Copper Queen Branch 36 West Highway 92 Bisbee, Arizona 85603

Robert J. Quintanar Manager, Operations 520.432.6209 rquintan@fmi.com

### VIA CERTIFIED MAIL # 7016 2140 0000 2046 2940 Return Receipt Requested

April 5, 2017

Ms. Nirupma Bhatia
Water Quality Compliance Section
Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, Arizona 85007

Re: Mitigation Plan Approval Status

Mitigation Order on Consent No. P-121-07

Dear Ms. Bhatia:

It was a pleasure speaking with you by phone on Monday, March 13, 2017. Attached please find a letter from the Arizona Department of Environmental Quality (ADEQ) dated December 19, 2014 and the transcript of an email conversation regarding the conditional approval of portions of the Mitigation Plan.

Freeport Minerals Corporation, Copper Queen Branch (CQB) submitted a Mitigation Plan with Respect to Drinking Water Supplies to ADEQ on May 28, 2014. On December 19, 2014, CQB received a letter from ADEQ regarding the review of that plan. ADEQ reviewed the Mitigation Plan and made two recommendations for additional information. The Mitigation Plan was revised to include ADEQ's recommendations and CQB submitted this revised Mitigation Plan to ADEQ on March 6, 2015. On March 11, 2015, ADEQ communicated to CQB by email that CQB had conditional approval to implement mitigation measures with respect to bi-annual sampling, annual groundwater monitoring reports and annual CAG meetings. As of today, CQB has not received the written notice that ADEQ has approved the Mitigation Plan.

CQB has implemented the Mitigation Plan as described in the quarterly status reports submitted to ADEQ pursuant to the Mitigation Order. CQB has already implemented mitigation measures needed to mitigate water supplies that have been impacted by the sulfate plume, including private wells and wells operated by Naco Water Company within the sulfate plume. Ongoing work in this area consists of groundwater monitoring, reporting, and any actions needed to ensure that the mitigation measures already implemented perform as intended.



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As you are aware, any future implementation of additional mitigation measures under the Mitigation Plan relates to water supplies that have not yet been, and may not ever be, impacted by the sulfate plume. Consequently, the implementation of any future mitigation measures under the Mitigation Plan is contingent upon groundwater monitoring indicating that the sulfate levels have increased such that additional water supplies, particularly the wells operated by Arizona Water Company, are reasonably likely to be impacted. Such impacts may not occur at all, and if any future action to implement mitigation measures is triggered, such action is not likely to be required for many years. Specific work completed according to the timetable in the Mitigation Plan consists of the following:

- Completed a water supply study to identify potential sources of an alternate drinking water supply, if needed as a contingency. The water supply study was reported to ADEQ in February 2016.
- Completed installation and testing of 12 monitoring wells at the front of the sulfate plume for the expanded groundwater monitoring program as reported<sub>2</sub> to ADEQ in August 2015. The wells were sampled for eight consecutive quarterly to establish baseline conditions for the wells.
- Preparation and submittal to ADEQ of Mitigation Performance Review reports<sub>3,4</sub> for 2014 and 2015 were submitted to ADEQ.
- Preparation and submittal to ADEQ of Annual Groundwater Monitoring reports<sub>5,6</sub> for 2015 and 2016, including reviews of the Arizona Department of Water Resources Well Registry.

In addition to recurring work such as groundwater monitoring and performance reviews, other work in progress for the Mitigation Plan includes the development of a conceptual design and implementation schedule for an alternate drinking water supply if needed as a contingency. The conceptual design and implementation schedule for an alternate supply, contingent upon whether sulfate levels trigger future action under the approved Mitigation Plan, is due to ADEQ by July 1, 2017.

<sup>&</sup>lt;sup>1</sup> Clear Creek Associates, 2016. Exploration Drilling and Hydraulic Testing for Water Supply Study. February 5, 2016.

<sup>&</sup>lt;sup>2</sup> Clear Creek Associates, 2015. Results of Well Installation and Groundwater Monitoring Through the Second Quarter of 2015 for the Expanded Groundwater Monitoring Program. August 19, 2015.

<sup>3</sup> Clear Creek Associates, 2015. Mitigation Performance Review for 2014. April 15, 2015.

<sup>4</sup> Clear Creek Associates, 2016. Mitigation Performance Review for 2015. April 15, 2016.

<sup>&</sup>lt;sup>5</sup> Clear Creek Associates, 2015. Annual Groundwater Monitoring Report for 2015. March 1, 2016.

<sup>6</sup> Clear Creek Associates, 2016. Annual Groundwater Monitoring Report for 2016. March 1, 2017.



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Robert J. Quintanar Manager, Operations 520.432.6209 rquintan@fmi.com

If you have any questions or need additional information regarding the Mitigation Plan, please contact me at (520) 432-6209 or our project manager Stuart Brown at (602) 366-8303.

