



Idaho Department of Environmental Quality Point of Compliance Determination

March 22, 2011

Project Name: Idaho Cobalt Project (ICP)

Applicant: Formation Metals, Inc. (Formation)

Ground Water Potentially Affected: Ground water is present throughout the project area in multiple aquifers below and adjacent to the proposed mine; ground water of primary concern expresses as Bucktail Creek, a perennial stream which acts as a project boundary between the Idaho Cobalt Project and the Blackbird Mine Superfund Site.

Existing Ground Water Quality Conditions: Elevated levels of copper (significantly above the ground water quality standard of 1.3 mg/L) are present in the area of historical impacts, but not evident adjacent to the mineralized areas proposed for mining operations.

Project Location: The Idaho Cobalt Project is located approximately 45 road miles west from Salmon, Idaho, or 22 direct miles. Salmon is the county seat for Lemhi County and has a population of approximately 3,000 people. Salmon is the center for most of the transportation, tourism, ranching, logging, and mining industries in this area. The Project is centered on 45°07'50" North latitude and 114°21'42" West longitude and can be found on the Gant Mountain, 7.5 minute, United States Geological Survey (USGS) Topographic Map. The Project area is within or adjacent to Sections 8, 9, 15, 16, 17, 20, 21, and 22 Township 21 North, Range 18 East. The Formation property is composed of several mining claims within the Salmon-Cobalt Ranger District of the Salmon-Challis National Forest. The property consists of 241 unpatented mining claims for a total of 4,080 acres of mineral rights.

Authorities:

Pursuant to the provisions of subsection 401.01 of the Ground Water Quality Rule (IDAPA 58.01.11, hereafter referred to as the Rule), the Idaho Department of Environmental Quality (DEQ) has authority to set a point or points of compliance (POC), at the request of a mine operator. The points of compliance shall be set as close as possible to the boundary of the mining

area, taking into consideration the relevant factors set forth in subsection 401.03.a through 401.03.h of the Rule, but in no event shall the point(s) of compliance be within the boundary of the mining area.

DEQ reviewed relevant information presented in the Request for Setting Points of Compliance, Addendum #1, and Replacement Pages. DEQ also reviewed and considered other material and information related to the proposed activity, including:

1. Geochemical Baseline Report for the Idaho Cobalt Project, Revision II, September, 2004;
2. 2006 Water Quality Data Summary Idaho Cobalt Project, January 2007;
3. Draft Technical Memorandum dated August 22, 2007, SUBJECT: Recommended Modifications to Operational Monitoring Plan;
4. Technical Memorandum dated December 20, 2007, SUBJECT: Formation Capital Corporation Ground Water Dataset Through 2007;
5. 2007 Water Quality Data Summary Idaho Cobalt Project, March, 2008;
6. Final Environmental Impact Statement, Volume I and II, Idaho Cobalt Project, June 2008;
7. Idaho Cobalt Project Ground Water Background Concentration correspondence from Formation to DEQ, August 15, 2008;
8. 2008 Water Quality Data Summary Idaho Cobalt Project, March 2009;
9. Idaho Cobalt Project Plan of Operations, December 2009;
10. Operational Water Monitoring Plan, Appendix I, Idaho Cobalt Project Plan of Operations, December 2009;
11. DRAFT Post Mining Groundwater Capture Plan, Appendix M, Idaho Cobalt Project Plan of Operations, December 2009;
12. Project Construction Schedule, Appendix N, Idaho Cobalt Project Plan of Operations, December 2009; and
13. 2009 Water Quality Data Summary Idaho Cobalt Project, April, 2010; and
14. Comments received from the Idaho Mining Association and the Blackbird Mine Site Group (BMSG) during the public comment period (September 10, 2010 to October 11, 2010).

Based on the review of the POC application and associated information, DEQ establishes points of compliance for the Idaho Cobalt Project (ICP) in accordance with subsection 401 of the Rule.

Introduction

DEQ reviewed Formation's original POC application, dated February 26, 2010 and issued a completeness letter according to IDAPA 58.01.11.201.02a . At that time, DEQ also informed Formation of details of the application which required further clarification in order to further review the complete POC application. Formation submitted an addendum and replacement pages to their original POC application on June 4, 2010. DEQ reviewed this information, coordinated with and consulted both the Environmental Protection Agency (EPA) and the US Forest Service (USFS), Salmon-Challis National Forest. Afterward, DEQ conducted a thirty (30) day comment period to solicit public input on the proposed POCs. After review of the comments, DEQ determined to authorize the points of compliance as set forth in this document.

Points of Compliance

The proposed compliance points are located within the Bucktail watershed and the Big Flat area. The compliance points and companion monitoring wells are identified in the tables 1 and 2 below. The POCs are paired with indicator wells which will provide ground water quality information and dictate when the compliance point wells will be in use. A total of 17 compliance point wells and 19 indicator monitoring wells are approved in this POC Determination. The wells approved but not yet constructed shall be installed and monitored according to the finalized "Post Mining Ground Water Capture Plan" (Capture Plan) (DRAFT, November 2009).

Compliance Point and Indicator Monitoring Wells SS-7 and SS-9 were not originally proposed by Formation. However, DEQ determined the POC shall include these two additional locations to determine compliance in the Big Flat Area.

