

# Atlantic Richfield Company

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December 9, 2013

## **CERTIFIED – RETURN RECEIPT REQUESTED**

Ms. Jere Johnson  
Remedial Project Manager  
U.S. Environmental Protection Agency Region 9  
75 Hawthorne Street, SFD-9-1  
San Francisco, CA 94105

**Subject: November 2013 Monthly Report, Yerington Mine Site, Lyon County, Nevada: Administrative Order for Remedial Investigation and Feasibility Study (RI/FS), CERCLA Docket No. 9-2007-0005; Administrative Order on Consent, CERCLA Docket No. 09-2009-0010**

Dear Ms. Johnson:

Pursuant to the above referenced orders issued by the U.S. Environmental Protection Agency - Region 9 (EPA), Atlantic Richfield Company (ARC) has prepared this November 2013 monthly report for RI/FS and Operations and Maintenance (O&M) activities at the Yerington Mine Site (Site).

### **November 2013 Activities**

#### Site Security and O&M Activities

- Continued Site O&M, security and bird deterrent activities. Cameras at various locations (e.g., Main and Arimetco gates, entrances to buildings) indicated no activity of concern.
- As directed by EPA, a Bird Wailer deterrent system was placed on the berm between the two new evaporation ponds (Fluid Management System [FMS] B and C). Three wind dancers and three bird deterrent flags have also been deployed around these two new ponds. Wind dancers, bird deterrent flags and Bird Gard towers remained deployed around the Pumpback Well System (PWS) Evaporation Pond and the Lined Evaporation Pond (LEP). Propane cannons remained deployed around the FMS Evaporation Pond A and the Slot Pond. To reduce birds becoming habituated to wind dancers and flags remaining in one location, these bird mitigation devices were re-located as needed, based on observations by Site O&M personnel.
- Modifications to the electric lines and power connections around the LEP were completed to allow the 230-volt wind dancers to receive line power.
- Water levels in the PWS Evaporation Pond at the end of September were as follows: North Cell = 0.0 feet; Middle Cell = 0.0 feet; South Cell = 0.0 feet. Incidental (but not measurable) rain water remained in the South Cell of the PWS Evaporation Pond.
- Arimetco FMS pond levels: Phase 1 Pond = 3.73 feet; FMS Evaporation Pond A = 9.17 feet; FMS Evaporation Pond B = 1.52 feet; FMS Evaporation Pond C = 1.53 feet; VLT Pond = 12.32 feet; Slot 2 Pond = 12.39 feet. A total of 33,483 gallons of solutions were pumped from the VLT Pond to FMS Evaporation Pond B on November 4, and 126,420 gallons of solution were pumped from the Slot Pond to FMS Evaporation Pond C on November 1 and 5. See attached monitoring data.

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## **November 2013 Activities - Continued**

### Site Security and O&M Activities - Continued

- Approximately 20,026 gallons of solution were pumped from the leak detectors including 10,428 gallons from SD2 near the Slot Pond and 6,598 gallons from VLTD1 at the VLT Pond. Approximately 1,303,378 gallons of solution have been pumped from the leak detectors since January 1. See attached monitoring data.
- A meeting was held on November 20 with EPA, the Nevada Division of Environmental Protection (NDEP), the U.S Bureau of Land Management (BLM), Singatse Peak Services (SPS), the U.S. Fish and Wildlife Service (USFWS) and the Yerington Paiute Tribe (YPT) to discuss FMS operations for the two new evaporation ponds, and confirm EPA's direction for associated bird mitigation activities and devices. The meeting included a discussion of an effort by ARC in the first half of 2014 to evaluate the replacement of propane cannons with safer Wetland Wailer devices.
- Performed Site-wide road grading activities.

