

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

June 16, 2014

Mr. Dana Bayuk
Oregon Department of Environmental Quality
Northwest Region, Portland Office
Portland Harbor Section
2020 SW Fourth Avenue, Suite 400
Portland Oregon 97201-4987

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. Bayuk:

Hahn and Associates, Inc. (HAI) has prepared this monthly Progress Report summarizing 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 May 2014. NW Natural is completing upland investigatory 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).

1.0 Communications and Document Submittals

In correspondence dated May 5, 2014 (Rob Ede to Dana Bayuk), HAI provided notice of pending field activities related to excavations needed for pipeline repair work on the NW Front Avenue extension, located between the Gasco and Siltronic properties. DEQ acknowledged receipt of this notification in correspondence dated May 12, 2014 (Dana Bayuk to Rob Ede).

In correspondence dated May 6, 2014 (Rob Ede to Dana Bayuk), HAI provided notice of pending field activities related to groundwater sample collection from newly installed RI monitoring wells at Siltronic (NWN-11 through NWN-13 series wells).

In correspondence dated May 7, 2014 (Ben Hung to Dana Bayuk), Anchor QEA, on behalf of NW Natural, requested information on the status of DEQ review of various previously submitted documents.

In correspondence dated May 8, 2014 (Dana Bayuk to Bob Wyatt), DEQ provided comments from review of NW Natural's October 2013 *Human Health and Ecological Risk Assessment Report – NW Natural Gasco Site* (Draft HERA Report).

In correspondence dated May 8, 2014 (John Edwards to Dana Bayuk), NW Natural acknowledged receipt of DEQ's April 28, 2014 approval of the November 10, 2013 *Revised Fill WBZ Trench Workplan* and provided proposed dates for submission of the related SAP and QAPP documentation.

In correspondence dated May 12, 2014 (Terry Driscoll to Dana Bayuk), NW Natural requested DEQ approval for routine disposal of solid residuals (filter cake and spent filter bags with solids) from the Source Control Treatment Facility.

In correspondence dated May 14, 2014 (Dana Bayuk to Bob Wyatt), DEQ provided comments from review of NW Natural's March 2014 *Final Hydraulic Source Control and*

Containment System Groundwater Model Update Report – NW Natural – Gasco Site
(Model Update Report).

In correspondence dated May 14, 2014 (Dana Bayuk to Bob Wyatt), DEQ acknowledged receiving NW Natural's May 12, 2014 request for routine disposal of Source Control Treatment Facility residuals.

In correspondence dated May 20, 2014 (Dana Bayuk to Bob Wyatt), DEQ provided comments and conditional approval from review of NW Natural's April 10, 2014 *Data Report: Groundwater Source Control Extraction System Test – Phase 1 – Step 4, NW Natural Gasco Site* (Phase 1-Step 4 Test).

A meeting with representatives of NW Natural and DEQ was conducted on May 27, 2014 in order for DEQ to describe conditions for approval of the HERA Report and the process for completing the HERA.

In correspondence dated May 27, 2014 (Ben Hung to Dana Bayuk), NW Natural transmitted supplemental information as related to the May 12, 2014 request for DEQ approval of routine disposal of Source Control Treatment Facility residuals.

In correspondence dated May 28, 2014 (Dana Bayuk to Ben Hung), DEQ provided approval for NW Natural's previous request to submit the SAP and QAPP documentation related to the Fill WBZ Trench Workplan on June 10, 2014.

In correspondence dated May 30, 2014 (Ben Hung to Dana Bayuk), NW Natural transmitted questions and requests for clarification as related to DEQ comments on the Draft HERA, to be used to facilitate discussion during a June 10, 2014 meeting with NW Natural and DEQ.

In correspondence dated May 30, 2014 (Dana Bayuk to Terry Driscoll), DEQ provided NW Natural with an update of review of NW Natural's May 12, 2014 request for approval of routine disposal of Source Control Treatment Plant residuals.

2.0 Field Work

Monitoring wells NWN-11-24, NWN-12-20, NWN-13-23; NWN-13-73, and NWN-13-106 were sampled by NW Natural on May 14 and 15, 2014 as part of NW Natural MGP-related RI activities at the Siltronic property.

Development activities related to piezometers PZ9-5, PZ9-50, PZ9-75, PZ9-110, and PZ9-150, initiated in April, continued during May 2014.

HAI field activities related to monitoring and maintenance of the dense non-aqueous phase liquid (DNAPL) extraction system at surficial fill well locations MW-6-32 and MW-13-30 occurred during May. The system recovered approximately 60 gallons of fluids, primarily DNAPL, during this time.

Tasks related to optimization of the hydraulic control and containment system and the wastewater treatment system were conducted in May 2014 with continued operation and testing.

Baseline DNAPL removal as needed to maintain at levels below the tops of the well sumps, was conducted by Anchor QEA in the following wells near the river shoreline.

