

# Atlantic Richfield Company

**Shannon Couch**  
Operations Project Manager

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San Ramon, CA 94583  
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January 21, 2013

Re: Fourth Quarter 2013 Status Report  
Atlantic Richfield Company Station #2107  
3310 Park Boulevard, Oakland, California  
ACEH Case #RO0002526

**RECEIVED**

*By Alameda County Environmental Health at 2:59 pm, Jan 28, 2013*

"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,



Shannon Couch  
Operations Project Manager

Attachment:

January 21, 2013

Project No. 06-88-614

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

Attn.: Ms. Shannon Couch

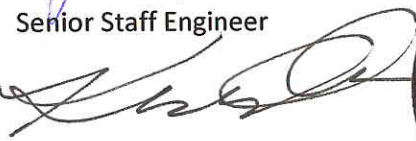
Re: Fourth Quarter 2012 Status Report, Atlantic Richfield Company Station #2107, 3310 Park Boulevard, Oakland, Alameda County, California; ACEH Case #RO0002526

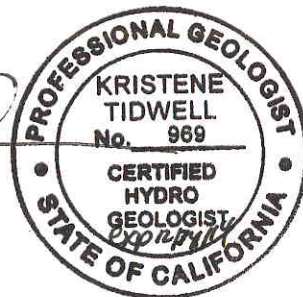
Dear Ms. Couch:

Attached is the *Fourth Quarter 2012 Status Report* for Atlantic Richfield Company Station #2107 located at 3310 Park Boulevard, Oakland, Alameda County, California (Site). This report presents a summary of current developments at the Site through the Fourth Quarter of 2012. Should you have questions regarding the work performed or results obtained, please do not hesitate to contact us at (707) 455-7290.

Sincerely,  
BROADBENT & ASSOCIATES, INC.

  
James Ramos, EIT  
Senior Staff Engineer

  
Kristene Tidwell, P.G., C.Hg.  
Senior Geologist



Enclosures

cc: Ms. Dilan Roe, Alameda County Environmental Health (submitted via ACEH ftp site)  
Electronic copy uploaded to GeoTracker

**FOURTH QUARTER 2012  
STATUS REPORT  
STATION #2107, OAKLAND, CALIFORNIA**

Broadbent & Associates, Inc. (Broadbent) is pleased to present this *Fourth Quarter 2012 Status Report* on behalf of Atlantic Richfield Company (a BP affiliated company) for Station #2107 located in Oakland, Alameda County, California. Monitoring activities at the site were performed in accordance with the reporting requirements issued by the Alameda County Environmental Health (ACEH). Details of work performed, discussion of results, and recommendations are provided below.

Facility Name / Address:	Station #2107 / 3310 Park Boulevard, Oakland, California
Client Project Manager / Title:	Ms. Shannon Couch, Remediation Management Project Manager
Broadbent Contact:	Kristene Tidwell, P.G., C.Hg., (707) 455-7290
Broadbent Project No.:	06-88-614
Primary Regulatory Agency / ID No.:	ACEH / Case #RO0002526
Current phase of project:	Monitoring
List of Acronyms / Abbreviations:	See end of report text for list of acronyms/abbreviations used in report.

**WORK PERFORMED THIS QUARTER (Fourth Quarter 2012):**

1. Submitted *Third Quarter 2012 Monitoring Report* on October 26, 2012 (Q3 GWM Report).
2. Submitted *Work Plan for Groundwater Investigation* dated November 6, 2012 (Work Plan).
3. No environmental field activities were conducted during the Fourth Quarter 2012.

**WORK SCHEDULED FOR NEXT QUARTER (First Quarter 2013):**

1. Submit *Fourth Quarter 2012 Status Report* (contained herein).
2. Conduct First Quarter 2013 groundwater monitoring and sampling event.

**GROUNDWATER MONITORING PLAN SUMMARY:**

Groundwater level gauging:	MW-11A, MW-11B, MW-12A, MW-12B, MW-13A, MW-13B	(1Q & 3Q)
Groundwater sample collection:	MW-11A, MW-11B, MW-12A, MW-12B, MW-13A, MW-13B	(1Q & 3Q)
Biodegradation indicator parameter monitoring:	None	

**QUARTERLY RESULTS SUMMARY:**

**LNAPL**

LNAPL observed this quarter:	N/A	(yes\no)
LNAPL recovered this quarter:	N/A	(gal)
Cumulative LNAPL recovered:	N/A	(gal)

**Groundwater Elevation and Gradient:**

Depth to groundwater:	N/A	(ft below TOC)
Gradient direction:	N/A	(compass direction)
Gradient magnitude:	N/A	(ft/ft)
Average change in elevation:	N/A	(ft since last measurement)

**Laboratory Analytical Data**

Summary:	No environmental field activities were conducted during Fourth Quarter 2012.	
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## DISCUSSION:

No environmental field activities were conducted by Broadbent at the Site during the Fourth Quarter of 2012. The most recent groundwater monitoring/sampling occurred during the Third Quarter of 2012, the results of which are contained within the Q3 QWM Report. The *Work Plan for Groundwater Investigation* was submitted during the Fourth Quarter 2012. Comments from the ACEH for this report have not yet been received. A site location map is presented as Drawing 1 and a groundwater elevation and analytical summary map from the most recent first quarter sampling is provided as Drawing 2.

