June 15, 2007

### RECEIVED

2:37 pm, Jun 29, 2007

Alameda County
Environmental Health

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



Delta Project No. C106034071



Dear Mr. Wickham:

This report has been prepared by Delta Environmental Consultants (Delta) on behalf of ConocoPhillips Company (COP) for the above referenced site (Figure 1). The monitoring well abandonment was conducted as required for site closure.

#### **SCOPE OF WORK**

The scope of work completed for the monitoring well abandonment included the following activities:

- Conducted a utility clearance and obtained permits from the Zone 7 Water Agency;
- Prepared a site-specific health and safety plan;
- Measured the total depth of the seven site monitoring wells;
- Removed the well boxes and filled the seven monitoring wells with neat cement; and
- Arranged for disposal of generated waste materials.

## PERMITTING, UTILITY NOTIFICATION AND BOREHOLE CLEARANCE

Prior to beginning field operations Delta prepared a Health and Safety Plan in accordance with state and federal requirements. In addition, permits for the monitoring well abandonment were obtained from the Zone 7 Water Agency, included as attachment A. A copy of the letter from the Alameda County Health Agency (ACHA) approving the well abandonment work is provided in Attachment B. Prior to field activities, Underground Service Alert



(USA) was notified as required and a private utility locating service visited the site to clear the monitoring well locations for underground utilities. Three of the monitoring wells are within close proximity of marked underground utilities. Therefore, a Delta employee contacted Mr. Wyman Hong of the Zone 7 Water Agency. Mr. Hong stated that over-drilling of the monitoring wells was not required. Therefore, due to safety concerns all of the monitoring wells were abandoned by pressure grouting only, no over-drilling was conducted.

## **MONITORING WELL ABANDONMENT ACTIVITIES**

On June 7, 2007, Delta supervised the abandonment of seven monitoring wells, MW-1 through MW-7, at the site. Delta employed Gregg Drilling and Testing to properly abandon the monitoring wells. Prior to the abandonment of each of the monitoring wells, the total depth of the monitoring wells was measured to determine if any obstruction or sediment was present. The monitoring well locations are shown on Figure 2. The depths of the monitoring wells were measured using a weighted tape measure and recorded at 28, 25.5, 25.2, 25.4, 23.5, 22.5, and 24 feet below the top of the casing (btc) in monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, and MW-7, respectively.

Subsequent to measuring the depths of the monitoring wells the well boxes and the surrounding concrete were removed using a jackhammer. The monitoring wells were then pressure grouted with neat cement to the top of their respective well casings. The remaining void created by the removal of the well boxes and concrete was then backfilled with concrete and dyed black to match the existing surface.

#### **DISPOSAL OF DERIVED WASTE**

Waste derived during the monitoring well abandonment activities are temporarily being stored on-site in appropriately labeled 55-gallon Department of Transportation (DOT) approved drums pending disposal arrangements. The waste will be transported off-site by a licensed waste hauler once an approved destination for the waste is found.

#### **CONCLUSIONS**

The previously discussed groundwater monitoring well abandonment activities conclude COP's environmental work at the subject site. COP looks forward to receiving the formal closure letter from the ACHA.

### **REMARKS/SIGNATURES**

The recommendations contained in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Delta's Client and anyone else specifically listed on this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this

## **Monitoring Well Abandonment Report**

76 Service Station No. 6034

June 15, 2007 Page 3

paragraph, Delta makes no express or implied warranty as to the contents of this report.

If you have questions regarding this assessment report, please call Dennis Dettloff at (916) 503-1261. ONAL GEO

> DENNIS SHANNON DETTLOFF No. 7480

> > OF CALL

Sincerely,

**Delta Consultants** 

Dennis S. Dettloff, P.G.

