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By Alameda County Environmental Health at 2:15 pm, Jul 29, 2013

## Atlantic Richfield Company

**Shannon Couch**  
Operations Project Manager

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July 9, 2013

Re: Second Quarter 2013 Status Report  
Atlantic Richfield Company Station #374  
6407 Telegraph Avenue, Oakland, California  
ACEH Case #RO0000078

"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



875 Cotting Ln., Suite G, Vacaville, CA 95688

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CREATING SOLUTIONS. BUILDING TRUST.

July 9, 2013

Project No. 06-88-602

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

Attn.: Ms. Shannon Couch

Re: Second Quarter 2013 Status Report, Atlantic Richfield Company Station #374,  
6407 Telegraph Avenue, Oakland, Alameda County, California  
ACEH Case #RO0000078

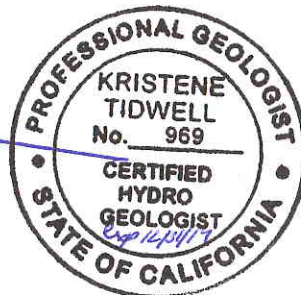
Dear Ms. Couch:

Attached is the *Second Quarter 2013 Status Report* for Atlantic Richfield Company Station #374 located at 6407 Telegraph Avenue, Oakland, California (Site). This report presents a summary of current developments at the Site through the Second Quarter of 2013. 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

**SECOND QUARTER 2013  
STATUS REPORT  
ATLANTIC RICHFIELD COMPANY STATION #374  
OAKLAND, CALIFORNIA**

Broadbent & Associates, Inc. (Broadbent) is pleased to present this *Second Quarter 2013 Status Report* on behalf of Atlantic Richfield Company (ARC, a BP affiliated company) for Station #374 located in Oakland, Alameda County, California (Site). 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 #374 / 6407 Telegraph Avenue, 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.:	06-88-602
Primary Regulatory Agency / ID No.:	ACEH / Case #RO0000078
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 (Second Quarter 2013):**

1. Submitted *First Quarter 2013 Monitoring Report* on April 26, 2013 (Q1 GWM Report).
2. Submitted *Addendum to the Soil Vapor Investigation Work Plan* dated June 19, 2013 (Work Plan).
3. No environmental field activities were conducted during the Second Quarter 2013.

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

1. Submit *Second Quarter 2013 Status Report* (contained herein).
2. Conduct Third Quarter 2013 groundwater monitoring and sampling event.
3. Carry out scope of work in *Soil Vapor Investigation Work Plan* upon approval.

**GROUNDWATER MONITORING PLAN SUMMARY:**

Groundwater level gauging:	MW-1 through MW-9	(1Q & 3Q)
Groundwater sample collection:	MW-1, MW-2, MW-4, MW-7, MW-8 and MW-9	(1Q & 3Q)
Biodegradation indicator parameter monitoring:	MW-3, MW-5 and MW-6	(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 Second Quarter 2013.

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### **DISCUSSION:**

No environmental field activities were conducted by Broadbent at the Site during the Second Quarter of 2013. The most recent groundwater monitoring and sampling event occurred during the First Quarter of 2013, the results of which are contained within the Q1 GWM Report. A *Soil Vapor Investigation Work Plan* dated November 20, 2012 was submitted during the Second quarter and on January 28, 2013, Broadbent and ACEH conducted a teleconference call to discuss ACEH's comments on the work plan. An addendum to the work plan addressing ACEH's comments was submitted June 19, 2013 and is pending review. A site location map is presented as Drawing 1 and a groundwater elevation and analytical summary map from the most recent Third Quarter 2013 monitoring and sampling event is presented 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 #374, 6407 Telegraph Avenue, Oakland, California

Drawing 2: Groundwater Elevation Contours and Analytical Summary Map, February 14, 2013, Station #374, 6407 Telegraph Avenue, Oakland, California

