

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

April 17, 2023

Mr. Wes Thomas
Oregon Department of Environmental Quality
Northwest Region, Portland Office
Portland Harbor Section
700 NE Multnomah Street, #600
Portland, Oregon 97232

HAI Project No. 2708
DEQ ECSI File No. 84

**SUBJECT: Progress Report, NW Natural Site, 7900 NW St. Helens Avenue and
7200 NW Front Avenue, Portland, Oregon**

Dear Mr. Thomas,

Hahn and Associates, Inc. (HAI) has prepared this monthly Progress Report to summarize Remedial Investigation/Feasibility Study (RI/FS) and source control-related work activities conducted by NW Natural relating to historic manufactured gas plant (MGP) activities at the NW Natural Site during the month of March 2023. NW Natural is completing upland investigation and cleanup activities at the NW Natural Site under the Voluntary Agreement No. ECVC-WMCVC-NWR-94-13 (Voluntary Agreement) between NW Natural and the Oregon Department of Environmental Quality (DEQ).

**1. ACTIONS TAKEN UNDER THE VOLUNTARY AGREEMENT DURING
THE PREVIOUS MONTH**

Tasks related to maintenance of the HC&C system and the groundwater treatment system were conducted during March 2023, with the system operating in full long-term operational mode.

A total of 10,517,643 gallons of water were treated in the on-site groundwater treatment plant and discharged during March 2023 with all monitoring and reporting completed in accordance with the facility's NPDES permit.

Field activities related to monitoring and maintenance of the dense non-aqueous phase liquid (DNAPL) extraction system at Fill water bearing zone (WBZ) well locations MW-6-32 and MW-13-30 occurred during March 2023. The system recovered approximately 5 gallons of fluids in March. Recovered fluids (accumulating since tank emptying on April 28, 2022) are estimated to be between 50% and 60% DNAPL with 335 gallons of total fluids in tank storage.

DNAPL entry into Fill WBZ Trench T-50 was first observed during August 2022 with subsequent plumbing of a DNAPL pump within the sump at this location. To date approximately 149 gallons of DNAPL have been recovered from the T-50 sump, approximately 37 gallons of which were recovered during March 2023.

Baseline DNAPL removal as needed to maintain levels below the top of the well sumps was conducted by Anchor QEA during March 2023 in the following wells near the river shoreline.

- MW-18-30
- MW-26U

- MW-27U
- MW-38U
- MW-PW2L
- PW-2L
- PW-6U
- PW-13U
- PW-14U

Water removal from the Koppers Basin continued during March 2023 as needed to keep the basin free of standing water. A total of 841,533 gallons of water were removed from the basin during March 2023 with treatment through the Groundwater Treatment System. Visual observations during March confirmed that the basin remained free of standing water during this timeframe.

Activities related to programming and testing software to monitor and control the permanent pump installed within the former Koppers tank basin were completed during March, allowing the surface water removal to transition from the temporary pump to the permanent pump during this timeframe (permanent pump became operational on March 13, 2023).

Pumping tests of select Fill WBZ monitoring wells as described in the DEQ approved *Feasibility Study Comprehensive Data Gaps Work Plan* were completed during March 2023.

Installation of replacement well PW-10Lc was initiated during March 2023.

The routine semi-annual groundwater monitoring event including select wells on the NW Natural and adjacent Siltronic properties was initiated during March 2023.

Sampling to support estimation of the effective solubility of DNAPL as approved by DEQ in e-mail correspondence dated March 16, 2023 was initiated during March 2023.

A sample of water discharging from City of Portland Outfall 22C was collected from the City of Portland Outfall 22C on March 24, 2023 during a storm event meeting updated sampling criteria as approved in DEQ e-mail correspondence dated March 20, 2023. This was the second wet weather sample collected from Outfall 22C as per the DEQ-approved *Doane Creek Source Control Evaluation Workplan*.

The following upland FS related field tasks were in progress during March 2023:

- Monthly measurements of DNAPL presence at Fill WBZ wells MW-10-25, MW-43F, MW-44F, and MW-45F were conducted during March 2023. Trace (0.01 feet) of DNAPL was present in well MW-43F; no observable DNAPL was present within well MW-44F; 0.49 feet of DNAPL was present within well MW-45F; and 0.69 feet of DNAPL was present within well MW-10-25 during March. The DNAPL from wells MW-45F (0.5 gallons) and MW-10-25 (0.7 gallons) was last removed on November 18, 2022.

