

## PEASLEY CANYON GAS STATIONS ASSESSMENT Auburn, WA

### Brownfields Assessment Fact Sheet #4 - April 2014

Project Name	Former Standard Oil Service Station and Former Owl Service Station Properties-Phase II Environmental Site Assessment (ESA)
Location	612 West Valley Highway South and 1210 West Valley Highway South Auburn, Washington 98001
Site Description	<p>The former Standard Oil Service Station property is a 2.1-acre parcel located at the intersection of West Valley Highway South and South Peasley Canyon Road. The former Owl Service Station property is a 0.84-acre parcel and is located directly southwest of the former Standard Oil property. These two parcels constitute the "site" for purposes of this Phase II Environmental Site Assessment (ESA). Both parcels are currently vacant except for a "Welcome to Auburn" sign and associated landscaping in the northern area of the former Standard Oil property. A rectangular concrete pad associated with a former gas station is located in the western central area of the former Standard Oil property, which is surrounded by asphalt paving and gravel-covered areas. The remainder of the Standard Oil property is overgrown with grasses, brush, and mature trees. The former Owl Service Station property is covered primarily with mature trees and brush. Part of a larger wetland extends into the southeastern portion of the former Standard Oil property and is located in the eastern portion of the former Owl Service Station property.</p>
Site History	<p>A Phase I ESA of the former Standard Oil property was completed in 2008. This investigation indicated the property had been developed with a gas station with repair facilities that was owned or operated by Standard Oil Co. from 1968 through 1971. The Phase I ESA also indicated that three gas stations with repair facilities were previously located on adjacent properties. The City of Auburn vacant lot located directly southwest of the former Standard Oil property was occupied by a gas station known as the Owl Service Station and other names from at least 1938 until 1972. The Washington State Department of Transportation (WSDOT) Park &amp; Ride lot situated northwest of the site across West Valley Highway South was formerly occupied by a Mobil service station from 1966 to the late 1970s. The vacant lot located directly northeast of the former Standard Oil property, and currently owned by WSDOT, was occupied by a Humble/Exxon station from 1966 to 1971.</p> <p>Subsurface investigations have been conducted at the former Standard Oil property and adjacent WSDOT properties. These studies have indicated that soil and/or groundwater are impacted by gasoline, diesel, and oil-range petroleum hydrocarbons as well as benzene, ethylbenzene, toluene and xylenes (BETX) compounds.</p>
King County Brownfields Program	<p>The King County Solid Waste Division has received grant funds from the U.S. Environmental Protection Agency (EPA) to conduct environmental assessments on contaminated Brownfield properties. King County's Brownfields Program uses the funds to hire consultants to conduct the assessment work on behalf of public and nonprofit entities. For more information on the Brownfields Program visit the website at <a href="http://your.kingcounty.gov/solidwaste/brownfields/index.asp">your.kingcounty.gov/solidwaste/brownfields/index.asp</a>.</p>

