STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Eastern Region Office
4601 North Monroe St., Spokane, WA 99205-1295 • 509-329-3400

January 30, 2026

Ben Finnoe
Finnoe Design and Fabrication
2425 East Magnesium Road
Spokane, WA 99217
benfinnoe@finnoedesign.com

Re: Technical assistance for the following contaminated Site:

- **Site Name:** RA Hanson Magnesium Rd
- **Site Address:** 2425 E Magnesium Rd, Spokane
- **Facility/Site ID:** 4387892
- **Cleanup Site ID:** 17254
- **VCP Project ID:** EA0393

Dear Ben Finnoe:

The Washington State Department of Ecology[1] (Ecology) reviewed your Phase II Environmental Site Assessment (ESA) Sampling and Analysis Plan (Stantec Consulting Services, Inc., November 19, 2025) for the RA Hanson Magnesium Rd facility (Site). This letter provides a summary of the sampling and analysis plan and our technical assistance and guidance under the Voluntary Cleanup Program (VCP).[2] We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70A.305 RCW.[3]

Summary

The Sampling and Analysis Plan (SAP) proposes additional soil sampling in areas with polychlorinated biphenyls (PCBs) exceeding the MTCA Method A soil cleanup level for unrestricted land use. These areas were identified during the previous Phase II ESA (Budinger & Associates, Inc., April 3, 2025) and include the wastewater treatment plant (WWTP) infiltration pond, overflow drainage channel, and overflow pond. In a VCP opinion letter dated July 29, 2025, Ecology recommended additional sampling in these

[1] https://ecology.wa.gov/
[2] https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Voluntary-Cleanup-Program
[3] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305

areas for PCBs, per- and polyfluoroalkyl substances (PFAS), dioxins, furans, and polybrominated diphenyl ethers (PBDEs).

The SAP proposes a combination of incremental sampling methodology (ISM) and discrete soil sampling, including:

- 150 soil sample increments collected from the three impacted areas (labeled as decision units 1, 2, and 3) from <0.5 feet below ground surface (bgs). Approximately 30 to 60 gram increment samples will be collected in a grid formation from each decision unit and composited into one sample, with three grids and three samples from DU1 to measure variability. The infiltration pond (DU1) will include 30 increments from approximately 15 foot lateral intervals, the drainage channel (DU2) will include 50 increments from 30 foot intervals, and the overflow pond (DU3) will include 70 increments from 25 foot intervals. A total of five composite soil samples will be analyzed for PCBs.
- Ten discrete soil samples collected from >0.5 feet bgs from the drainage channel and in transects across the infiltration and overflow ponds. The discrete samples will be analyzed for total chromium, diesel- and oil-range petroleum hydrocarbons, PCBs, PFAS, and dioxins and furans. Per Ecology's October 9, 2025 email to Budinger & Associates, soil samples may be held for PBDE analyses pending dioxin and furan analytical results.

Analysis and opinion

Ecology has determined that while the proposed SAP will likely be sufficient to confirm the presence of contaminants within the areas of concern, further investigation will be necessary to confirm the lateral and vertical extent of contaminants in soil. These data gaps must be addressed to develop an accurate conceptual site model and select an appropriate cleanup action for the Site. Ecology is providing the following comments and recommendations:

- Ecology generally does not recommend ISM for site characterization as this approach does not provide precise location data to constrain the extent of contamination, or the range of contaminant concentrations present at a site. While ISM may be used as an additional line of evidence to inform cleanup decisions, the presence of PCBs exceeding MTCA cleanup standards was confirmed in DU2 and DU3 during the previous Phase II ESA and the additional PCB data generated from the ISM may not provide a higher degree of spatial resolution.
- The SAP does not include the measured or approximated lateral extent of each decision unit to validate the proposed sample spacing and quantities. The planned single composite sample per decision unit (with duplicates for DU1) only provides one concentration across the entire decision unit at a single sampling depth and may not be appropriate based on the size of each unit and the overall investigation area of 3.5 acres. Ecology site characterization guidance for area-wide contamination recommends up to 10 discrete soil samples each for decision units the size of DU1

and DU2 and 30 discrete samples for decision units the size of DU3.