2. ACTIONS SCHEDULED TO BE TAKEN IN THE NEXT MONTH

NW Natural and DEQ technical working group communications and meetings will occur as needed within the next month to discuss ongoing project tasks.

Routine baseline DNAPL measurements and removal will continue as needed to maintain levels below the top of the well sumps in nearshore HC&C-related wells. Baseline measurement and removal of DNAPL from additional select upland area wells will also continue.

Tasks related to routine maintenance of the HC&C system and the groundwater treatment system will be conducted.

The Koppers tank basin will continue to be visually monitored to ensure that it remains free of standing water.

Installation of replacement well PW-10Lc, initiated during March 2023, will be completed during April 2023.

Installation of replacement well PW-10Ub will be initiated during April 2023.

The routine semi-annual groundwater monitoring event including select wells on the NW Natural and adjacent Siltronic properties, initiated during March 2023, will be completed during April 2023.

Sampling to support estimation of the effective solubility of DNAPL, initiated during March 2023, will be completed during April 2023.

Soil boring activities as described in the January 25, 2023 *Feasibility Study Comprehensive Data Gaps Work Plan*, conditionally approved by DEQ in correspondence dated February 13, 2023, will be initiated during April 2023.

Monitoring since September 2017 indicates that DNAPL proximate to wells MW-43F and MW-44F has not been sufficiently mobile to accumulate the minimum thickness required for sampling (0.5 feet). A DNAPL sample will be collected for laboratory DNAPL mobility assessment testing from wells MW-43F and MW-44F if measurable thicknesses / sufficient volumes of DNAPL are identified at these locations in the future.

A sample of water discharging from City of Portland Outfall 22C may be collected at the discretion of the project team from the City of Portland Outfall 22C during April if storm event or baseflow sampling criteria, as specified in the DEQ-approved *Doane Creek Source Control Evaluation Workplan* (updated sampling criteria as approved March 20, 2023) are satisfied.

3. LABORATORY TEST RESULTS RECEIVED DURING THE PREVIOUS MONTH

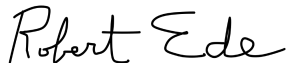
NW Natural receives test results on a regular basis as a result of routine monitoring related to groundwater quality or as specified by various permit requirements. Additionally, test results are periodically received through implementation of task-specific investigation activities resulting from agency-approved work plans. These data are provided to DEQ or the permitting authority (if different than DEQ) in accordance with previously approved formats and schedules.

4. PROBLEMS EXPERIENCED DURING THE PREVIOUS MONTH

There were no problems of significance experienced during the previous month.

Should you have any questions, please contact the undersigned.

Sincerely,



Rob Ede, R.G.
Principal

robe@hahnenv.com

cc: Mr. Bob Wyatt, NW Natural
Ms. Patty Dost, Pearl Legal Group PC
Mr. John Edwards, Anchor QEA, L.L.C.
Mr. Ben Hung, Coalition Environmental LLC
Mr. Ryan Barth, Anchor QEA, L.L.C.
Ms. Halah Voges, Anchor QEA, L.L.C.
Ms. Jen Mott, Anchor QEA, L.L.C.
Mr. John Renda, Anchor QEA, L.L.C.
Mr. Tim Stone, Anchor QEA, L.L.C.
Mr. Todd Thornburg, Anchor QEA, L.L.C.
Mr. Chip Byrd, Severson Environmental Services, Inc.
Mr. Mike Crystal, Severson Environmental Services, Inc.
Mr. Henning Larsen, DEQ NW Region
Mr. Paul Seidel, DEQ NW Region
Mr. Dan Hafley, DEQ NW Region
Ms. Jennifer Peterson, DEQ NW Region
Mr. Mike Poulsen, DEQ NW Region
Ms. Traci Parker, Siltronic Corporation
Ms. Elizabeth Bingold, Siltronic Corporation
Mr. Mike Murray, Maul Foster & Alongi, Inc.
Ms. Mary Benzinger, Maul Foster & Alongi, Inc.
Ms. Kelly Titkemeier, Maul Foster & Alongi, Inc.
Mr. David Rabbino, Jordan Ramis, PC
Mr. Hunter Young, Region 10 EPA
Mr. Lance Peterson, CDM, Inc.