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February 26, 2025

Mr. Patrick Skibicki Environmental Project Officer Tanks, Brownfields, and Federal Facilities Bureau Montana Department of Environmental Quality P.O. Box 200901 Helena, MT 59620-0901

RE: Additional Corrective Action Work Plan for the Petroleum Release at the Former Platinum Motors Company, 702 East Pike Street, Columbus, Stillwater County, Montana Facility ID# 48-04575, TREADs ID #28569, Release #4482, Work Plan ID #34998

Owner/	Terry Cook	Consultant/	Pioneer Technical Services, Inc.		
Responsible	Stillwater Lumber	Work Plan	Charles Peterson		
Party:	P.O. Box 254	Preparer:	2310 Broadway Ave., Suite 1		
	Columbus, MT 59019		Billings, MT 59102		
	<u>cook@vcn.com</u>		cpeterson@pioneer-technical.com		

Dear Mr. Skibicki:

On behalf of Terry Cook, Pioneer Technical Services, Inc. is submitting this Additional Corrective Action Work Plan for the former Platinum Motors Company facility. As requested in correspondence from the Montana Department of Environmental Quality dated January 22, 2025, our scope of work and associated proposed costs are below. The location and layout of the subject facility are shown on Figure 1, Location and Vicinity Map, and Figure 2, Site Map, in Attachment 1. 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 <u>cpeterson@pioneer-technical.com</u>.

Sincerely,

Charles L. Peterson, P.G. Program Manager

Attachment 1: Figures Attachment 2: Cost Estimate

cc:

Terry and Michelle Cook, Stillwater Lumber Taylor Bienvenue, G.I.T., Pioneer Technical Services, Inc.







#### **EXECUTIVE SUMMARY**

This work plan describes the proposed corrective actions for the start-up and continued operation and maintenance (O&M) of an air sparge (AS) and soil vapor extraction (SVE) system and semiannual groundwater monitoring at the former Stillwater Lumber (former Platinum Motors) (facility or Site) in Columbus, Montana, as requested by the Montana Department of Environmental Quality (DEQ) Petroleum Tank Cleanup Section in correspondence dated January 22, 2025. The Site is located at 702 East Pike Avenue, Columbus, Montana, in Stillwater County; the DEQ Facility Identification number is #48-04575, the Release is #4482, and Work Plan is #34998.

The property was historically operated as a Texaco Service Station since at least 1976 before being occupied by a car dealership in 1986. Three 1,000-gallon steel underground storage tanks, a fuel pump island, and underground supply piping ceased operations in 1986. The tanks located at the facility were reportedly closed in place by filling the tanks with sand and concrete. On October 28, 1994, the Montana DEQ sent a letter to the owner (Platinum Motors) documenting that the subject property achieved closure status. In 2006, during a Leaking Underground Storage Tank investigation of the surrounding area, the facility was identified as a potential "release" Site that contributed to contamination along with the neighboring property, Newman's Downtown Exxon (Weston, 2016a; Weston, 2017). The DEQ assigned Release #4482 to the Site.

A Remedial Investigation (RI) of the Site conducted in 2019 and 2020 by Pioneer Technical Services, Inc. (Pioneer) indicated concentrations of volatile petroleum hydrocarbon (VPH) and extractable petroleum hydrocarbon (EPH) compounds were present in the soil beneath the Site in concentrations that exceeded the respective DEQ risk-based screening levels (RBSLs) (Pioneer, 2020). Based on the results of the RI, Pioneer recommended continuing with groundwater monitoring and considering some type of *in situ* treatment to address the subsurface gasoline contamination. On November 13, 2020, the DEQ issued an Additional Corrective Action Work Plan letter. Pioneer submitted an additional corrective action work plan (WP ID #34209) and the subsequent system installation report (Pioneer, 2022) detailing the results of the AS/SVE system installation, initial startup, and associated groundwater, air, and soil sampling.

The AS/SVE system installation report indicated that subsurface soil has concentrations of VPH and EPH present above respective DEQ RBSLs. Monitoring well JW-04-04 contained approximately 0.1 feet of light non-aqueous phase liquids (LNAPL) (potentially weathered gasoline). Sub-slab vapor intrusion sampling within the buildings showroom indicated several constituents above DEQ and U.S. Environmental Protection Agency residential and/or industrial adjusted regional screening levels are present in the vapor below the concrete slab of the building. The AS/SVE system was made operational on February 1, 2022. By February 14, 2022, approximately 15,419 pounds of vapor-phase VPH or 2,447 gallons of gasoline were removed from the Site (Pioneer, 2022).

