



March 31, 2020

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

RE: Standardized Generic Applications Corrective Actions Work Plan (AC-07)
Former McFiny's Conoco (Former Kwik Way #17) Facility
446 Grans Avenue, Yellowstone County, Billings, MT
Facility ID# 56-05749 Release #3281, WP ID 34041

Dear Mr. Shearer:

On behalf of Wag Tag, LLC, Pioneer Technical Services, Inc. (Pioneer) is submitting this corrective action work plan for the Former McFiny's Conoco (former Kwik Way #17) facility. As requested in correspondence from the Montana Department of Environmental Quality (DEQ) dated March 10, 2020, our scope of work and associated costs are below.

PROPOSED SCOPE OF SERVICES

The work will include installing five new monitoring wells and conducting two years of semi-annual groundwater monitoring events (four events total) at the former Kwik Way #13 facility to further define the extent and magnitude of petroleum contamination at the facility. The work will include four tasks:

- Task 1 – Project management and planning.
- Task 2 – Complete well installation activities.
- Task 3 – Conduct two years of semi-annual groundwater monitoring events (two events in 2020 and two in 2021).
- Task 4 – Reporting

Task 1 – Project Management and Planning

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

- 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 Activities

The work plan includes drilling 5 soil borings in the area of the former fueling island and underground storage tank (UST) basin and constructing them into 2-inch groundwater monitoring wells. The wells will be installed in the vicinity of the former UST basin and pump islands and areas downgradient from these source areas. The anticipated total depth of the monitoring wells is 20 feet below ground surface (bgs). This is based on groundwater measured at 14-16 feet bgs at the site. We will advance the borings with a truck-mounted drill rig using hollow-stem methods. Final boring locations 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 wells 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 10 feet to 20 feet to facilitate entry of petroleum vapors and light non-aqueous phase liquids (LNAPL). The remainder of each 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 wells will also be developed by pumping until they are clear of sediment. Following well installation and development, the new wells will be surveyed by a licensed surveyor and the top of casings will be determined to within 0.01 feet of mean sea level.

A Pioneer engineer or geologist will supervise drilling operations and be present to collect, screen, and log soil types. Soil samples will be collected at 2.5-foot intervals 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 each borehole will be reviewed and recorded. The sample with the highest reading, or with other signs indicating petroleum impacts, will be selected for laboratory analysis. The sample collected closest to the water table at the time of drilling will also be submitted for analysis. One additional sample will be collected from the bottom of each boring to determine the vertical extent of contamination. Up to 3 samples from each boring will be submitted for laboratory analysis.

The selected samples will be placed into a laboratory-supplied container, labeled, stored on ice, and submitted to Energy Laboratories, Inc. in Billings, Montana, for volatile petroleum hydrocarbon (VPH) and extractable petroleum hydrocarbon (EPH) screens and the lead scavengers 1,2 Dibromomethane and 1,2-Dichloroethane. If the EPH screen result is greater than 200 milligrams per kilogram (mg/kg), the sample will be submitted for EPH fractionation analysis. For this work plan, we are assuming all samples will need to be fractionated. Chain-of-custody documentation will accompany the samples.

Task 3 – Conduct Two Years of Semi-Annual Groundwater Monitoring Events

Pioneer personnel will collect groundwater samples from the five new wells and four existing wells during four monitoring events. One event will occur in late spring and one event will occur in late fall or early winter of each year.

Approximately one week after the new wells are installed and developed, all the facility's wells will be purged and sampled. Prior to groundwater sample collection, we will gauge each of the wells for the presence of 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, 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 samples 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 EPH screens. Samples collected during the first event will also be tested for the lead scavengers 1,2-Dibromomethane and 1,2-Dichloroethane. We will collect one VPH field duplicate during each sample event. This plan accounts for half of the groundwater samples to be fractionated 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. 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

Following the completion of the well installation and subsurface evaluation tasks, Pioneer will prepare a Standardized Soil Boring and Monitoring Well Installation Report (Report AR-03). The report will follow the Montana DEQ Report format and will include the following:

- Facility map illustrating locations of utilities, former fuel systems, test pits, soil borings, and groundwater monitoring wells.
- Tables summarizing locations/depth of field data, laboratory analytical data for soil and air samples, and cumulative laboratory analytical data for groundwater water samples.
- Laboratory analytical reports for soil and groundwater samples.
- Logs, field data sheets, and related field data.
- Diagrams of former fuel system.
- Data and recommendations relevant for further remediation and/or closure of the release.

Following the second and fourth semi-annual sampling events Pioneer will analyze the results and prepare and submit a Standardized Groundwater Monitoring Report (MR-01). To complete the reports, we will tabulate current and historical data. The reports will follow the Montana DEQ Report AR-01 format and include the following:

- Updated facility maps illustrating locations of utilities, existing and 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 cumulative laboratory analytical data for groundwater water samples.
- Laboratory analytical reports for the groundwater samples.
- Field sample data sheets 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 late spring of 2020. The project as described in this work plan will last up to 24 months. Therefore, the final report will be issued 45 days after the late fall 2021 sample event.

