

Atlantic Richfield Company

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January 7, 2011

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: December 2010 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 the following monthly report for RI/FS and removal action activities at the Yerington Mine Site (Site) during December 2010.

December 2010 Activities

Site Security and O&M 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). Bird guard towers were re-activated due to precipitation during the month at the pumpback well system (PWS) evaporation pond. The “wind dancer” bird deterrent was re-located every two weeks to lessen the possibility of birds becoming habituated to the “wind dancer”.
- Pumpback well system (PWS) evaporation pond levels: North Cell 0.0 feet; Middle Cell = 0.18 feet; South Cell 0.34 feet as a result of ponded meteoric water (PWS remains inactive during temporary shut-down). Continued monitoring of the evaporation pan located near PW-6.
- Arimetco heap leach fluid management system (FMS): Pond levels: Phase 1 Pond = 3.5 feet; FMS Evaporation Pond = 7.75 feet; VLT Pond = 1.5 feet; Slot 2 Pond = 11.0 feet. Approximately 330,000 gallons of solution was transferred from the VLT Sediment Pond (VLTSP) to the FMS Evaporation Pond, and no solutions were transferred from the Slot Sediment Pond (SSP) or the Phase 1 Pond to the FMS Evaporation Pond. FMS monitoring data is attached.
- Approximately 13,015 gallons of solution was pumped from the leak detectors in December, reduced from the last two months as a result of lowering the VLT pond level due to a leaking liner.
- A break in the perimeter fence on the northeast corner of the Site was noticed on December 17, likely due to a vehicle losing control on Highway 95A during inclement weather. The fence was repaired the same day.
- Continued preliminary planning to evaluate the re-location of ARC contractor facilities that support Site O&M and RI activities to a location north of Burch Drive. B.V. Nevada initiated the demolition of select Site structures.

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December 2010 Activities - Continued

Site Characterization

- Site-wide monthly groundwater elevation measurements were obtained from December 27-29.
- A visual estimate of the pit lake elevation of approximately 4,223.2 feet amsl was made on December 30, based on surveyed stakes along the pit ramp while the new pressure transducer was purchased and shipped. Since December 31, 2009, when a pit water elevation of 4219.55 feet amsl was recorded, the pit lake has risen approximately 3.65 feet (see attached graph).
- Continued meteorological monitoring at the AM-6 location including wind speed/direction, temperature, relative humidity, barometric pressure, precipitation and solar radiation.
- Participated in a follow-up discussion with EPA on December 15 regarding EPA comments dated November 30 on the Baseline Human Health Risk Assessment (HHRA) for the Inhalation Pathway. ARC and EPA agreed to continue these discussions in early January 2011 followed by the submittal of the revised HHRA.
- The following residence has been added to the bottled water program: DW-109.
- The following changes were made to the domestic well program: a signed access agreement was received for a new resident DW-105, the owner at DW-109 started receiving bottled water; and the owners at DW-120 rejected receiving bottled water.
- Submitted the 3Q 2010 Domestic Well Monitoring Report on December 30.
- Continued compilation of monitoring data for inclusion in the 3Q Site-wide Groundwater Monitoring Report. Initiated compilation of monitoring data for inclusion in the Annual (4Q) Site-wide groundwater monitoring and domestic well monitoring reports.
- Continued the 2010 monitor well installation program (see attached progress update). Monitor wells B/W-31S1, B/W-31S2, B/W-31I, B/W-34S, B/W-34I, B/W-34D, B/W-34B, B/W-53B, B/W-64S, B/W-64I, B/W-64D, B/W-64B, B/W-66S, B/W-66I, B/W-66D, and B/W-66D5 were installed. Monitor wells B/W-22B, B/W-36S, B/W-36B, B/W-37S, B/W-37I, B/W-37B, B/W-38RS, B/W-38RI, B/W-38RD, B/W-38RB, B/W-42S, B/W-42I, B/W-42D, B/W-46S, B/W-46I, B/W-46D, B/W-62D4, B/W-64B, B/W-65D5, LEP MW-2D1, LEP MW-2D2, LEP MW-2B, MW-4I, MW-4B, W4CB-2D1, W4CB-2D2, W4CB-2D3, and W4CB-2B were developed. Slug testing was conducted in monitor wells: B/W-22B, B/W-30S, B/W-30I, B/W-30D, B/W-33S, B/W-33I, B/W-33D, B/W-33B, B/W-37S, B/W-37I, B/W-37B, B/W-38RS, B/W-38RI, B/W-38RD, B/W-38RB, B/W-42S, B/W-42I, B/W-42D, B/W-44S, B/W-44D1, B/W-44D2, B/W-44B, B/W-46S, B/W-46I, B/W-46D, B/W-51B, B/W-52S, B/W-52I, B/W-52D, B/W-55S, B/W-55I, B/W-55D, B/W-61D, B/W-61B, B/W-62D2, B/W-62D2, B/W-62B, B/W-64B, B/W-65D5, LEP MW-2D1, LEP MW-2D2, LEP MW-2B, MW-4I, MW-4B, W4CB-2D1, W4CB-2D2, W4CB-2D3, W4CB-2B, W5DB-S, W5DB-I, W5DB-D2, and W5DB-D3.
- Zonal sample results were received for B/W-2, B/W-27, B/W-31, B/W-34, B/W-45, B/W-46, B/W-60, B/W-64, B/W-66, B/W-67, and MW-5. Analytical results for aquifer solids sampling were received for B/W-32, B/W-42, B/W-61, B/W-62, B/W-65, B/W-66.
- Monthly surface water sampling was conducted on December 20.
- Submitted the technical memorandum dated December 9, 2010 that summarized the results of analytic modeling and particle tracking of capture zones based on the results of the pumpback well aquifer testing program.
- Spectrum Geophysics continued the sub-surface investigation in the Process Areas with camera surveys in available utility lines December 14-16. Received additional EPA comments dated December 20, 2010 for the revised geophysical survey technical memorandum dated November 18, 2010. Initiated responses to EPA comments and the revised technical memorandum.
- Continued the review and preparation of technical comments on the Draft Supplemental Remedial Investigation Report for Arimetco Facilities dated October 2010.
- Continued routine database management activities.
- Continued Site wildlife surveys, data management and wildlife observation reports.