In accordance with Work Plan #34998, Pioneer completed bi-weekly Site inspections of the AS/SVE system from system start on September 7, 2023, to system stop on November 20, 2023, submitted two AS/SVE effluent samples for laboratory analysis, and completed two groundwater monitoring events, one on August 24, 2023, and a second on February 1, 2024. The results of the results of the system were detailed in the Soil Vapor Extraction (SVE) and Air Sparge (AS) System Monitoring



Report dated February 2023, (Pioneer 2023). Results from the AS/SVE system and groundwater monitoring events provided the following conclusions:

- The AS/SVE system has been effective at removing hydrocarbons from the Site. At system start-up (September 7, 2023), the system effluent had a VPH-total petroleum hydrocarbon (TPH) concentration of 208 milligrams per cubic meter. When the system was shut down due to freezing conditions (November 20, 2023), VPH-TPH was measured at a concentration below laboratory reporting limits (20 milligrams per cubic meter).
- For the 2023 season, approximately 380 pounds of vapor phase VPH or 60 gallons of gasoline have been removed from the Site. Since system start up on February 1, 2022, approximately 23,041 pounds of vapor phase VPH or 3,657 gallons of gasoline have been removed from the Site.
- Monitoring wells JW-04-04 and JW-04-05 contained VPH constituents above DEQ RBSLs for both monitoring events.
- Monitoring well JW-04-04 exceeded the following RBSLs:
  - $\circ~$  Benzene RBSL (5 microgram per Liter [µg/L]) with a peak value of 6.6 µg/L.
  - $\circ~$  C9 to C10 Aromatics RBSL (1,100  $\mu g/L)$  with a peak value of 3,150  $\mu g/L.$
  - $\circ~$  C5 to C8 Aliphatics RBSL (650  $\mu g/L)$  with a peak value of 2,130  $\mu g/L.$
  - $\circ$  C9 to C12 Aliphatics RBSL (1,400  $\mu$ g/L) with a peak value of 4,650  $\mu$ g/L.
- Monitoring well JW-04-05 exceeded the C5 to C8 Aliphatics RBSL with a peak value of 1,540  $\mu$ g/L and the C9 to C12 Aliphatics RBSL with a peak value of 2,830  $\mu$ g/L.
- Monitoring wells MW-19-01, MW-19-02, JW-04-04, and JW-04-05 indicate an overall decreasing trend in VPH constituent concentrations since the AS/SVE system start-up on February 1, 2022.

Pioneer recommended that the system continue to operate and that Release #4482 continue to be monitored through groundwater monitoring events over the next year to evaluate the effectiveness of the installed remedial system.

The DEQ outlined these recommendations in the work plan request letter dated January 22, 2025. These recommended actions are included in this work plan, which involves re-starting the AS/SVE system, conducting twice monthly O&M system checks, sampling the AS/SVE system exhaust stream quarterly, conducting two semi-annual groundwater monitoring events, preparing an Interim Data Submittal (IDS) following the initial groundwater monitoring event and preparing a Cleanup 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 Stillwater Lumber facility (former Platinum Motors) is located at 702 East Pike Avenue, in Columbus, Montana, at the northeast corner of the intersection of Diamond Street and East Pike Avenue (Old U.S. Highway 10 [U.S. Hwy 10]). The building is currently being leased as a brewery (Palladium Draughthaus). The Site is fairly level with an elevation of approximately 3,140 feet above mean sea level. The Site is surrounded by roadways and other commercial properties within the city limits of the town of Columbus. The Site is a rectangular-shaped parcel that is bordered by a city alley to the north, across from which is a single-family residence; Diamond Street to the west, across from which is a vacant gasoline station; East Pike Avenue (Old U.S. Hwy 10) to the south, across from which is a lumber storage yard; and a motel and gasoline station is adjacent to the east. This area of the city has public utility city services (potable water and sanitary and storm sewer). The location of the Site is shown on the Location and Vicinity Map, Figure 1, and Site Map, Figure 2, provided in Attachment 1.

The property contains a one-story, slab-on-grade, brick, wood, steel, and masonry building and is surrounded by a paved asphalt lot with parking areas.

Two groundwater monitoring wells (JW-04-04 and JW-04-05) are located to the south of the property along the East Pike Avenue (Old U.S. Hwy 10) right-of-way. A third groundwater monitoring well (MW-19-03) is located along Diamond Street adjacent to the southwest corner of the property. Two additional groundwater wells (MW-19-01 and MW-19-02) are in the parking area on the southeast corner of the property. Three groundwater monitoring wells are located south across Pike Avenue, which were installed by DEQ in the 1990's to investigate other release sites in the area of the subject facility. These wells are labeled as JW-5, JW-6, and JW-8. These wells are shown on the Site Map (Figure 2). The AS/SVE system wells and associated piping are located in the southeast quarter of the property. The AS/SVE system layout can be seen on the AS/SVE System Layout Map (Figure 3).