**LIST OF COMMONLY USED ACCRONYMS/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**

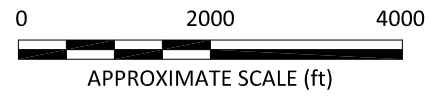
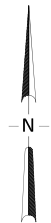
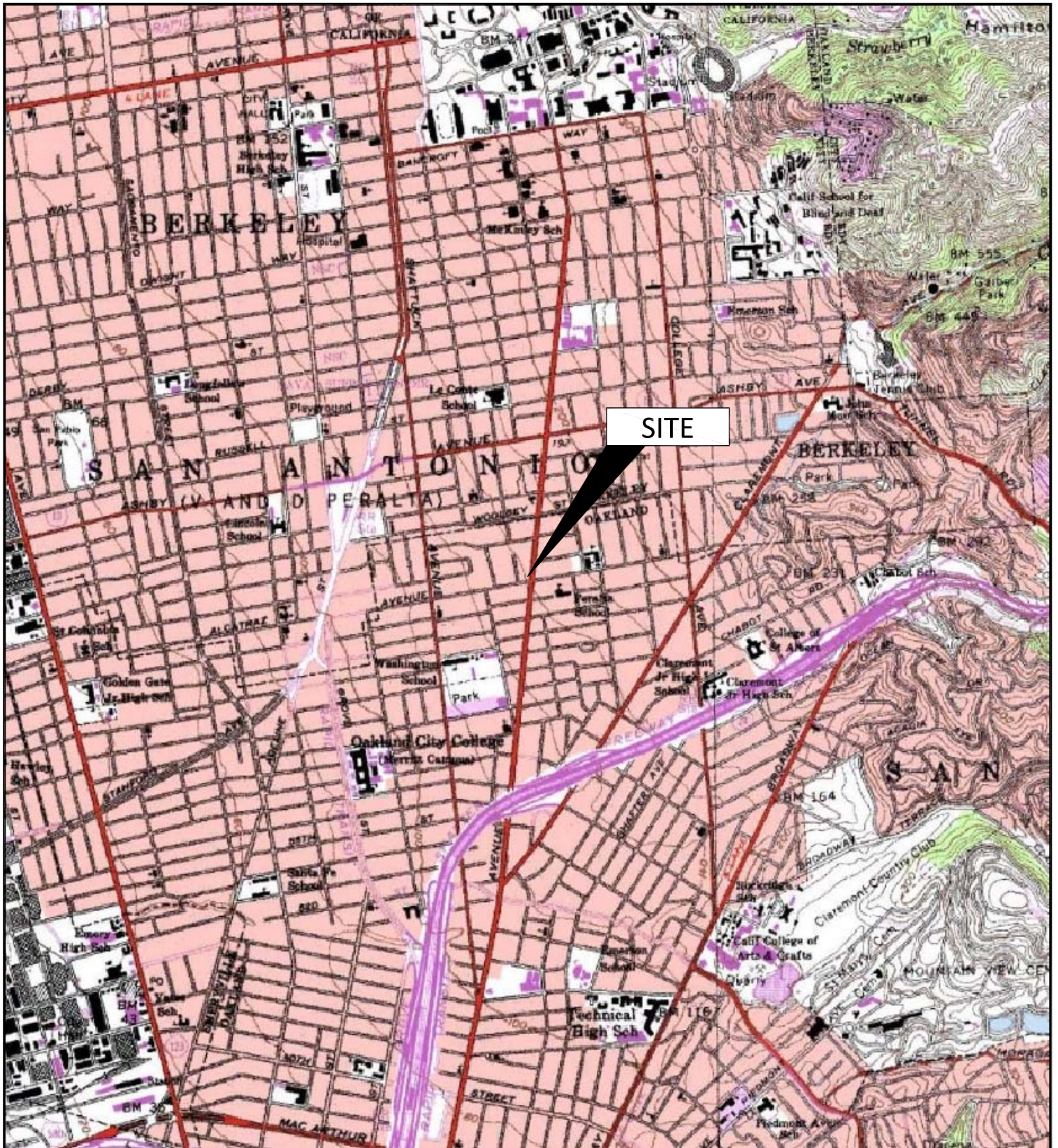