In the event there is a conflict between the approved Capture Plan and the points of compliance set forth in this document, DEQ shall consider changing the POCs to reflect the well locations in the final Capture Plan, as provided in the Rule section 401.08

Table 1 Approved Compliance Point Wells

Compliance Point Wells	
RCW-1	RCW-2
RCW-3	RCW-4
RCW-5	RCW-6
RCW-7	RCW-8
RCW-9	BFMW-1a
BFMW-4s	BFMW-4d
BFMW-5a	BFMW-10
BFMW-11	SS-7
SS-9	

RCW = Ram Compliance Well; BFMW = Big Flat Monitoring Well; SS = Seep/Spring Compliance Well; RCW = Ram Compliance Well

Table 2 Approved Indicator Monitoring Wells

Indicator Monitoring Wells	
RMW-1	RMW-2
RMW-3	RMW-5
RMW-6	RMW-7
RMW-8	RMW-9a
RMW-10	RMW-11
Indicator Monitoring Wells	
RMW-12	RMW-13
RMW-14	BFMW-3
BFMW-6	BFMW-8
BFMW-9	SS-7
SS-9	

RMW = Ram Monitoring Well; BFMW = Big Flat Monitoring Well; SS = Seep/Spring monitoring location

Sampling and Analysis

POC monitoring, sampling and analysis shall be conducted in accordance with the approved Operational Water Monitoring Plan.

Upper Tolerance Limits

Table 3 displays the Upper Tolerance Limits (UTLs) for existing wells. UTLs shall be calculated for all compliance point and indicator monitoring wells as set forth in the “Conditions Necessary to Ensure Points of Compliance Meet the Rule” section of this POC determination.

Table 3 Existing Indicator Wells with Associated UTL for dissolved and total copper

Location	Dissolved Copper (mg/L)	Total Copper (mg/L)
RMW-1	0.006	0.007
RMW-2	0.001	0.002
RMW-3	0.078	0.0815
RMW-6	0.044	0.0469
RMW-7	0.034	0.0345

RMW = Ram Monitoring Well

Interagency Coordination and Public Involvement

DEQ coordinated with EPA and the USFS in making this final POC determination. Table 4 displays the dates and participants in the various coordination meetings. In addition, DEQ conducted a thirty (30) day public comment period and solicited public input. DEQ received comments from the Idaho Mining Association and the Blackbird Mine Site Group, the collection of Responsible Parties at the CERCLA action at the Blackbird Mine.

Table 4 Coordination Meeting Dates and Involved Parties

Date	Parties Involved
January 12, 2010	EPA, USFS, DEQ, Formation
February 4, 2010	USFS, DEQ, Formation
May 11, 2010	DEQ, Formation
June 7, 2010	EPA, USFS, DEQ, Formation
June 18, 2010	EPA, USFS, DEQ
July 28, 2010	EPA, DEQ

Conditions Necessary to Ensure Points of Compliance Meet the Rule

1. Formation shall provide DEQ, EPA and the USFS a final site map identifying compliance point and indicator monitoring wells approved by DEQ in this document.
2. Formation shall install all wells identified in Tables 1 and 2 and shall establish and get approval from DEQ regarding UTLs for total and dissolved copper. UTLs shall be based on sampling results and calculated in order to ensure that the monitoring system represents the quality of background ground water that has not been affected by the mining activity and represents that quality of ground water passing the POCs, in accordance with section 401.04 of the Rule. UTLs shall be calculated and utilized in a manner that is consistent with the methodology in DEQ guidance entitled “Statistical Guidance for Determining Background Ground Water Quality and Degradation (May 2009)”.
3. Prior to construction of any POC or indicator wells, Formation shall provide DEQ documentation that shows that the following listed plans have been approved by the USFS, EPA or both, as appropriate:
 - a. Plan of Operations Supplement – North Portal Bench and Site Roads;
 - b. Post Mining Ground Water Capture Plan;
 - c. Geochemical Monitoring Plan;
 - d. Waste Rock Amendment Plan;
 - e. Wetlands Monitoring Plan;
 - f. Copper Loading Demonstration Plan;
 - g. Tailings and Waste Storage Facility, Ponds, & Stockpile Design Package; and
 - h. Water Treatment Plant and Discharge Pipeline.
3. Formation shall notify DEQ 72 hours prior to construction of any indicator or point of compliance wells.
4. Formation shall provide drill reports and associated information to the Interagency Mining Task Force for the ICP upon well completion.
5. Formation shall notify DEQ prior to any sampling of POC or indicator well.

Right to Appeal Final Determination

The final Points of Compliance Determination may be appealed by submitting a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5), and the Rules of Administrative Procedure Before the Board of Environmental Quality, IDAPA 58.01.23, within 35 days of the date of the final determination.

Questions regarding the actions taken in this determination should be directed to Troy Saffle, Idaho Falls Regional Office at 208.528.2650 or email at troy.saffle@deq.idaho.gov.



Barry N. Burnell
Administrator
Water Quality Division

Appendix A

Point of Compliance Wells, Indicator Wells and Surface Water Sampling Locations Idaho Cobalt Project

