

Monthly Progress Report

July 20, 2023

To: Garin Schrieve and Sarah Penfield, Washington State Department of Ecology

From: Nicole Forsberg and Rebecca Desrosiers, Anchor QEA, LLC

cc: Kristin Gaines and Cheryl Vezzani, Northwest Alloys, Inc.

Re: **Former Reynolds Metals Remediation – Monthly Progress Report, June 2023**

Per Section XI of the Consent Decree (CD) issued by the State of Washington Cowlitz County Superior Court on December 14, 2018, Anchor QEA, LLC, is providing the following monthly progress report on behalf of Northwest Alloys, Inc (NWA). This monthly progress report describes the actions taken during the previous month to implement the requirements of the CD. This monthly progress report also summarizes construction progress as outlined in the *Construction Quality Assurance Plan*, Appendix O to the *Final Engineering Design Report, Version 2* (Final EDR; Anchor QEA 2023), approved by the Washington State Department of Ecology (Ecology) on April 14, 2023.

A. List of on-site activities that have taken place during the month

A photograph log of construction activities is included in Attachment A.

- **Installation and maintenance of temporary controls and facilities**
 - Installation and maintenance of temporary erosion and sediment control (TESC) best management practices (BMPs)
 - Envirocon, Inc.,¹ performed sitewide dust suppression control.
 - Observations and monitoring of performance for TESC BMPs
 - Envirocon performed daily stormwater inspections, as documented in their construction stormwater site inspection forms.
 - Changes or improvements to temporary access and staging facilities
 - Envirocon performed utility potholing and locates around the East Force Main and Facility 77.
 - Select fill import material was delivered to the West Staging Area where it was managed by Envirocon.
 - Temporary facilities installed
 - None this period.
 - Installation and maintenance of stormwater control facilities and management of remediation water

¹ Multiple entities were hired by NWA to complete the cleanup. Envirocon is the prime contractor hired by NWA to conduct the remediation work. They have hired several subcontractors who are mentioned in this report, including Keller Management Services, LLC, and Catworks Construction. Anchor QEA is assisting NWA in implementing the *Construction Quality Assurance Plan* (Appendix O to the Final EDR [Anchor QEA 2023]).

- Remediation water generated during the installation of the East Force Main was collected.
- Problems encountered while operating temporary water control facilities
 - None.
- Compliance with permit requirements for managing remediation water
 - No problems were encountered.
- Deviations from project design documents
 - There were no deviations from project design documents.
- **Ground improvement**
 - Keller Management Services, LLC, completed ground improvement measures at East Landfill No. 1. All verification samples were tested with results meeting established geotechnical criteria.
- **Stormwater infrastructure**
 - Envirocon completed dewatering activities and installation of the 16-inch-diameter high density polyethylene (HDPE) piping along the eastern portion of the East Force Main. Backfill material was compacted, and subsequently, the dewatering wells were decommissioned by Glacier Drilling and Dewatering, LLC.
 - Envirocon continued to fuse the 16-inch-diameter HDPE East Force Main conveyance piping.
 - Envirocon continued to install the East Force Main piping toward Facility 77, which included the installation of gate valves at Facility 77.
 - Professional Services Industries, Inc. (PSI), performed backfill material compaction testing along the East Force Main piping alignment.
 - Catworks Construction continued construction and assembly at the East Force Main pumping station in preparation for system startup.
- **Excavation, consolidation, and backfilling**
 - Envirocon completed surface material stripping and grubbing at East Landfill No. 1.
 - Envirocon installed geotextile over the surface of East Landfill No. 1. Geotextile fabric was installed with overlap as per project specifications.
 - Envirocon removed vegetative material surrounding the U-Ditch and commenced construction of a berm surrounding the south side of the U-Ditch using imported select fill.
 - Envirocon performed excavating at Site Unit (SU) 8 with the generated material placed in East Landfill No. 1.
 - Envirocon mixed activated alumina reactive backfill at the West Landfill. Activated alumina was dispersed on the select fill material surface and then mixed using an excavator and dozer.

- Northwest Linings & Geotextile Products, Inc., delivered Envirocon geosynthetic clay liner to be used for cap construction on the West and East Landfills.
- Select fill was placed in SU2 in 12-inch lifts. Material was compacted after each lift, and compaction testing was performed by PSI.
- Envirocon installed a drainage channel along the southern edge of the West Landfill.
- **Cap placement**
 - There were no activities this period.
- **Permeable reactive barrier installation**
 - There were no activities this period.

B. Detailed description of any deviations from required tasks not otherwise documented in project plans and specs or amendment requests

None.

C. Description of all deviations from the Scope of Work and Schedule (Exhibit C) during the current month and any planned deviations in the upcoming month

None.

D. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule

During the June 14 site visit attended by Ecology, NWA conveyed that some project elements were lagging due to unforeseen field conditions and that a plan to defer the work at SU3, SU4, SU5, East Landfill No. 2, and the U-Ditch grading until 2024 was in development. All other planned project work can be completed in 2023. NWA is working with Envirocon to develop a revised construction schedule and will follow up with Ecology in July.

E. Summary of all environmental data received by Owner during the past month

None.

F. (At Ecology's request) All raw data including laboratory analyses and an identification of the source of the sample

Future data are anticipated for remediation water sampling and will be included in this section as available. The commencement of remediation water treatment is pending Ecology approval.