December 2010 Activities - Continued

AOC Removal Actions

- Submitted the data summary report dated December 7, 2010 for the geochemical and geotechnical characterization of the mineral salt precipitates and sub-grade materials in the north cell of the PWS evaporation pond.
- Completed all work on the three removal actions pursuant to the 2009 AOC and SOW: interim covers for the Thumb Pond and Sub-Area A; transite pipe removal to either the on-Site landfill or off-Site waste repository; and the excavation and removal to the off-Site repository of Process Areas radiological soils. A total of 247 trucks hauled 6,097 tons of transite pipe and radiological soils to the US Ecology facility in Grand View, Idaho. Approximately 20,700 feet of transite pipe was removed including: 1) 5,300 feet of intact pipe and 88 cubic yards of broken pieces that were shipped to the US Ecology facility; and 2) 15,400 feet that were placed in the on-Site landfill. Approximately 33,900 and 31,886 cubic yards, respectively, of VLT materials were placed on the Thumb Pond (18.3 acres) and Sub-Area A (8.2 acres). The removal actions were completed a month ahead of schedule (December 13). Local labor, hired through Desert Engineering, was used for the majority of work.
- During the removal actions, two days of stop work for wind speeds over 25 mph occurred and no exceedances of PM10 triggers were observed within the immediate work areas or at the Site perimeter air monitoring stations. ARC operated the Site perimeter and real-time PM10 and asbestos meters at specific removal action work areas through the completion of work. ARC continues to maintain and operate continuous PM10 monitors (TEOMs) at the Site perimeter stations AM-1 and AM-6 after the removal actions for at least one month, pending further discussions with EPA. Initiated compilation of monitoring data and construction information for inclusion in the draft Removal Action Reports for the three removal actions.
- Submitted responses to EPA comments to the Draft Dust Suppression Plan (DSP) for the inactive Anaconda Evaporations Ponds dated October 20, 2010, and submitted a revised DSP dated December 1, 2010.

Planned January/February 2011 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. Install a new pit lake pressure transducer. Continue meteorological monitoring at AM-6.
- Submit the 3Q 2010 Site-wide Groundwater Monitoring Report. Continue compilation for the 2010 annual Site-wide groundwater monitoring and domestic well monitoring reports.
- Conduct the 1Q 2011 Site-wide groundwater monitoring program.
- Complete borehole drilling, zonal sampling and monitor well installations pursuant to the revised 2010 Monitor Well and Ag Fields Work Plans. Perform well development, slug testing and wellhead surveying activities. Install pressure transducers in new wells identified by EPA. Initiate preparation of a data summary report for all 2010 groundwater investigation activities. Clean up and restore drilling and well installation sites upon the completion of field work, as appropriate.
- Coordinate equipment set-up at Hazen Research Labs for aquifer solids testing
- Initiate development of the On-Site Monitor Well Work Plan to be initiated in early 2011.
- Continue compilation of geophysical surveys in the Process Areas, and meet with EPA to discuss the results and next phase of geophysical surveys and related investigations. Meet with EPA to discuss the Process Areas RI Work Plan.
- Submit technical comments on the Draft Supplemental Remedial Investigation Report for Arimetco Facilities dated October 2010.

Planned January/February 2011 Activities - Continued

AOC Removal Actions

- Continue routine O&M, site security, and bird deterrent activities.
- Conduct site walk with EPA to confirm removal action completeness. Continue compilation of monitoring data and construction information for inclusion in the draft Removal Action Reports for the three removal actions.
- Initiate the compilation of monitoring data for the 2010 FMS ponds for inclusion in the 2010 Annual O&M Report. Repair the VLT pond liner leak.
- Compile analytical data, once received, resulting from implementation of the revised Cover Materials Work Plan, and initiate preparation of the Data Summary Report.
- Submit the updated bird mitigation protocol to USFWS after receiving approval of the changes from EPA.

If you have any questions or comments about the December 2010 monthly report, please contact me at (714) 228-6774 or via e-mail at jack.oman@bp.com.

Sincerely,



Jack Oman
Project Manager

attachments

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
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
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
Dietrick McGinnis, McGinnis and Associates – via electronic mail
Tom Bowden, Ridolfi, Inc. – via electronic mail
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