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February 18, 2020

Jake Lee
Envitechnology, Inc.
16541 Redmond Way #358C
Redmond, WA 98052

Re: Further Action at the following Site:

- **Site Name:** Red Lion Hotel Hosmer Street
- **Site Address:** 8402 S Hosmer St Tacoma, Pierce County, WA 98444
- **Facility/Site ID:** 23307
- **Cleanup Site ID:** 13206
- **VCP Project ID:** SW1656

Dear Jake Lee:

On September 25, 2019, the Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Red Lion Hotel Hosmer Street facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the [Model Toxics Control Act \(MTCA\)](#),¹ chapter 70.105D Revised Code of Washington (RCW).

Ecology had previously requested upload of all applicable data to Ecology's Environmental Information Management (EIM) database on January 22, 2019. Ecology again requested upload of all applicable data to EIM on November 20, 2019. On January 26, 2020, we were notified that you uploaded the requested electronic data to EIM. Due to temporary Ecology staffing issues, the Site's electronic data have not yet been reviewed or accepted to the EIM database. To provide a timely response, Ecology is issuing this opinion prior to EIM data review and acceptance.

Please continue to work with Ecology's EIM data coordinator to have the Site data accepted to the database. Ecology will review and comment on the sufficiency of the Site's EIM data set in our next opinion for the Site.

¹ <https://fortress.wa.gov/ecy/publications/SummaryPages/9406.html>

Issue Presented and Opinion

Ecology supports and encourages your efforts to independently clean up the Site. Since our last opinion, you have provided valuable analytical data and disposal information as requested.

Ecology has determined that further remedial action is necessary to clean up contamination at the Site.

The following summarizes additional requested information in this opinion. The requested information is needed to evaluate whether independent interim actions conducted at the Site have achieved the substantive requirements of MTCA:

- **Additional Contaminant Characterization:** Ecology needs additional characterization information before we can evaluate the efficacy of interim actions and compliance with MTCA. Additionally, reused soil needs to be sampled² and analyzed consistent with Ecology requirements.³
- **Further Development of the Conceptual Site Model:** Ecology needs a fully developed conceptual site model which can be used to evaluate the lateral and vertical extent of soil and groundwater contamination. Additional borings are likely needed.
- **Provide Additional Documentation:** Additional documentation of completed activities is needed for Ecology to fully evaluate whether site cleanup meets MTCA requirements.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, chapter 70.105D RCW, and its implementing regulations, Washington Administrative Code (WAC) chapter 173-340 (collectively “substantive requirements of MTCA”). The analysis is provided below.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following release:

- Total Petroleum Hydrocarbons and related hazardous substances into the Soil and Groundwater.

Note the parcel of real property associated with this Site is also located within the projected boundaries of the Asarco Tacoma Smelter facility (# 89267963). At this time, we have no information that the parcel is actually affected. This opinion does not apply to any contamination associated with the Asarco Tacoma Smelter facility.

² Ecology Guidance for Remediation of Petroleum Contaminated Sites, Toxics Cleanup Program Publication No. 10- 09-057, Revised June 2016, Table 6.9 and Table 12.1.

³ WAC 1730-340-900 Table 830-1 Required Testing for Petroleum Releases.

Basis for the Opinion

This opinion is based on the information contained in the following documents:⁴

1. Envitech, Inc. (Envitech), *Phase II Environmental Site Assessment, Red Lion Hotel*, December 22, 2011.*
2. Encon Solutions, Inc. (Encon), *Phase II Environmental Site Assessment 8402 South Hosmer Street*, June 14, 2012.*
3. Envitech, *Phase II Environmental Site Assessment, Red Lion Hotel*, February 9, 2017.
4. Envitech, *Scope of Work – Soil Remediation, Red Lion Hotel*, March 15, 2017.
5. Envitech, *Phase I Environmental Site Assessment, Red Lion Hotel*, May 18, 2017.*
6. Envitech, *Remedial Action Report, Red Lion Hotel*, June 8, 2017.*
7. Envitech, *Groundwater Monitoring Report Third Quarter, 2017, Red Lion Hotel*, August 31, 2017.*
8. Envitech, *Groundwater Monitoring Report Fourth Quarter, 2017, Red Lion Hotel*, December 25, 2017.*
9. Envitech, *Groundwater Monitoring Report First Quarter, 2018, Red Lion Hotel*, March 20, 2018.*
10. Envitech, *Groundwater Monitoring Report Second Quarter, 2018, Red Lion Hotel*, June 15, 2018.*
11. Envitech, *Request for a No Further Action (NFA) Determination, 8402 South Hosmer Street*, July 17, 2018.*
12. Envitech, *Remedial Investigation & Independent Cleanup Action Report, 8402 South Hosmer Street*, September 25, 2019.