- The SAP does not include the proposed ISM and discrete soil sample locations, or justification for the differences in proposed sampling depths for the ISM and discrete soil samples. The proposed sampling depths may not be appropriate based on the differences in subsurface conditions of each decision unit observed in test pits completed during the previous Phase II ESA. For example, Test Pit 9 in DU2 contained granular slag to approximately 4 feet bgs. In addition, increment samples collected from outside the defined area may result in composite samples not representative of the average contaminant concentration across the decision unit. The ISM and discrete soil sample PCB concentrations cannot be correlated across more than one depth interval, and the highly mobile nature of the potential contaminants of concern may indicate that contaminants are present at greater depths than proposed in the SAP. Characterization data from the prior Phase II ESA indicated detections of PCBs to approximately 5 feet bgs in the overflow channel and pond.

Limitations of the Opinion

Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70A.305.040(4).[4]

Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70A.305.080[5] and WAC 173-340-545.[6]

[4] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.040
[5] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.080
[6] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340-545

State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70A.305.170(6).[7]

Contact Information

Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). After you have addressed our concerns, you may request another review of your cleanup. Please do not hesitate to request additional services as your cleanup progresses. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion, please contact me by phone at (509) 342-5564 or e-mail at ted.uecker@ecy.wa.gov.

Sincerely,

Ted M. Uecker
ERO Toxics Cleanup Program

tmu:hg

Enclosures (1): A – Description and Diagrams of the Site

cc: Nicholas Acklam, Ecology
Steve Burchett, Budinger & Associates
Cyrus Gorman, Stantec

[7] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.170

Enclosure A

Description and Diagrams of the Site

Site description

The Site is approximately 204 acres and is located on Spokane County tax parcels 36212.9029 (14.01 acres), 36215.9011 (46.71 acres), and 36215.9028 (142.99 acres). The Site was developed in 1942 by the Defense Plant Corporation, a division of the U.S. Government, for industrial production of ferrosilicon and ferrochrome (magnesium and chromium alloys). Kaiser Aluminum & Chemical Corporation (KACC) purchased the Site in 1962 for continued smelting operations as the South Plant in conjunction with the KACC Mead property located approximately one mile north. Hanson Industries, Inc. purchased sections of the Site beginning in the 1960s and manufactured equipment for machining, aerospace, agriculture, oil drilling, and structural fabrication industries. In 2022 the Site was purchased by Finnoe Design and Fabrication.

During smelter operations, the Site contained approximately 25 buildings and miscellaneous structures, including a small wastewater treatment plant (WWTP) west of the slag deposits which treated water used for cooling and domestic purposes. Treated effluent was discharged to a channel running north of the slag deposits toward an infiltration pond to the northeast, though reportedly most effluent infiltrated through the channel bottom prior to reaching the pond. In 1987, Hanson Industries abandoned the wastewater treatment system and installed two 2,500-gallon septic tanks which receive stormwater and wastewater from the newer buildings. The Site also formerly contained six Burlington Norther Railroad (BNRR) railroad spurts entering at the northeast corner of the property. These spurs have been removed during development. The Site currently includes six steel buildings, smelter slag and dross piles estimated between 10 and 50 feet thick, and the aforementioned infiltration ponds.

The Site is located within the Hillyard Trough portion of the Spokane Valley Rathdrum Prairie (SVRP) aquifer. Site geology consists of approximately 360 feet of unconsolidated glacio-fluvial deposits (sands, gravels, cobbles, and boulders with scattered clay and silt lenses) above pre-existing alluvial valley deposits. Groundwater is present between approximately 160 and 200 feet below ground surface (bgs) and flows north-northwest toward the Little Spokane River. Well logs indicate two areas of perched groundwater at 25 and 89 feet bgs, reportedly recharged from effluent infiltration from the WWTP west of the slag deposits.