## LIMITATIONS:

The findings presented in this report are based upon observations of field personnel, points investigated, results of laboratory tests performed by TestAmerica Laboratories, Inc. (Irvine, California), and our understanding of ACEH requirements. Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied was made. This report has been prepared for the exclusive use of the Atlantic Richfield Company. It is possible that variations in soil or groundwater conditions could exist beyond points explored in this investigation. Also, changes in site conditions could occur in the future due to variations in rainfall, temperature, regional water usage, or other factors.

## ATTACHMENTS:

Drawing 1: Site Location Map, Station #2107, 3310 Park Boulevard, Oakland, California

Drawing 2: Groundwater Elevation Contours and Analytical Summary Map, October 2, 2012, Station #2107, 3310 Park Boulevard, Oakland, California

## LIST OF COMMONLY USED ACRONYMS/ABBREVIATIONS:

ACEH:	Alameda County Environmental Health	ft/ft:	feet per foot
Broadbent:	Broadbent & Associates, Inc.	gal:	Gallons
BTEX:	Benzene, Toluene, Ethylbenzene, Total Xylenes	GRO:	Gasoline-Range Organics
1,2-DCA:	1,2-Dichloroethane	LNAPL:	Light Non-Aqueous Phase Liquid
DIPE:	Di-Isopropyl Ether	MTBE:	Methyl Tertiary Butyl Ether
DO:	Dissolved Oxygen	NO <sub>3</sub> :	Nitrate as Nitrogen
DRO:	Diesel-Range Organics	ppb:	parts per billion
EDB:	1,2-Dibromomethane	SO <sub>4</sub> :	Sulfate
Eh:	Oxidation Reduction Potential	TAME:	Tert-Amyl Methyl Ether
EPA:	Environmental Protection Agency	TBA:	Tertiary Butyl Ether
ETBE:	Ethyl Tertiary Butyl Ether	TOC:	Top of Casing
Fe <sup>2+</sup> :	Ferrous Iron	µg/L:	micrograms per liter

## **DRAWINGS**



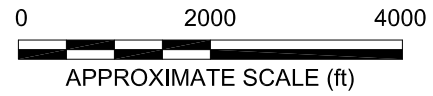
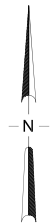
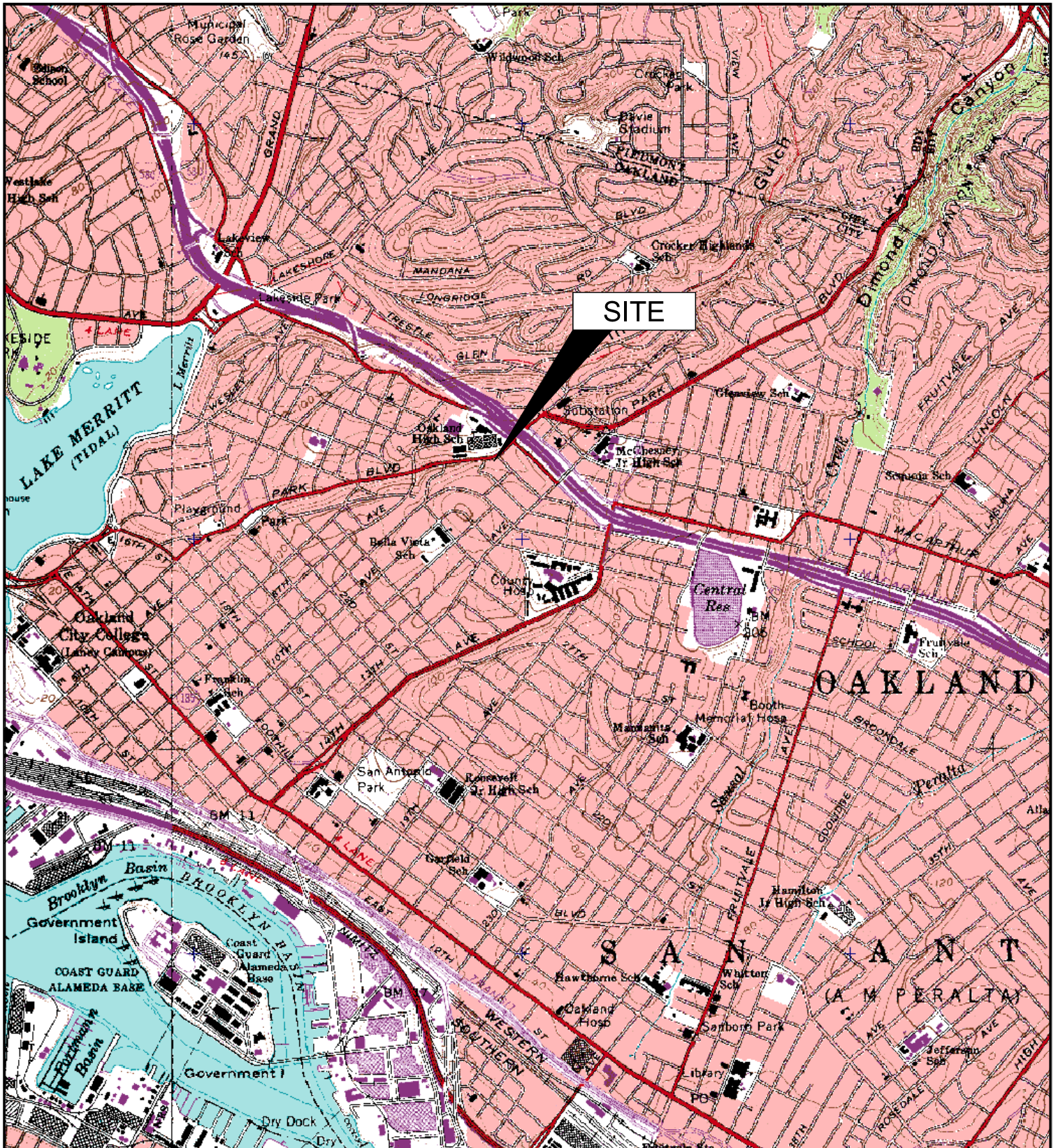


