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Sacramento, California 95818

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By loppjectop at 8:52 am, May 17, 2006

May 4, 2006

Mr. Jerry Wickham
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502

Re: **Report Transmittal
Quarterly Report
First Quarter – 2006
76 Service Station #4186
1771 First Street
Livermore, CA**

Dear Mr. Wickham:

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached report is/are true and correct.

If you have any questions or need additional information, please contact

Shelby S. Lathrop (Contractor)
ConocoPhillips
Risk Management & Remediation
76 Broadway
Sacramento, CA 95818
Phone: 916-558-7609
Fax: 916-558-7639

Sincerely,

Thomas Kosel
Risk Management & Remediation

Attachment



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RECEIVED
By loprojectop at 8:52 am, May 17, 2006

May 16, 2006

Mr. Jerry Wickham
Alameda County Health Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Quarterly Summary Report – First Quarter 2006
Delta Project Number: C104186041

Dear Mr. Wickham:

On behalf of ConocoPhillips (COP), Delta Environmental Consultants, Inc. (Delta) is forwarding the quarterly summary report for the following location:

Service Station

76 Service Station No. 4186

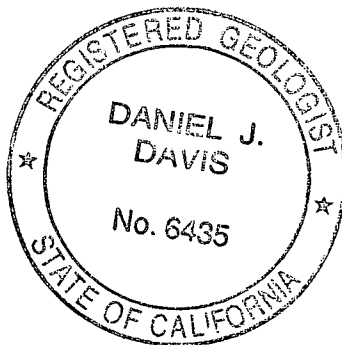
Location

1771 First Street
Livermore, California

Sincerely,
Delta Environmental Consultants, Inc.

Ben Wright
Staff Geologist

Daniel J. Davis, R.G.
Project Manager



Forward: TRC - Quarterly Monitoring Report
Environ Strategy Consultants - Quarterly Remedial Performance Summary Report

cc: Ms. Shelby Lathrop, ConocoPhillips (electronic copy)

QUARTERLY SUMMARY REPORT
First Quarter 2006
76 Station No. 4186
1771 First Street
Livermore, California

PREVIOUS ASSESSMENT

This site is an operating Union 76 service station located on First Street between N Street and O Street in Livermore, California. The facility property contains the station building, four product dispenser islands, and two gasoline underground storage tanks (UST).

On June 6, 1996, six soil samples were collected from beneath the fuel dispensers and product delivery piping during dispenser and piping replacement activities. Results of soil sample analyses were reported as not detected (ND) for total petroleum hydrocarbons as gasoline (TPH-G), and benzene, toluene, ethylbenzene and total xylenes (BTEX) for each sample collected beneath the dispenser islands and product delivery piping.

On September 10, 1997, a soil gas survey was conducted as part of a baseline site evaluation associated with transfer of the property from Unocal Corporation to Tosco. Six soil gas probes were advanced and samples collected at 3 or 15 feet below ground surface (bgs) in the vicinity of the UST complex, dispenser islands, and product lines. Analytical results from the gas probes ranged from 41 to 4,500 parts per billion by volume (ppb-v) for TPHG, ND to 110 ppb-v for benzene and ND to 8,000 ppb-v for methyl tertiary butyl ether (MTBE). The area of highest soil vapor concentration was localized around the UST complex.

On April 8, 1998, the Alameda County Zone 7 Water Agency files were reviewed to identify water supply wells located within a one-half mile radius from the site. Two municipal wells were identified approximately 1,500 feet and 1,800 feet northwest of the site, and two domestic wells were located approximately 1,900 feet and 2,800 feet southwest and west of the site.

On June 16, 1998, three 2-inch diameter groundwater monitor wells (U-1 through U-3) were installed. The wells were each installed to a depth of approximately 34 feet bgs. Soil samples collected from the three well borings were reported as ND for TPH-G, benzene, and MTBE.

In May 2000, a site conceptual model (SCM) was completed for the site. In the SCM, groundwater flow velocity was calculated to determine the plume travel time to the nearest receptor. Ground water velocity was calculated at 46 feet per year. The SCM concluded that hydrocarbon impact to groundwater appears to fluctuate with the rise and fall of the groundwater surface beneath the site.

