TRC

Customer-Focused Solutions

February 4, 2005 TRC Project No. 42016301

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

RE: Quarterly Status Report - Fourth Quarter 2004
76 Station #0746, 3943 Broadway, Oakland, California
Alameda County

Dear Mr. Hwang:

On behalf of ConocoPhillips Company (ConocoPhillips), TRC is submitting the Fourth Quarter 2004 Quarterly Status Report for the subject site, shown on Figure 3 through 5.

PREVIOUS ASSESSMENTS

The subject site is situated on the western corner of the intersection of Broadway and 40th Street in Oakland, California. Station facilities include two 12,000-gallon double-wall glasteel gasoline underground storage tanks (USTs) in a common pit, one 520-gallon double-wall glasteel waste oil UST, two dispenser islands, one station building, and a car wash building.

August 1989: Two 10,000-gallon steel gasoline USTs and one 280-gallon steel waste oil UST were removed and replaced with the current USTs. A total of approximately 350 cubic yards of soil was removed from the site during UST removal activities. The confirmatory soil sample was reported as non-detect for all constituents. The product piping was also removed. Confirmation soil sampling beneath piping and the waste oil tank indicated low levels of petroleum hydrocarbons detected. During the tank removal activities, approximately 6,500-gallons of groundwater was pumped from the UST cavity. Concentrations of total petroleum hydrocarbons as gasoline (TPH-g) and benzene were reported as 1,200 micrograms per liter (µg/l) and 12 µg/l, respectively.

October 1989: Three monitoring wells were installed at the site to depths ranging from 20 to 22.5 feet below ground surface (bgs).

January 1990: Two additional monitoring wells were installed at the site to a depth of 20 feet bgs.

October 1990: Four additional monitoring wells were installed at and in the vicinity of the site at depths ranging from 20 to 22 feet bgs. Groundwater recovery tests were performed on four wells to determine potential locations for placement of recovery wells.

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

January 1992: Two offsite monitoring wells were installed in the vicinity of the site at depths ranging from 19 to 22 feet bgs.

June 1992: One recovery well and one additional offsite monitoring well were installed at the site to depths of 17.5 feet bgs.

February 1998: The product piping and associated dispenser islands were replaced at the site. Four soil samples were collected from beneath the dispenser islands. Petroleum hydrocarbons were reported at low to moderate levels. A total of 30.20 tons of stockpiled soil was transported from the site to the Forward Inc. Landfill in Stockton, California.

October 2003: Site environmental consulting responsibilities were transferred to TRC.

SENSITIVE RECEPTORS

A sensitive receptor survey has not been performed for this site.

MONITORING AND SAMPLING

Currently, eight onsite and five offsite groundwater wells are monitored semi-annually. Eleven wells were sampled this quarter. The groundwater gradient and flow direction were 0.03 foot/foot to the southwest.

REMEDIATION STATUS

In 1989, approximately 350 cubic yards of soil was removed from the site during UST removal activities. During the tank removal activities, approximately 6,500-gallons of groundwater was pumped from the UST cavity.

In 1990, groundwater recovery tests were performed on four wells to determine potential locations for placement of recovery wells.

In 1993, a pilot vapor extraction test was performed at the site on well RW-1. A maximum concentration of 8.6 µg/l TPH-g was reported in the influent vapor stream. The calculated maximum hydrocarbon extraction rate during the test was 0.00049 lbs/hr. Based on the low extraction rate, high groundwater levels, and fine-grained soil beneath the site, vapor extraction was determined to not be a feasible remedial option. Well RW-1 was initially installed to perform a groundwater recovery test, but due to lack of groundwater recharge, the test was not performed.

In 1998, the product piping and associated dispenser islands were replaced at the site. Denbeste Transportation, Inc. of Windsor, California transported a total of 30.20 tons of stockpiled soil from the site to the Forward Inc. Landfill in Stockton, California for disposal on March 3, 1998.

CHARACTERIZATION STATUS

Hydrocarbon impacts to groundwater are not fully delineated. The highest offsite concentrations are 1,500 µg/l total purgeable petroleum hydrocarbons (TPPH), 0.72 µg/l for benzene, and 1,600 µg/l for methyl tertiary butyl ether (MTBE).

