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September 9, 2021

Judith Wirth
5023 8th Ave NE
Seattle, WA 98105
judithwirth206@gmail.com

Re: Technical Assistance at the following Site:

- **Site Name:** John's Auto Wrecking
- **Site Address:** 411 93rd Ave SE, Olympia, WA 98501
- **Cleanup Site ID:** 2120
- **Facility/Site ID:** 57665495
- **VCP Project ID:** SW1613

Dear Judith Wirth:

Thank you for providing Robinson-Noble's June 9, 2021, *Draft Work Plan* (the Report),[1] in response to the Washington State Department of Ecology's (Ecology) March 29, 2021 opinion letter (the Letter) for the John's Auto Wrecking facility (Site).[2] Ecology appreciates your continued efforts to independently clean up this Site.

The Letter provided five items needed to evaluate the Site cleanup. Your Report provided additional information that addresses those items and requested a written opinion.

Ecology is providing this written technical assistance letter through our standard Volunteer Cleanup Program (VCP) technical assistance process. Ecology will continue to ensure there is a publically accessible written record of our communications for this independent cleanup project. Ecology relies on our VCP customers to conduct their cleanups independently, and report how the cleanup they conducted meets all pertinent requirements when requesting an opinion. In this letter, we are responding to the

[1] Draft Work Plan, June 8, 2021.
[2] https://apps.ecology.wa.gov/gsp/CleanupSiteDocuments.aspx?csid=2120

additional technical information you provided in the Report and how its meets the substantive requirements of MTCA.

Upon satisfaction of the requests in this letter, and presuming all collected confirmatory data are in compliance with cleanup standards, a no further action determination is likely for the cleanup at this Site.

Based on Ecology's recent opinion and the information you provided in the Report, Ecology's recommendations to complete the cleanup are:

Work Plan Concurrence: Ecology supports the proposed work and concurs that successful implementation of the proposed work plan will satisfy the requests made in our March 29, 2021, opinion letter. Ecology recognizes that the Report provides additional information in addition to the proposed work. We understand that this was done to consolidate deliverables and we accept the approach.

PS1 Confirmatory Soil Sampling: Ecology concurs with the proposed approach to confirm soil sample PS1 as presented in the Report.

Groundwater Monitoring Compliance: In our March 29, 2021, opinion letter, Ecology requested a demonstration of how groundwater monitoring results comply with either WAC 173-340-720(9) or, because this is a petroleum cleanup, section 10.3 in Ecology publication no. 10-09-057, *Guidance for Remediation of Petroleum Contaminated Sites*.[3]

To clarify Ecology's position, we are providing additional detail regarding expectations for groundwater compliance monitoring requirements. WAC 173-340-720(9)(c)(iv) requires that compliance with groundwater cleanup levels shall be determined for each groundwater monitoring well or other monitoring points.

1) Site cleanup standards must meet those requirements which are in place at the time of the request for Site closure.
2) Groundwater monitoring requirements:
    a. Each identified area of concern (AOC) had its own release or releases. Grab groundwater samples were collected in some AOCs and monitoring wells were installed to evaluate selected AOCs. The relationship between AOCs and those installed wells is presented in the table below.

[3] Revised June 2016. Section 10.3 is on pages 156-162 of the guidance.

Groundwater compliance should be demonstrated at each AOC independently unless it is known that contaminated groundwater from one AOC is migrating into another AOC.

AOC(s)	Monitoring Well(s)
7 & 8	MW-1
9B	MW-2, MW-3
2	MW-4
9A	MW-5

b. If using statistical analysis from WAC 173-340-720(9): a minimum of 11 consecutive quarters of compliant results would likely be necessary.

c. If using Stage III monitoring protective of wetlands from section 10.3 in the *Guidance for Remediation of Petroleum Contaminated Sites*: a minimum of 4-8 quarters of compliant results after cleanup is completed would be necessary.

d. Alternately, Ecology provides a potential approach for Site groundwater monitoring to demonstrate compliance with cleanup standards. Please see the table below.

e. The surface water performance sample results show that the surface water and sediment pathways are incomplete for the Site. No additional evaluation of the surface water and sediment pathways appears to be necessary at the Site.

Historically, evaluation of concentrations of hazardous substances in Site groundwater has been primarily based on grab groundwater results. Where grab groundwater results required additional evaluation, monitoring wells were installed. For monitoring wells MW-2 through MW-5, a single sampling event was completed at each monitoring well and compared to MTCA Method A and B cleanup levels at a standard point of compliance. At monitoring well MW-1, four quarters of monitoring well results were used to evaluate detections (mainly lead and other metals) at AOCs 7 and 8. No petroleum was detected in any groundwater sampled from any of the monitoring wells. Generally, a few total metals concentrations were detected and further evaluated on a per well basis.

In the table below, Ecology presents the number of quarters of compliant results. No exceedances of cleanup levels in groundwater were detected, except for total lead at MW-1. Dissolved lead was less than cleanup levels. Further explanation regarding how groundwater results were evaluated at MW-1 is provided on page 12 in the March 29, 2021, opinion letter from Ecology. **Ecology concurs that it is more likely than not that sufficient monitoring had been completed at MW-1 to determine that Site hazardous substances concentrations in groundwater were in compliance with cleanup levels.**

Monitoring Well ID	Additional Monitoring Needed?	Additional Analysis Requested
MW-1	No	None
MW-2 & MW-3	No	None
MW-4	No	None
MW-5	Yes	Lead[4]

There were no detections of Site hazardous substances in groundwater sampled during the August 2009, event at MW-2 and MW-3 (the two monitoring wells for AOC 9B). Monitoring wells MW-4 and MW-5 were sampled in March 2013, and no Site hazardous substances were detected, except for copper, zinc, and lead at MW-5. The concentrations of copper and zinc were approximately at the laboratory practical quantitation limit (PQL), and were well below the respective cleanup levels. Soils contamination adjacent to MW-4 has since been removed by excavation and disposed of at Cowlitz County Landfill, a permitted facility. Because of these factors, it is Ecology's opinion that it is more likely than not that copper and zinc do not require further evaluation in groundwater at MW-5.

