Record of Modification

Phase 1 Site Characterization Sampling and Analysis Plan Field Activities
Columbia Fall Aluminum Company RI/FS
Phase 1 SAP MOD #2

Instructions to Requester: **Submit to Roux RI Manager or Roux RI/FS Project Manager**
Roux RI Manager will maintain legible copies in a binder that can be accessed by personnel.

Project Work Plan/QAPP (check one):

[X] 2015 Phase 1 SAP

[ ] SOP (Title, # and approval date): _____

Requester: Amy Hoffman, Field Manager Date: 6/20/2016

Applicable section of SAP/SOP:

SAP Section 4.7: Monitoring Well Installation

Description of Modification:

Deep Monitoring Well CFMW-23a will not be installed. The boring for this location was drilled to a depth of 181 ft below land surface, and the well will not be installed for the reasons described below. Instead, the borehole will be grouted to land surface.

Rational for Modifications / Potential Implications of Modifications:

During the drilling of the borehole for deep well CFMW-23a, bedrock was encountered at a depth of 148 ft. We drilled approximately 33 ft into the rock, and no water bearing zones were encountered. Above the dry rock, the unconsolidated deposits in the boring were wet from 116 ft down to the top of the rock. Note that existing shallow well Cfmw-23 (15 ft from the borehole for Cfmw-23a) is screened from 137.5 to 143.5 ft, and recently had a measured depth to water of 113, which is expected to decline as the dry weather sets in [note that depth to water was 125 ft in September 2013, during the USEPA site reassessment performed by Weston].

Based on these findings, regarding the shallow depth to rock, the limited saturated thickness of unconsolidated deposits, and the screen setting of the existing well; it does not make sense to install a well at location CFMW-23a. Therefore, the boring will abandoned by grouting the borehole to land surface.

Duration of Modification (Check one):

[X] Temporary

Date(s) 6/20-21/2016

Sample Numbers Affected MW-23a

[ ] Permanent (Proposed Text Modification Section) Effective Date: _____

Proposed Text Modifications in Associated Document:

Data Quality Indicator (check one) – Please reference definitions on next page for direction on selecting data quality indicators:

[X] **Not Applicable** [ ] **Reject** [ ] **Low Bias** [ ] **Estimate** [ ] **High Bias** [ ] **No Bias**

Roux Project Manager Approval: Andrew Baris Date: 6/20/2016
(Roux RI/FS Project Manager or designate)

EPA Review and Approval: Mike Cirian Date: _____
(USEPA RPM or designate)

DATA QUALITY INDICATOR DEFINITIONS

Reject – Samples associated with this modification form are not useable. The conditions outlined in the modification form adversely affect the associated sample to such a degree that the data are not reliable.

Low Bias – Samples associated with this modification form are useable, but results are likely to be biased low. The conditions outlined in the modification form suggest that associated sample data are reliable, but estimated low.

Estimate – Samples associated with this modification form are useable, but results should be considered approximations. The conditions outlined in the modification form suggest that associated sample data are reliable, but estimates.

High Bias – Samples associated with this modification form are useable, but results are likely to be biased high. The conditions outlined in the modification form suggest that associated sample data are reliable, but estimated high.

No Bias – Samples associated with this modification form are useable as reported. The conditions outlined in the modification form suggest that associated sample data are reliable as reported.