



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

1250 W Alder St • Union Gap, WA 98903-0009 • (509) 575-2490

January 10, 2018

Mr. Mathew Davis  
GHD Services Inc.  
732 Broadway, Suite 301  
Tacoma, WA 98402

Re: Voluntary Cleanup Program – Work Plan Review Comments:

Site Name: Unocal Bulk Plant 0853  
Site Address: 6 N 5<sup>th</sup> Street, Wenatchee  
Facility/Site No.: 346  
Cleanup Site ID No: 4713  
VCP Site: CE0466

Dear Mr. Davis:

Thank you for submitting your proposed work plan titled “Site Assessment Work Plan, Former Unocal Bulk Plant 0853” for review by the Washington State Department of Ecology (Ecology). Ecology appreciates your efforts in pursuing an independent remedial action under the Model Toxics Control Act (MTCA).

Based on Washington Administrative Code (WAC) 173-340-515, which outlines Independent Remedial Actions, I have reviewed the proposed work plan for the Unocal Bulk Plant 0853 site (Site) submitted by GHD Services, Inc.(GHD) dated December 14, 2017, and have the following comments:

1. The overall approach presented in the work plan appears to be generally sound toward a goal of defining the current extent of soil and groundwater contamination. The most current (October 2017) groundwater monitoring data suggests that, with the exception of well MW-13, groundwater contaminant concentrations are now below MTCA Method A cleanup levels. The exceedances of TPH-D of 880 µg/L over the cleanup level of 500 µg/L indicates that groundwater concentrations may soon be below cleanup levels. Ecology will require a minimum of four consecutive quarters with all results below Method A cleanup levels prior to issuing a No Further Action Determination for the site.

The following specific comments are offered with a goal of reaching site closure as expeditiously as possible.



2. Please include a groundwater monitoring plan within this work plan. Monitoring wells which have had no historical detections of site constituents do not need to be sampled. Monitoring wells which have had no historical detections of parameters under a given analytical method can discontinue that analysis. Please provide a list of monitoring wells and proposed constituents for monitoring within your monitoring plan. Note that when NWTPH-Dx is analyzed, both TPH-D and TPH-O should always be reported, and silica gel cleanup should not be used on water samples. Note also that detection limits should be lower than those reported during the October 2017 round.
3. Monitoring wells MW-18 and MW-19 were improperly constructed with a total depth less than the groundwater level. Hence these monitoring wells have always been dry. These monitoring wells were placed downgradient of potential release areas. Ecology requires groundwater samples to be collected at or immediately adjacent to MW-18 and MW-19. This sampling can potentially be collected using direct push groundwater sampling methods (if these methods can be employed at the site). Alternatively, temporary wells could be installed if such temporary completions can be safely left open, pending receipt of laboratory analytical results. If any site constituents are detected at either or both of these locations, then the respective monitoring well should be replaced with monitoring wells with appropriate completions. Ecology recommends measurement and reporting of turbidity in any direct push or temporary well groundwater sample since petroleum hydrocarbons have potential to be associated with turbidity.
4. Monitoring well MW-20 is proposed by GHD to be completed downgradient of MW-15 in order to confirm the downgradient extent of contamination. Ecology will accept direct push or temporary well sampling at this location, if applicable, to make this determination. If no contamination is found at this location above Method A cleanup levels, then no monitoring well will be required at this location. If contamination is found above Method A cleanup levels at this location or at MW-18 or MW-19, then off property groundwater sampling will be needed to define the extent of groundwater contamination.
5. Page 2 first bullet, Figure 2-Figure 5. The author is correct that the Site is defined by the extent of contamination rather than property boundaries. However, because the extent of groundwater contamination can change over time, Ecology disagrees with the terminology "MTCA Site Boundary" and would prefer you refer to the designated area as the "extent of groundwater contamination".
6. Section 3.2. In addition to visual observations and PID readings, any olfactory observations that are made should also be recorded. Ecology is not requesting that such observations be made, since such a request could be considered to have health and safety implications. However, if such observations are made, they can provide valuable information and should therefore be reported.

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7. Table 3.1, Soil Boring Plan (total and sampling depths). Ecology understands that the target sampling depths in this plan were focusing on locations and depths of historical exceedances. In order to confirm that conditions have not changed, Ecology requests that all six soil borings be extended at least to the water table depth (approximately 25 feet below ground surface (ft bgs)). In addition to any specific depths proposed for sampling based on historical data, an additional depth should be sampled at each location based on field observations, if indications of contamination are present (i.e. based on visual, olfactory, or PID readings).
8. Table 3.1, Soil Boring Plan (soil analysis). Ecology prefers to maintain a consistent suite of analyses for soil analyses since there could be more than one potential release that have taken place at the facility over time. Please change the analysis in this table to NWTP-Gx, NWTPH-Dx, and BTEX. If diesel range or heavy oil range petroleum hydrocarbons (TPH-D or TPH-O) are detected above Method A cleanup levels, please also analyze soil samples for carcinogenic polycyclic aromatic hydrocarbons (CPAHs). If gasoline range petroleum hydrocarbons are detected above Method A cleanup levels, please also analyze soil samples for lead and additives (MTBE, EDB, and EDC).
9. Please include a schedule for implementation of the work plan.

Please revise and resubmit the work plan, prior to completing any field work.

The opinions presented by Ecology in this letter are made only with respect to this site, and based on the information provided and discussed above.

Please contact me at (509) 454-7835 or email me at [frank.winslow@ecy.wa.gov](mailto:frank.winslow@ecy.wa.gov) if you have any questions or would like clarification of any portion of this letter.

Sincerely,



Frank P. Winslow  
Site Manager  
CRO Toxics Cleanup Program

cc: Ed Ralston, Phillips 66 Company