, Billings, Yellowstone County, Montana; Facility ID 56-04956 (TID 29953), Release 5261, Work Plan ID 35004

Responsible Party: Dan Stockton
5552 Bobby Jones Boulevard
Billings, MT 59106

Dear Mr. Love:

On behalf of Dan Stockton, Resource Technologies, Inc. (RTI) is submitting the following workplan and budget for corrective action at the former SOCO Express 15th and Broadwater located in Billings, Montana. Proposed activities are intended to mitigate residual soil impacts that are the source of persistent groundwater impacts associated with Release 5261. This workplan was prepared pursuant to the work plan request issued by the Montana Department of Environmental Quality-Petroleum Tank Cleanup Section (MDEQ) in a letter to Dan Stockton dated January 29, 2025.

BACKGROUND

The former SOCO Express 15th and Broadwater property (site) is located at 1503 Broadwater Ave, Billings, Montana (Figure 1). The site was in operation beginning in 1969 as a fuel station. The facility dispensed gasoline from three 8,000-gallon underground storage tanks (USTs) that were last used in October 2015. Release # 5261 was identified during UST system removal in December 2017. The suspected release was confirmed by confirmation soil analytical results.

In 2022 and 2023, RTI conducted a remedial investigation to assess the extent of petroleum impacts to soil and groundwater at the site. Eight soil borings were advanced, and six monitoring wells were installed and sampled as part of the investigation. A site map is included in Figure 2. Impacted soil was detected at concentrations below

applicable Risk Based Screening Levels (RBSLs) in three borings closest to the former UST basin (SB-2, MW-5, and MW-6). During two semi-annual sampling events, only one well, MW-5, exhibited contaminant concentrations exceeding groundwater RBSLs. Well MW-5 is located just to the west of the former UST excavation. Samples from well MW-5 exhibited C9-C10 aromatics concentrations that exceeded groundwater RBSLs during both sampling events. During the June 2023 sampling event, MW-5 also exhibited a C9-C12 aliphatics concentration that exceeded groundwater RBSLs. The source of the groundwater impacts was suspected to be impacted soil remaining in the floor of the UST excavation below the former west UST. The results of this investigation were documented in the *Remedial Investigation Report; Stockton Oil Co Express Center, 1503 Broadwater Avenue; Billings, Montana*, dated November 15, 2023.

In October 2024, one additional soil boring (SB-3) was advanced in the former UST basin at the location of the west tank. Concentrations of C9-C10 aromatics exceeded RBSLs in SB-3 in samples from depths 14-15 feet and 17.5-19 feet below ground surface (bgs). Additionally, naphthalene exceeded the RBSL in the sample from depth 17.5-19 feet bgs. The results of this soil boring investigation are documented in *Soil Boring and Sampling Results; Stockton Oil Co Express Center, 1503 Broadwater Avenue; Billings, Montana*, dated January 24, 2025.

SCOPE OF WORK

The scope of this proposed workplan includes the following tasks:

- Inject chemical amendment PetroFix™ using a geoprobe in and around the former west UST area;
- Collect groundwater samples from all site wells six months and one year after injection;
- Submit groundwater samples for VPH and EPH analyses;
- Following the second round of groundwater sampling, prepare a groundwater monitoring report discussing the groundwater sampling results and the chemical injection effectiveness;
- Based on sampling results, recommend site for closure or make recommendations for additional corrective actions to bring site to closure;
- Validate all laboratory analytical data using MDEQ's Data Validation Summary Form (DVSF);

Work tasks are described in the following sections.

PROJECT MANAGEMENT

RTI will manage and coordinate all aspects of the project including planning, collection of samples, analysis of data, and reporting. Work plan tasks and laboratory reports will be discussed with MDEQ's project manager; agreed upon work plan modifications will be submitted in writing as required to complete the work plan objectives. RTI will update the Site Health & Safety Plan for planned field activities as necessary. RTI will call in utility locations in accordance with Montana State law within two full working days prior to the start of drilling.

CHEMICAL OXIDIZER INJECTION

RTI discussed the site objectives with Regenesi[®]s technicians to determine the most suitable amendment product type, product quantity, and injection locations for the site. The proposed solution calls for the application of 1,600 lbs of PetroFix[™] and 80 lbs Electron Acceptor (EA) blend to address petroleum hydrocarbon impacts. The chemical remedial fluid will be mixed with a total of 3,600 gallons of water. Water obtained from an onsite spigot will be added directly to a 250-gallon poly tank where the solution will be mixed with a paddle mixer.