G. A list of deliverables for the upcoming month if different from the schedule and a list of deliverables submitted during May.

Table 1
Deliverables for Upcoming Month

Deliverable	Submittal Date
Compliance Monitoring and Contingency Response Plan	Pending Ecology comments

Table 2
Deliverables Submitted in June

Deliverable	Submittal Date
Facility 77 extension tank package	June 2, 2023

H. Reference

Anchor QEA (Anchor QEA, LLC), 2023. *Final Engineering Design Report, Version 2*. Former Reynolds Metals Reduction Plant – Longview. Prepared for Northwest Alloys, Inc. March 2023.

Attachment A

Construction Photographs

Photograph 1
Dust Suppression



Envirocon, Inc., performing dust suppression control near U-Ditch (facing east).

Photograph 2
Import Material



Select fill import material was delivered to the West Staging Area where it was received and managed by Envirocon (facing northeast).

Photograph 3
East Landfill No. 1 – Ground Improvement



Keller Management Services, LLC, completed ground improvements at East Landfill No. 1 (facing northwest).

Photograph 4
East Force Main – HDPE Pipe Fusing



Envirocon performing fusing of 16-inch-diameter East Force Main high-density polyethylene (HDPE) piping near STA 201+00 (facing southwest).

Photograph 5
East Force Main – Pipe Installation



Trenching for East Force Main pipe installation near Outfall 001S (facing southeast).

Photograph 6
East Force Main Pipe Installation



Envirocon installing 16-inch-diameter HDPE East Force Main piping approaching Facility 77. Note orange tracer line (facing east).

Photograph 7
East Force Main – Gate Valve Installation at Facility 77



East Force Main piping being installed with gate valve near STA 236+51 (facing north).

Photograph 8
East Force Main Piping – Compaction



Envirocon performing compaction along East Force Main piping alignment (facing north).

Photograph 9
East Landfill No.1 – Vegetation Removal



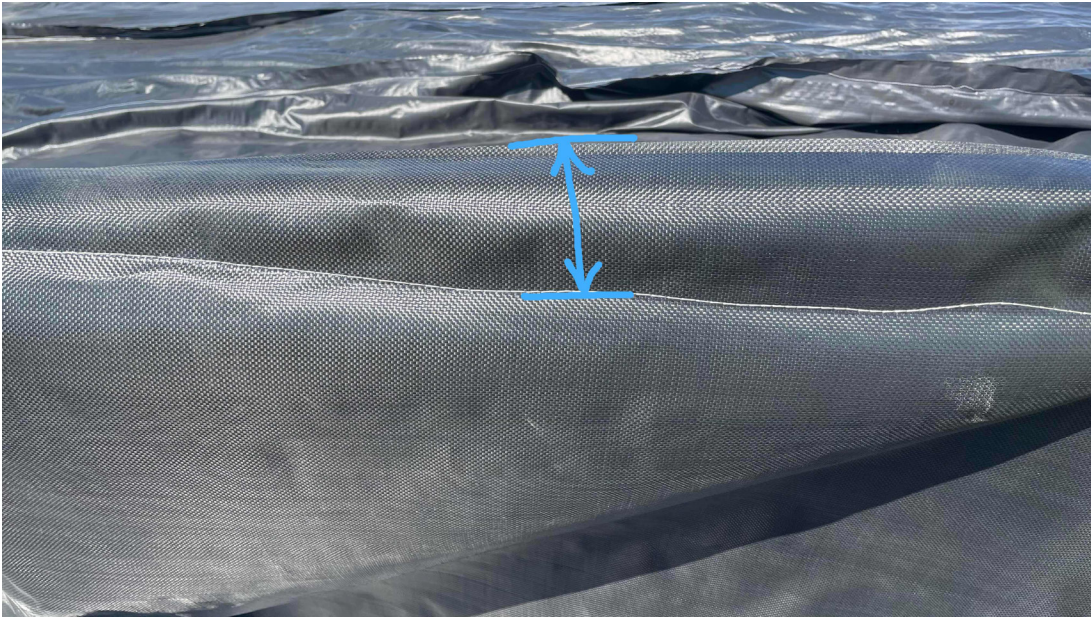
Envirocon removing surface material in preparation of geotextile fabric placement at East Landfill No. 1 (facing southeast).

Photograph 10
East Landfill No. 1 – Geotextile Fabric



Envirocon installed geotextile fabric along a portion of the surface of East Landfill No. 1. Ground surface was grubbed prior to fabric placement (facing northwest).

Photograph 11
East Landfill No. 1 – Geotextile Fabric



Overlap of geotextile fabric at East Landfill No. 1, as per project specifications.

Photograph 12
U-Ditch – Berm Construction



Envirocon constructing berm along the south side of the U-Ditch (facing southeast).

Photograph 13
SU8 Excavating



Envirocon commenced excavating at SU8. Generated material was stockpiled at East Landfill No. 1 (facing southwest).

Photograph 14
West Landfill – Reactive Backfill Placement and Mixing



Envirocon mixing activated alumina reactive backfill into the excavations around the West Landfill (facing east).

Photograph 15
West Landfill – Select Fill Placement



Envirocon placing select fill at West Landfill. Material was placed in 12-inch lifts. Compaction was performed after each 12-inch lift.

Photograph 16
West Landfill – Compaction Testing



Professional Service Industries, Inc., performing West Landfill compaction testing of select fill. Testing performed after each 12-inch lift (facing east).