TPPH were detected in nine of eleven monitoring wells sampled, with a maximum concentration of 9,000 µg/l in onsite well MW-3.

Benzene was detected in four of eleven monitoring wells sampled, with a maximum concentration of 46 µg/l in onsite well RW-1.

MTBE was detected in ten of eleven monitoring wells sampled, with a maximum concentration of 1,600 µg/l in offsite well MW-8.

RECENT CORRESPONDENCE

No correspondence this quarter.

CURRENT QUARTER ACTIVITIES

November 29, 2004: TRC performed groundwater monitoring and sampling. Wastewater generated from well purging and equipment cleaning was stored at TRC's groundwater monitoring facility in Concord, California, and transported by Onyx to the ConocoPhillips Refinery in Rodeo, California, for treatment and disposal.

NEXT QUARTER ACTIVITIES

Await agency directives for additional assessment work, if any.

Perform a dual-phase vacuum extraction pilot test to evaluate its effectiveness in removing hydrocarbon mass in soil and groundwater at localized "hot spots" in the vicinity of MW-3, MW-5, and RW-1.

Continue semi-annual monitoring and sampling to assess plume stability and concentration trends at key wells.

If you have any questions regarding this report, please call me at (925) 688-2466.

Sincerely,

TRC

Roger Batra

Roger Batra
Senior Project Manager

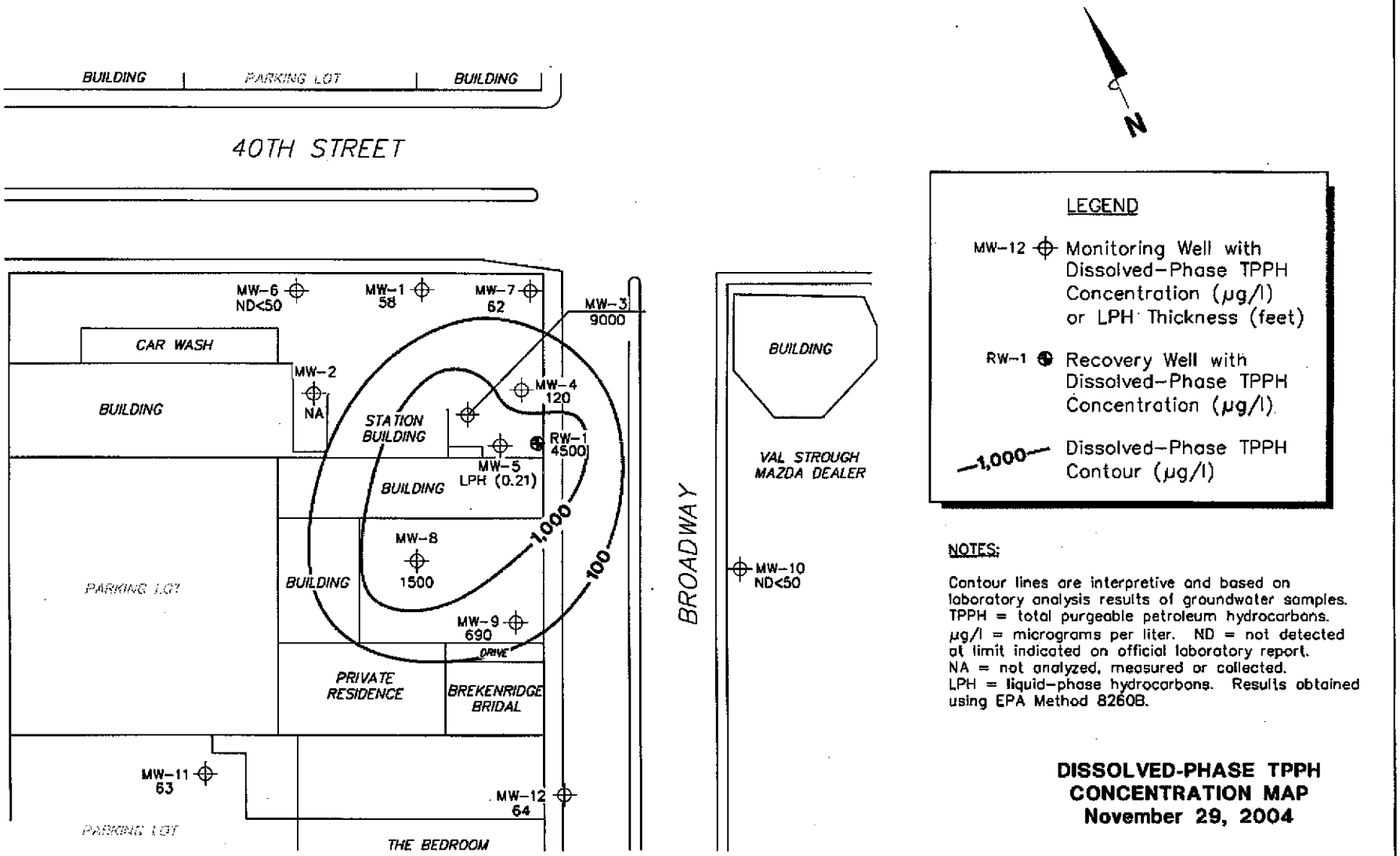
Attachments:

