

Lake Chelan Boat Company Site Summary

1418 West Woodin Avenue, Chelan, Washington

Colony Claim No. 208188

Antea®Group Project No. STCG-422-2

The following is a summary of historical and current events at the Lake Chelan Boat Company Colony Insurance site:

- Lake Chelan Boat Company (the Property) is an operating business located at 1418 West Woodin Avenue in Chelan, Washington (Figure 2). The Property consists of an office building, workshop, docks/dry dock, and gravel parking areas. One diesel above ground storage tank (AST) is present east of the office building and workshop. The business transports people and goods uplake to multiple locations on Lake Chelan and has numerous boats of different sizes.
- On February 6, 2012, Antea Group was informed by ARGO Pro/Colony Insurance (Colony) that a 10,000-gallon diesel UST was removed from the property on November 7, 2011. Environmental Associates, Inc. oversaw the removal of the tank and noted that the tank was moderately rusted and pitted, but did not contain obvious holes. The property owner reported previous problems with the turbine at the north end of the tank. Environmental Associates, Inc. collected soil samples from the bottom and sidewalls of the excavation. Laboratory analytical results indicate that concentrations exceeded MTCA Method A cleanup levels in the samples collected from the north and south bottom samples and from the north sidewall. Concentrations ranged from less than the laboratory MRL of 50 mg/kg to 24,000 mg/kg. The volume of diesel released from the tank is not known.
- On March 6 and 7, 2012, Antea Group personnel directed the advancement of four soil borings with the purpose of defining the limits of over-excavation. Soil samples were collected during the advancement of each soil boring at approximate 5-foot intervals. Laboratory analytical results for soil indicated that petroleum hydrocarbons were not detected above MTCA Method A cleanup levels. All four soil borings were completed as 2-inch groundwater monitoring wells MW-1 through MW-4. Results of this investigation were presented to The Lake Chelan Boat Company and the Department of Ecology in a report titled, "Well Installation Report", dated April 27, 2012.
- Soil on site consists primarily of gravelly sand, sand or silty sand. Interbedded gravel and silt were observed in the boring for well MW-1.
- On March 21, 2012, Antea personnel returned to the Property to collect groundwater samples from MW-1 through MW-4. Laboratory analytical results for groundwater indicated that concentrations of TPH-D exceeded MTCA Method A cleanup levels in monitoring well MW-3 at a

concentration of 1,300 micrograms per liter (ug/L). All other analytes were below MTCA Method A cleanup levels.

- On March 26 and 27, 2012, Antea Group oversaw the excavation of the former diesel UST complex. Approximately 372 tons of soil was excavated from the site. Prior to backfilling the excavation, 750 pounds of PermeOx Plus (bioremediation compounds) was placed in the bottom of the excavation. Diesel was detected in 3 of the 8 soil samples collected at concentrations below the MTCA Cleanup levels. Concentrations of TPH-G, BTEX compounds, and carcinogenic PAHs were not detected above laboratory reporting limits in any of the samples.
- During the December 2014 GW sampling event, concentrations of TPH-D were detected as follows: MW-1 = 150 ug/L; MW-2 = 420 ug/L; MW-3 = 140 ug/L; and MW-4 = 2,000 ug/L. Concentrations of TPH-D, TPH-O and BTEX compounds have never exceeded MTCA cleanup levels in well MW-1 and MW-2. Following receipt of the 1Q15 analytical results, well MW-3 now has four consecutive quarters of GW below MTCA cleanup levels for TPH-D.
- DTW ranges in the existing wells on site from 6.4 feet to 23.7 feet bgs. The groundwater observed on site is directly related to the water level of the adjacent lake. The lake level is altered approximately 15 feet throughout the year. The lake level is raised in the summer and lowered in the winter. The flow direction is primarily towards the west and southwest. Farther from the Lake, the flow direction alternates 180 degrees.
- Antea group has researched the former Unocal Bulk Facility located to the southeast of the Boat Company. There has been a documented release of TPH-Gas and TPH-Diesel from this site. Well MW-3A has had three quarters of clean water between September 2013 and May 2014. It had a hit of TPH-Diesel of 1,300 ppb in June of 2013. Well MW-5A had a hit of TPH-Diesel of 520 ppb in March of 2014. All other wells have at least four consecutive quarters of clean GW (below MTCA). The flow direction here alternates between north, northeast, south, east and west. They have operated an AS/VE system at the site and have performed soil excavation in multiple areas.