

# Atlantic Richfield Company

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March 6, 2009

## **CERTIFIED – RETURN RECEIPT REQUESTED**

Ms. Nadia Hollan Burke  
Remedial Project Manager  
U.S. Environmental Protection Agency Region 9  
75 Hawthorne Street, SFD-8-2  
San Francisco, CA 94105

**Subject: February 2009 Monthly Report, Yerington Mine Site, Lyon County, Nevada: Administrative Order for Remedial Investigation and Feasibility Study, EPA Docket No. 9-2007-0005**

Dear Ms. Hollan Burke:

Pursuant to the above referenced order issued by the U.S. Environmental Protection Agency – Region 9 (EPA), please note the following monthly status report for Atlantic Richfield Company (ARC) activities at the Yerington Mine Site (Site) during February 2009.

### **February 2009 Activities**

#### Operations, Maintenance and Site Security

- Continued routine site O&M, security and bird deterrent activities.
- Repaired damaged perimeter barbed wire fence section.
- Conducted additional bird deterrent training and Site orientation for O&M transition (Brown and Caldwell) personnel. Completed transition of Site O&M activities from Norwest Applied Hydrology to Brown and Caldwell.
- Pumpback well system (PWS) averaged approximately 47.2 gpm. All 11 wells operated 24/7 with minor downtime for preventive maintenance (PW-4, PW-5, PW-6, and PW-7). PWS evaporation pond levels: north cell = 1.47 feet; middle cell = 1.53 feet; south cell = 1.52 feet. Replaced the pump connector bushing for PW-3; changed pump and meter for PW-4.
- Arimetco heap leach fluid management system (FMS): 1) Total estimated gallons transferred from VLTSP Pond to Evaporation Pond = 36,000 gallons; SSP to Evaporation Pond = 0 gallons; Phase 1 Pond to Evaporation Pond = 0 gallons; 2) Pond levels: Phase 1 Pond = <1.0 foot; Evaporation Pond = 5.5 feet; VLT Pond = 9 feet; Slot 2 Pond = 15 feet. Added submersible pump to the Slot Pond Leak Detection pond in response to detected leak (described below under Site Issues).

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## February 2009 Activities - Continued

### Other Site Activities

- Continued the bottled water program (146 recipients as of February 28).
- Quaterra rock core loggers continued to be on Site through February.
- James Harter and Jim Harvey (USFWS) on Site February 26.
- Tom Dunkelman (EPA) and Joe Sawyer (NDEP) on Site February 6 and 25.
- Tri-state on Site during the first week of February to document the area of standing water on the lined evaporation pond (LEP), and to establish survey controls for filling the LEP as part of the removal action.
- A Site health and safety meeting with BP, Envirosolve, Norwest and Brown and Caldwell personnel was held on February 12. John Batchelder and May Marcinek (Envirosolve) on Site February 26 to document Site health and safety conditions.

### Site Characterization

- Site-wide monthly groundwater elevation measurements were obtained on February 24-25.
- A pit lake elevation of 4,217.52 feet above mean sea level (amsl) was recorded on March 1, which represents an increase of 0.45 feet since January 31, 2008 (4,217.07 feet amsl).
- Continued meteorological monitoring at the AM-6 location.
- Submitted the 2008 Annual Groundwater Monitoring Report on February 19.
- Continued development of the Operations and Maintenance Manual – Pumpback Well System and Arimetco Fluid Management System.
- Completed the revised statistical analysis of the background soils data using corrected analytical data for soil moisture content for inclusion in the revised Data Summary Report.
- Submitted responses to EPA and YPT comments on February 27 to the *Air Quality Monitoring Program Data Summary Report* (AQM DSR) dated May 29, 2008 and the *Draft Baseline Human Health Risk Assessment Work Plan for the Inhalation Pathway* (HHRA Work Plan) dated June 19, 2008. Submitted revised versions of the AQM DSR (Revision 1) and the HHRA Work Plan on February 17.
- Continued the compilation and interpretation of field information and laboratory analytical data associated with the Anaconda Evaporation Ponds Removal Action Characterization Work Plan. Continued vadose zone modeling for the evaporation ponds.
- A survey by Tri-State was conducted on February 2 to assess the area of standing water on the lined evaporation pond - surveyed and visually estimated area of standing water was 15.6 acres.
- Continued preliminary engineering activities associated with the short term removal action for the Anaconda evaporation ponds.
- Received approval from EPA for the Shallow Alluvial Aquifer Characterization Work Plan and the Pumpback Well System (PWS) Characterization Work Plan. Continued pre-field logistics including access agreements for proposed monitor well/geoprobe locations on private property, ordering of equipment, utility clearance of the sites. Provided information about the characterization activities to the Mason Valley News for publication on February 20.
- Initiated the construction of nine monitor wells as part of the PWS Characterization Work Plan
- Continued the evaluation of hydrologic tracer information and chemical data associated with the Site-Wide Groundwater Operable Unit (OU).
- Continued Site wildlife surveys.