- PW-2L
- MW-PW2L

- MW-18-30
- MW-26U
- MW-38U

Discharge of treated water to the City of Portland sanitary sewer was initiated on March 16, 2007 under Industrial Wastewater Discharge Permit 500.022 (expires February 15, 2017). Results from NW Natural's effluent sampling are provided to BES in Discharge Monitoring Reports that are submitted for any month that effluent sampling has occurred – which is at least quarterly (assuming active discharge during the period) in accordance with the permit.

On March 31, 2014 NW Natural discontinued remaining discharges of treated groundwater to the sanitary sewer, with all water instead being directed to NW Natural's on-site wastewater treatment plant followed by discharge to the Willamette River via permitted outfall National Pollutant Discharge Elimination System (NPDES) Permit No. 103061 (expires August 31, 2018). Results from NW Natural's NPDES effluent sampling are provided to DEQ in Discharge Monitoring Reports that are submitted on a monthly basis in accordance with the permit. As of May 31, 2014 a total of 30,798,389 gallons of treated water were discharged under the NPDES permit.

Decommissioning and removal of the existing (now dormant) treatment system plumbed to the sanitary sewer as described in Industrial Wastewater Discharge Permit 500.022 was initiated during May 2014, with complete removal from the site anticipated to occur during June 2014.

3.0 Anticipated Activities June and July 2014

NW Natural and DEQ technical working group communications and meetings are anticipated to occur as needed during June and July 2014 to discuss ongoing project tasks, including DEQ-requested revisions to the Gasco HERA document.

Development piezometers installed off-shore of the Siltronic property will be completed in June 2014 once river levels drop sufficiently to allow access into the casing without allowing river water infiltration.

Groundwater sampling activities as described within the Integrated Groundwater Monitoring Program (combined HC&C system Performance Monitoring and the Routine Monitoring Programs) was scheduled for completion in early to mid-June by representatives of Anchor QEA and HAI. The scheduling of this sampling event has been affected by DEQ's May 8, 2014 request (HERA comments) to add TPH to the groundwater analyte list.

DEQ-requested revisions to the *Final Hydraulic Source Control and Containment System Groundwater Model Update Report* will be provided to the DEQ for review in mid-June 2014 (submitted in correspondence dated June 13, 2014).

TarGOST monitoring as related to the Performance Monitoring Program for the Groundwater Source Control Extraction System is anticipated to occur during the latter part of June 2014.

Supplemental DNAPL investigation-related activities associated with the approved RI Field Sampling Plan are anticipated to be initiated by NW Natural in early July 2014. Initiation of supplemental Doane Creek investigation activities remain contingent upon

receipt of DEQ confirmation that the analyte list and screening levels are suitable for the Human Health and Ecological Risk Assessment.

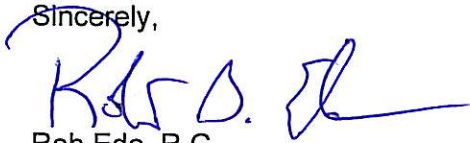
Phase 1 Step 5 Testing of the Groundwater Source Control Extraction System is anticipated to occur during July 2014.

The following reports and work plans for the Site have been submitted to DEQ through the date of this progress report. Unless otherwise noted, NW Natural has not received DEQ comments on these documents.

- NW Natural's May 12, 2014 request (Terry Driscoll to Dana Bayuk) for DEQ approval of routine disposal of solid residuals (filter cake and spent filter bags with solids) from the Source Control Treatment Facility, transmitted in correspondence dated May 12, 2014 (Terry Driscoll to Dana Bayuk).
- NW Natural's June 5, 2014 request (Rob Ede to Dana Bayuk) requesting concurrence of a final proposed analyte list and screening levels for use in the Doane Creek-related FSP being conducted as part of the Siltronic property RI.
- *Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP), Fill WBZ Trench*, dated June 2014, Anchor QEA. (submitted to DEQ in correspondence dated June 10, 2014).
- NW Natural's June 13, 2014 request (Tim Stone to Dana Bayuk) for concurrence for transport and recycling of oil-water mixture originating from the Trichloroethene Contaminated Medial Management Area (TCE CMMA) of the NW Natural Gasco Site.

Should you have any questions, please contact the undersigned.

Sincerely,



Rob Ede, R.G.
Principal

robe@hahnenv.com

- c:
- Mr. Bob Wyatt, NW Natural (electronic only)
 - Ms. Patty Dost, Pearl Legal Group PC (electronic only)
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 - Mr. John Edwards, Anchor QEA, L.L.C. (electronic only)
 - Mr. Ben Hung, Anchor QEA, L.L.C. (electronic only)
 - Mr. Ryan Barth, Anchor QEA, L.L.C. (electronic only)
 - Mr. Henning Larsen, DEQ NW Region (electronic only)
 - Mr. Tom Gainer, DEQ NW Region (electronic only)
 - Mr. Keith Johnson, DEQ NW Region (electronic only)
 - Mr. Myron Burr, Siltronic Corporation (electronic only)
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 - Mr. Sean Sheldrake, Region 10 EPA (electronic only)
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 - Mr. Lance Peterson, CDM, Inc. (electronic only)