

Atlantic Richfield Company

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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: September 2010 Monthly Report, Yerington Mine Site, Lyon County, Nevada: Administrative Order for Remedial Investigation and Feasibility Study (RI/FS), EPA Docket No. 9-2007-0005; Administrative Order on Consent, EPA Docket No. 09-2009-0010

Dear Ms. Hollan Burke:

Pursuant to the above referenced orders issued by the U.S. Environmental Protection Agency - Region 9 (EPA), Atlantic Richfield Company (ARC) has prepared the following monthly report for RI/FS and removal action activities at the Yerington Mine Site (Site) during September 2010.

September 2010 Activities

- Continued routine Site O&M, security and bird deterrent activities including operation of the propane cannons for the Arimetco ponds (with the exception of the VLT Pond, as directed by EPA). The bird guard towers were not operated while the pumpback pond was dry. The “wind dancer” bird deterrent was tested with USFWS, Arcadis and EnviroSolve personnel in attendance on September 30 (this deterrent will be installed in October).
- Updated the bird mitigation protocol, and submitted the draft protocol to EPA for approval prior to submission to USFWS for final approval.
- Continued monitoring of the evaporation pan located near PW6. PWS evaporation pond levels: North Cell 0.0 feet; Middle Cell = 0.0 feet; South Cell 0.0 feet.
- Arimetco heap leach fluid management system (FMS): total estimated gallons transferred from the VLT Sediment Pond (VLTSP) to the FMS Evaporation Pond = approximately 425,265 gallons; total estimated gallons transferred from the Slot Sediment Pond (SSP) to the FMS Evaporation Pond = approximately 233,400 gallons; total estimated gallons transferred from the Phase 1 Pond to FMS Evaporation Pond = 0.0 gallons (see attached graphs).
End-of-month pond levels based on recently installed pressure transducers: Phase 1 Pond = 1.0 feet; FMS Evaporation Pond = 6.75 feet; VLT Pond = 3.00 feet; Slot 2 Pond = 9.25 feet (see attached graphs). Approximately 1,093 gallons of solution was pumped from the leak detectors during the month of August (see attached graphs and table). A total of approximately 658,665 gallons of solution was transferred to the FMS pond during the month of September.
- A flow meter and solar panel were installed on the FMS pond pipeline, and flow meters were installed on the leak detectors at the Slot and VLT ponds.
- EPA and EQM shipped wastes from the Site on September 8.
- EPA provided a Site tour for Numamta (Alaska) tribal members on September 17.

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September 2010 Activities - Continued

Site Characterization

- Site-wide monthly groundwater elevation measurements were obtained September 29-30..
- A pit lake water elevation of 4221.628 feet amsl was recorded on October 1, 2010 from the pressure transducer, an increase of 0.14 feet since September 1, 2010. The pit lake elevation has risen 3.078 feet since October 1 of 2009.
- Continued meteorological monitoring at the AM-6 location including wind speed/direction, temperature, relative humidity, barometric pressure, precipitation and solar radiation.
- No changes have been made to the bottled water program.
- The following changes were made to the domestic well program: DW-61 status changed to "Yes" from "Pending" (the well was sampled during the 3Q 2010 event); DW-59 and DW-106 requested that their respective domestic wells no longer be sampled (status changed from "Yes" to "No"; neither well was sampled during the 3Q 2010 event); and signed access agreements were received for a new resident (DW-177) and a new owner (DW-134).
- Conducted the 3Q Site-wide groundwater monitoring and domestic well monitoring events from September 12 through September 28.
- Submitted the 2Q 2010 Site-wide groundwater monitoring report on September 16.
- Continued the 2010 monitor well program (see attached progress update): 1) monitor wells B/W-51I, W4CB-2D1, W4CB-2D2, B/W-44S, B/W-44I, B/W-44D, B/W-65S, B/W-65I, B/W-65D, B/W-44B, W5DB-B, B/W-65D5, and B/W-62B were completed; 2) 40 zonal groundwater samples were collected from four boreholes, and 56 laboratory analytical results were received from the zonal samples; 3) no aquifer solids samples were collected; and 4) surface water samples were collected on September 28 from the Walker River near Bridge Street and from the West Campbell Ditch near Highway 95A.
- Submitted the Aquifer Solids Testing Work Plan (Revision 1) on September 21.
- Submitted the PWS Aquifer Test Results Summary (technical memo) on September 24.
- Continued discussions with EPA regarding the revised Process Areas Vadose Zone and Groundwater Characterization Work Plan, and initiated plans to conduct the geophysical survey described in the Work Plan
- Continued routine database management activities.
- Continued Site wildlife surveys, data management and wildlife observation reports.

