

Atlantic Richfield Company

Chuck Carmel
Project Manager

RECEIVED

By Alameda County Environmental Health at 9:34 am, Aug 01, 2014

PO Box 1257
San Ramon, CA 94583
Phone: (925) 275-3803
Fax: (925) 275-3815
E-Mail: charles.carmel@bp.com

June 20, 2014

Re: Conceptual Site Model and Case Closure Request Addendum
Atlantic Richfield Company Station #4977
2770 Castro Valley Boulevard, Castro Valley, California
ACEH Case #RO0002436

"I declare, that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct.

Submitted by,



Chuck Carmel
Project Manager

Attachment



**CONCEPTUAL SITE MODEL AND CASE CLOSURE REQUEST ADDENDUM
Atlantic Richfield Company Station #4977
2770 Castro Valley Blvd.
Castro Valley, Alameda County, California**

Prepared for:

Mr. Chuck Carmel
Atlantic Richfield Company
P.O. Box 1257
San Ramon, CA 94583

Prepared by:

Broadbent & Associates, Inc.
1370 Ridgewood Dr., Suite 5
Chico, California 95973
(530) 566-1400

June 20, 2014

No. 06-82-625



BROADBENT

1370 Ridgewood Drive, Suite 5, Chico, CA 95973

[T] 530-566-1400 [F] 530-566-1401

broadbentinc.com

CREATING SOLUTIONS. BUILDING TRUST.

June 20, 2014

Project No. 06-82-625

Atlantic Richfield Company
P.O. Box 1257
San Ramon, CA 94583
Submitted via ENFOS

Attn.: Mr. Chuck Carmel

Re: Conceptual Site Model and Case Closure Request Addendum, Atlantic Richfield Company Station No. 4977, 2770 Castro Valley Boulevard, Castro Valley, California; ACEH Case No. RO0002436; GeoTracker Global ID # T0600100089

Dear Mr. Carmel:

On behalf of the Atlantic Richfield Company– (ARC, a BP affiliated company) Broadbent & Associates, Inc. (Broadbent) has prepared this *Conceptual Site Model and Case Closure Request Addendum* for the Atlantic Richfield Company (ARCO) Station No. 4977 (herein referred to as Station No. 4977), located at 2770 Castro Valley Boulevard in Castro Valley, California (Site). A Site location map is presented as Drawing 1. This CSM and CCR Addendum has been prepared in response to email correspondence from the Alameda County Environmental Health Department (ACEH) dated June 5, 2014. The correspondence requested the submittal of an addendum to the *Conceptual Site Model and Case Closure Request* (Broadbent, 3/26/2014) to include preparation of a revised plume length figure for gasoline range organics (GRO) using an aerial photograph as the base map.

As requested, Drawing 2 depicts the estimated GRO plume in the downgradient direction utilizing the average GRO plume length (248 feet) listed in Table 1 of the *Technical Justification for Groundwater Media-Specific Criteria* (State Water Resources Control Board, April 2012). Additionally, the nearest potential sensitive receptor, previously reported as a domestic well, located in the general downgradient direction is depicted on Drawing 2. The location of this well is based on information documented in Closure Solutions, Inc. *Sensitive Receptor Survey* (November 2011). The upgradient wells located approximately 1,000 feet northwest of the Site are not depicted in order to enhance the presentation of the GRO plume and Site features. This plume depiction is solely based on the average GRO plume length, as previously referenced. Based on current Site conditions, contaminant concentrations, and low permeability soil type (clay), Drawing 3 provides a comparative depiction of the estimated GRO plume taking these factors into account. It should also be noted that the lack of perforation construction as reported within the downgradient well is indicative of old irrigation well construction methods. Therefore, it is not likely utilized for drinking water purposes. However, this observation has not been confirmed.

As previously stated in the *Conceptual Site Model and Case Closure Request*, this Site appears to meet all applicable criteria for case closure under the California State Water Resources Control Board's *Low Threat Underground Storage Tank Case Closure Policy*. It is recommended that a determination of No Further Action be made for this Site. Should you have questions or require additional information, please do not hesitate to contact us at (530) 566-1400.

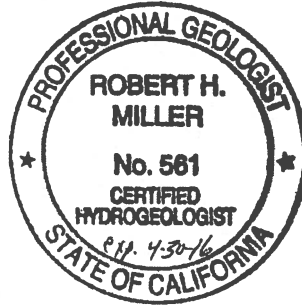
Sincerely,
BROADBENT & ASSOCIATES, INC.



Jason Duda
Senior Scientist



Robert H. Miller, P.G., C.H.G.
Principal Hydrogeologist



Enclosures

cc: Ms. Karel Detterman, Alameda County Environmental Health (Submitted via ACEH ftp site)
Mr. Kevin Brown, California Regional Water Quality Control Board - San Francisco Region
(Submitted via GeoTracker)
Electronic copy uploaded to GeoTracker

References

Broadbent & Associates, Inc., March 26, 2014. *Conceptual Site Model and Case Closure Request, ARCO Station #4977, 2770 Castro Valley Boulevard, Castro Valley, California.*

Closure Solutions, Inc., November 9, 2011. *Sensitive Receptor Survey, ARCO Station #4977, 2770 Castro Valley Boulevard, Castro Valley, California.*

State Water Resources Control Board, August 17, 2012. *Low-Threat Underground Storage Tank Case Closure Policy.*

State Water Resources Control Board, April 24, 2012. *Technical Justification for Groundwater Media-Specific Criteria.*