The treatment area is approximately 400 square feet and incorporates 9 injection points oriented on a grid with 6.5-foot spacing (Figure 3). Each injection point will receive the solution in one-foot intervals to include depths ranging from 14-22 feet below ground surface (bgs). Approximately 50 gallons of solution will be injected per vertical foot. A work zone will be established around the drill rig and support vehicles to reroute any on-site traffic.

RTI also requested a proposal from Alpine Remediation for injection and drilling services. Their proposal included injection of BOS 200 product, that utilizes adsorption and biological degradation to mitigate petroleum hydrocarbon impacts. Alpine Remediation's design included 675 ft² of treatment area around MW-5 with 12 injection points for a total of 2,650 lbs of BOS 200 and 2,000 lbs gypsum. The total for their work, including drilling and product is \$44,612.50. The Alpine Remediation proposal is attached.

GROUNDWATER SAMPLING

Groundwater samples will be collected from all site monitoring wells following the chemical injection. Monitoring well locations are shown in Figure 2. Two sampling events will be conducted, scheduled for six months and one year following the injection.

Prior to groundwater sampling, monitoring wells MW-5 and MW-6 will be redeveloped to clear the wells of any injected product that may enter the wells. Groundwater samples will be collected using low flow collection methodologies. Monitoring wells will be purged and sampled with a 2-inch variable-speed, stainless steel submersible sampling pump and clean polytetrafluoroethylene (PTFE) lined tubing. The pump intake will be situated two to four feet below the measured water level within the screened interval. Prior to sampling, each well will be purged at the lowest sustainable pumping rate to assure minimal drawdown. Purge water will be discharged to a flow cell where water

quality parameters including temperature, pH, conductivity, dissolved oxygen (DO), oxidation/reduction potential (ORP), and turbidity are continuously monitored. Water-quality-indicator parameters will be recorded every three to five minutes on a sampling log. An electronic water level sounder will be inserted in the well and suspended just above the static water level to facilitate water level monitoring throughout purging to determine drawdown. Purge volume will be measured in a graduated cylinder from the flow cell. When water quality parameters stabilize for two successive readings, the sample line will be diverted from the flow cell inlet for sample collection into laboratory provided containers. Groundwater samples will be submitted to Energy Laboratories of Billings, for VPH and EPH analysis.

DECONTAMINATION

After each water level measurement, the probes will be decontaminated using a detergent wash followed by a distilled water rinse. Following sample collection, sampling pumps, and cables, will be decontaminated by cycling the pump in a detergent wash, tap water rinse and distilled water final rinse.

Purge water will be handled in accordance with the Options for Discharge of Hydrocarbon Contaminated Wastewater Technical Guidance Document. Pump tubing, latex gloves, and any other solid refuse will be disposed of in a solid waste receptacle.

DATA VALIDATION

All laboratory data generated under this workplan will be validated using the MDEQ Data Validation Summary Form.

RELEASE CLOSURE PLAN

Following review of the sampling results, RTI will update the existing site Release Closure Plan (RCP), if necessary, to evaluate potential corrective actions or site closure.

EVAULATING AND REPORTING

RTI will discuss ongoing workplan tasks and results with MDEQ's project manager and submit written agreed-upon workplan modifications if necessary.

Upon completion of all work tasks described in the previous sections and receipt of analytical data, RTI will prepare and submit a Corrective Action Report detailing the chemical injection and groundwater sampling results.

The report will include the following:

- Discussion of methods employed and results of the completed work plan;
- Tabular presentation groundwater sampling data;
- Updated site map, potentiometric surface maps, and contaminant distribution maps;
- Conclusion section that summarizes current site conditions;
- Recommendation section for future work to resolve the release, supported by the discussion and conclusions.

SCHEDULE

Following approval of this work plan by the MDEQ, the chemical injection will be scheduled for the spring/summer of 2025. The time duration for soil boring and chemical injection is anticipated to be three days. Groundwater sampling will be conducted approximately six months following chemical injection (fall 2025) and again in the spring of 2026.

BUDGET

The attached Cost Estimate Detail provides a breakdown of costs for all activities provided under the scope of work. Chemical injection bids were requested from three qualified drillers including Olympus Technical Services, WCEC Environmental Consultants, and Wiley Drilling. Olympus Technical Services was the lowest bidder. The Alpine Remediation bid was substantially higher than the cost of Petro Fix injection. Costs associated with groundwater sampling are provided on a unit cost basis and are included in the attached Groundwater Monitoring Tool worksheet.