Those documents are kept in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. Information on obtaining those records can be found on [Ecology's public records requests web page](#).⁵ Some site documents may be available on [Ecology's Cleanup Site Search web page](#).⁶

⁴ For the files denoted by asterisk (*), Ecology received a second set of corrected reports. Ecology retains all original and corrected reports provided in the Site cleanup project file.

⁵ <https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests>

⁶ <https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=13206>

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the Cleanup

Ecology has concluded that **further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. Characterization of the Site.

Historical Site Characterization is provided in Ecology's January 22, 2019, opinion and in the documents listed above. No additional analytical data has been reported since Ecology's January 22, 2019, opinion. This opinion is responding to your September 25, 2019, Remedial Investigation & Independent Cleanup Action Report (The Report). Ecology has determined current characterization of the Site is not sufficient to establish cleanup standards and select a cleanup action.

- a. **Remedial Investigation:** Additional soil analytical data is needed to vertically delineate some areas of the Site. Ecology recommends advancing borings to the upper groundwater surface interface or 3-feet past the interim action excavation depth, whichever is greater, at the locations listed below. For each boring advanced, collect discrete soil analytical samples at each encountered geologic contact you listed on Figure 6 of the Report. A groundwater sample should also be obtained from each boring.

All samples should be analyzed for Waste Oils and Unknown Oil as provided in WAC 173-340-900, Table 830-1. Ecology needs additional characterization information from the following areas:

- i. North-northwest of boring B7.
- ii. North of MW-2, south of MW-5, and east of the independent interim action excavation area. The northern extent of the planter identified on Figure 7 is optimal placement to delineate the eastern extent of contamination.
- iii. In the vicinity of EB-1 and EB-2.
- iv. Within the excavation and backfill area. See Comment d below for Ecology's specific data needs at this location of the Site.

In lieu of recommended locations 3 and 4, it may be sufficient to provide any available soil analytical data collected during monitoring well installation.

- b. **Required Testing for Unknown Petroleum Releases:** As provided in Ecology's January 22, 2019, opinion (Comment f), site characterization data provided for this investigation does not meet the substantive requirements of MTCA.⁷ Site characterization must meet testing requirements for Waste Oils and Unknown Oil. This category also applies to releases of unknown petroleum products.
- c. **Further Development of the Conceptual Site Model:** The Conceptual Site Model provided in the Report does not account for all types and concentrations of hazardous substances, potentially contaminated media, or actual and potential exposure pathways and receptors. The completed Conceptual Site Model must be sufficient for Ecology to understand the nature and extent of all hazardous substances at the Site.

The following recommendations are provided to improve the Conceptual Site Model:

- i. Develop contaminant concentration isopleth maps in both geologic cross section and in plan view for Ecology's next review. Ensure the concentration isopleths are bounded by analytical soil and groundwater data results. Isopleth maps should visually convey the vertical and lateral extent of contamination at the site and be based on data results. Clearly indicate where isopleths are not based on bounding data results for example using dashed lines or question marks.
- ii. Discuss how soil contamination observed in boring locations S2, EB1, and EB2 meets applicable cleanup standards.
- iii. Provide improved survey data for the monitoring well network. The location data you submitted to EIM for the monitoring well network indicates horizontal and vertical accuracy of +/- 10-feet. Imprecise horizontal and vertical control data may adversely affect interpretations of groundwater gradient. When the wells are surveyed, provide the survey to Ecology to include in the Site file.
- iv. Reevaluate groundwater gradients after the monitoring wells are resurveyed. With the accuracies currently reported in EIM, Ecology is unable to evaluate groundwater gradients at the Site. Provide a detailed evaluation of the reported groundwater gradient at the site. Based on EIM data, groundwater elevation falls rapidly between the source area and the monitoring well to the west. Please discuss how the reported groundwater gradient at the Site impacts contaminant transport and fate.
- v. Once all required testing has been completed for the Site, reexamine the release mechanisms, potential and complete pathways, and receptors. Compare results to the selected cleanup levels to ensure the interim remedial action achieved the minimum requirements of MTCA. Ecology will use the improved Conceptual Site Model to evaluate compliance with MTCA.

