



June 8, 2020

Ms. Marla Stremcha, P.E.
Project Manager
Petroleum Tank Cleanup Section
Montana Department of Environmental Quality
P.O. Box 200901
Helena, MT 59620-0901

RE: Abbreviated Standardized Soil Boring and Monitoring Well Installation
Corrective Action Work Plan (AC-03)
Becker's Glass Facility
3325 1st Avenue North, Yellowstone County, Billings, MT
Facility ID# 56-13199 Release #2236, WP ID 34082

Dear Ms. Stremcha:

On behalf of the Ron and Kay Berkland Trust, Pioneer Technical Services, Inc. (Pioneer) is submitting this corrective action work plan for the Becker's Glass facility. As requested in correspondence from the Montana Department of Environmental Quality (DEQ) dated May 5, 2020, our scope of work and associated costs are below.

PROPOSED SCOPE OF SERVICES

The purpose of the work is to install a 20-foot deep soil boring into the former underground storage tank basin and construct a temporary groundwater monitor well and conduct soil and groundwater sampling to further define the extent and magnitude of petroleum contamination at the facility. The work will include advancing one boring, constructing a well, and performing soil and groundwater sampling and completing a data summary report. The results from the activities will be used to assess and determine current soil and groundwater conditions related to the Release and help determine a pathway to closure. The work will include four tasks:

- Task 1 – Project management and planning.
- Task 2 – Complete well installation and soil sampling activities.
- Task 3 – Conduct a groundwater sample event.
- Task 4 – Reporting.

Task 1 – Project Management and Planning

Task 1 includes managing, scheduling, organizing, and planning the work, including the tasks below:

- Preparing work plan
- Coordinating site work.
- Scheduling personnel and subcontractors.
- Coordinating activities of owners and regulators.

- Preparing a site-specific health and safety plan.
- Conducting planning meetings with owner and DEQ project manager as deemed necessary by DEQ project manager.

We will prepare a project site-specific health and safety plan and complete the work as approved by the Montana DEQ and the Petroleum Release Compensation Release Board (Petro Board).

Related to scheduling, we will manage, schedule, and supervise all work to make sure it is completed as proposed and in a timely manner.

Task 2 – Complete Well Installation and Soil Sampling Activities

The work plan includes drilling 1 soil boring in the area of the former underground storage tank and constructing a temporary, 2-inch groundwater monitoring well. The well will be installed in the middle of the former UST basin. The anticipated total depth of the boring is 20 feet below ground surface (bgs). We will advance the borings with a truck-mounted drill rig using hollow-stem methods. Final boring location will be determined in the field after consultations with the Montana DEQ project manager and based on accessibility, underground utilities, the presence of unforeseen impedances, or other factors.

The monitoring well will be constructed with 2-inch diameter, schedule 40 polyvinyl (PVC) pipe. All well screens and piping will be delivered to the site factory wrapped. The monitoring well screen will be 0.01-inch, factory-slotted screen. Each well will be screened from the depth of 5 feet to 20 feet to facilitate entry of petroleum vapors and light non-aqueous phase liquids (LNAPL). The remainder of the borehole will be completed with PVC riser pipe to grade. The annular space between the well screen and the borehole will have 10-20 sand completion whereas the annular space between the well casing and the borehole will have bentonite completion. The well will also be developed by pumping until they are clear of sediment.

A Pioneer engineer or geologist will supervise drilling operations and be present to collect, screen, and log soil types. Soil samples will be collected continuously, and personnel will log the soil type and consistencies and document any visible signs of petroleum impacts. Standard headspace readings will be collected using a photoionization (PID) meter. A portion of each soil sample will be placed into an airtight container, labeled, and allowed sufficient time for the hydrocarbons, if present, to volatilize. After the equilibration period, each sample will be scanned with a PID by inserting the sampling probe into the headspace of the container. The PID readings from each soil sample collected from the borehole will be reviewed and recorded. The sample with the highest reading, or other signs indicating petroleum impacts, will be selected for laboratory analysis. If no organic vapors are recorded, the sample collected closest to the water table at the time of drilling will be submitted for analysis. Up to two soil samples will be collected for analyses.

The selected two soil samples will be placed into a laboratory-supplied container, labeled, stored on ice, and submitted to Energy Laboratories, Inc. (ELI) in Billings, Montana, for volatile petroleum hydrocarbon (VPH). Chain-of-custody documentation will accompany the samples.

Task 3 – Conduct Groundwater Sampling Event

Pioneer personnel will collect a groundwater sample from the newly installed well.

Approximately one week after well installation and development the well will be purged and sampled. Prior to groundwater sample collection, we will gauge the well for the presence of LNAPL. The 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 case manager.

The groundwater sample will be collected in accordance with low-flow sample techniques. To ensure representative groundwater samples are collected, we will monitor the water quality parameters of the following intrinsic bioremediation indicators (IBIs) and allow them to stabilize during the purging process prior to sample collection: temperature, turbidity, conductivity, dissolved oxygen, pH, and oxygen reduction potential.

We will collect the groundwater samples with a peristaltic or submersible bladder pump and disposable tubing and transfer the sample to the appropriate laboratory containers. New, decontaminated containers will be supplied by the laboratory prior to sample collection. Groundwater samples will be submitted for laboratory analysis of VPH and for the lead scavengers 1,2 Dibromomethane and 1,2-Dichloroethane. 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. in Billings, Montana. 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.