AOC Removal Actions

- ARC selected USA Environment (USA) as the removal action contractor, who will perform the three remaining removal actions concurrently.
- Continued discussions with EPA on the Process Areas Radiological Materials Removal Action Plan (RAP) and the Anaconda Evaporations Ponds (Thumb Pond and Sub-Area A) Implementation Work Plan, and worked with USA to provide the EPA-requested SOPs and air quality monitoring (AQM)/dust control plans for inclusion in a revised RAP and Work Plan. USA also developed the SOP for the transite pipe removal action. Received EPA approval for all SOPs and the AQM/dust control plan.
- Obtained chemical and meteoric water mobility procedure leachate (MWMP) results for three samples of gravel materials to be used during the removal actions.
- Developed a plan to provide construction water for the removal actions, to be implemented by USA, including an agreement with Don Tibbals for the water supply.
- Initiated field sampling activities, with EPA oversight, associated with the revised Cover Materials Work Plan (September 28-30).
- Submitted a Draft Dust Suppression Plan for the LEP and UEP on September 22.
- Continued compiling results for the geochemical and geotechnical characterization activities of mineral salt precipitates/sub-grade materials in the north cell of the PWS evaporation pond.

Planned October/November 2010 Activities

Site Characterization

- Continue Site wildlife surveys, maintenance of wildlife observation data and preparation of wildlife observation reports.
- Continue groundwater elevation and pit lake level monitoring. Continue meteorological monitoring at AM-6.
- Submit the 2Q 2010 domestic well monitoring report.
- Provide updates to EPA for domestic well access agreements, as needed.
- Continue borehole drilling, zonal sampling and monitor well installations pursuant to the revised 2010 Monitor Well and Ag Fields Work Plans, and add drill rigs to expedite the schedule.
- Initiate aquifer solids testing activities.
- Initiate groundwater modeling (i.e., particle tracking) for the PWS based on aquifer test results, as described in the PWS Characterization Work Plan Addendum.
- Implement geophysical surveys in the Process Areas.
- Conduct a tour of the Wabuska Drain with EPA, NDEP and YPT.

AOC Removal Actions

- Continue routine O&M, site security, and bird deterrent activities. Continue flow monitoring and water balance calculations for the Arimetco FMS, and implement other elements of the revised FMS O&M Plan.
- Continue to compile geochemical and geotechnical data resulting from the characterization activities for the north cell of the PWS evaporation pond, and submit a letter report to EPA that summarizes these data.
- Complete the field sampling activities associated with the revised Cover Materials Work Plan. Once received, respond to additional EPA comments on the revised Cover Materials Work Plan and submit a revised Work Plan. Complete the field activities described in the revised Work Plan.
- Mobilize to the Site and begin the three remaining removal actions (Thumb Pond and Sub-Area A interim covers; transite pipe removal; Process Areas radiological materials removal) in accordance with approved work plans and SOPs.
- Submit revised versions of the Process Areas Radiological Materials Removal Action Plan (RAP) and the Anaconda Evaporations Ponds (Thumb Pond and Sub-Area A) Implementation Work Plan, which will include contractor SOPs and AQM/dust control plans.
- Submit the updated bird mitigation protocol to USFWS after receiving approval of the changes from EPA.

If you have any questions or comments, please contact me at (714) 228-6774 or via e-mail at jack.oman@bp.com.

Sincerely,



Jack Oman
Project Manager

cc: Dave Seter, EPA – via electronic mail
Jacquelyn Hayes, EPA – via electronic mail
Svetlana Zenkin, EPA – via electronic mail
Roberta Blank, EPA – via electronic mail
Jere Johnson, 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
Richard Faber, Lyon County Facilities Engineering – via electronic mail
Tom Grady, Nevada State Assembly – via electronic mail
Justin Whitesides, YPT – via electronic mail
Chairman Emm, YPT – via electronic mail
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