⁷ [WAC 173-340-900](#), Table 830-1 for Waste Oils and Unknown Oil

- d. **Soil Reuse Criteria Unclear:** Please describe how excavated soil stockpiles were determined appropriate for reuse at the Site based on published Ecology Guidance for Remediation of Petroleum Contaminated Sites.⁸ The Report indicates that 175 cubic yards of “clean overburden” was returned to the excavation after collecting two characterization samples.

Additional characterization data is needed for Ecology to agree that the reused soil does not pose a risk for recontamination. We suggest using Ecology’s Guidance for Remediation of Petroleum Contaminated Sites to ensure the following is achieved:

- i. Based on Ecology Guidance for Remediation of Petroleum Contaminated Sites, Table 6.9, the suggested number of samples to adequately characterize soil stockpiles with a volume between 101 – 500 cubic yards is 5 samples. We suggest advancing one soil boring within the interim excavation and backfill area collecting discrete grab samples at regular depth intervals every five feet to fully characterize the reused soil. This boring may also be used to collect additional vertical delineation data if advanced past the terminal depth of the interim excavation.
 - ii. Analyze collected soil samples based on Ecology Guidance for Remediation of Petroleum Contaminated Sites, Table 7.2. Ecology recommends comparing reuse soil analytical data as Category 1 soils in Table 12.1.
- e. **Use of a Model Remedy:** Ecology encourages sites to evaluate whether the use of a model remedy would be appropriate for the Site, and accelerate the pace of Site cleanup. Though incomplete, current characterization data suggests the Site may be eligible for a model remedy. Selection and implementation of a model remedy may remove the requirement for a feasibility study and disproportionate cost analysis. Model remedy eligibility criteria is provided under [WAC 173-340-390](#) and in related guidance.⁹
- f. **Additional Documentation Needed:** Documentation of certain interim action activities are referenced, but not included in the Report. Ecology needs to review the following items:
- i. For samples obtained at excavation sidewalls and pit bottom, provide confirmation sample information such as collection depth, collection location details, and any photographs of the sample locations.
 - ii. All available Site monitoring well construction detail and boring logs.
- g. **Use of Environmental Covenant:** The Report suggests that the asphalt parking lot will act as a cap to eliminate direct contact exposure pathways for soil and groundwater.¹⁰

⁸ Ecology Guidance for Remediation of Petroleum Contaminated Sites, Toxics Cleanup Program Publication No. 10-09-057, Revised June 2016

⁹ <https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/MTCA-model-remedies>. See: “How do you know if a model remedy can be used for your site?”

¹⁰ Envitech, *Remedial Investigation & Independent Cleanup Action Report*, 8402 South Hosmer Street, September 25, 2019, Section 3.4.1 and 3.4.2

Use of a cap as a barrier to exposure would require an environmental covenant in perpetuity for the Site, and be justified either through the model remedy process or as part of a preferred remedial alternative supported through disproportionate cost analysis in a feasibility study. If a cap remains part of the preferred remedial alternative for this Site, please evaluate Ecology's process for establishing environmental covenants.¹¹ Ecology would need to review a draft environmental covenant describing necessary institutional controls.

2. Establishment of Cleanup Standards.

Ecology has determined the cleanup levels and points of compliance you established for the Site do not meet the substantive requirements of MTCA.

Cleanup Standards: Under MTCA, cleanup standards consist of three primary components; (a) points of compliance,¹² (b) cleanup levels,¹³ and (c) applicable state and federal laws.¹⁴

- a. **Points of Compliance.** Points of compliance, that you need to propose, are the specific locations at the Site where cleanup levels must be attained. For clarity, Ecology provides the following table of standard points of compliance:

| Media | Points of Compliance |
|--|---|
| Soil-Direct Contact | Based on human exposure via direct contact, the standard point of compliance is throughout the Site from ground surface to fifteen feet below the ground surface. ¹⁵ |
| Soil- Protection of Groundwater | Based on the protection of groundwater, the standard point of compliance is throughout the Site. ¹⁶ |
| Soil-Protection of Plants, Animals, and Soil Biota | Based on ecological protection, the standard point of compliance is throughout the Site from ground surface to fifteen feet below the ground surface. ¹⁷ |
| Groundwater | Based on the protection of groundwater quality, the standard point of compliance is throughout the site from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected by the site. ¹⁸ |
| Groundwater-Surface Water Protection | Based on the protection of surface water, the standard point of compliance is all locations where hazardous substances are released to surface water. ¹⁹ |
| Air Quality | Based on the protection of air quality, the point of compliance is indoor and ambient air throughout the Site. ²⁰ |
| Sediment | Based on the protection of sediment quality, compliance with the requirements of 173-204 WAC. ²¹ |

¹¹ Ecology Procedure 440A: Establishing Environmental Covenants under the Model Toxics Control Act, December 22, 2016. Available at <https://fortress.wa.gov/ecy/publications/documents/1509054.pdf>

¹² WAC 173-340-200 "Point of Compliance."