## 2 OBJECTIVES OF ADDITIONAL CORRECTIVE ACTION WORK PLAN

The objective of this additional corrective action work plan is to outline the continued operation, maintenance, and monitoring of the AS/SVE system, continued groundwater monitoring, indoor air screening, and reporting.

## **3** Additional Corrective Action Work Plan Tasks

The scope of the work will include semi-annual groundwater monitoring of five facility groundwater monitoring wells (JW-04-04, JW-04-05, MW-19-01, MW-19-02, and MW-19-03), and three off-site groundwater monitoring wells (JW-5, JW-6, and JW-8) and the continued operation, optimization, maintenance, and operation of the AS/SVE system in 2025, and reporting. The scope of work will be



conducted to continue with the operation of the AS/SVE system and monitoring of the dissolvedphase petroleum hydrocarbon plume for Release #4482. The work will include the following tasks:

- Task 1 Project Management and Planning.
- Task 2 Semi-Annual Groundwater Monitoring
- Task 3 Indoor Air Screening
- Task 4 AS/SVE O&M
- Task 5 Reporting

#### Task 1 – Project Management and Planning

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

- Coordinating Site work.
- Preparing this Work Plan.
- Scheduling personnel.
- Coordinating activities of owners, regulators, and analytical testing laboratory.
- Updating the Site-Specific Health and Safety Plan to complete the work.
- Conducting planning meetings with owner and DEQ project manager as deemed necessary by DEQ project manager.

We will update the Site-Specific Health and Safety Plan and complete the work as approved by the Montana DEQ. Related to scheduling, we will manage, schedule, and supervise all work to ensure it is completed as proposed and in a timely manner.

#### Task 2 – Semi-Annual Groundwater Monitoring

Pioneer personnel will collect groundwater samples from the five facility monitoring wells (JW-04-04, JW-04-05, MW-19-01, MW-19-02, and MW-19-03), and three off-site wells (JW-5, JW-6, and JW-8) during the two proposed monitoring events (June and November). For each event, we will gauge and purge the wells and collect groundwater samples. The June event is expected to be during high water conditions while the November event will occur during low water conditions.

Prior to groundwater sample collection, we will gauge each of the eight existing groundwater monitoring wells for depth to water and 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 a well does not contain LNAPL, then the team will collect groundwater samples from the well. If LNAPL is detected, the team will not collect any samples from the LNAPL impacted well, will note the conditions in a logbook, and notify 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 in accordance with 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 foot) 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. 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 screen. 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. in Billings, Montana. If the EPH screen result, for a given groundwater sample, is greater than 1,000  $\mu$ g/L, the sample will be submitted for EPH fractionation without polycyclic aromatic hydrocarbons. For this Work Plan, we are assuming that approximately half of the samples will require EPH fractionation. 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 according to Montana DEQ standards.

#### Task 3 – Indoor Air Screening

DEQ has requested indoor air screening and monitoring for the presence of petroleum vapors in the building during the routine AS/SVE systems checks to screen for the presence of petroleum vapors using a photoionization detector (PID). The building will be screened for the presence of volatile organic compounds using a PID during each system check. Completion of the scope of work included in this Work Plan is to monitor breathing air and building foundation penetrations such as cracks in the flooring, utility entry or exit points, and corridors in the building during each monitoring event.

## Task 4 – AS/SVE System Repair and Operation and Maintenance

Pioneer will re-start the system in early spring 2025 and operate it continuously until the end of November 2025. During that time, Pioneer will perform twice-monthly system checks and make any system operating adjustments necessary to optimize the removal of petroleum hydrocarbons. During each system check, Pioneer will also use an air velocity meter to measure velocity, flow rate, and temperature of the vapor exhaust stream and will measure the exhaust stream with a PID.

After the initial AS/SVE start-up and operation, Pioneer will collect a quarterly SVE system exhaust air sample and submit it to the analytical laboratory to be analyzed for air-phase VPH. The quarterly air samples will be collected during the months of May, August, and November. The results of the VPH analyses and air velocity readings will be used to estimate the monthly total volume of petroleum vapors removed by the system. For this Cleanup Work Plan, it is assumed that three samples will be collected and tested for VPH analyses.