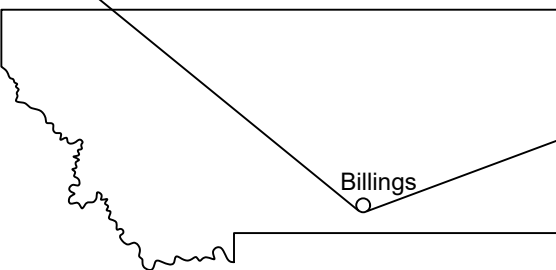
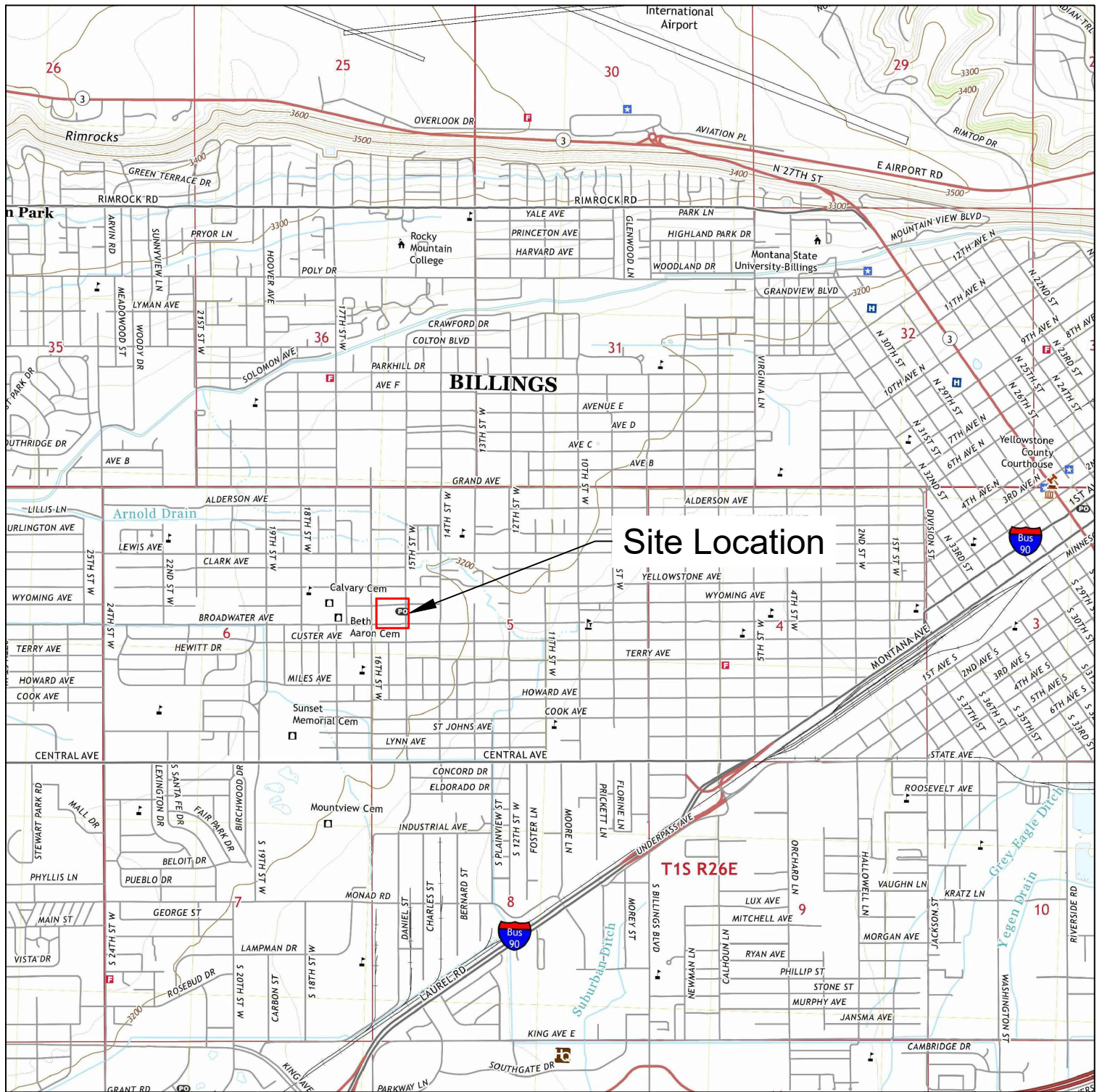
The total cost for workplan preparation, chemical injection, groundwater sampling, and report preparation is \$42,515.80. If you have any questions or comments regarding this workplan, please do not hesitate to call.

Respectfully Submitted,
Resource Technologies, Inc.



