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By Alameda County Environmental Health at 4:17 pm, Jan 24, 2014

Atlantic Richfield Company

Chuck Carmel

Remediation Management Project Manager

PO Box 1257 San Ramon, CA 94583 Phone: (925) 275-3804 Fax: (925) 275-3815 E-Mail: chuck.carmel@bp.com

January 24, 2014

Re: Fourth Quarter 2013 Status Report

Former Richfield Oil Company Station No. 472 6415 International Boulevard, Oakland, California ACEH Case #RO0002982

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

Remediation Management Project Manager

Attachment





January 24, 2014

Project No. 09-88-601

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

Attn.: Mr. Chuck Carmel

Re: Fourth Quarter 2013 Status Report, Former Richfield Oil Company Station No. 472,

6415 International Boulevard, Oakland, California; ACEH Case #RO0002982

Dear Mr. Carmel

Attached is the Fourth Quarter 2013 Status Report for Former Richfield Oil Company Station No. 472 located at 6415 International Boulevard, Oakland, California. This report presents a summary of current developments at the Site through the Fourth Quarter of 2013.

Should you have questions regarding this submittal, please do not hesitate to contact me at (707) 455-7290.

Sincerely,

BROADBENT & ASSOCIATES, INC.

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

Senior Geologist

Enclosures

cc:

Mr. Keith Nowell, Alameda County Environmental Health (submitted via ACEH ftp site)

TIDWELL 10. 969 CERTIFIED

Mr. Mahmud Ghanem, 6207 International Boulevard, Oakland, California 94621

Electronic copy uploaded to GeoTracker

FOURTH QUARTER 2013 STATUS REPORT FORMER STATION No. 472, OAKLAND, CALIFORNIA

Broadbent & Associates, Inc. (Broadbent) is pleased to present this *Fourth Quarter 2013 Status Report* on behalf of Atlantic Richfield Company (a BP affiliated company) for Former Richfield Oil Company Station No. 472 located in Oakland, Alameda County, Californian(Site). Quarterly reporting is being submitted to the Alameda County Environmental Health Services Agency (ACEH) consistent with their requirements under the legal authority of the California Regional Water Quality Control Board, as codified by California Code of Regulations Title 23, Section 2652(d). A summary description of current developments regarding the site is provided below.

Facility Name / Address:

Client Project Manager / Title:

Broadbent Contact:

Broadbent Project No.:

Current phase of project:

List of Acronyms / Abbreviations:

Former Station No. 472 / 6415 International Boulevard, Oakland

Mr. Chuck Carmel / RM Operations Project Manager

Kristene Tidwell, P.G., C.Hg., (707) 455-7290

09-88-601

ACEH, Case #R00002982

Case Closure Evaluation

See end of report text for list of acronyms/abbreviations used in report.

WORK PERFORMED THIS QUARTER (Fourth Quarter 2013)

- 1. Submitted *Third Quarter 2013 Monitoring Report* on October 31, 2013.
- 2. Submitted a Conceptual Site Model and Case Closure Request Addendum on October 8, 2013.
- 3. No environmental field work was conducted at Former Station No. 472 during the Fourth Quarter 2013.

WORK SCHEDULED FOR NEXT QUARTER (First Quarter 2014):

- 1. Submit Fourth Quarter 2013 Status Report (contained herein).
- 2. Perform and report upon additional well survey activities per ACEH request and evaluate if Closure is warranted based on the well survey data.

DISCUSSION:

In 2013 Broadbent submitted a Case Closure Request and Addendum to the Case Closure Request (submitted June 19, 2013 and October 8, 2013; respectively). The ACEH initially suggested that this site would be closed, but has recently requested that a well search with the ACPWA be conducted due to a small potential that the low concentrations of GRO in groundwater may be undefined in a periodic downgradient direction. The well search is intended to evaluate if further groundwater definition in this direction is needed based on proximity to any private wells, distance of the potential wells from the impacted monitoring well, and calculations of how far the plume may have travelled in that direction. It is anticipated that these activities will be completed during the first quarter 2014.

ATTACHMENT:

Drawing 1: Site Location Map

LIST OF COMMONLY USED ACCRONYMS/ABBREVIATIONS:

| ACEH: | Alameda County Environmental Health | ft/ft: | feet per foot |
|--------|-------------------------------------|--------|---------------|
| ACPWA: | Alameda County Public Works Agency | gal: | Gallons |

BTEX: Benzene, Toluene, Ethylbenzene, Total Xylenes GRO: Gasoline-Range Organics

1,2-DCA:1,2-DichloroethaneLNAPL:Light Non-Aqueous Phase LiquidDIPE:Di-Isopropyl EtherMTBE:Methyl Tertiary Butyl EtherDO:Dissolved OxygenNO $_3$:Nitrate as Nitrogen

DO: Dissolved Oxygen NO₃: Nitrate as Nitrogen DRO: Diesel-Range Organics ppb: parts per billion

EDB: 1,2-Dibromomethane SO₄: 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^{2+} : Ferrous Iron $\mu g/L$: micrograms per liter