<p><b>Assessment Description</b></p>	<p>King County's contractor CDM Smith prepared a QAPP (Quality Assurance Project Plan) for the Phase II ESA activities that was reviewed and approved by EPA prior to initiation of field work. In addition, a cultural resources assessment (CRA) consistent with the National Historic Preservation Act (NHPA) Section 106 process and an Endangered Species Analysis, required by Section 7 of the Endangered Species Act were performed in September 2012.</p> <p>Field work was conducted in January 2013 and consisted of the following:</p> <ul style="list-style-type: none"> <li>• Soil and groundwater conditions were investigated at the former Standard Oil property by installing four borings (PZ1 through PZ4) using a direct-push technology (DPT) drill rig. Soil and groundwater samples were collected and piezometers installed to provide information on groundwater flow across the site. Groundwater samples were also collected at three existing monitoring wells on the WSDOT park and ride lot west of the site.</li> <li>• Groundwater conditions near the former Owl Service Station property were investigated using a hand-operated power auger. Three borings (B5 to B7) were completed and groundwater and soil samples collected.</li> <li>• Additional groundwater samples and measurements were taken from the WSDOT property wells MW 1, MW 3, and MW 5.</li> </ul> <p>Soil and groundwater samples were analyzed in a laboratory for gasoline and diesel range petroleum hydrocarbons as well as benzene, toluene, ethylbenzene and xylenes (BTEX) compounds. Selected soil samples and all groundwater were additionally analyzed for total lead. An assessment report was prepared that documents field methods and include figures showing sample locations, groundwater contours, areas of contamination, and summary tables.</p>
<p><b>Reason for Assessment</b></p>	<p>The purpose of the Phase II ESA was to characterize groundwater in the area to gain an understanding of groundwater flow directions and contaminant concentrations to further characterize the magnitude and extent of contamination at the site and surrounding area as contamination may be migrating onsite from offsite sources.</p>
<p><b>Results</b></p>	<p>In general, low concentrations of gasoline-range hydrocarbons were encountered during the assessment. Gasoline-range total petroleum hydrocarbons (TPH) was detected in the soil samples collected from three soil borings (borings PZ1, PZ2, and PZ3); however, none of the concentrations exceeded the Washington State Model Toxics Control Act (MTCA) Method A cleanup level. BTEX compounds were not detected with the exception of benzene, ethylbenzene, and xylenes which were in one soil boring (boring PZ3). Only the concentration of benzene at PZ3 (109 micrograms per kilogram [<math>\mu\text{g}/\text{kg}</math>]) exceeded the MTCA Method A cleanup level of 30 <math>\mu\text{g}/\text{kg}</math>. No elevated total was detected in the soil samples analyzed.</p> <p>Gasoline-range TPH was detected in the groundwater samples collected from MW3 and PZ3 at concentrations less than the MTCA Method A cleanup. Gasoline range TPH was not detected in any of the other groundwater samples at concentrations greater than the laboratory method reporting limits. BTEX constituents were detected in the groundwater samples collected from MW3 and PZ3. All of the BTEX constituents were well below the MTCA Method A cleanup levels with the exception of benzene in the groundwater sample from PZ3 which was present at a concentration of 19.5 <math>\mu\text{g}/\text{L}</math>, which exceeds the MTCA Method A cleanup level of 5 <math>\mu\text{g}/\text{L}</math>. Total lead was detected at relatively low concentrations in all of the groundwater samples with the exception of the groundwater sample collected from the temporary well B5. Total lead was detected in the groundwater sample B5 at a concentration of 182 <math>\mu\text{g}/\text{L}</math>, which exceeds the MTCA Method A cleanup level of 15 <math>\mu\text{g}/\text{L}</math>. Because the groundwater samples collected from the temporary wells were turbid samples, total metals results may be biased high.</p> <p>The groundwater flow direction beneath the area is generally to the east towards the tributary to Mill Creek based on water level measurements in wells obtained on January 25, 2013.</p>

<p><b>Conclusions/ Next Steps</b></p>	<p>The field and analytical results from the Phase II ESA verified that gasoline-range TPH and BTEX contamination is present in soil in the area generally north of the Former Standard Oil Station and south of the Former Humble/Exxon Station. Soil contamination identified during the Phase II ESA appears to be present at the approximate elevation of the former wetland surface and top of the water table located at approximately 6 to 10 feet bgs. Based on the results of the Phase II ESA and previous investigations, it appears likely that a gasoline release associated with the operation of the Former Humble/Exxon station may have comingled with contamination associated with the Former Standard Oil Station. The results of the Phase II ESA and previous investigations indicate that an irregularly shaped area beneath the Former Standard Oil Service Station property measuring approximately 50 to 140 feet wide by 140 feet long contains soil impacted by gasoline-range TPH and benzene at depths between 5 to 14 feet bgs (9-foot interval). The total volume of impacted soil in-place beneath the Former Standard Oil property is estimated at 3,500 cubic yards. This volume does not take into account the unknown volume of impacted soil that exists beneath the adjacent WSDOT-owned Former Humble/Exxon property. Based on the results of this Phase II ESA and previous investigations, groundwater contamination appears to be located in the general area north of the Former Standard Oil Station. The source of groundwater contamination in this area appears to be a comingled plume originating from both the Former Standard Oil and Former Humble/Exxon properties. The Phase II ESA report has been sent to representatives of the City of Auburn and WSDOT. They will decide on the next steps necessary to cleanup this site.</p>
<p><b>Contact Information</b></p>	<p><u>King County Contact:</u> Lucy Auster, Senior Planner, King County Solid Waste Division, 206-477-5268, <a href="mailto:lucy.auster@kingcounty.gov">lucy.auster@kingcounty.gov</a>.</p> <p><u>City of Auburn Contact:</u> Chris Andersen, Environmental Services Manager, City of Auburn Planning and Development Department, 253-876-1962, <a href="mailto:candersen@auburnwa.gov">candersen@auburnwa.gov</a>.</p>

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