Figure 3 – Dissolved-Phase TPPH Concentration Map, November 29, 2004, from Semi-Annual Monitoring Report, July through December 2004, dated January 24, 2005 by TRC.

Figure 4 – Dissolved-Phase Benzene Concentration Map, November 29, 2004, from Semi-Annual Monitoring Report, July through December 2004, dated January 24, 2005 by TRC.

Figure 5 – Dissolved-Phase MTBE Concentration Map, November 29, 2004, from Semi-Annual Monitoring Report, July through December 2004, dated January 24, 2005 by TRC.

cc: Thomas Kosel, ConocoPhillips (hard copy and electronic upload)



NOTES:

Contour lines are interpretive and based on laboratory analysis results of groundwater samples.
TPPH = total purgeable petroleum hydrocarbons.
µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report.
NA = not analyzed, measured or collected.
LPH = liquid-phase hydrocarbons. Results obtained using EPA Method 8260B.

DISSOLVED-PHASE TPPH CONCENTRATION MAP
November 29, 2004

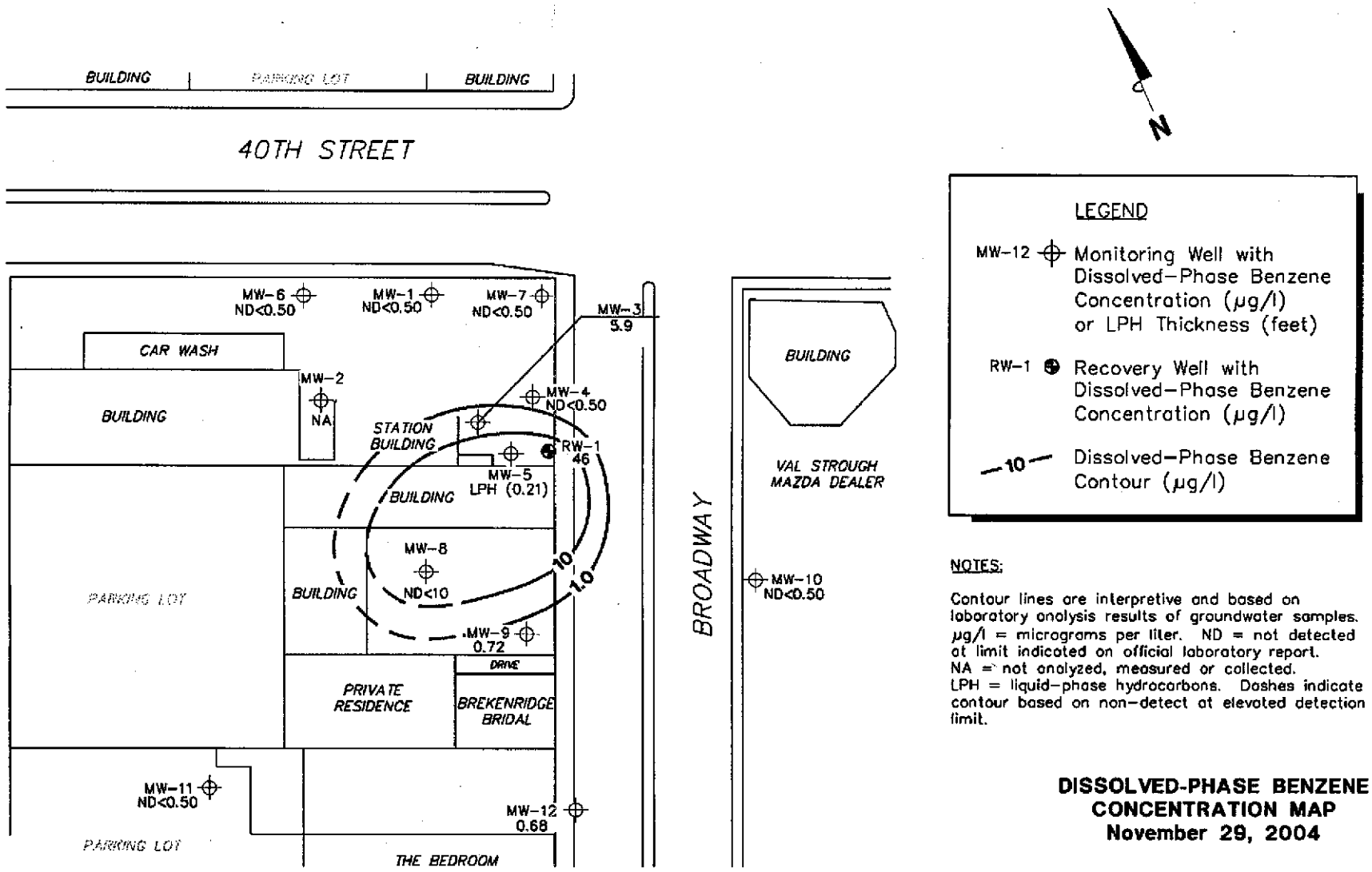
76 Station 0746
3943 Broadway
Oakland, California

FIGURE 3

TRC

PS=1:1 0746-003

Graphics on lr1(t:)\GRAPHICS\Projects By..\20-xxxx\20-0400\x-0000\0746+\0746qms.dwg 01/14/05 pjg



NOTES:

Contour lines are interpretive and based on laboratory analysis results of groundwater samples. µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. NA = not analyzed, measured or collected. LPH = liquid-phase hydrocarbons. Dashes indicate contour based on non-detect at elevated detection limit.