Senior Project Manager

California Registered Professional Geologist No. 7480

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

Mr. Asghar Kholdi, Station Owner (copy)

**Figures** 

Figure 1 – Site Location Map

Figure 2 - Site Plan

Appendix A – Zone 7 Water Agency – Well Destruction Permit Application

Appendix B - ACHA - Letter dated March 13, 2007 approving the monitoring well abandonment

## **FIGURES**

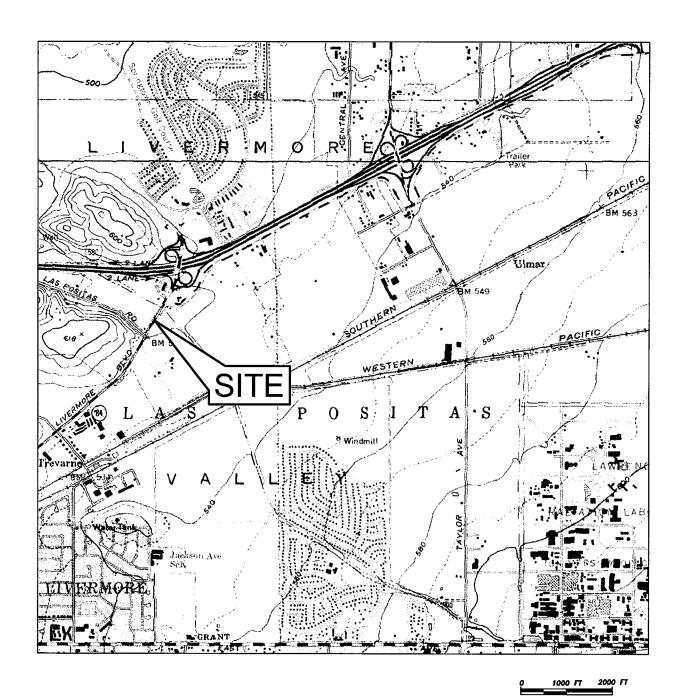






FIGURE 1

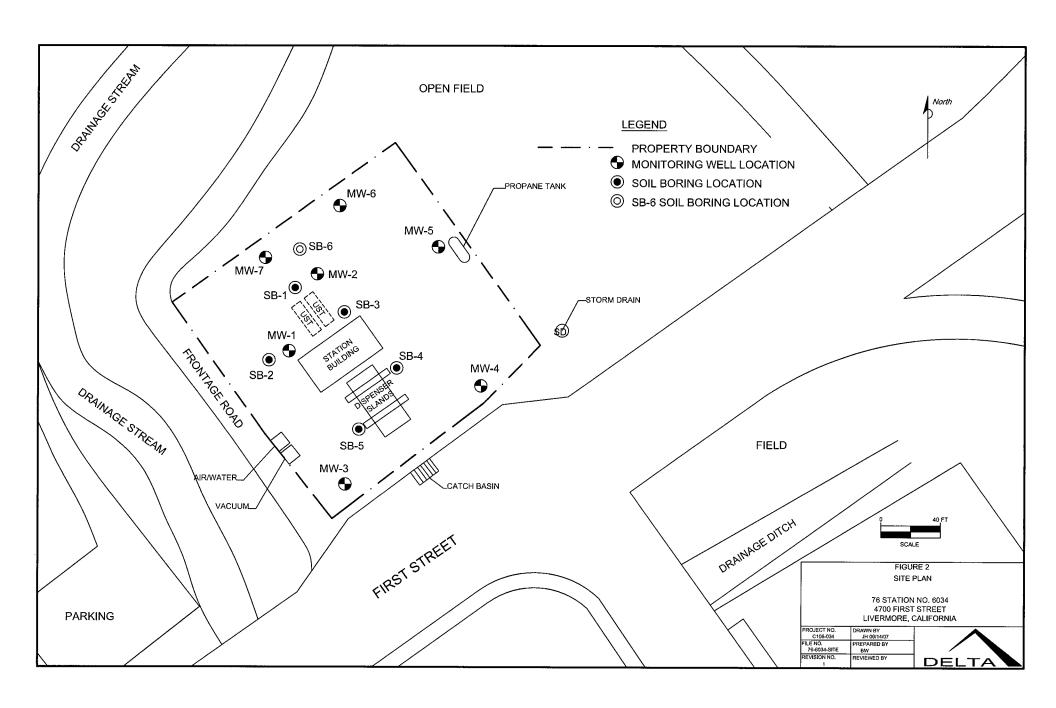
SITE LOCATION MAP

76 STATION NO. 6034 4700 FIRST STREET LIVERMORE, CALIFORNIA

PROJECT NO.	DRAWN BY
C106-034	JH 06/14/07
FILE NO.	PREPARED BY
Site Locator 6034	MC
REVISION NO.	REVIEWED BY
1	



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, ALTAMONT QUADRANGLE, 1995



## **ATTACHMENT A**

## Zone 7 Water Agency Well Destruction Permit Application



## ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551-9486

PHONE (925) 454-5000

May 23, 2007

Mr. Dennis Dettloff Delta Environmental Consultants 3164 Gold Camp Drive, Suite 200 Rancho Cordova, CA 95670

Dear Mr. Dettloff:

Enclosed is drilling permit 27092 for the destruction of monitoring wells 3S/2E-3K24 to 3S/2E-3K27 (MW-1 to MW-4) and 3S/2E-3K29 to 3S/2E-3K31 (MW-5 to MW-7) at 4700 First Street in Livermore for ConocoPhillips. Also, enclosed is a current drilling permit application. Drilling permit applications for future projects can be downloaded from our web site (www.zone7water.com).