However, lead in groundwater at MW-5 needs to be analyzed further. The concentration of lead in groundwater at MW-5 in March 2013 was 11 micrograms per Liter (µg/L),

[4] Concentrations of copper and zinc, though detected, were at approximately the laboratory practical quantitation limit (PQL). The concentrations are much less than the respective cleanup levels for each contaminant. Based on professional judgement under WAC 173-340-360(2), it is Ecology's opinion that it is more likely than not that no additional sampling for copper and zinc in Site groundwater is necessary.

which is less than the MTCA Method A cleanup level for lead in groundwater of 15 µg/L, but still a significant detection. Typically, this would require up to four quarters of compliant groundwater monitoring results (like at MW-1).

To confirm the March 2013, lead in groundwater result at MW-5, Ecology requests you collect at least one groundwater sample and analyze for total and dissolved lead. Ecology recommends that you use low flow groundwater sampling methodology, sample for both total and dissolved lead, be extremely careful to not position the tubing intake too deep into the well as to avoid unintentionally sampling sediment from the bottom of MW-5, and to ensure a nonturbid sample is collected.

Ecology recommends collecting this groundwater sample at MW-5 at the same time as the confirmatory soil sample at PS1.

Surface Water Performance Samples: Data provided with the Report show three groundwater samples were collected in April 2021, from the Hopkins Ditch. Flowing surface water was observed in the ditch. One surface water sample was collected as close as possible to each of the two August 2019, remedial excavations, and a third sample was collected as a background sample. Lead and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) were analyzed in each sample, as these were the Site hazardous substances in each of the remedial excavations. Lead and cPAHs were not detected in surface water sampled. Based on these results, Ecology concludes that it is more likely than not that the following applies to the Site:

1) Surface water (and by extension, freshwater sediment) has not been impacted by any release at the Site.
2) Soil and groundwater cleanup levels apply to the Site. See the cleanup table from p. 18 in our March 29, 2021, opinion letter.
3) As freshwater wetlands have not been impacted by the Site, groundwater compliance monitoring under the Stage III guidance[5] does not require eight quarters. The more standard four consecutive quarters can be evaluated to determine if concentrations of Site hazardous substances in groundwater comply at the Site.

[5] Section 10.3 in Ecology publication no. 10-09-057, *Guidance for Remediation of Petroleum Contaminated Sites*.[5]

List of Applicable Laws: Based on the discussion of applicable local, state, and federal laws in both the Report and the March 29, 2021, opinion letter, it appears that this condition is satisfied. Ecology determines that the requirements under WAC 173-340-360(2)(a)(iii) and WAC 173-340-710 have been met. No adjustments to the cleanup levels were required because of the review of applicable laws. No further review of applicable laws for the cleanup is needed.

Property-Specific No Further Action (NFA) Evaluation: In the Report, you indicate that you intend to pursue a Site-specific NFA. Also, to reiterate from our March 29, 2021, opinion, it is Ecology's opinion that it is more likely than not that Thurston County parcel 12723220200, 0.19 acres in size, was not impacted by a release and is not part of the Site.

Disposal Ticket: The Report includes confirmation of disposal of contaminated soils on August 31, 2019, at Cowlitz County Landfill, a permitted disposal facility. Thank you for providing this essential information.

Electronic Information Management Database (EIM) Data: Ecology requests that prior to requesting your next opinion, please ensure all data in EIM is correct and up-to-date based on Toxics Cleanup Program Policy 840, data submittal requirements. Incomplete data in Ecology's EIM database is a common contributor to delayed NFA determinations. Please continue to submit Site data as it is collected to EIM and work with Ecology's EIM data coordinators to ensure that you accurately upload your data.

Future Deliverable: If all data collected to satisfy the work plan are compliant with cleanup standards, Ecology recommends compiling these data into a single deliverable. This would also be the NFA request and be accompanied by an opinion request form.[6]

Public Notice and Comment: As a reminder, since the Site is ranked and included on the Hazardous Sites List (1 - Highest Assessed Risk) after Ecology issues a determination of Site NFA, a minimum 30-day public notice and comment period is required. This process is completed by Ecology as part of the process to remove a Site from the Hazardous Sites List.

[6] https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Voluntary-Cleanup-Program/Working-with-VCP#RequestingOpinions

Contact Information

Thank you for choosing to clean up the Site under the VCP. For more information about the VCP and the cleanup process, please visit our VCP web site.[7] For questions, please contact me at 360-407-6265 or tim.mullin@ecy.wa.gov.

Sincerely,

Tim Mullin, LHG
Toxics Cleanup Program
Southwest Regional Office

TCM:sl

cc: Max Wills, Robinson-Noble; MWills@robinson-noble.com
Nicholas Acklam, Ecology; nick.acklam@ecy.wa.gov
Ecology Site File

[7] http://www.ecy.wa.gov/vcp