¹³ WAC 173-340-200 "Cleanup level."

¹⁴ WAC 173-340-200 "Applicable state and federal laws," WAC 173-340-700(3)(c).

¹⁵ WAC 173-340-740 (6)(d)

¹⁶ WAC 173-340-747

¹⁷ WAC 173-340-7490(4)(b)

¹⁸ WAC 173-340-720(8)(b)

¹⁹ WAC 173-340-730(6)

²⁰ WAC 173-340-750(6)

²¹ WAC 173-340-760

- b. **Cleanup Levels.** Cleanup levels are the concentrations of a hazardous substance in soil, water, air, or sediment that are determined to be protective of human health and the environment. MTCA Method A cleanup screening levels and groundwater cleanup screening levels have been used for the Site's remedial investigation. For each media and point of compliance that you determine applicable to the Site, please provide appropriate cleanup levels for each hazardous substance detected in the remedial investigation. Apply the proposed cleanup levels at the appropriate points of compliance to determine what needs to be cleaned up.
- c. **Applicable Laws and Regulations.** In addition to establishing minimum requirements for cleanup standards, applicable local, state, and federal laws may also impose certain technical and procedural requirements for performing cleanup actions. These requirements are described in WAC 173-340-710. An [online tool](#)²² is currently available to help you evaluate the local requirements that may be necessary.

All cleanup actions conducted under MTCA shall comply with applicable state and federal laws.²³ The person conducting a cleanup action shall identify all applicable local, state, and federal laws. The department shall make the final interpretation on whether these requirements have been correctly identified and are legally applicable or relevant and appropriate.^{24,25}

There are three general groups of applicable local, state, and federal laws that need to be included:

- i. **Chemical-Specific:** Examples of chemical-specific laws include promulgated concentrations from another rule that result in adjusting proposed cleanup levels. Method A is inclusive of these laws. For Methods B or C, additional evaluation of chemical-specific applicable state and federal laws is required.
- ii. **Action-Specific:** Examples of action-specific laws include requirements for obtaining local permits to excavate and/or dispose of contaminated soil, stormwater construction permits, or the requirement to notify local law enforcement in case human remains are discovered during excavation. All MTCA cleanups require evaluation of action-specific applicable state and federal laws.
- iii. **Location-Specific:** Examples of location-specific laws include specific requirements for working near wetlands or archeologically important areas. All MTCA cleanups require evaluation of location-specific applicable state and federal laws.

²² Washington State Governors Office for Innovation and Assistance Project Questionnaire, accessible at: <https://apps.oria.wa.gov/opas/index.asp>

²³ WAC 173-340-710(1)

²⁴ WAC 173-340-710(2)

²⁵ Note – MTCA Method A includes ARARs and concentration-based tables (WAC 173-340-700(5)(a)) If MTCA Method A remains in use as proposed Site cleanup levels, identify non-concentration based technical and procedural requirements. If Method B or C cleanup levels are proposed, also include concentration-based requirements.

After you have identified appropriate applicable local, state, and federal laws, report to Ecology the applicable local, state, and federal laws applicable to this cleanup, and how those laws and regulations specifically effect the proposed cleanup.

3. Selection of Cleanup Action.

An independent interim action was conducted to excavate petroleum impacted soils for offsite disposal. Ecology has determined that additional remedial investigation is necessary at the Site before selecting a cleanup action.

Limitations of the Opinion

1. 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 70.105D.040(4).

2. 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 70.105D.080 and WAC 173-340-545.

3. 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 70.105D.030(1)(i).

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 [Voluntary Cleanup Program web site](https://www.ecy.wa.gov/vcp).²⁶ If you have any questions about this opinion, please contact me at (360) 407-6266 or joseph.kasperski@ecy.wa.gov.

Sincerely,



Joe Kasperski, LG
Toxics Cleanup Program
Southwest Regional Office

JKK/tam

cc: Myung Kang, Kang's Properties, LLC
Paul Sandhu, Tacoma South Hospitality
Rob Olsen, TPCHD
Nicholas Acklam, Ecology (by email)
Ecology Site File

²⁶ <https://www.ecy.wa.gov/vcp>