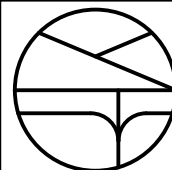
Cole Histon
Environmental Geologist

Figures

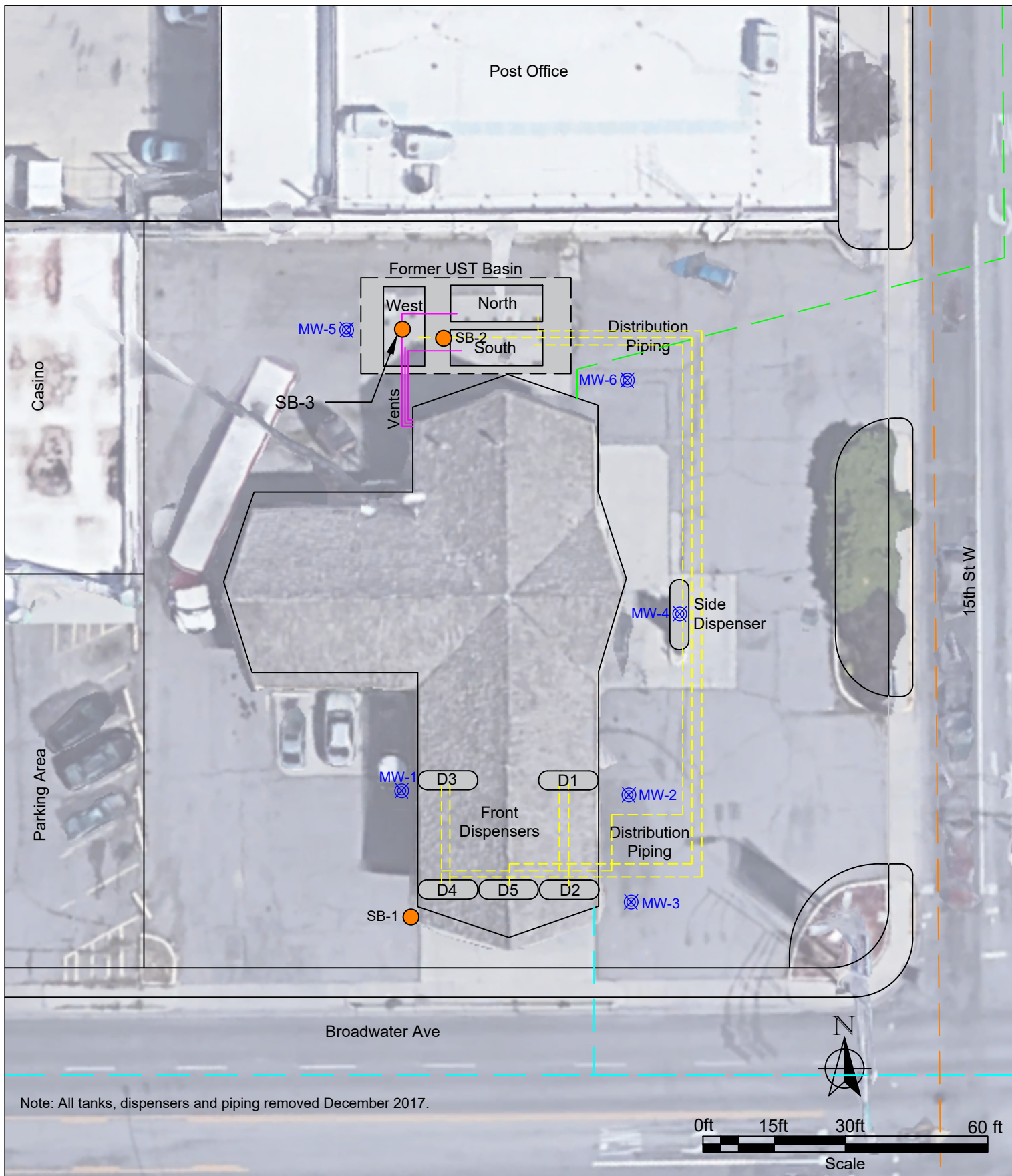


0ft $\frac{1}{2}$ mi 1 mi
Scale
1" = $\frac{1}{2}$ mile

Figure 1
Site Location Map
503 Broadwater
Avenue, Billings,
Montana



**RESOURCE
TECHNOLOGIES, INC.**
1050 EAST MAIN STREET, SUITE 4
BOZEMAN, MT 59715
(406) 585-8005 FAX: (406) 585-0069



Legend	SB-1	Soil Boring	Water Line
	MW-6	Groundwater Monitoring Wells	Sewage Line
		UST Vent Piping	Storm Sewer
		Fuel Distribution Piping	