Sincerely,

**Robert Quintanar** 

Manager

Copper Queen Branch

cc: David Lelsz, ADEQ

Stuart Brown/Freeport-McMoRan Corporation

Fernando Alday/Freeport Minerals Corporation, Copper Queen Branch

Sheila Deely/Freeport-McMoRan Corporation

Jim Norris/Clear Creek Associates



Janice K. Brewer Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007 (602) 771-2300 • www.azdeq.gov



Henry R. Darwin Director

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DEC 2 3 2014

Freeport-McMoRan CQB

December 19, 2014

Freeport-McMoRan Copper Queen Branch Attention: Robert Quintanar 36 West Highway 92 Bisbee, Arizona 85603-0527

Re: Review of Mitigation Plan for Sulfate with Respect to Drinking Water Supplies, Mitigation Order on Consent Docket No. P-121-07, dated May 28, 2014, prepared by Clear Creek Associates, P.L.C.

Dear Mr. Quintanar:

The Arizona Department of Environmental Quality received the following documents: 1)

Mitigation Plan for Sulfate with Respect to Drinking Water, 2) Response to ADEQ

Comments on the Feasibility Study and Mitigation Plan for Drinking Water Supplies that

May be Affected by Sulfate in the Future; and Revised Feasibility Study for Drinking

Water Supplies that May be Affected by Sulfate in the Future, on May 28, 2014. Freeport
McMoRan submitted this document in accordance with Mitigation Order on Consent Docket No.

P-121-07. The APP and Drywell Unit has reviewed the above documentation submitted by

Freeport-McMoRan Copper Queen Branch (CQB). The following is recommended:

#### Recommendations

- The Permits Section recommends that CQB submit a work plan to ADEQ for approval of the proposed groundwater monitoring well locations for the expanded groundwater monitoring program.
- 2. The Permits Section recommends that if a trigger level is exceeded, and the Mitigation Performance Review Reports are being submitted every five years, that the performance report submittals revert back to annually until the contingency actions are taken or until the sulfate concentration drops below the trigger level and sulfate concentration trends indicate sulfate will remain below the trigger level. Performance reporting may then go back to being submitted to ADEQ on a five year interval.

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## **Response to ADEO FS Report Comments**

The Permits Section has reviewed the response to ADEQ comments and the responses are adequate.

# Revised Feasibility Study for Drinking Water Supplies that May be Affected by Sulfate in the Future

The Permits Section has reviewed the revised FS and found that it is adequate.

Thank you for your efforts to comply with Arizona's environmental requirements. Should you have any comments or questions regarding this matter, please do not hesitate to contact me at (602) 771-7681 or mmk@azdeq.gov.

Sincerely,

Madeline Keller, Environmental Program Specialist Water Quality Data & Enforcement Unit

Cc: Jim Norris, Clear Creek Associates
Sheila Deely/Freeport-McMoRan
Michael Fulton, Director, Water Quality Division, ADEQ
Jerry Smit, Manager, Groundwater Section, ADEQ
David Haag, Senior Hydrologist, Groundwater Section, ADEQ
Facility file

From: Madeline Keller [mailto:Keller.Madeline@azdeq.gov]

Sent: Wednesday, March 11, 2015 11:05 AM

To: Hart, William

Subject: RE: Mitigation Order on Consent P-121-07

Good morning Bill,

I had a chance to speak with Mindi and she is ok with moving forward with the conditional approval. She and Fred exchanged an email regarding this.

If you have any other questions, please let me know.

Regards,

Madeline Keller
ADEQ-Environmental Program Specialist
Water Quality Division
Water Quality Enforcement Unit
1110 W. Washington St.
Phoenix, AZ 85007
(602) 771-7681
mmk@azdeq.gov

From: Hart, William [mailto:William Hart@fmi.com]

**Sent:** Thursday, March 05, 2015 9:56 AM

To: Madeline Keller

Subject: FW: Mitigation Order on Consent P-121-07

William Hart Freeport Minerals Corporation

From: Hart, William

Sent: Monday, March 02, 2015 5:26 PM

To: 'Mindi Cross'

Cc: 'Madeline Keller'; Julian Stewart

Subject: Mitigation Order on Consent P-121-07

Ms. Cross,

As you know Freeport Minerals Copper Queen Branch (CQB) submitted a Mitigation Plan with Respect to Drinking Water Supplies to Arizona Department of Environmental Quality (ADEQ) on May 28, 2014. On December 19, 2014, CQB received a letter from ADEQ regarding the review of that plan. The letter

from ADEQ contained two recommendations; 1) CQB should submit a Work Plan to ADEQ for approval of well locations, and 2)revise Section 4.2, second paragraph, with language to revert Mitigation Performance Review Reports to annual reports if a trigger level is exceeded when reporting is on the five year cycle.

CQB has prepared the Work Plan and revised the Mitigation Plan per ADEQ's request. CQB will be submitting both documents together along with a transmittal letter asking for formal approval if everything meets with ADEQ's expectations. In light of the minor comments and recommendations from ADEQ, is it possible that CQB can proceed under the assumption of conditional approval with respect to bi-annual sampling, annual groundwater monitoring reports and annual CAG meetings? Please review at your convenience, and if you wish to discuss further please contact me. Best Regards,

William S. Hart, R.G. Sr. Environmental Scientist Freeport Minerals Corporation Copper Queen Branch 36 W Highway 92

Bisbee, AZ, 85603-1047 Office: (520) 432-6206

Cell: (928) 215-5332

Email: william hart@fmi.com

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