

Atlantic Richfield Company

Shannon Couch

Remediation Management Project Manager

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November 9, 2011

Mr. Paresh Khatri
Alameda County Health Care Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

**Re: SENSITIVE RECEPTOR SURVEY
ARCO Station No. 4977
2770 Castro Valley Boulevard
Castro Valley, California 94546
ACEH Case No. RO0002436**

RECEIVED

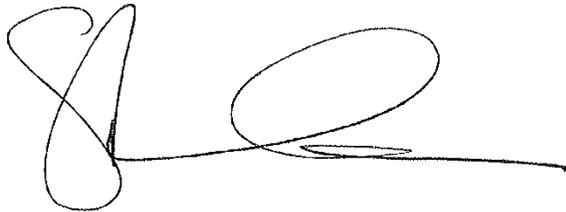
10:18 am, Nov 14, 2011

Alameda County
Environmental Health

Dear Mr. Khatri:

I declare, that to the best of my knowledge at the present time, that the information contained in the attached document is true and correct.

Regards,



Shannon Couch
Remediation Management Project Manager
Atlantic Richfield Company, a BP-affiliated company

Enclosure: Sensitive Receptor Survey



November 9, 2011

Mr. Paresh Khatri
Alameda County Health Care Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

RE: SENSITIVE RECEPTOR SURVEY

ARCO Station No. 4977
2770 Castro Valley Boulevard
Castro Valley, California 94546
ACEH Case No. RO0002436

Dear Mr. Khatri:

On behalf of Atlantic Richfield Company (ARCO), Closure Solutions, Inc. (Closure Solutions) has prepared this *Sensitive Receptor Survey* (Survey) for the ARCO Station No. 4977, located at 2770 Castro Valley Boulevard, Castro Valley, California (Site). Closure Solutions performed the Survey to identify the presence of water wells within a 0.5-mile radius of the Site. The Site setting, information on groundwater depth, groundwater flow direction, survey methods, and survey results are presented below. Additional information, including sensitive land uses is not included in this report.

1.0 SITE SETTING

The Site is located on the northwest corner of the intersection between Castro Valley Boulevard and Wisteria Street in Castro Valley, California. The Site is currently an active ARCO service station and is located in a primarily commercial area. Current Site facilities include a station building, two dispenser islands containing four dispensers, and associated underground storage tanks.

2.0 GROUNDWATER DEPTH AND FLOW DIRECTION

Groundwater monitoring and sampling has been conducted at the Site since 2002. Based on information contained in historical Site reports, depth to groundwater beneath the Site is approximately 7 feet below ground surface. Groundwater flow direction is predominately to the south.

3.0 WELL SURVEY METHODS

To obtain information on the type and location of wells within a 0.5-mile radius of the Site, Closure Solutions requested a signed authorization form from the Alameda County Health Care Agency to access confidential well information. The signed authorization was then provided to the Department of Water Resources (DWR) for access to all available well completion reports for wells installed in the vicinity of the Site. The DWR furnished 242 well completion reports for wells installed in the Site vicinity. These wells were located in Sections 3, 4, 9, and 10 in Township 03S, Range 02W, Mount Diablo Meridian.

To assemble the survey information, Closure Solutions grouped the reports into the following categories:

- Reports that referenced well locations by current street addresses that could be verified using online resources (Google Earth or equivalent);
- Reports that referenced well locations by distance from a current street, intersection, or other known location such as a creek or park;
- Reports that referenced well locations by distance from a corner of a map Section;
- Reports that referenced well locations by outdated street addresses, route numbers, or street names/intersections that were changed/no longer existed;
- Reports that were illegible; and
- Reports for wells that had been destroyed.

Well locations referenced by current street addresses or by distances from a known location or street intersection were verified on a map to obtain distance from the Site. If the well location was within 0.5 mile of the Site, the well location was plotted on the survey map. Wells located outside the 0.5 mile radius were not plotted.

For wells that were referenced by distance from a corner of a Section, Closure Solutions accessed Montana State University's Graphical Locator website and the Earthpoint website to obtain maps of the referenced Section within the Township and Range. Once this information was obtained and verified, wells identified within 0.5 miles of the Site were plotted on the well survey map.

In cases where well completion reports contained street names or route numbers that no longer existed, either available Township, Range, and Section information was used to plot locations, or

additional research was conducted to obtain information on historical street and route names. In a few cases, well locations could not be verified using the referenced locations or addresses provided, or the report was illegible. These wells were not included on the well survey map.

4.0 WELL SURVEY RESULTS

Based on Closure Solutions' review of information provided by the DWR, four wells were identified within a 0.5-mile radius of the Site, as described below:

- One well was identified as a domestic well, was installed in 1953, and is located approximately 1,050 feet south (down-gradient) of the Site;
- One well was identified as a domestic well, was installed in 1952, and is located approximately 1,000 feet northwest (up-gradient) of the Site;
- One well with an unknown use was installed in 1952, and is located approximately 1,000 feet northwest (up-gradient) of the Site;
- One well was identified as a domestic well, was installed in 1953, and is located approximately 1,650 feet north-northeast (up-gradient) of the Site.

The approximate locations of the wells identified above within a 0.5-mile radius of the Site are presented on Figure 1. Please note that for the purposes of this well survey, cathodic protection wells and wells associated with environmental cases are not included in the results.

Well information including map ID, approximate distance and direction from the Site, well type, installation date and screen interval is summarized in Table 1. Due to privacy concerns, the DWR well completion reports or specific information regarding the wells, including exact well location, are not included in any copy of this document.

5.0 SURFACE WATER

The nearest surface water body is an unnamed concrete-lined drainage channel, which is located approximately 500 feet to the northwest (up-gradient) of the Site. This channel ultimately connects to the San Francisco Bay, which is located approximately five miles west (cross-gradient) of the Site.

