

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

July 15, 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 June 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 June 2, 2014 (Rob Ede to Dana Bayuk), HAI provided notice to DEQ that previously containerized purge water generated within the spent TCE Contaminated Media Management Area and stored on NW Natural property would be processed through the "Siltronic Pre-Treatment System" followed by on-site treatment and discharge to the river via the current NPDES permit.

In correspondence dated June 3, 2014 (John Renda to Dana Bayuk), and at the request of DEQ, Anchor QEA submitted documentation to the agency related to extraction well redevelopment activities.

Meetings for clarification and discussion related to DEQ comments on the Gasco Upland Human and Ecological Risk Assessment (HERA) were conducted on June 4, 19, and 20, 2014 between representatives of DEQ and NW Natural. Numerous e-mail transmittals were shared between parties during June in an effort to clarify and resolve DEQ comments and define a path forward for finalization of the HERA.

In correspondence dated June 5, 2014 (Rob Ede to Dana Bayuk), HAI, on behalf of NW Natural, requested 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.

In correspondence dated June 6, 2014 (John Edwards to Dana Bayuk), Anchor QEA provided a summary of a June 4, 2014 meeting with representatives of NW Natural, DEQ, and EPA in which the Phase 1 Step 4 HC&C System report was discussed, as well as modifications to the proposed Phase 1 Step 5 test plan.

In correspondence dated June 10, 2014 (John Edwards to Dana Bayuk), Anchor QEA, on behalf of NW Natural, submitted the *Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP), Fill WBZ Trench* to DEQ for review.

In correspondence dated June 13, 2014 (John Edwards to Dana Bayuk), Anchor QEA, on behalf of NW Natural, submitted the *Revised Final Hydraulic Source Control and Containment System Model Update Report* to DEQ for review.

In correspondence dated June 13, 2014 (Tim Stone to Dana Bayuk), Anchor QEA, on behalf of NW Natural, submitted a request for concurrence for transport and recycling of oil-water mixtures originating from the Trichloroethene Contaminated Media Management Area (TCE CMMA) of the NW Natural Gasco Site to DEQ.

In correspondence dated June 18, 2014 and follow-up correspondence dated June 25, 2014 and June 26, 2014 (Rob Ede to Dana Bayuk), HAI provided notice of pending field work including a tentative schedule and sampling order for the implementation of NW Natural's DNAPL Characterization FSP on the Siltronic property.

A Program Management Implementation meeting was conducted with DEQ on June 19, 2014 to discuss NW Natural program management and project schedules.

In correspondence dated June 26, 2014 (John Edwards to Dana Bayuk) Anchor QEA transmitted the schedule for completing the Phase 1 Step 5 test of the HC&C system to DEQ. DEQ acknowledged receipt of the schedule in correspondence dated June 26, 2014 (Dana Bayuk to John Edwards).

2.0 Field Work

Development activities related to piezometers PZ9-75 and PZ9-150 were completed on June 10 and 11, 2014.

TarGOST monitoring activities related to the Performance Monitoring Program for the Groundwater Source Control Extraction System occurred during the week of June 23, 2014.

Supplemental DNAPL investigation-related activities associated with the approved Siltronic property RI Field Sampling Plan were initiated by NW Natural on June 24, 2014 (brush clearing and utility clearing), with boring installation and core collection beginning on June 30, 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 June. The system recovered approximately 14 gallons of fluids, primarily DNAPL, during this time.

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

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.

- MW-18-30
- MW-26U
- MW-38U
- MW-PW-2L

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 June 30, 2014 a total of 41,423,170 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. Complete removal of this system from the site is anticipated to occur during July 2014.

3.0 Anticipated Activities July and August 2014

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

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

Supplemental DNAPL investigation-related activities associated with the approved RI Field Sampling Plan, initiated in June 2014, are anticipated to be completed by mid-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 Siltronic MGP Human Health and Ecological Risk Assessment.

Phase 1 Step 5 Testing of the Groundwater Source Control Extraction System is scheduled to occur during July 2014 (July 10, 2014 through July 17, 2014).

Transport and recycling of the oil-water mixture originating from the TCE CMMA of the NW Natural Gasco Site will be scheduled following further feedback and discussion with DEQ related to NW Natural's request for DEQ concurrence with NW Natural proposal to recycle the material (submitted June 13, 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 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). In a July 10 telecon with John Edwards Dana Bayuk indicated that a conditional approval of this SAP/QAPP would be sent in the middle July timeframe.
- Revised Final Hydraulic Source Control and Containment System Groundwater Model Update Report – NW Natural Gasco Site, dated June 2014, Anchor QEA. (submitted to DEQ in correspondence dated June 13, 2014. DEQ provided conditional approval of this document in correspondence dated July 8, 2014 (Dana Bayuk to Bob Wyatt).
- *NW Natural Revised Proposed Resolutions to Key Conditions for DEQ Approval of the Gasco Upland HERA*, transmitted to DEQ in correspondence dated June 24, 2014 (Bob Wyatt to Keith Johnson).

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)
 - Ms. Sarah Riddle, Pearl Legal Group PC (electronic only)
 - Mr. Carl Stivers, Anchor QEA, L.L.C. (electronic only)
 - 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)
 - Ms. Kristine Koch, Region 10 EPA (electronic only)
 - Mr. Sean Sheldrake, Region 10 EPA (electronic only)
 - Mr. Rene Fuentes, Region 10 EPA (electronic only)
 - Mr. Lance Peterson, CDM, Inc. (electronic only)