Please note that permit condition A-2 requires that a well destruction report be submitted after completion of the work. The report should include a description of methods and materials used to destroy the wells, location sketch, date of destruction, and permit numbers. Please submit the original of your completion report. We will forward your submittal to the California Department of Water Resources.

If you have any questions, please contact me at extension 5056 or Matt Katen at extension 5071.

Sincerely,

)

Wyman Hong

Water Resources Specialist

Enc.



CO2 6034

City Socramento

City Parcho Cardova

Cathodic Protection

TYPE OF PROJECT Well Construction

Water Supply

DRILLING METHOD: Mud Rotary ••

WELL PROJECTS
Drill Hole Diameter

SOIL BORINGS

APPLICANT'S SIGNATURE\_

Casing Diameter

Surface Seal Depth

Number of Borings

ESTIMATED STARTING DATE

County Ordinance No 73-68

ESTIMATED COMPLETION DATE

Hole Diameter\_

PROPOSED WELL USE New Domestic ...

Monitoring

Municipal

Industrial

Dewatering

CCN

APN\_\_\_\_CLIENT

California Coordinates Source

76 Brugalwal

Name Delta Environmental

· · Air Rotary

Direct Push ••

DRILLING COMPANY Gray Drilling & Testing Inc.

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10.

fL

I hereby agree to comply with all requirements of this permit and Alameda

Dennis Dettloff

## **ZONE 7 WATER AGENCY**

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 454-5728

## **DRILLING PERMIT APPLICATION**

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 4700 First Street, LUCITYCHE

fi. CCE

Address 3164 Got Camp Dr. Stc. 200 Phone (9/6/503-126)