### Site Issues

- The plastic liner at the newly constructed bioremediation cell was damaged during a high wind event, and discovered by O&M personnel on February 17. Current approach suggested by EPA is to inspect the cell daily.
- A leak associated with the Slot Pond was discovered on February 2. Presently, no specific cause has been identified and the precise source(s) of the leak(s) has/have not yet been determined, although the leak appears to be related to construction activities performed by EPA during the summer of 2008. EPA has requested that a daily inspection be performed by Site O&M personnel.
- Currently, fluids are being pumped from the leak detection system sump at rates up to 1.5 gpm into the Slot Pond for pumping to the EPA Pond. No remedial action plan has been discussed. EPA has indicated that it may be possible to run a PVC line from the leak detector to the pond for gravity flow to eliminate the need for a pump. This approach would require a 100-foot long ditch, 10 inches deep, for the PVC line.
- Monitor well B/W-4I (interior PVC casing) was found to be slightly damaged. It is possible that the well was inadvertently damaged by the property owner. A full assessment will be made during the 1Q 2009 monitoring event, and a plan to correct the damage will be developed when Cascade Drilling is on Site for additional monitor well construction in early March.

### Planned March/April 2009 Activities

- Continue routine O&M and site security activities, including bird deterrent activities.
- Continue meteorological monitoring at AM-6.
- Continue groundwater elevation and pit lake level monitoring. Conduct the 1Q 2009 groundwater monitoring event in early March.
- Continue and complete monitor well installation, development and surveying associated with the PWS Characterization Work Plan, install required pressure transducers and data loggers in the selected wells, conduct slug testing and sample the new wells, and submit a well construction report to EPA.
- Implement the Shallow Zone Characterization Work Plan in late March, including geoprobe locations and sampling procedures suggested by EPA in their comments on the work plan.
- If the regulatory agency and other attendees are available, attend a groundwater technical meeting to discuss current status of the hydrogeologic conceptual site model (groundwater flow and chemical conditions), identify additional data gaps and any applicable short-term investigation activities, and the schedule to submit the revised Site-Wide Groundwater Remedial Investigation Work Plan.
- Initiate final design of the removal action for the inactive Anaconda evaporation ponds.
- Initiate field work associated with the Shallow Alluvial Aquifer Characterization (early March) and the PWS Characterization (late March) Work Plans.
- Submit metadata information to EPA in March.
- Submit the revised background soils Data Summary Report to EPA in mid March.
- Submit the Process Areas MARSSIM Characterization Work Plan to EPA in mid March.
- Participate in a conference call on March 19 to discuss a number of technical issues at the Site. Submit the Data Summary Report associated with the Anaconda Evaporation Ponds Removal Action Characterization Work Plan in late March.
- Submit the Operations and Maintenance Manual – Pumpback Well System and Arimetco Fluid Management System in late March.
- Continue Site wildlife surveys.
- Upon receipt of EPA review comments, submit the updated version of the QAPP (Revision 4).

Ms. Nadia Hollan Burke  
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If you have any questions or comments, please feel free to contact me at (661) 287-3855 or via e-mail at [Roy.Thun@bp.com](mailto:Roy.Thun@bp.com).

Sincerely,

A handwritten signature in black ink, appearing to be 'RT', with a long horizontal stroke extending to the right.

Roy Thun  
Environmental Business Manager

cc: Dave Seter, EPA – via electronic mail  
Mike Montgomery, EPA – via electronic mail  
Roberta Blank, EPA – via electronic mail  
Andrew Helmlinger, EPA – via electronic mail  
Tom Dunkelman, EPA – via electronic mail  
Joe Sawyer, NDEP – via electronic mail  
Tom Olsen, BLM – via electronic mail  
Dan Newell, City of Yerington – via electronic mail  
Phyllis Hunewill, Lyon County Commissioner – via electronic mail  
Dennis Stark, Lyon County Manager – via electronic mail  
Chris Winsor, Atlantic Richfield Company - via electronic mail  
James Lucari, Atlantic Richfield Company – via electronic mail  
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