ConocoPhillips

76 Broadway
Sacramento, California 95818

RECEIVED
By lopprojectop at 8:29 am, Apr 28, 2006

April 24, 2006

Mr. Don Hwang
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502

Re: **Report Transmittal**
SENSITIVE RECEPTOR SURVEY
76 Service Station #5043
449 Hegenberger Road
Oakland, CA

Dear Mr. Hwang:

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

TRC

Customer-Focused Solutions

April 24, 2006

TRC Project No. 42014409

Mr. Don Hwang
Alameda County Health Services
1131 Harbor Bay Parkway
Alameda, CA. 94502-6577

RE: SENSITIVE RECEPTOR SURVEY
76 SERVICE STATION # 5043
449 HEGENBERGER ROAD, OAKLAND, CALIFORNIA

Dear Mr. Hwang:

On behalf of ConocoPhillips, TRC has prepared this sensitive receptor survey report for 76 Service Station # 5043, located at 449 Hegenberger (Site) in Oakland, California (Figure 1).

SCOPE OF WORK

To identify domestic and municipal wells within one-half mile of the subject site, TRC contacted the Department of Water Resources to review copies of well completion reports from nearby wells. The results, excluding destroyed water supply wells and groundwater monitoring and extraction wells, are summarized in Table 1 and Figure 1.

Also included in the survey was an evaluation of nearby surface water bodies as possible sensitive receptors. TRC accomplished this by observing various site and vicinity maps. Figure 1 shows the nearby surface water bodies, if any.

SENSITIVE RECEPTOR SURVEY

A request was made to the California Department of Water Resources (DWR) for well completion reports within the vicinity of the site. Of the well completion reports reviewed, three wells were water supply wells within one-half mile of the Site. Two of the wells are irrigation wells and the third is an industrial well (Figure 1).

The nearest irrigation well (Well 1) is located approximately 1,080 feet southeast of the Site and the other irrigation well (Well 2) is located approximately 2,623 feet southeast of the Site. The industrial well (Well 3) is located approximately 2,570 feet northeast of the Site. The available construction details for these wells are provided in Table 1.

Two surface water bodies were observed within a one-half mile radius of the Site. San Leandro Creek is located approximately 1,400 feet southwest of the Site and flows into San Leandro Bay. Elmhurst Creek is located approximately 2,220 feet north of the Site and also flows into San Leandro Bay.

1590 Solano Way, Suite A • Concord, California 94520
Telephone 925-688-1200 • Fax 925-688-0388

Groundwater at the site is encountered at an average depth of 3.12 feet below grade and flows to the southeast at a hydraulic gradient of 0.005 ft/ft (Quarterly Monitoring Report dated January 7, 2006).

CONCLUSIONS

Both irrigation wells (Well 1 and Well 2) are located within the path of local groundwater flow; therefore they are potential sensitive receptors. However, based on the distance from the Site (greater than 1,000 feet), these wells are unlikely to be impacted by the Site hydrocarbon plume.

The industrial well (Well 3) is not located in the path of local groundwater flow and is therefore not considered a potential sensitive receptor.

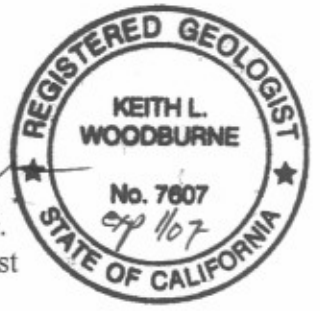
Both San Leandro Creek and Elmhurst Creek are considered potential sensitive receptors because they are located within one-half mile of the Site. However, due to the location of San Leandro Creek and its distance from the Site, the water body is unlikely to be impacted by the hydrocarbon plume present at the Site. Likewise, the threat to Elmhurst Creek is minimal due to its location north of the Site. Both water bodies locations are shown on Figure 1.

If you have any questions or concerns regarding this information, please contact either of the undersigned at 925-688-1200.