If you have any questions or comments regarding this report, please contact Charlotte Evans at (925) 566-8567, or by e-mail at cevans@closureolutions.com.

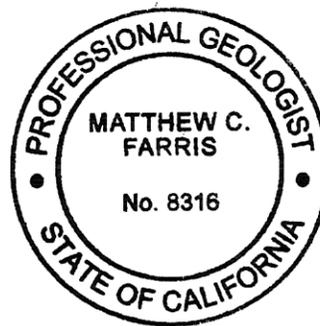
Sincerely,
Closure Solutions, Inc.



Charlotte Evans
Project Geologist



Matthew Farris, P.G.
Project Geologist



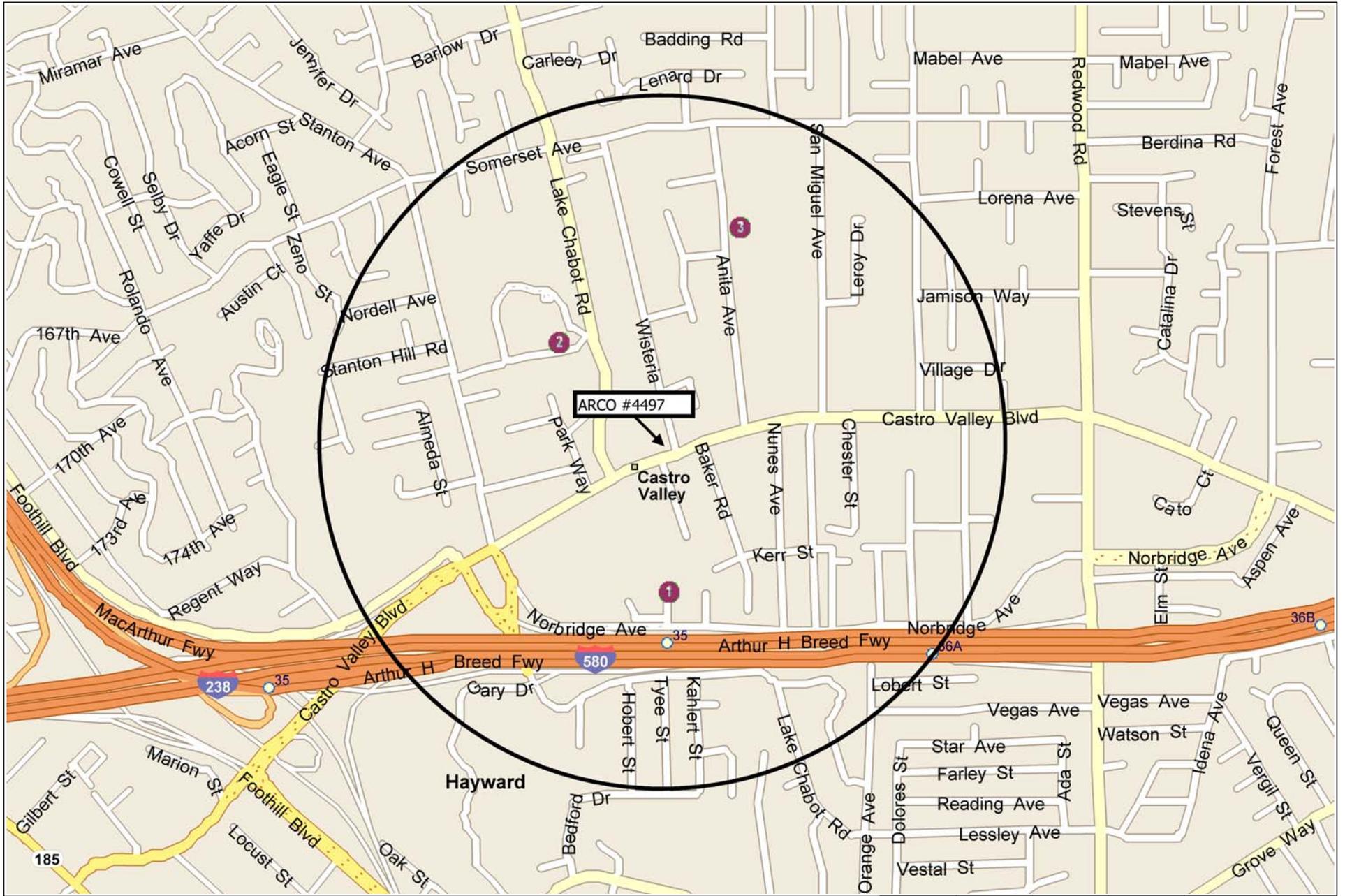
Attachments:

Figure 1 Approximate Well Locations Within a 0.5-Mile Radius of the Site

Table 1 Wells Located Within a 0.5-Mile Radius of the Site

cc: Ms. Shannon Couch, Atlantic Richfield Company

Figure 1 - Approximate Well Locations - ARCO #4977 - 2770 Castro Valley Blvd., Castro Valley, CA



0 mi 0.2 0.4 0.6

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Table 1 - Wells Located Within 0.5-Mile Radius

ARCO Station No. 4977
2770 Castro Valley Boulevard
Castro Valley, California

Map ID No.	Approximate Distance from Site	Well Type	Installation Date	Screen Interval
1	1,050 ft. S	dom	Jul-53	no perforations
2	1,000 ft. NW	dom	Jul-52	no perforations
2	1,000 ft. NW	unk	Sep-52	no perforations
3	1,650 ft. NNE	dom	Feb-53	31-51 ft.

Abbreviations:

ft = feet

N = North

S = South

E = East

W = West

dom = domestic well

irr = irrigation well

mun = municipal well

pub = public well

unk = unknown