Pioneer will prepare quarterly O&M letter reports detailing the monitoring activities completed and the results of the building monitoring, system operation, and periodic exhaust gas sampling. The letter reports will also provide summary tables with the laboratory analytical data for the air



samples, laboratory analytical reports for the SVE system exhaust air samples, and field sample data sheets and related field data. Monthly O&M letter reports will be completed for the air sampling events completed in May and August.

#### Task 5 – Reporting

*Interim Data Submittal (IDS).* Pioneer will prepare and submit an IDS for the June 2025 groundwater monitoring event according to *Montana Groundwater Monitoring Work Plan and Report Guidance for Petroleum Releases* (DEQ, 2021). The report will follow DEQ report format and include the following:

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

**Cleanup Report and RCP.** Pioneer will prepare and submit a Cleanup Report according to *Montana Groundwater Monitoring Work Plan and Report Guidance for Petroleum Releases* (DEQ, 2021). The Cleanup Report will detail the method and results of the June and November 2025 groundwater monitoring events and the 2025 SVE bi-monthly system checks and the quarterly air monitoring events to be completed under this Work Plan. The report will follow DEQ report format and include the following:

- Updated facility maps illustrating locations of utilities, former fuel systems, Site buildings, locations of petroleum source material areas, receptors including underground utilities, and locations of groundwater monitoring wells.
- Tables summarizing field data and cumulative laboratory analytical data for groundwater water samples and air samples.
- Laboratory analytical reports for groundwater samples and air samples.
- Field sample data sheets and related field data.
- Data interpretation and recommendations relevant for further remediation and/or closure plan for the release.
- Data validation documentation using DEQ Data Validation Summary Forms.



• An updated RCP.

#### **4 COST ESTIMATES**

The cost estimate to perform this scope of work is included in Attachment 2.

## **5 S**CHEDULE

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 early spring of 2025. The project as described in this Work Plan will last up to 12 months. Therefore, the final report will be issued 45 days after the late fall 2025 sample event, in January or February 2026.



#### **6 REFERENCES**

- DEQ, 2021. Montana Groundwater Monitoring Work Plan and Report Guidance for Petroleum Releases. Montana Department of Environmental Quality. March 2021.
- Pioneer, 2020. Abbreviated Generic Applications Report, Stillwater Lumber (Former Platinum Motors). Prepared for the Montana Department of Environmental Quality. July 2020.
- Pioneer, 2022. Soil Vapor Extraction (SVE) and Air Sparge (AS) System Installation Report Stillwater Lumber (Former Platinum Motors). March 2022.
- Pioneer, 2023. Soil Vapor Extraction (SVE) and Air Sparge (AS) System Monitoring Report Stillwater Lumber (Former Platinum Motors). February 2023.
- Weston, 2016a Phase I Environmental Assessment for Drain Properties, 702 Pike Ave. Columbus, Stillwater County, Montana. Weston Solutions. March 2016.
- Weston, 2016b Phase II Environmental Assessment for Drain Properties, 702 Pike Ave. Columbus, Stillwater County, Montana. Weston Solutions. August 2016.
- Weston, 2017 Abbreviated Corrective Action Report for Drain Properties, 702 Pike Ave. Columbus, Stillwater County, Montana. Weston Solutions, 2016. May 2017.



## Attachment 1 Figures

Figure 1. Location and Vicinity Map Figure 2. Site Map Figure 3. AS/SVE System Layout Map



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Attachment 2 Cost Estimate

Groundwater Monitoring Work Plan 34998 – Stillwater Lumber Facility



#### Groundwater Monitoring and Sampling Unit Cost Worksheet

7/28/2022	ost Estimate Expl. Work Plan Tasks	Unit Cos	t Worksheet	Help
Contractor Information	Pioneer Technical Services Inc.			
Address:	1101 S. Montana St.			
City, State, Zip:	Butte, MT 59701			
Cost Estimator/Print Name:	Charlie Peterson	Phone:	406-702-2430	
Signature:	Charlie Peterson	Date:	2/22/2025	
<b>Project Information</b>				
Site Name:	Former Platinum Motors	Facility ID#	48-04575	
Address:	702 East Pike Avenue	Release #	4482	
City:	Columbus	WP ID#	34998	
		Treads ID#	28569	



# **Petroleum Tank Release Compensation Board**

STATE OF MONTANA

P.O. Box 200902 • Helena, MT 59620-0902 • (406) 444-9710

# **Groundwater Monitoring and Sampling Summary Sheet**



#### 2 Total Events

7/28/2022