IMAGE SOURCE: USGS



**BROADBENT**  
 1324 Mangrove Ave., Suite 212  
 Chico, California 95926

Project No.: 06-88-614 Date: 10/02/2012

Station #2107  
 3310 Park Boulevard  
 Oakland, California

Site Location Map

Drawing

1



Oakland High School

MW-13A	MW-13B
111.52	111.60
<50	<50
<0.50	<0.50
64	63
SA(1,3)	SA(1,3)

MW-12A	MW-12B
111.69	111.53
<50	<50
<0.50	<5.0
22	790
SA(1,3)	SA(1,3)

PARK BLVD.

MW-11B	MW-11A
113.70	105.94*
<50	220
<0.50	4.4
27	280
SA(1,3)	SA(1,3)

E. 34th ST.

**LEGEND**

- MONITORING WELL LOCATION
- DESTROYED WELL LOCATION
- HYDRO PUNCH LOCATION
- SOIL BORING LOCATION
- HYRDO PUNCH AND SOIL BORING LOCATION

Well	WELL DESIGNATION
ELEV	GROUNDWATER ELEVATION (FT NAVD88)
GRO	CONCENTRATIONS OF GRO, BENZENE, and MTBE
Benzene	IN MICROGRAMS PER LITER (µg/L)
MTBE	
Q	SAMPLING FREQUENCY

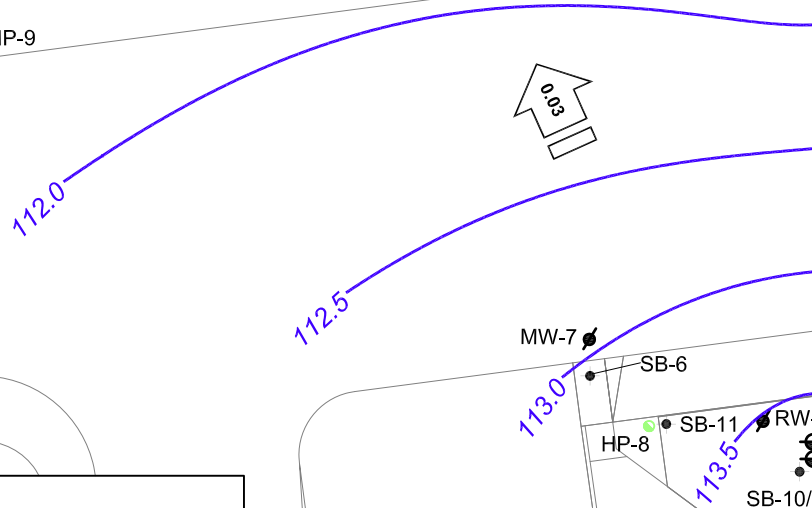
GROUNDWATER FLOW DIRECTION AND GRADIENT (FT/FT)

- 113.0 GROUNDWATER ELEVATION CONTOUR (FEET)

SA(1,3) SAMPLED SEMI-ANNUALLY, 1ST AND 3RD QUARTER

< NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMIT

\* WELL NOT USED TO GENERATE CONTOURS



33rd St.

Building

PARKING STALLS



**BROADBENT**  
 1324 Mangrove Ave., Suite 212  
 Chico, California 95926  
 Project No.: 06-88-614 Date: 10/02/2012

Station #2107  
 3310 Park Boulevard  
 Oakland, California

Groundwater Elevation Contours  
 and Analytical Summary Map  
 September 11, 2012

Drawing  
**2**