Sincerely,
TRC

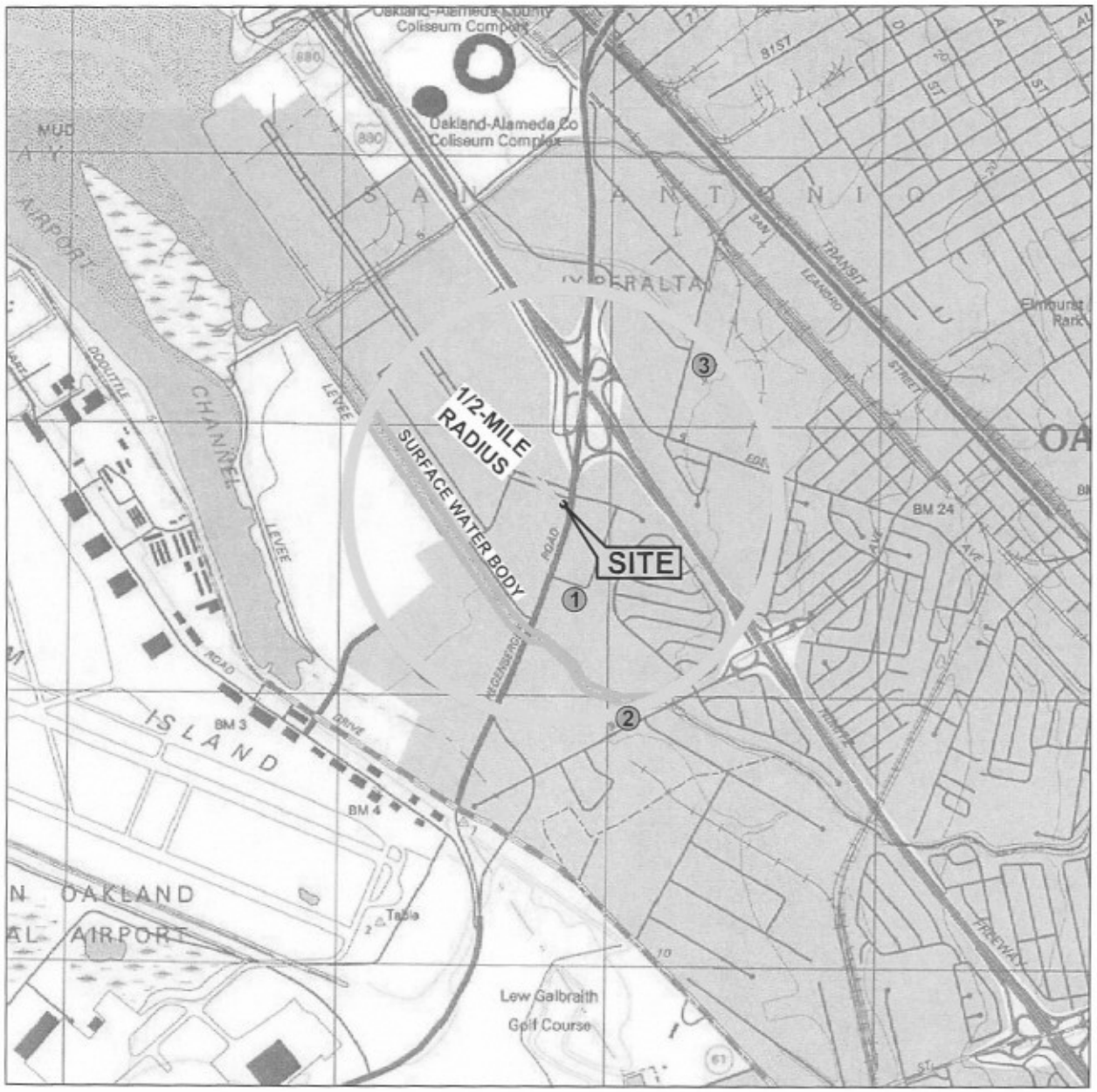
Mike Sellwood
Staff Geologist

Keith Woodburne, P.G.
Senior Project Geologist



Attachments:
Figure 1 – Sensitive Receptors Within Half Mile of Site
Table 1 - Summary of Well Information

cc: Shelby Lathrop, ConocoPhillips (electronic upload only)



1 MILE 3/4 1/2 1/4 0 1 MILE

SCALE 1 : 24,000

N

SOURCE:
United States Geological Survey
7.5 Minute Topographic Maps:
San Leandro Quadrangle, California

OWNERS OF IRRIGATION WELLS:

1. **W.E. Lyons Construction**
2. **Ratto Brothers, Inc.**
3. **Delavel Turbine, Inc.**

SENSITIVE RECEPTORS WITHIN HALF-MILE OF SITE

76 Service Station #5043
449 Hegenberger Road
Oakland, California

TRC

FIGURE 1

TABLE 1

SUMMARY OF WELL INFORMATION
76 Service Station No. 5043
449 Hegenberger Road
Oakland, California

Map Number	State Well ID	Owner	Well Use	Well Total Depth (ft)	Screened Interval (ft)	Depth to Water (ft)	Date Installed	Approximate Distance From Site (ft)
Figure 1, number 1	2S/3W-28B1	W.E. Lyons Construction	Irrigation	48	28 to 48	7	10/7/1977	1,080 SE
Figure 1, number 2	2S/3W-28G2	Ratto Bros., Inc.	Irrigation	305	25 to 305	30	6/2/1988	2,623 SE
Figure 1, number 3	2S/3W-21J2	Delavel Turbine, Inc.	Industrial	448	138 to 200, 230 to 240	59	6/16/1976	2,570 NE