

Monthly Progress Report

September 20, 2023

To: 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, August 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 site-wide 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, and maintenance on existing TESCOs.
 - Changes or improvements to temporary access and staging facilities
 - Envirocon received, inspected, and stockpiled import material at the West Staging Area.
 - Temporary facilities installed
 - None this period.
 - Installation and maintenance of stormwater control facilities and management of remediation water
 - None this period.

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]).

- Problems encountered while operating temporary water control facilities
 - None this period.
- 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**
 - Work was completed in June 2023.
- **Stormwater infrastructure**
 - Removed surficial concrete for trenching of west force main alignment; performed trenching and installed underground conduit
 - Continued fusing of 14-inch-diameter high density polyethylene (HDPE) west force main piping; installed 14-inch-diameter HDPE piping from Station 123+00 to 100+00
 - Welded 90-degree bends and placed thrust blocks as per project specifications
 - Installed 14-inch-diameter flange valves in preparation for west stormwater force main hydrostatic pressure test
 - Completed hydrostatic pressure test on approximately 1,450 feet of 14-inch-diameter HDPE stormwater force main pipe
 - Prefabricated conduits for West Pump Station alignment
 - Constructed structural slab for the West Pump Station
 - Installed electrical control panel at the West Pump Station, fittings, and valves
 - Completed mechanical, electrical, and plumbing installation at the West Pump Station
 - Installed 74 feet of 24-inch-diameter corrugated polyethylene (CPE) pipe north perimeter ditch of West Landfill; placed a concrete manhole and connected CPE pipe between the manhole and West Pump Station; backfilled around the pipe and manhole and performed compaction testing
 - Set vault near the West Pump Station
 - Completed GPS and survey control activities
- **Excavation, consolidation, and backfilling**
 - **West Landfill and Site Unit (SU) 2**
 - Deployed geotextile fabric in West Landfill
 - Finished placing general fill atop geotextile in West Landfill
 - Placed drain rock over geosynthetic clay liner in south and east perimeter ditches of West Landfill
 - Placed topsoil in West Landfill south perimeter ditch
 - Continued construction of West Landfill east perimeter berm

- Mixed and placed activated alumina reactive backfill at eastern area of SU2
- Backfilled SU2 east with select backfill
- Placed topsoil in SU2
- **Site Unit 8 and East Landfill No. 1**
 - Continued SU8 excavation and material placement in East Landfill No.1
 - Staged carbon blocks at perimeter of SU8
 - Completed excavation and topographic survey at SU8
 - Continued grading activities at East Landfill No. 1
- **Site Unit 10**
 - Completed backfilling using select fill, set final grade, and placed topsoil
 - Completed final surveys
- **Cap placement**
 - Refer to the previous West Landfill discussion.
- **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

None.

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

None.

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

Table 1
Deliverables for Upcoming Month

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

Table 2
Deliverables Submitted in August

Deliverable	Submittal Date
None	N/A

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
West Staging Area



Envirocon, Inc., loading select fill at West Staging Area to transport to Site Unit (SU) 2.

Photograph 2
West Force Main



Catworks trenching along west force main alignment (facing south).

Photograph 3
West Force Main



Installation of 14-inch-diameter high density polyethylene (HDPE) west force main piping (facing west).

Photograph 4
West Force Main



Installation of 14-inch flange valves in preparation for hydrostatic pressure test.

Photograph 5
West Force Main



Hydrostatic pressure test being performed on west force main piping (facing southwest).

Photograph 6
West Force Main



Compaction testing being performed along west force main backfill material (facing southeast).

Photograph 7
West Pump Station



Installation of mechanical, electrical, and plumbing at West Pump Station.

Photograph 8
West Pump Station



Installation of 48-inch-diameter concrete manhole with 24-inch-diameter corrugated polyethylene pipe.

Photograph 9
West Landfill



Envirocon placing general fill above geotextile fabric at West Landfill (facing north).

Photograph 10
West Landfill Drainage Ditch



Envirocon constructing berm along the eastern area of the West Landfill. Geosynthetic clay layer was placed in drainage ditch (facing northwest).

Photograph 11
Site Unit 2



Envirocon performing compaction at SU2 (facing south).

Photograph 12
East Landfill No. 1



Envirocon backfilling at East Landfill No. 1 (facing northeast).

Photograph 13
Site Unit 8



Envirocon backfilling at SU8 (facing northwest).

Photograph 14
Site Unit 10



Backfill and compaction completed at SU10 (facing northeast).