Site history

In June 1981, Hart Crowser conducted a hydrogeologic study of the KACC South Plant to determine if leachate from the slag deposits was adversely affecting groundwater. The study used data previous provided by KACC for the composition of both magnesium production slag (dolomite, ferro-silicon, magnesium, phosphorous, iron, chloride) and chrome alloy production slag (chrome oxide, calcium, magnesium, iron). KACC also indicated that the slag material did not designate as a RCRA hazardous waste based on leachability studies. The hydrogeologic study included installing four

soil borings to approximately 178 feet bgs downgradient (northwest) of the slag piles, with three borings completed as monitoring wells SP-2, SP-3, and SP-3A. Groundwater associated with the SVRP was encountered ranging from approximately 158 to 162 feet bgs, with well SP-3A screened within approximately 5-6 feet of perched groundwater at 89 feet bgs. Soil samples were analyzed for cyanide and fluoride, while groundwater samples were analyzed for arsenic, barium, cadmium, chromium, fluoride, lead, mercury, nitrate, selenium, silver, total coliform, chloride, iron, manganese, phenol, sodium, sulfate, cyanide, lindane, endrin, methoxychlor, toxaphene, 2,4-D, silver, and water quality parameters including pH, specific conductance, total organic carbon, total organic halogen, and total dissolved solids. Soil did not indicate cyanide or fluoride concentrations associated with pot-lining contamination, though no analytical reports were presented. Groundwater samples contained elevated concentrations of iron (370 to 880 ug/L), manganese (60 ug/L), and mercury (4.7 ug/L) which exceeded then-current drinking water standards but were attributed to natural SVRP aquifer background levels. Well SP-3 was sampled again in February and August 1982, with mercury levels dropping to 0.2 ug/L and 1 ug/L, the latter being the laboratory method detection limit.

In May and June 2018, Ecology's Hazardous Waste and Toxics Reduction (HWTR) program issued compliance violations for improper waste disposal. Corrective actions identified in the citation included designation of wastes with federal and state-only waste codes and addressing areas of spilled solids and liquids leaking from drums. In June 2021, Able Clean-up Technologies completed characterization and disposal on four of the six areas identified by HWTR, including:

- Area 2- Removal and offsite disposal of 200 gallons of non-hazardous waste oil. Characterization and offsite disposal of 840 lbs of non-hazardous residual sludge. Characterization and offsite disposal of 17 drums containing 3,500 lbs (1.5 tons) of D001, D005, D006, D007, D008, F003, and F005 liquid wastes. investigation of a drywell and concrete vault. The vault and its contents are awaiting disposal.
- Area 3- Removal and offsite disposal of approximately 13,400 lbs of paint related waste material (D001).
- Area 4- Removal and offsite disposal of drums and spill material containing both hazardous (D001, D004, D005, D007, D008, D009, D039, F002, F003, F005, WT02) and non-hazardous wastes.
- Area 5- Removal and offsite disposal of approximately 2.52 tons (5,040 lbs) of chemical waste including 15 drums and spilled materials. Drums contained calcium hypochlorite (D001), hydrogen peroxide (D001), ammonium nitrate and persulfate (D001), formic acid, ammonia solution (D002), hydrochloric acid, potassium hydroxide (WT02), and sulfamic acid (WT02).
- Removal and offsite disposal of spilled non-liquid waste materials (D007) and a pad, approximately 3,000 pounds.

- Characterization and offsite disposal of approximately 147.1 tons of non-hazardous white material piled onsite.

Six wells from NMSS. In June 2021, Ecology approved of decommissioning of wells at the RA Hanson Site associated with the North Market Street site.