### Site Characterization Activities

- Monthly groundwater elevation measurements were obtained November 24-26.
- A pit lake water elevation of 4230.14 feet amsl was recorded on November 25 from the pressure transducer, an increase of 0.14 feet since October 25. The pit lake elevation has risen 1.78 feet since November 25, 2012.
- Performed the 4Q 2013 domestic well sampling event November 4-6.
- Domestic wells DW-69 and DW-200 were removed from the domestic well sampling program, as both locations were hooked up to the Yerington Paiute Tribe (YPT) public water supply system.
- The owner of DW-183 continued to decline participation in the Bottled Water Program. Two wells (DW-201 and DW-202) did not qualify for bottled water based on recent chemical results.
- Continued the compilation of 3Q 2013 groundwater and domestic well monitoring data for inclusion in quarterly monitoring reports.
- The Additional Monitor Well Installation Work Plan continued with the installation of monitor wells HLP-03S, HLP-03I, FMS-06S, FMS-07S, B/W-27B, B/W-59S, B/W-59D2, B/W-82RS, B/W-82RI and B/W-82RB. Zonal samples were collected at B/W-27, B/W-50 and B/W-59.
- Upon receipt of EPA's approval on November 22 to abandon groundwater monitor well B/W-14S (property owner's request), the pump was removed from this well on November 25.
- Transmitted the Draft Preliminary Bedrock Characterization Data Summary Report (DSR) to EPA on November 20.
- Continued the preparation of a draft work plan for Single-Step Chemical Extraction (Leach) Tests, as requested by EPA in Comment #44 on the Revised Groundwater (OU-1) RI Work Plan.
- Continued preparation of the draft report summarizing initial groundwater flow modeling results.
- Continued work on the DSR for the OU-3 sub-surface utility and dry well investigations.
- Continued the characterization of Process Areas soils - 44 borings were completed for a total of 1,440 feet of drilling at the following PA- locations: JJJ1, JJJ2, JJJ3, UT23A, UT23C, W1B, W1C, W1D, X4, Z1D, EX01A, EX01B, EX01C, EX04A, EX04B, EX04C, I1B, I1C, K4C, K5B, K5C, K5D, K8B, K8C, K9B, K9C, K9D, O2B, O2C, O2D, OO3A, OO3C, OO3D, OO5, OO6, TR1A, TR1B, TR1C, UT05A, UT05B, UT05C, UT07A, UT07B and UT07C. A total of 417 samples were collected (335 normal samples and 82 quality control samples). Spectrum Geophysics continued utility location services and Desert Engineering continued site preparation in support of the program.
- Routine database management activities in support of Site investigations and monitoring.

### **Planned December 2013/January 2014 Activities**

#### Site Security and O&M Activities

- Continue routine Site O&M, security and bird deterrent activities.
- Incorporate stage-volume-surface area relationships for the two new evaporation ponds into the calibrated water balance model for Arimetco heap leach pad drain-down projections.

### **Planned December 2013/January 2014 Activities - Continued**

#### Site Characterization Activities - Continued

- Continue groundwater elevation and pit lake level measurements, and meteorological monitoring.
- Continue the Bottled Water Program.
- Transmit the 3Q 2013 Domestic Well Monitoring Report (DWMR) and the 3Q 2013 Groundwater Monitoring Report (GMR).
- Transmit the Preliminary Bedrock Well Investigation DSR.
- Transmit the revised Site-Wide Groundwater (OU-1) RI Work Plan and responses to comments.
- Continue field work associated with the Additional Monitor Well Work Plan.
- Continue aquifer solids testing activities in support of future fate and transport analysis, including the development of a Draft Chemical Extraction Test Work Plan.
- Transmit a draft work plan for supplemental characterization activities for the Evaporation Ponds and the northern portion of the Calcine Ditch.
- Transmit the DSR for the Phase II geophysical and soil investigations associated with sub-surface utilities in the Process Areas.
- Continue field work associated with the Process Areas Step-Out Drilling Program including the prioritization of select boreholes that may be required to be extended beyond the depths presented in the Final OU-3 RI Work Plan.
- Attend a groundwater technical meeting on December 10.
- Attend a Community Meeting in January (date to be established).
- Review data quality objectives for the Wabuska Drain (OU-7) RI Work Plan when received.

Please contact me at (714) 228-6774 or via e-mail at [jack.oman@bp.com](mailto:jack.oman@bp.com) if you have any questions or comments about the November 2013 monthly report.

Sincerely,



Jack Oman  
Project Manager

#### Attachment

cc: Dave Seter, EPA – via electronic mail  
Harry Ball, EPA – via electronic mail  
Andrew Helmlinger, EPA – via electronic mail  
Tom Dunkelman, EPA – via electronic mail  
Greg Lovato, NDEP – via electronic mail  
Jeryl Gardner, NDEP – via electronic mail  
Tom Olsen, BLM – via electronic mail  
Dan Newell, City of Yerington – via electronic mail  
Phyllis Hunewill – via electronic mail  
Virgil Arellano, Lyon County Commissioner – via electronic mail  
Rob Loveberg, Lyon County Planning Department – via electronic mail

Tom Grady, Nevada State Assembly – via electronic mail  
Chairwoman Howard, YPT – via electronic mail  
John Mosely, YPT – via electronic mail  
Deborah Dunn, YPT – via electronic mail  
Dietrick McGinnis, McGinnis and Associates – via electronic mail  
Tom Bowden, Ridolfi, Inc. – via electronic mail  
Chairwoman McFalls, WRPT – via electronic mail  
Tad Williams, WRPT – via electronic mail  
Ron Halsey, Atlantic Richfield Company – via electronic mail  
James Lucari, Atlantic Richfield Company – via electronic mail  
Marc Ferries, Atlantic Richfield Company – via electronic mail  
Brian Johnson, Atlantic Richfield Company – via electronic mail  
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Ken Greene, CH2M Hill – via electronic mail  
Victor Early, Tetra Tech – via electronic mail  
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