



Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Henry R. Darwin
Director

Via U.S. Mail and E-Mail

December 24, 2014
VRP 15-166

Mr. John Broderick
Freeport-McMoRan Inc. - Sierrita Operations
Post Office Box 527
Green Valley, Arizona 85622-0527

RE: Review of Draft Data Gaps Work Plan
Freeport-McMoRan Inc. Sierrita Operations
Green Valley, Arizona
VRP Site Code: 100073-03

Dear Mr. Broderick:

The Arizona Department of Environmental Quality (ADEQ) Waste Program's Division Voluntary Remediation Program Unit (VRP) has completed review of the draft document titled *Data Gaps Work Plan* dated November 2014 and received by ADEQ on November 12, 2014. The Work Plan was submitted by ARCADIS on behalf of Freeport McMoRan Copper & Gold (now Freeport-McMoRan Inc.) Sierrita Operations (Sierrita) for approval by the VRP pursuant to Arizona Revised Statutes (A.R.S.) § 49-177.

Background

Pursuant to A.R.S. § 49-175, Sierrita submitted a *VRP Investigation Work Plan* in August 2008 for review and approval pursuant to A.R.S. § 49-177. The VRP approved a revised version of this document in November 2008. Implementation of soil and sediment characterization activities commenced in June 2008 and concluded by November 2008. Groundwater characterization activities were performed between July 2008 and July 2009.

Sierrita submitted a *VRP Soil and Sediment Characterization Report* in April 2011, an *Addendum to the Soil and Sediment Characterization Report* in August 2013 and a *VRP Groundwater Investigation Report* in December 2013. The VRP provided conditional approvals of these reports in December 2013, September 2013, and September 2014, respectively. The *Data Gaps Work Plan* (Work Plan) was developed by Sierrita in order to address additional characterization needs identified by Sierrita as well as address comments provided by the VRP.

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During the November 20, 2014 meeting held at ADEQ between the VRP and Sierrita, the VRP restated it does not agree that Sierrita has clearly and decisively illustrated that selected wells were representative of background groundwater quality conditions. Subsequently, Sierrita presented additional supporting information that was not included in the *VRP Groundwater Investigation Report*. Sierrita has committed, under separate cover, to submit to the VRP a detailed analysis documenting the claim that the selected wells do represent background conditions.

The VRP agreed to continue reviewing the Work Plan and to submit comments before the end of December, regardless of the arrival of the background conditions analysis. Consequently, the VRP has limited its review and comments to the areas of the Work Plan that do not pertain to the background conditions.

Required Information:

Any work plan submitted to the VRP is required to be developed in accordance with A.R.S. § 49-175. As this Work Plan is limited in scope to address data gaps only and will be conducted over a relatively short timeframe, the VRP is waiving the requirements cited in A.R.S. § 49-175 in accordance with A.R.S. § 49-175(C), except for the following:

- ♦ A.R.S. § 49-175A.4 – Schedule for submission of progress reports.
- ♦ A.R.S. § 49-175A.5 – A proposal for community involvement as prescribed by A.R.S. § 49-176.
- ♦ A.R.S. § 49-175A.8 – A list of any permits or legal requirements known to apply to the work.
- ♦ A.R.S. § 49-175B – Discussion that remediation levels or controls for remediation conducted pursuant to A.R.S. Title 49 shall be established in accordance with rules adopted pursuant to A.R.S. § 49-282.06 unless one or more of the following applies: see A.R.S. § 49-175B.1 through § 49-175B.4.
 - Please note that this requirement was discussed during the November 20, 2014 meeting. The VRP clarified that, while the VRP recognizes that it is not the only regulatory program applicable to the site, providing draft screening levels for soil and groundwater that are based upon other regulatory entities, active permits, mitigation orders, and Arizona statute and code would allow the VRP to review submitted data in a comprehensive manner; hence, the VRP would be able to provide guidance on remedial action and closure under the VRP for the same constituents that would not conflict or contradict what has been established elsewhere for the site.

General Comments

The VRP requests for Sierrita to provide additional explanation and/or discussion on the comments provided in order to provide clarity and strengthen technical discussions within the Work Plan.

1. Please provide a detailed description of the proposed construction of the bedrock groundwater monitoring wells to demonstrate that the screened intervals will be completely sealed from the overlying alluvium unit.
2. Please provide the latest potentiometric map to facilitate the demonstration that the proposed groundwater monitor wells are appropriately located.
3. Please clarify if the two groundwater monitoring events are all Sierrita believes to be necessary or if it is an interim schedule before entering another phase of work.

Specific Comments

4. Appendix B, Section 4.1, page 16

Revision 4.0 of the Arizona Data Qualifiers was developed by the Arizona Environmental Laboratory Advisory Committee in September 2012. The updated list can be located here: <http://www.azdhs.gov/lab/license/resources/resources.htm>.

Recommendations

The VRP recommends that Sierrita submit a response to this letter within 30 calendar days from the date of this letter. Once the response to the VRP's comments have been addressed and approved, the VRP will request a revised final Work Plan.

The VRP would like to share that ADEQ recently developed a Site Investigation Guidance Manual that Sierrita may want to refer to in finalizing the Work Plan. The manual is available on-line at: <http://www.azdeq.gov/environ/waste/index.html>.

How to Submit

Please submit documents sent in response to this letter using one of the following methods:

1. Hard copy to:
ADEQ
Attention: Danielle Taber, Voluntary Remediation Program
1110 West Washington Street
Phoenix, AZ 85007
2. E-mail to dt3@azdeq.gov

In general, the VRP requests two hard copies and an electronic copy (.pdf) of submitted documents.

Additional Information

The VRP site name and site code should be consistently used on all correspondence and reports relating to this site to ensure accuracy of file identification.

Information pertaining to the VRP can be obtained by accessing ADEQ's web page at www.azdeq.gov, or by visiting ADEQ's office at 1110 West Washington Street, Phoenix, Arizona. Information pertaining to Arizona Revised Statutes Title 49 can be obtained by accessing the Arizona State Legislature web page at www.azleg.gov. Information pertaining to Arizona Administrative Code rule citations may be found at www.azsos.gov.

You may contact the ADEQ Records Management Center staff about reviewing or copying file information at 602-771-4380.

The VRP appreciates Sierrita's continued efforts in characterizing this site. If you have any questions, please contact me by electronic mail at dt3@azdeq.gov or by telephone at (602) 771-4414.

Sincerely,



Danielle Taber, Project Manager
Voluntary Remediation Program, Waste Programs Division

cc: Stuart Brown, FMI, Senior Director – Remediation Projects
Deborah Chismar, FMI – Sierrita Operations, Senior Environmental Specialist
Diana Kelts, FMI – Sierrita Operations, Chief Environmental Engineer
Penny Hunter, ARCADIS, Project Manager
John Patricki, ADEQ
Don Atkinson, ADEQ
Jerry Smit, ADEQ
Mindi Cross, ADEQ