Task 4 – Reporting

Groundwater Monitoring Report. To complete an Abbreviated Soil Boring and Monitoring Well Installation Report (AR-03), we will analyze the results and compile the report. The report will follow the Montana DEQ Report AR-03 format and include the following:

- Updated facility map illustrating locations of utilities, former fuel systems, site buildings, locations of petroleum source material areas, receptors including underground utilities, and locations of soil borings and groundwater monitoring wells.
- Tables summarizing locations/depth of field data and laboratory analytical data for soil and groundwater water samples.
- Laboratory analytical reports for the soil and groundwater samples.
- Data Validation Summary Forms.
- Field sample data sheets, and boring log and related field data.
- Data interpretation and recommendations relevant for further remediation and/or closure plan for the release.

COST ESTIMATES

The cost estimate to perform this scope of work is included in Attachment 1.

SCHEDULE

We can begin work on this project within 30 days following receipt of both Montana DEQ and Petro Board approvals, which is expected sometime in the summer of 2020. The project as described in this work plan will last up to 2 months. Therefore, the final report will be issued in the fall of 2020.

If you have any questions about this project or the proposed scope of work, please call me at (406) 702-2430 or email me at cpeterson@pioneer-technical.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "Charles L. Peterson".

Charles L. Peterson, P.G.
Project Manager

Attachment 1: Cost Estimate

cc: Ron and Kay Berkland, 2918 17th Street West, Billings, MT 59102

ATTACHMENT 1 COST ESTIMATE

Table 1: Cost Estimate

PROJECT: Becker's Glass, DEQ ID #56-13199, Release #2236, WP 34082

Client: Ron and Kay Berkland Trust
Site Address: 3325 1st Avenue North
Project Location: Billings, MT

Start Date: Summer 2020
End Date : Fall 2020
Pioneer Project Manager: Charlie Peterson

Project Description: Becker's Glass, DEQ ID# 56-13199, Release# 2236, WP 34082

Description of Services: Soil Boring and Well Installation

TASK 1: Project Management and Planning

CATEGORY	EMPLOYEE	PRICE/UNIT	UNITS	QUANTITY	PRICE
Work Plan Prep (AC-03)	Petro Unit Rate	\$ 965.00	hrs	1	\$ 965.00
Project Manager	Charlie Peterson	\$ 130.00	hrs	2	\$ 260.00
Health and Safety Plan	Hailey Thompson	\$ 111.00	hrs	2	\$ 222.00
				Total Labor=	\$ 1,447.00
OTHER DIRECT COST					
CATEGORY		PRICE/UNIT	UNITS	QUANTITY	PRICE
Vehicle (Mileage)		\$ 0.580	Mileage	20	\$ 11.60
				Task 1 Total Direct Cost=	\$ 11.60
				Task 1 Total Cost =	\$ 1,458.60

TASK 2: Drill Soil Boring, Collect Soil Samples and Construct Monitoring Well

CATEGORY	EMPLOYEE	PRICE/UNIT	UNITS	QUANTITY	PRICE
Senior Geologist	Charlie Peterson	\$ 130.00	hrs	6.0	\$ 780.00
				Total Labor=	\$ 780.00
OTHER DIRECT COST					
CATEGORY		PRICE/UNIT	UNITS	QUANTITY	PRICE
Well Development		\$ 150.000	Each	1	\$ 150.00
Vehicle (Mileage)		\$ 0.580	Mileage	15	\$ 8.70
Mob/Demob		\$ 6.000	Mileage	15	\$ 90.00
PID Rental	PID	\$ 17.500	Hour	3	\$ 52.50
Driller Contractor	Haz Tech	\$ 1,500.000	Each	1.07	\$ 1,605.00
Energy Labs	Soil VPH	\$ 120.000	Each	2	\$ 240.00
Sample Fee	Petro unit rate	\$ 10.000	Each	2	\$ 20.00
				Task 2 Total Direct Cost =	\$ 2,166.20
				Task 2 Total Cost=	\$ 2,946.20

TASK 3: Groundwater Sample Collection

CATEGORY	EMPLOYEE	PRICE/UNIT	UNITS	QUANTITY	PRICE
Project Management	Charlie Peterson	\$ 130.00	hrs	1.0	\$ 130.00
GW sampling	Petro unit rate	\$ 200.00	Each	1.0	\$ 200.00
				Total Labor=	\$ 330.00
OTHER DIRECT COST					
CATEGORY		PRICE/UNIT	UNITS	QUANTITY	PRICE
Vehicle (Mileage)		\$ 0.580	Mileage	15	\$ 8.70
Mob/Demob		\$ 6.000	Mileage	15	\$ 90.00
Energy Labs	Water VPH	\$ 120.000	Each	1	\$ 120.00
Energy Labs	Water Lead Scavengers	\$ 300.000	Each	1	\$ 300.00
Sample Fee	Petro unit rate	\$ 10.000	Each	1	\$ 10.00
				Task 3 Total Direct Cost =	\$ 528.70
				Task 3 Total Cost=	\$ 858.70

Task 4 Reporting

CATEGORY	EMPLOYEE	PRICE/UNIT	UNITS	QUANTITY	PRICE
Report (AR-03)	Petro Unit Rate	\$ 2,525.00	Each	1	\$ 2,525.00
				Task 4 Total Direct Cost =	\$ 2,525.00
				Task 4 Total Cost=	\$ 2,525.00

Total Project Cost All Tasks - \$ 7,788.50