In January 2022, Budinger & Associates conducted a Phase I Environmental Site Assessment (ESA) which identified the following recognized environmental conditions (RECs):

- The private septic system which may contain coolant
- The WWTP and infiltration/overflow ponds
- Floor drains in the Mechanic's building
- 2018 Ecology HWTR violations for drum and waste storage
- 2018 asbestos waste storage and handling violations
- Large waste storage area, including slag and dross piles deemed non-hazardous by KACC
- 220,000-gallon AST with unknown contents, removed around 1962
- Former oil pumphouses and tanks
- Former USTs, including two 10,000-gallon diesel and one 10,000-gallon gasoline tanks decommissioned in place in 1989, and a 500-gallon waste oil tank and 1,000-gallon gasoline UST removed in 1990.
- Monitoring wells associated with the North Market Street site.
- Surface staining located near electrical transformers with potential polychlorinated biphenyls (PCBs)
- Five onsite drywells

In January 2025, Budinger conducted a Phase II ESA focused primarily on the waste storage areas and former WWTP and ponds. Nine test pits (TP-1 through TP-9) were excavated to a maximum depth of 13 feet bgs at the waste storage area (TP-2, TP-4, TP-6, TP-7), electrical power substation (switchyard, TP-3), WWTP (TP-1), wastewater overflow pond (TP-5), wastewater channel (TP-9), and wastewater discharge pond (TP-8). Soil and slag samples analyzed for one or more of the following contaminants: diesel- and oil-range petroleum hydrocarbons (DRPH and ORPH), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), PCBs, RCRA metals, hexavalent chromium (CrVI), toxicity characteristic leaching procedure (TCLP) chromium, nickel, fluoride, and cyanide. Field screening for pH indicated some of the material in the waste storage area had a pH between 11 and 12. Sample results indicated DRPH (22,000 to 90,000 mg/kg) and ORPH (10,000 mg/kg) exceeding MTCA Method A cleanup levels in TP-3 from the surface to 3 feet bgs, PCBs in TP-3, TP-5, and TP-9 from the surface to 2 feet bgs, ranging in concentration from 2.6 to 76 mg/kg,

and total chromium exceeding the Method A cleanup level in TP-1 at 12 feet bgs and TP-8 at the surface. TCLP and fish bioassay analyses indicate the wastes are non-hazardous.

