

Atlantic Richfield Company

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June 21, 2007

Mr. Kevin Mayer
SFD-7-2
USEPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

**RE: Leviathan Mine, Alpine County, California:
Submission of 2007-08 Treatability Studies and Interim Treatment Work Plan**

Dear Mr. Mayer:

Atlantic Richfield is submitting the enclosed 2007-08 Treatability Studies and Interim Treatment Work Plan (the "Work Plan") for EPA's review and approval. This document provides a detailed description of the water treatment activities to be conducted at the Leviathan Mine Site during 2007 and a more conceptual description of the High Density Sludge ("HDS") Treatment System planned for implementation in 2008. As discussed in our conference call of June 11, 2007, Atlantic Richfield is also preparing a submittal containing process design criteria for the 2008 HDS Treatment System for your review and comment. This submittal will be provided to you under separate cover in the next few days.

Atlantic Richfield submitted a summary of this Work Plan (Work Plan Summary) on May 25, 2007, which EPA approved with comments by letter dated June 7, 2007. In that letter, EPA requested that Atlantic Richfield submit its detailed work plan by June 21, 2007, which we are providing with this letter.. EPA also stated that response to EPA's comments on the Work Plan Summary should not delay the start of 2007 water treatment activities. Atlantic Richfield has proceeded consistently with that instruction. We began routing flows from the Channel Underdrain to Pond 4 on June 15 and initiated operation of the Pond 4 Lime Treatment System on June 19. Other water treatment implementation items are scheduled as described in Section 7.0 of the enclosed Work Plan. In addition to operating and making improvements to the Aspen Bioreactor, Atlantic Richfield has also been extremely busy since early March planning and designing the Pond 4 Lime Treatment system, preparing and improving the Site, procuring and installing equipment and supplies, and retaining contractors and subcontractors, among other things.

As we have tried to make clear in our discussions with EPA over the past several months, Atlantic Richfield has been committed to taking all reasonable steps necessary to ensure that treatment of flows from the Channel Underdrain ("CUD") and Delta Seep began as soon as practicable, subject to the need to obtain administrative approvals for the work being performed



and the importance of adhering with good engineering practices and appropriate health and safety constraints. Some of the precursory steps included preparation of necessary engineering designs, evaluating various interim treatment technologies, evaluating and selecting consultant and contractor support, evaluating the capacity and conditions in Pond 4, and inventorying equipment and supplies. That being said, we firmly believe that the nature and pace of the 2007 work described in the enclosed Work Plan is commensurate with site conditions and with the expectations EPA has conveyed to date.

Atlantic Richfield appreciates EPA's approval of the Work Plan Summary, and we look forward to a similarly expeditious review and approval of the detailed Work Plan. Although many of the items raised in EPA's June 7 approval letter are addressed by the enclosed Work Plan, certain of EPA's comments warrant specific responses. These are addressed in turn below:

1. *The 2000 Administrative Order (page 1, first paragraph)*: Atlantic Richfield does not agree with EPA's contention that "[t]he Work Plan is pursuant to EPA's 2000 Administrative Order." Negotiations are presently ongoing between counsel for EPA and Atlantic Richfield to develop new administrative orders that will govern future work at the Leviathan Site. In our view, one premise for these negotiations is that the 2000 Unilateral Administrative Order is no longer operative and cannot serve as a proper basis for requiring additional response actions at the Site. While Atlantic Richfield agrees to proceed in good faith with those negotiations and with the water treatment activities described in the Work Plan, we do so while reserving all legal rights and defenses available under CERCLA or otherwise.

2. *Separate Work Plan for Implementing Year-Round Treatment (page 1, third paragraph)*. EPA's approval letter suggests that 2007 water treatment activities are to be integrated with a separate work plan for implementing year-round treatment at the Leviathan Site. This is inconsistent with EPA's May 8, 2007 draft Request for Approval of Modification to the Removal Action at the Leviathan Mine, which states that work performed at the Site during 2006 confirmed that the level of effort needed to accomplish reliable and effective on-site, year-round treatment of discharges from the CUD and Delta Seep exceeds what is appropriate for a non-time critical removal action or treatability study.

3. *Treatment System Flow Rates (page 1, fifth paragraph)*. EPA recommends developing treatment system contingencies to prepare for future CUD and Delta Seep flows that could exceed 100 gpm. Atlantic Richfield's Pond 4 Lime Treatment System is intended to handle flows up to 75 - 80 gpm¹ during 2007 and a portion of 2008, although current conditions indicate that combined CUD and Delta Seep flows are likely to be much less than that during 2007. As noted in the Work Plan, the HDS treatment system, which is expected to be completed and operational during 2008, will be designed to treat up to 100 gpm. Based on historical flow data for the CUD and Delta Seep and the fact that these systems are being implemented and operated as part of a treatability study, not the final remedy for the Site, Atlantic Richfield

¹ As explained in the Work Plan, the Pond 4 Lime Treatment System will be equipped with two Rotating Cylinder Treatment System ("RCTS") units each capable of treating 40 gpm. A third RCTS unit will be installed as a backup unit.

believes that this design flow capacity is sufficient to meet the water treatment needs for this treatability study.

