STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING FEBRUARY 5, 2009

ITEM NUMBER: 8

SUBJECT: Recommended Case Closure

DISCUSSION

Former Bear Valley Chevron, 1099 Los Osos Valley Road, Los Osos, San Luis Obispo County, [Corey Walsh (805) 542-4781]

Central Coast Water Board staff recommends closure of this underground storage tank (UST) case where groundwater sample results indicate methyl tertiary-butyl ether (MTBE), 1,2-dichloroethane (1,2-DCA) and benzene remain at concentrations slightly greater than Water Board cleanup goals. The groundwater cleanup goals for MTBE, 1,2-DCA, and benzene are 5 micrograms per liter (µg/L), 0.5 µg/L, and 1 µg/L, respectively. During the most recent groundwater monitoring event, samples were collected from 16 key, multi-level well chambers screened in three distinct water-bearing zones (A-, B-, & C-zones). Analytical results indicate groundwater contaminant levels remain above cleanup goals in the B-zone at 10.9 µg/L and 7.3 µg/L for MTBE, 0.65 µg/L for 1,2-DCA, and 2.2 µg/L for benzene. Other common contaminants associated with gasoline and fuel oxygenates have been analyzed and are below cleanup goals, or are below laboratory detection limits in groundwater. Attachment 1, *Groundwater Analytical Results,* presents concentrations for samples collected on October 27-28, 2008. The groundwater monitoring data continue to indicate natural biodegradation of hydrocarbons and that attainment of cleanup goals is imminent.

The site is no longer an active fuel service station but is used for automotive repair and retail sales. The property is located at the southwest corner of Sunset Drive and Los Osos Valley Road in Los Osos. Contractors first discovered the UST system release in May 1990 during removal/replacement of the USTs. Contractors discovered a second release in July 2001 during site investigation activities. The responsible party (Ms. Hano Burns/Estate of Hano Burns) commissioned several phases of soil and groundwater investigations and cleanup. In December 2001, the responsible party (RP) removed the UST system.

Soil and groundwater cleanup began in December 1997 with operation of an onsite air sparging (AS) and soil vapor extraction (SVE) remediation system. The SVE system operated through March 2000 and operation of the AS continued until September 2000. The AS/SVE system was shut down due to reduced influent concentrations and was later removed. The RP conducted dual phase cleanup (groundwater and soil vapor)

extraction events on select offsite monitoring wells from January until June 2001. The dual phase cleanup removed approximately 59,151 gallons of contaminated groundwater and removed an estimated mass 0.8 pounds of MTBE. In December 2001, during removal of the UST system, 160 cubic yards of contaminated soil was also removed. In April 2002, after further assessment, the RP's representatives began operation of an offsite remediation system which included an integrated AS, SVE, and groundwater circulation well system. The remediation system was shut down in June 2005 to evaluate contaminant concentration rebound, and to conduct verification monitoring. The remediation system treated approximately 26,489,077 gallons of groundwater (which was returned to the aquifer after treatment), and removed an estimated 61 pounds of hydrocarbons. Groundwater verification monitoring results continue to indicate on-going natural biodegradation of hydrocarbons and a continued reduction in concentrations to near or below cleanup goals. The remaining groundwater pollution does not warrant restarting the groundwater remediation system, and Central Coast Water Board staff has concurred with removal of the remediation system.

Central Coast Water Board staff notified the site property owners (Mr. Richard Johnson and Mr.Peter Starlings), neighboring property owners, and other interested parties that the UST case was being considered for closure. We have not received any comments to date. The San Luis Obispo County Division of Environmental Health Services agrees with the proposed case closure.

Southern California Water Company (Los Olivos No. 3 well) and the Los Osos Community Services District (10th Street well) operate municipal water wells located approximately 1,000 feet north and 1,000 feet northwest of the site, respectively. Groundwater sample analyses first detected MTBE in the Los Olivos No. 3 well on August 15, 2000 at 1.2 µg/L. Samples showed low levels of MTBE in the well until June 2003. The maximum MTBE concentration detected in this well was 3.6 µg/L. Groundwater analytical results for MTBE have been less than the analytical method detection limit since June 2003. The well was last sampled on November 5, 2008. MTBE has never been detected in the 10th Street well. The 10th street well was last sampled on September 14, 2007. Water-bearing zones (A- B- & C-zones) underlying the site currently range in depth from approximately 42 (A-zone) to 120 (C-zone) feet below ground surface and generally flow to the north-northwest.

Based on soil and groundwater investigations, verification monitoring, and groundwater cleanup results, this site does not pose a significant threat to groundwater resources. Central Coast Water Board staff's recommendation for case closure is based on the following:

1. The extent of soil and groundwater contamination has been adequately characterized, and is anticipated to decrease with time through natural attenuation;

2. Monitoring data indicate the plume is contracting in size and declining in concentration. We expect the decline to continue and the site to meet groundwater cleanup goals within a reasonable period of time;

3. The source and majority of contaminant mass has been removed to the maximum extent practicable using various remedial actions including: soil excavation, free-product removal, dual-phase extraction, and air-sparging;

4. Remaining hydrocarbon contamination is unlikely to reach drinking water supply wells or other sensitive receptors considering the low groundwater contaminant concentrations remaining; and

5. Closure is consistent with Section III.G. of State Water Board Resolution No. 92-49, allowing the consideration of cost effective abatement measures for a site where attainment of reasonable objectives less stringent than background water quality does not unreasonably affect present or anticipated beneficial uses of groundwater, and will not result in water quality less than that prescribed by the Basin Plan.

Unless the Water Board objects and pending destruction of monitoring and treatment wells, the Executive Officer will issue a case closure letter for this site pursuant to California Underground Storage Tank Regulations.

Attachments

1. Groundwater Analytical Results Map

S:\UST\Regulated Sites\San Luis Obispo Co\Los Osos\1099 LosOsosValleyRoad\Staff Rpts-Minutes\Staff Rpt 2-6-09.doc