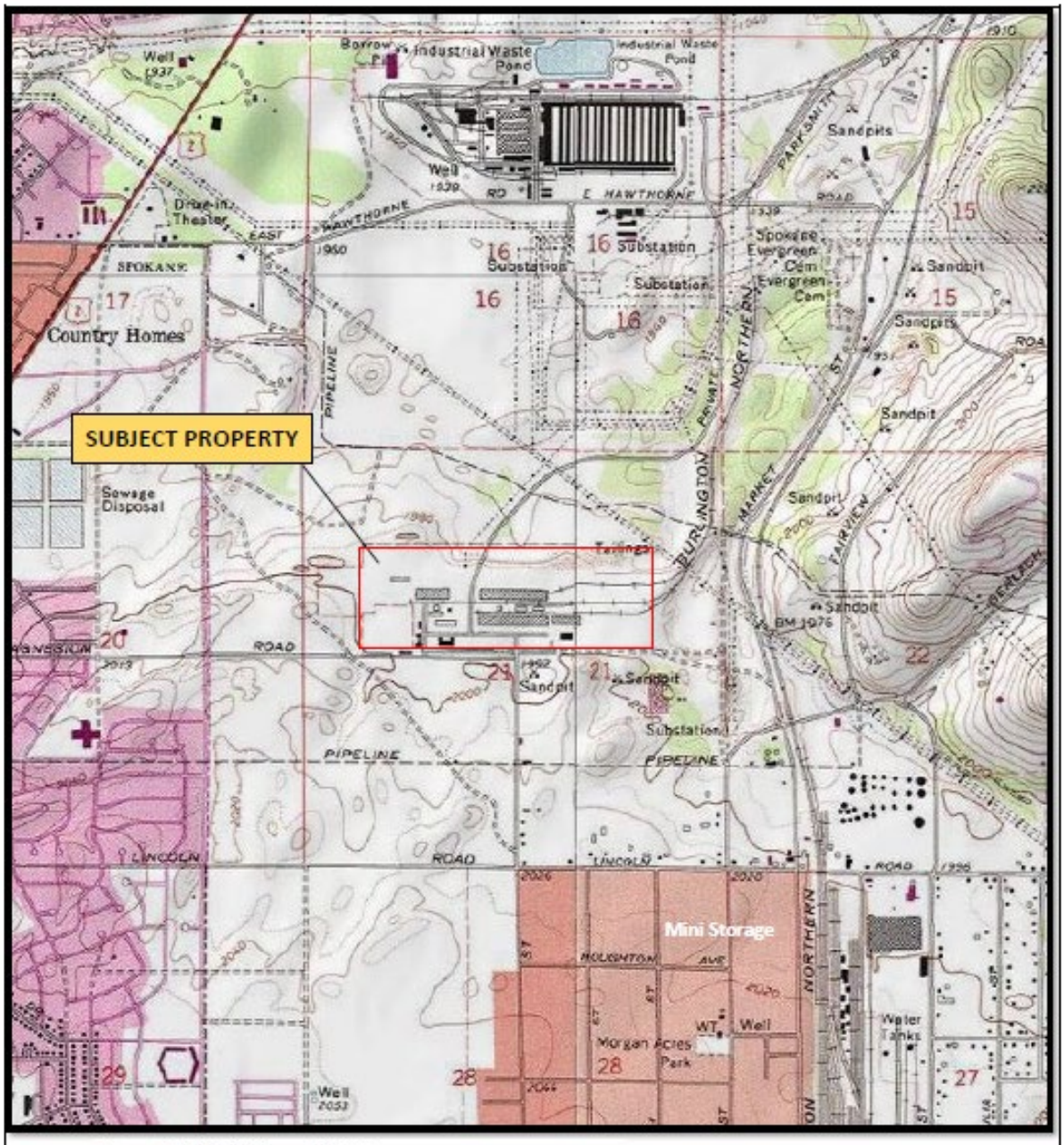
In February 2025, Budinger installed a monitoring well (FMW-1) downgradient of the WWTP pond to a final depth of 170 feet bgs and screened between 150 to 170 feet bgs. Soil samples were collected during drilling at 30, 40, 55, 60, and 70 feet bgs and analyzed for VOCs and pH Depth to groundwater in the completed well was approximately 164 feet bgs. Well FMW-1, two out of commission production wells (West Well and Well #1) and North Market Street site well MW-23 were sampled in January and February 2025, with samples analyzed for drinking water analytes including nitrate, cyanide, metals, PCBs, and VOCs. Nitrate, arsenic, barium, chromium, copper, manganese, nickel, lead, antimony, zinc, and several VOCs were detected above the laboratory method reporting limits, but no analytes exceeded MTCA Method A cleanup levels or other drinking water criteria.

In May 2025, the site enrolled in the Voluntary Cleanup Program under four individual cleanup projects. Based on the Site characterization data and the nature of the releases, the Site was separated into the following areas:

- Area 1 encompassing the waste storage area directly north of the current industrial buildings. This area contains the west mixed slag area (TP-2), the central mixed waste area (TP-7), the high pH calcined waste/dross area (TP-6), and the effluent channel between the WWTP and the overflow pond (TP-9).
- Area 1A encompassing the north section of gray granular slag (TP-1) near the WWTP.
- Area 1B encompassing the south section of gray granular slag (TP-1), switchyard (TP-3), and WWTP discharge pond (TP-8).
- Area 1C encompassing the east coarse slag area (TP-4) and the WWTP overflow pond (TP-5).

Source: Hart Crowser, 1982; Budinger & Associates, 2022, 2025

Site Diagrams



Source: ESRI PLSS Map Viewer. 2-21-2025

N

Not to Scale

Vicinity Map
Phase II ESA
2425 E Magnesium Road
Spokane Valley, Washington

Budinger & Associates
1101 N Fancher Road
Spokane Valley, WA 99212

Figure 1

Project Number X241148

Source: Google Earth Pro. 9-18-2025

DU1 Decision Unit	N Not to Scale	Budinger & Associates	SITE PLAN WWTP PCB Investigation 2425 E Magnesium Road Spokane County, WA	FIGURE 2 PROJECT NUMBER X25790 DATE: 9/2025