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,



Charles L. Peterson, P.G.
Project Manager

Attachment 1: Cost Estimate

cc: via email to Chuck Rutherford, 3125 Avenue E, Billings, MT 59102

ATTACHMENT 1 COST ESTIMATE

Table 1: Cost Estimate

PROJECT: McFyns Conoco (former Kwik Way #17), DEQ ID # 56-05749, Release#3281, WP 34041

Client: Wag Tag, LLC
 Site Address: 446 Grand Avenue
 Project Location: Billings, MT

Start Date: Spring 2020
 End Date : December 2022
 Pioneer Project Manager: Charlie Peterson

Project Description: McFyns Conoco (former Kwik Way #17), DEQ ID# 56-05749, Release# 3281, WP# 34041

Description of Services: Monitoring Well Installation (five wells), two years (four events) of semi-annual groundwater monitoring and reporting (two reports).

TASK 1: Project Management and Planning

CATEGORY	EMPLOYEE	PRICE/UNIT	UNITS	QUANTITY	PRICE
Work Plan (AC-07)	Lump Sum	\$ 1,400.00	Each	1	\$ 1,400.00
Project Manager	Charlie Peterson	\$ 150.00	hrs	8	\$ 1,200.00
Staff Engineer-HASP	Hailey Thompson	\$ 115.00	hrs	2	\$ 230.00
				Total Labor=	\$ 2,830.00
					Task 1 Total Cost = \$ 2,830.00

TASK 2: Boring and Well Installation

CATEGORY	EMPLOYEE	PRICE/UNIT	UNITS	QUANTITY	PRICE
Senior Geologist	Charlie Peterson	\$ 150.00	hrs	3	\$ 450.00
Project Engineer	Jason Decker	\$ 135.00	hrs	16	\$ 2,160.00
				Total Labor=	\$ 2,610.00

OTHER DIRECT COST

CATEGORY		PRICE/UNIT	UNITS	QUANTITY	PRICE
Well Development	Unit Rate	\$ 150.00	Each	5	\$ 750.00
Mob/Demob	Pick up and equipment	\$ 4.00	Mileage	40	\$ 160.00
PID Rental	PID	\$ 16.00	Hour	16	\$ 256.00
Driller Contractor	Haz Tech	\$ 6,950.00	As per quote	1.07	\$ 7,436.50
Surveyor	Surveyor 2 man crew	\$ 215.00	Hour	8	\$ 1,720.00
Surveyor	Survey Mob/Demob	\$ 4.00	Hour	300	\$ 1,200.00
Energy Labs	Soils VPH (15 plus 1 dup)	\$ 120.00	Sample	16	\$ 1,920.00
Energy Labs	Soils EPH Screen	\$ 75.00	Sample	15	\$ 1,125.00
Energy Labs	Soils EPH Fractions	\$ 150.00	Sample	8	\$ 1,200.00
Energy Labs	Soils Lead Scavengers	\$ 150.00	Sample	15	\$ 2,250.00
Sample Fee	Petro Unit Rate	\$ 10.00	Sample	15	\$ 150.00
				Task 2 Total Direct Cost =	\$ 18,167.50
					Task 2 Total Cost= \$ 20,777.50

TASK 3: Semi-annual Groundwater Sample Collection

CATEGORY	EMPLOYEE	PRICE/UNIT	UNITS	QUANTITY	PRICE
Senior Geologist	C. Peterson	\$ 150.00	hrs	8	\$ 1,200.00
GW sampling	Petro unit rate (9 wells)	\$ 186.00	Each	36	\$ 6,696.00
				Total Labor=	\$ 7,896.00

OTHER DIRECT COST

CATEGORY		PRICE/UNIT	UNITS	QUANTITY	PRICE
Mob/Demob	Pickup and equipment	\$ 4.00	Mileage	160	\$ 640.00
Energy Labs	Water VPH	\$ 120.00	Sample	40	\$ 4,800.00
Energy Labs	Water EPH Screen	\$ 75.00	Sample	36	\$ 2,700.00
Energy Labs	Water EPH After Screens	\$ 150.00	Sample	16	\$ 2,400.00
Energy Labs	Water Lead Scavengers	\$ 150.00	Sample	9	\$ 1,350.00
Sample Fee	Petro Unit Rate	\$ 10.00	Each	40	\$ 400.00
				Task 3 Total Direct Cost =	\$ 12,290.00
					Task 3 Total Cost= \$ 20,186.00

Task 4: Reporting

CATEGORY	EMPLOYEE	PRICE/UNIT	UNITS	QUANTITY	PRICE
Standardized Well Install Report (AR-03)	Petro Unit Rate	\$ 2,525.00	Each	1	\$ 2,525.00
Standard GW Monitoring Report (MR-01)	Petro Unit Rate	\$ 1,815.00	Each	2	\$ 3,630.00
				Total Labor=	\$ 6,155.00
					Task 4 Total Cost= \$ 6,155.00

Project Total Cost= \$ 49,948.50