On February 21, 2001, two 2-inch diameter off-site groundwater monitor wells (U-4 and U-5) were installed. The wells were installed to depths of approximately 47 feet bgs. TPH-G, BTEX and MTBE were not detected in the soil samples analyzed. TPH-G and benzene were ND in groundwater samples analyzed from wells U-4 and U-5. MTBE was detected in groundwater samples from wells U-4 and U-5 at concentrations of 38.2

micrograms per liter ($\mu\text{g/l}$) and $55.4 \mu\text{g/l}$, respectively; other fuel oxygenates were non-detectable. Groundwater monitoring and sampling of the wells was initiated in July 1998 and has continued on a quarterly basis to the present time. Historically, groundwater flow directions have varied from north to southwest. Depth to groundwater has varied from approximately 23 to 46 feet below top of casing.

On December 5 – 7, 2001, two monitoring wells (U-6 and U-7) and eight ozone microsparge points (SP-1 through SP-8) were installed. The monitor wells were each installed to 46 feet bgs using 8-inch diameter hollow stem augers. Borings SP-1 through SP-8 were completed as sparge wells with the installation of 2-inch diameter KVA sparge points attached to $\frac{3}{4}$ -inch diameter blank schedule 80 PVC casing through the hollow-stem augers. The sparge points are composed of 30-inch long microporous plastic. Sparge points SP-1 through SP-4 were installed to depths of 45 feet bgs. Sparge points SP-6S and SP-7S were installed to depths of 25 feet bgs. The remaining two sparge locations contain nested sparge points (SP-5, SP-5S, SP-8 and SP-8S) installed to 25 and 45 feet bgs in each boring. Upon completion of the sparge point installation, an interim remediation system was installed consisting of a K-V Associates, Inc. (KVA) "C-Sparge" ozone microsparge system.

MONITORING AND SAMPLING

Groundwater is currently monitored and sampled on a quarterly basis. During the March 24, 2006 monitoring and sampling event, depth to groundwater ranged from 22.34 feet (U-2) to 26.51 feet (U-4) below top of casing (TOC). The groundwater flow direction was northwest and southwest at a gradient of 0.10 foot per foot (ft/ft). Maximum dissolved groundwater concentrations were present as follows: total purgeable petroleum hydrocarbons (TPPH) ($4,300 \mu\text{g/L}$ in U-6), benzene ($52 \mu\text{g/L}$ in U-6), and MTBE ($690 \mu\text{g/L}$ in U-3). Groundwater monitoring and sampling is conducted by TRC under direct contract to ConocoPhillips.

REMEDIATION STATUS

The ozone sparge system, manufactured by KVA, was placed into operation on December 19, 2001 and is designed to cycle the ozone/oxygen injection between 10 sparge points. A typical injection schedule for this site was designed to operate at 18 times a day at 5 and 15 minutes per point per cycle. The system's current cycle frequency is 8 minutes. Remediation system operation and maintenance is conducted by Environ Strategy Consultants, Inc. (ES) under direct contract to ConocoPhillips.

For the first quarter 2006, the ozone sparge system operated for 1,402 hours, equivalent to 56% of the programmed runtime, and injected 12.6 pounds of ozone. System operation and maintenance (O&M) activity is conducted on a monthly to semi-monthly basis.

The system was found non-operational on February 17, March 14, and March 30, 2006 due to a breaker thrown; on February 28, 2005 the system was found non-operational due to a tripped ozone sensor. For each instance the system was reset and restarted.

CHARACTERIZATION STATUS

The furthest up-gradient monitor well, U-3, contained 840 µg/l MTBE and 390 µg/l TPPH during the fourth quarter 2005 sampling event. The furthest offsite down-gradient well, U-5, contained 72 µg/l of MTBE this quarter.

RECENT CORRESPONDENCE

Delta submitted a work plan to Alameda County to assess the vertical and lateral extent of contamination at the site. The work plan was approved in a letter from Alameda County dated January 12, 2006.

THIS QUARTER ACTIVITIES (First Quarter 2006)

1. TRC conducted the quarterly monitoring and sampling at the site.
2. ES conducted system operation and maintenance activities at the site.

WASTE DISPOSAL SUMMARY

No waste was disposed of from the site during this reporting period.

June 1996 - A total of 25 cubic yards of soils was excavated and disposed.

NEXT QUARTER ACTIVITIES (Second Quarter 2006)

1. ES will continue operation and maintenance on the ozone/oxygen sparge system at the site.
2. TRC will conduct quarterly groundwater monitoring and sampling at the site.
3. Delta will complete an assessment to determine the extent of vertical and lateral contamination at the site.

CONSULTANT: Delta Environmental Consultants, Inc.