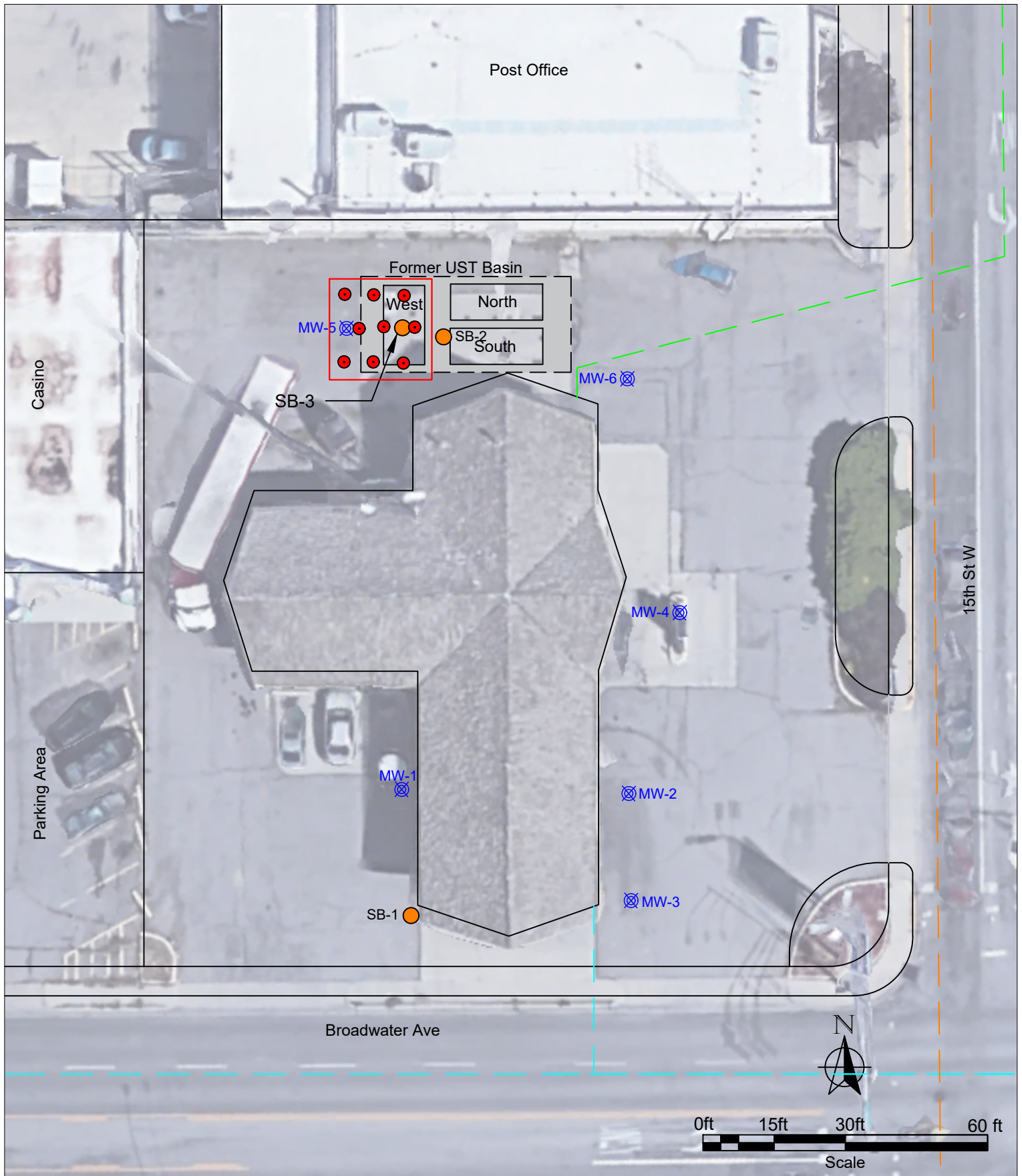
Figure 2

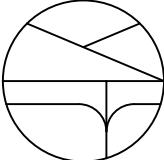
Site Map

1503 Broadwater Ave,
Billings, Montana

RESOURCE TECHNOLOGIES, INC.

1050 EAST MAIN STREET, SUITE 4
BOZEMAN, MT 59715
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Legend	SB-1 ● Soil Boring	Water Line	Figure 3	 RESOURCE TECHNOLOGIES, INC. 1050 EAST MAIN STREET, SUITE 4 BOZEMAN, MT 59715 (406) 585-8005 FAX: (406) 585-0069
	MW-6 ⊗ Groundwater Monitoring Wells Chemical Treatment Area ● Direct Push Injection Point	Sewage Line Storm Sewer		

Treatment Area Map
1503 Broadwater Ave,
Billings, Montana