4. Sludge Removal and Pond 4 Liner (page 1, fifth paragraph). Measurement and removal of sludge from Pond 4 and repair of the Pond 4 liner are addressed in Section 3.2.1 of the enclosed Work Plan.

5. Schedule (page 2, first paragraph). Section 7.0 of the enclosed Work Plan presents the proposed implementation schedule for 2007 and 2008 water treatment activities. As noted, operation of the Pond 4 Lime Treatment System has already been initiated. This system will operate through the rest of the 2007 treatment season. The Pond 4 Lime Treatment System will not be winterized, but Atlantic Richfield intends to operate it as late into autumn as road-access, weather conditions and personnel safety will allow. Factors that will be considered in determining when to decommission the system for the winter include the ability to safely deliver fuel, lime and other supplies to the Site and the susceptibility of pipes and treatment equipment to damage or sub-optimal performance during hard-freeze conditions. While we agree that extending the water treatment season is an appropriate objective for the Site, and will likely occur through the implementation of the HDS system design, we do not think it is possible to identify specific start-up or shut-down dates for the water treatment systems.

6. Aspen Seep (page 2, second paragraph). EPA requested additional detail on Atlantic Richfield's plans to respond to the diesel spill at the Aspen Bioreactor, upgrade the containment systems at the Aspen Bioreactor for chemical and fuel storage, and manage the Bioreactor treatment solids. Atlantic Richfield submitted its Subsurface Investigation Work Plan for the Diesel Release at the Aspen Seep Bioreactor Facility to the LRWQCB for review and approval on May 4, 2007. We received the LRWQCB's verbal approval of that work plan on June 12. Those investigations are expected to begin in the next few weeks. Sections 3.3.2 – 3.3.4 of the enclosed Work Plan provide additional details concerning improvements to the chemical and fuel storage facilities and sludge handling and management practices at the Aspen Bioreactor.

7. CUD and Delta Seep Flow Measurements and Water Quality Monitoring (page 2, items 1 and 2). EPA states that Atlantic Richfield must coordinate with USGS and prepare a plan to configure the treatment system to allow collection of accurate CUD flow information. Atlantic Richfield addressed this topic in an e-mail sent to the USGS, LRWQCB and EPA on May 18, 2007. Since that time, Atlantic Richfield has reinstalled the CUD collection tank so that CUD flows are now being directed through and measured by the USGS weir box before going into the collection tank. This issue has thus been resolved. The enclosed Work Plan (Table 4-3) proposes daily, separate monitoring of flow rates and water quality for the CUD and Delta Seep flows, as well as the combined CUD/Delta Seep treatment system influent.

8. Monitoring of Treated Effluent (page 2, item 3). The discharge criteria in Table 4-1 of the enclosed Work Plan match those in Table 1 of the NTCRAM. Sample collection/compositing methods are described in detail in Section 4.1.1 and Table 4-3. Daily monitoring of field parameters will be used to verify optimal performance of the treatment systems. Treated effluent from the Pond 4 Lime Treatment System will be diverted to and held

in Pond 4 prior to discharge. Sampling and analysis will verify that the water quality in Pond 4 meets discharge criteria before it is discharged to Leviathan Creek. As has occurred in the past, treated effluent will be pumped out of Pond 4 as needed to maintain sufficient free-board capacity in the pond. The frequency for testing the water quality in Pond 4 will be dictated by flow rates through the system and how often and how long the pumping of treated water out of Pond 4 needs to occur.

9. Relationship Between Field Parameters and Discharge Criteria (page 3, item 4). EPA acknowledges that field parameters (pH, iron, conductivity) may be used as surrogates for more frequent testing of metals concentrations in treatment system effluent if a relationship can be shown between the field parameters and contaminant discharge criteria. Atlantic Richfield intends to prepare a technical memorandum based on water sampling data collected during the 2007 treatment season documenting this relationship and proposing alternative sampling frequencies if appropriate.

10. Three-season treatment and Use of Dry Lime (page 3, third paragraph). Atlantic Richfield provided detailed information concerning its views about the feasibility of “three-season” treatment in its May 25, 2007 comments on the draft Request for Approval of Modification to the Removal Action at the Leviathan Mine. As noted in the enclosed Work Plan, the 2008 HDS Treatment System incorporates a dry hydrated lime feed system. However, there can be problems with storage of large quantities of dry lime for extended periods. Over time, stored dry lime can solidify or lose its reactive capacity. The feasibility of dry lime storage over the winter months will be addressed in design submittals for the 2008 HDS Treatment System.

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Please feel free to contact me at (661) 287-3855 or via e-mail at roy.thun@bp.com with any questions concerning the enclosed Work Plan or if you wish to discuss the above responses further.

Sincerely,



Roy Thun
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cc: Richard Booth, Lahontan Regional Water Quality Control Board
Chris Winsor, Atlantic Richfield Company – via electronic
Todd Normane, Esq. Atlantic Richfield Company – via electronic
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