IMAGE SOURCE: USGS

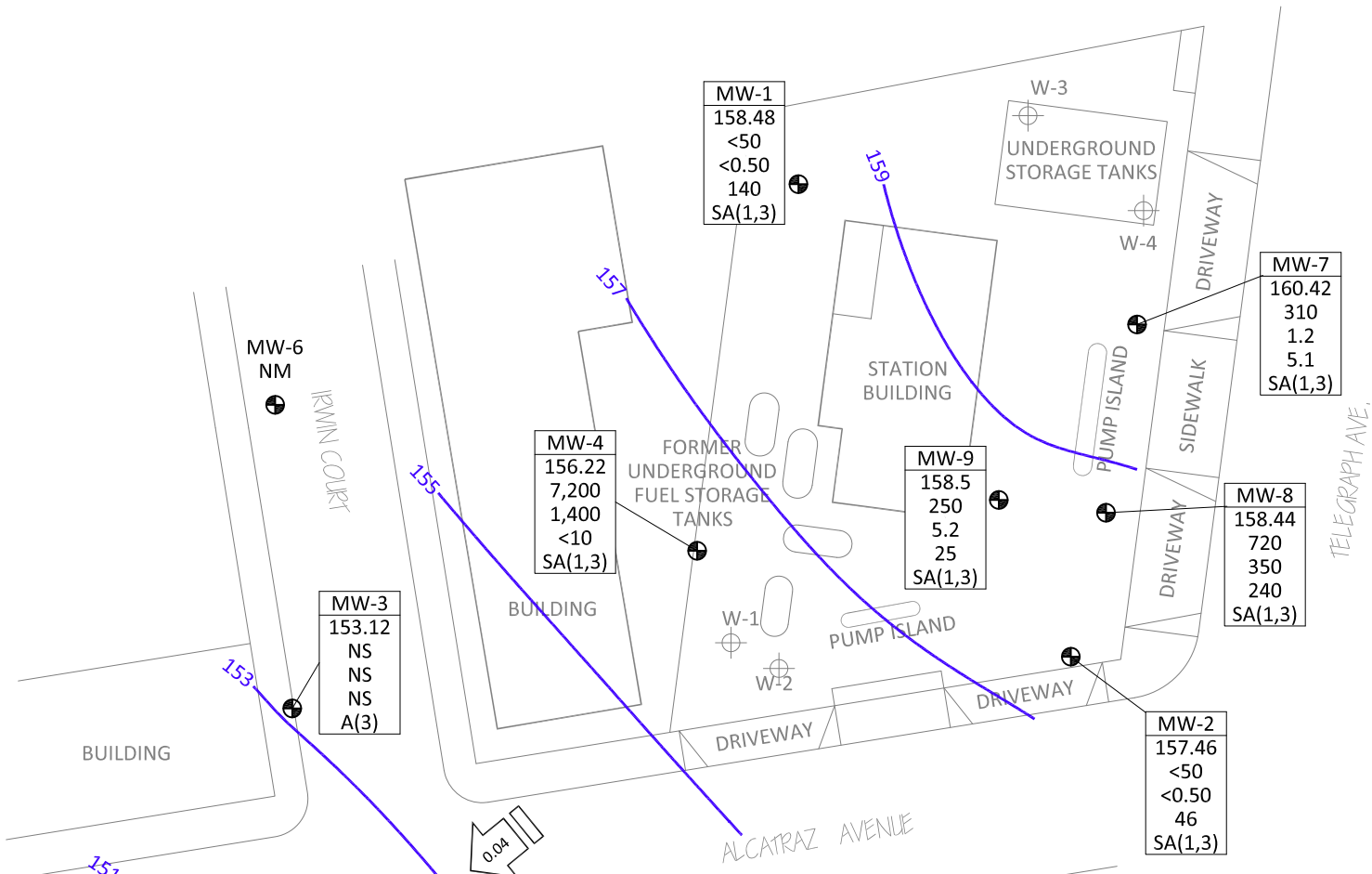
**BROADBENT**  
 875 Cotting Lane, Suite G  
 Vacaville, California 95688  
 Project No.: 06-88-602 Date: 3/8/2013

Station #374  
 6407 Telegraph Ave.  
 Oakland, California

Site Location Map

Drawing

1



MW-5
149.36
NS
NS
NS
A(3)

MW-6
NM

MW-3
153.12
NS
NS
NS
A(3)

MW-4
156.22
7,200
1,400
<10
SA(1,3)

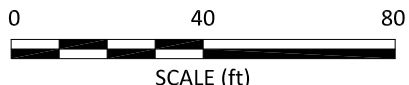
MW-1
158.48
<50
<0.50
140
SA(1,3)

MW-9
158.5
250
5.2
25
SA(1,3)

MW-2
157.46
<50
<0.50
46
SA(1,3)

MW-8
158.44
720
350
240
SA(1,3)

MW-7
160.42
310
1.2
5.1
SA(1,3)



**LEGEND**

- Monitor Well Location
- Tank Pit Monitor Well Location
- Groundwater Elevation Contour (Feet Above Site Datum)
- Groundwater Gradient (ft/ft)
- A(3) Sampled Annually - Third Quarter
- SA(1,3) Sampled Semi-Annually - First and Third Quarter

WELL	Well Designation
ELEV	Groundwater Elevation (ft)
GRO	GRO, Benzene, and MTBE
BZ	Concentrations (µg/L)
MTBE	
A/SA/Q	Sampling Frequency

- NM Not Monitored
- NS Not Sampled

NOTE: SITE MAP ADAPTED FROM IT CORPORATION FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.