Irrigation

Remediation

ft .Accuracy-

Fax (916)636-8385

Zip 95670

Geotechnical Investigation

Contamination

Well Destruction

Hollow Stem Auger

General

**Groundwater Monitoring** 

Maximum

Depth

Number

Maximum

Depth

615/2007

	FOR OFFICE USE
PER	MIT NUMBER 27092
WEL	LNUMBER 3S/2E-3K24, 3K25, 3K26, 3K27, 3K
APN	099-0021-011-03 3K30, 3K31 (MW-1 to MW
	PERMIT CONDITIONS
	(Circled Permit Requirements Apply)
(A.)	GENERAL  1. A permit application should be submitted to us to probe at the
_	<ol> <li>A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.</li> </ol>
	<ol> <li>Submit to Zone 7 within 60 days after completion of permitte</li> </ol>
$^{\circ}$	work the original Department of Water Resources Water Me
,	Drillers Report or equivalent for well projects or drilling tons an
	location sketch for geotechnical projects
	3. Permit is void if project not begun within 90 days of approve
В.	date
D.	WATER SUPPLY WELLS  1. Minimum surface seal thickness is two lacker of control
	<ol> <li>Minimum surface seal thickness is two inches of cemer grout placed by tremie.</li> </ol>
	2. Minimum seal depth is 50 feet for municipal and industrial well
	or 20 feet for domestic and irrigation wells unless a lesser depti
	iš špecially approved.
	3. An access port at least 0.5 inches in diameter is required
	on the wellhead for water level measurements.  4. A sample port is required on the discharge rise page the
	A sample port is required on the discharge pipe near the wellhead
C.	GROUNDWATER MONITORING WELLS INCLUDING
	PIEZOMETERS
	1. Minimum surface seal thickness is two inches of cement grou
	placed by tremie
	2. Minimum scal depth for monitoring wells is the maximum depth
D.	practicable or 20 feet.
Δ.	GEOTECHNICAL. Backfill bore hole with compacted cultings of heavy bentonite and upper two feet with compacted material. In
	areas of known or suspected contamination, tremied cement grout
	shall be used in place of compacted cuttings
E.	CATHODIC. Fill hole above anode zone with concrete placed by
	vemie.
	WELL DESTRUCTION. See attached,
G.	SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after the
	completion of permitted work the well installation report including all soil and water laboratory analysis results
	THE THE WARM GOOD BY A GROWN IN THE PARTY OF
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A	Warman About
Appro	ved
	// wakitigh flong //

ATTACH SITE PLAN OR SKETCH

Revised: April 27, 2005

# Zone 7 Water Resources Engineering Groundwater Protection Ordinance

ConocoPhillips
4700 First Street
Livermore

Well 35/2E-3K24 (MW-1), 35/2E-3K25 (MW-2), 35/2E-3K26 (MW-3), 35/2E-3K27 (MW-4), 35/2E-3K29 (MW-5), 35/2E-3K30 (MW-6), 35/2E-3K31 (MW-7)

Permit 27092

## **Destruction Requirements:**

- 1. Clean out all bridged or poorly compacted materials to the bottom of the well.
- 2. Sound the well as deeply as practicable and record for your report.
- 3. Pressure grout the casing to two feet below the finished grade or original ground, whichever is the lower elevation.
- 4. Remove the casing, seal, and gravel pack to two feet below the finished grade or original ground, whichever is the lower elevation (optional).
- 5. After the seal has set, backfill the remaining hole with compacted material.

## **ATTACHMENT B**

## ACHA Letter Dated March 13, 2007 Approving The Monitoring Well Abandonment

## ALAMEDA COUNTY **HEALTH CARE SERVICES**

**AGENCY** 



DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES

ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

March 13, 2007

Shelby Lathrop
ConocoPhillips
76 Broadway

Keith Marks Suncor Holdings COP II LLC 11601 Wilshire Blvd. #700 Los Angeles, CA 90025

Asghar Kholdi 1319 Winding Stream Drive Livermore, CA 94551-8935

Sacramento, CA 95818

Subject: Fuel Leak Case No. RO0000258 and Geotracker Global ID T0600101477, Unocal #6034, 4700 First Street, Livermore, CA – Request for Well Decommissioning

Dear Ms. Lathrop, Mr. Kholdi, and Mr. Marks:

Alameda County Environmental Health (ACEH) and California Regional Water Quality Control Board staff have reviewed the fuel leak case file and case closure summary for the above-referenced site and concur that no further action related to the underground storage tank fuel release is required at this time. Prior to issuance of a remedial action completion certificate, the monitoring wells at the site are to be properly destroyed, should the monitoring wells have no further use at the site. Please decommission the monitoring well and provide documentation of the well decommissioning to this office. A remedial action completion certificate will be issued following receipt of the documentation.

Well destruction permits may be obtained from the Alameda County Public Works Agency (<a href="http://www.acgov.org/pwa/wells/index.shtml">http://www.acgov.org/pwa/wells/index.shtml</a>). If you have any questions, please call me at (510) 567-6791.

Sincerely,

Jerry Wickham

Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Colleen Winey, QIC 80201 Zone 7 Water Agency 100 North Canyons Parkway Livermore, CA 94551