DISSOLVED-PHASE BENZENE CONCENTRATION MAP
November 29, 2004

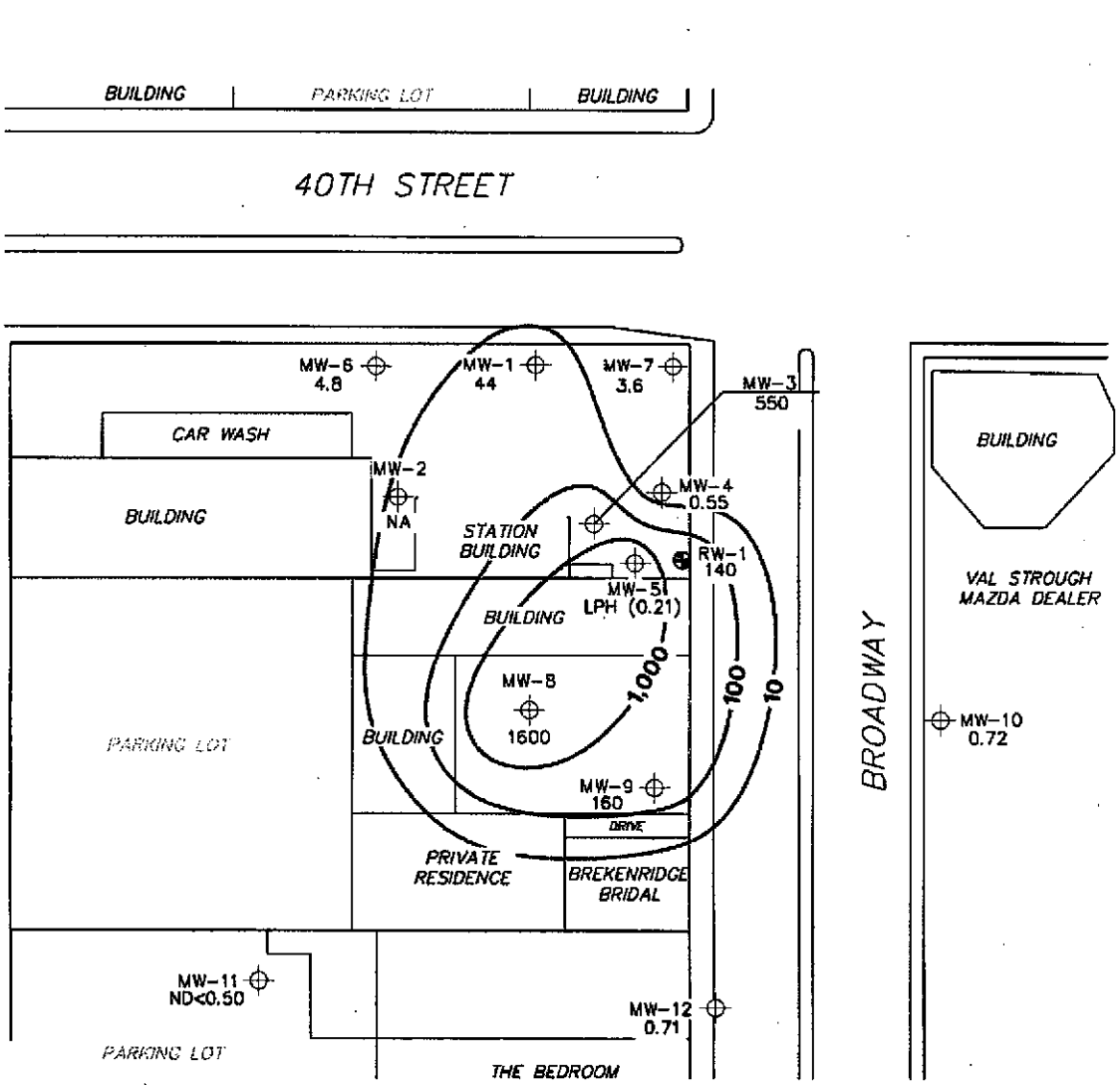
76 Station 0746
3943 Broadway
Oakland, California

FIGURE 4

TRC

PS=1:1 0746-003

Graphics on Ir1(I:)\GRAPHICS\Projects By...\20-xxxx\20-0400\x-0000\0746+\0746qms.dwg 01/14/05 pjg



LEGEND

MW-12 ⊕ Monitoring Well with Dissolved-Phase MTBE Concentration (µg/l) or LPH Thickness (feet)

RW-1 ● Recovery Well with Dissolved-Phase MTBE Concentration (µg/l)

1,000 Dissolved-Phase MTBE Contour (µg/l)

NOTES:

Contour lines are interpretive and based on laboratory analysis results of groundwater samples. MTBE = methyl tertiary butyl ether. µg/l = micrograms per liter. ND = not detected at limit indicated on official laboratory report. NA = not analyzed, measured or collected. LPH = liquid-phase hydrocarbons. Results obtained using EPA Method 8260B.

DISSOLVED-PHASE MTBE CONCENTRATION MAP
November 29, 2004

76 Station 0746
3943 Broadway
Oakland, California

SCALE (FEET)
0 50

FIGURE 5

TRC

PS=1:1 0746-003

Graphics on Ir1(I:)\GRAPHICS\Projects By...\20-xxxx\20-0400\x-0000\0746+\0746qms.dwg 01/14/05 pjg