Drawings

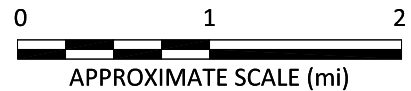


IMAGE SOURCE: DELORME



1370 Ridgewood Dr., Suite 5
Chico, California 95973

Project No.: 06-82-625 Date: 11/29/2012

Station #4977
2770 Castro Valley Blvd.
Castro Valley, California

Site Location Map

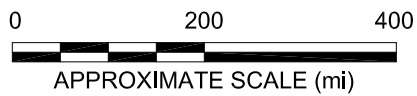
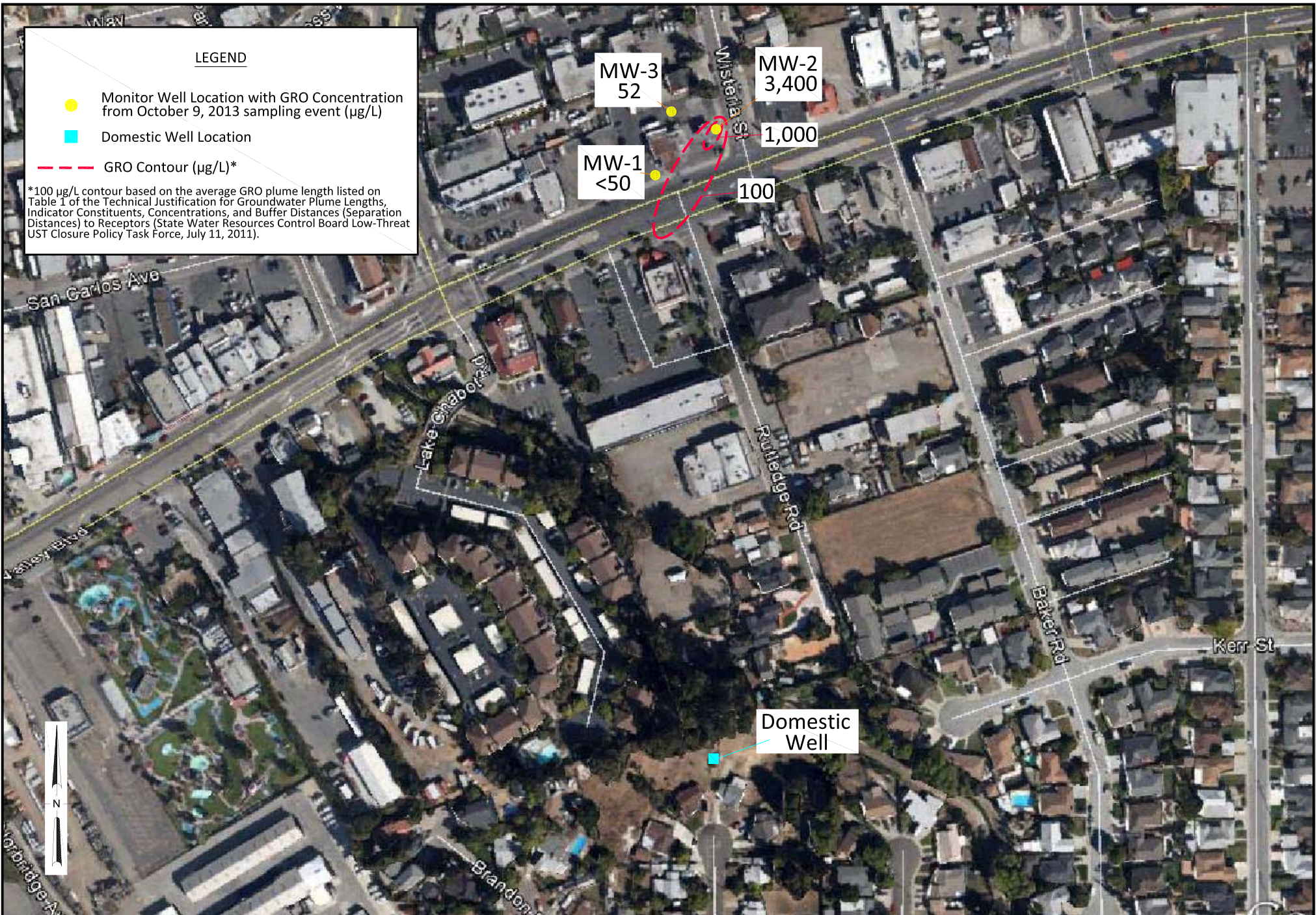
Drawing

1

LEGEND

- Monitor Well Location with GRO Concentration from October 9, 2013 sampling event ($\mu\text{g/L}$)
- Domestic Well Location
- - - GRO Contour ($\mu\text{g/L}$)*

*100 $\mu\text{g/L}$ contour based on the average GRO plume length listed on Table 1 of the Technical Justification for Groundwater Plume Lengths, Indicator Constituents, Concentrations, and Buffer Distances (Separation Distances) to Receptors (State Water Resources Control Board Low-Threat UST Closure Policy Task Force, July 11, 2011).



Project No.: 06-82-625 Date: 6/13/2014

Station #4977
2770 Castro Valley Blvd.
Castro Valley, California

Average GRO Plume Length
Based on LTCP Technical Justification

Drawing

2



LEGEND

- Monitor Well Location with GRO Concentration from October 9, 2013 sampling event (µg/L)
- Domestic Well Location
- GRO Contour (µg/L)

MW-3
52

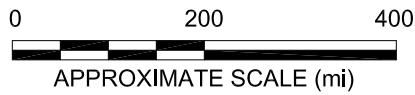
MW-2
3,400

MW-1
<50

1,000

100

Domestic Well



BROADBENT
 1370 Ridgewood Dr., Suite 5
 Chico, California 95973
 Project No.: 06-82-625 Date: 6/13/2014

Station #4977
 2770 Castro Valley Blvd.
 Castro Valley, California

Estimated GRO Isoconcentration Map

Drawing
3