ENVIRONMENTAL CONSULTING & MANAGEMENT
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January 5, 2016

***DRAFT***

Mike Cirian, P.E.
USEPA
108 East 9th Street
Libby, Montana 59923

Re: Lead Delineation Sampling and Analysis Plan
Columbia Falls Aluminum Company
Columbia Falls, Montana

Dear Mr. Cirian:

On behalf of Columbia Falls Aluminum Company (CFAC), Roux Associates, Inc. (Roux Associates) is submitting this letter to request approval from the United States Environmental Protection Agency (USEPA) to conduct investigation activities aimed at evaluating the potential presence of, and delineation of, an area of surface soil containing leachable lead at concentrations exceeding the Resource Conservation and Recovery Act (RCRA) criteria for definition of a hazardous waste. As discussed in John Stroiazzo's call to you on December 21, 2015, and described below, the need for this work was determined based upon recent information provided to CFAC by Calbag Resources (Calbag). The Scope of Work planned under this lead delineation work plan (Work Plan) will be conducted within a portion of the CFAC Remedial Investigation/Feasibility Study (RI/FS) Site boundary in accordance with the Administrative Order on Consent (AOC) between CFAC and the USEPA dated November 30, 2015. Specifically, CFAC has identified the delineation of lead in soil within the specific area of the Site described below, as an additional data need pursuant to Paragraph 42a of the AOC.

**BACKGROUND**

Calbag is conducting ongoing demolition activities of the CFAC Main Plant buildings. In support of the ongoing demolition activities, Calbag collected numerous surface soil samples adjacent to buildings to evaluate the baseline conditions and industrial hygiene considerations for the demolition activities. These sampling activities were conducted solely for Calbag's use in planning the demolition work and were not conducted under the RI/FS Work Plan and/or Sampling and Analysis Plan prepared by Roux Associates and CFAC.

On December 18, 2015, Calbag notified CFAC that one of the surface soil samples (identified as sample PLD-172) contained leachable lead, determined via the Toxicity

Characteristic Leaching Procedure (TCLP), at a concentration which exceeded the 5 mg/L Resource Conservation and Recovery Act (RCRA) criteria for definition of hazardous waste. Calbag provided CFAC and Roux Associates with the laboratory sample results which indicated a concentration of 24.2 ppm for TCLP lead. Calbag also provided a map which indicated the sample location was located approximately 15 feet north of the Paste Plant. Calbag indicated that sample PLD-172 was the only soil sample Calbag collected out of an approximate 15 samples around the Paste Plant that had the characteristics of a hazardous waste. No additional sample results were provided to Roux Associates or CFAC.

Based upon the information provided by Calbag, it appears likely that the TCLP lead exceedance at PLD-172 may be an isolated, localized occurrence. Therefore, CFAC believes it may be desirable to delineate the soils exceedance so that they can be removed prior to Calbag proceeding with demolition / land disturbance activities in this area.

**PROPOSED SAMPLING PLAN**

This section describes the proposed sampling activities, reporting, and schedule associated with this Work Plan.

***Sample Collection***

Roux Associates has developed a plan to collect additional soil data in the vicinity of the PLD-172 location indicated by Calbag. The objective of the additional soil sampling plan is to verify the presence of lead at concentrations exceeding the hazardous waste criteria in the surface soil, delineate the potential surface impacts, if any, and determine if the potential impacts are present in the shallow subsurface or deeper soil zones. The additional sampling will be conducted in accordance with the sampling procedures outlined in the Remedial Investigation/Feasibility Study (RI/FS) Work Plan and Phase I Sampling and Analysis Plan (Phase I SAP), both dated November 23, 2015 and included as part of the Administrative Order on Consent between CFAC and the USEPA. The additional sampling will also be conducted in accordance with Health and Safety Plan dated December 22, 2015.

The approximate location of PLD-172 and the proposed sampling locations for delineation purposes are shown on Figure 1 attached to this Work Plan. Soil samples at each location will be collected by Roux Associates and/or Hydrometrics, Inc. Samples will be collected using a hand auger or other hand drilling tools from the 0 to 0.5 feet below land surface (ft-bls) interval to evaluate surface conditions and from the 0.5 to 2 ft-bls interval to evaluate shallow subsurface conditions. The proposed sampling approach is consistent with the sampling design in the RI/FS Work Plan and Phase I SAP.

For horizontal delineation purposes, surface and shallow subsurface samples are planned to be collected at the eight locations shown in Figure 1. One location will be at the approximate location of PLD-172 indicated by Calbag in an effort to confirm the results

reported by Calbag. Four locations will be approximately five feet away from PLD-172 to the north, south, east, and west, respectively; and three will be approximately 10 feet away to the north, east and west, respectively (note that a 10 foot sample will not be collected to the south due to proximity of the Paste Plant building as shown in Figure 1).

All of the samples described above will be sent under chain-of-custody to Energy Laboratories, Inc. in Billings, Montana. Initially, the samples collected at PLD-172 and at locations 5 feet away from PLD-172 will be analyzed for TCLP lead and total lead. If the results from the analysis of any of the delineation samples collected 5 feet from PLD-172 indicate concentrations exceeding the RCRA hazardous waste limit of 5 mg/L, then the sample(s) from a distance of 10 feet away from PLD-172 in the direction of the exceedance will be analyzed for TCLP lead and total lead. If the results from the 10 foot delineation samples indicate leachable lead concentrations above the RCRA hazardous waste limit of 5 mg/L, USEPA will be verbally notified and a plan to complete the delineation of lead will be prepared.

If the sampling results indicate that leachable lead exceeds the RCRA limit within the 0.5 to 2 ft-bls interval, additional vertical delineation will be required. A plan for completing such vertical delineation will be prepared and submitted to USEPA.

***Reporting***

Results of the lead delineation activities described above will be provided to the USEPA in a summary memorandum to be submitted within 30 days of the receipt of the final laboratory data. The summary memorandum will present and evaluate the data. If the sampling results confirm that lead is present within the surface soils (0 – 0.5 ft-bls) at concentrations above the RCRA hazardous waste limit of 5 mg/L and within a localized area around PLD-172, CFAC will prepare and submit a plan to USEPA for removal of the soil. The data collected during this work will be incorporated into the RI/FS database and will be included as part of the overall data evaluated during the RI/FS activities described in the RI/FS Work Plan and Phase I SAP.

***Schedule***

In accordance with paragraph 56b of the AOC, CFAC is providing notification that it will commence the sampling activities described within this Work Plan after 30 days from USEPA's approval of the Scope of Work outlined herein. However, as described in the background section above, Calbag is currently conducting demolition activities of the Main Plant Area. CFAC therefore is requesting that USEPA approve CFAC to perform the sampling activities described in this Work Plan as soon as possible following approval of the Scope of Work, even if less than the 30 days noted above, so that this information could be generated prior to Calbag commencing demolition in this area.

**DRAFT**

Please contact us if you have any questions or comments on the proposed Scope of Work outlined within this Work Plan.

Sincerely,

ROUX ASSOCIATES, INC.

Michael Ritorto
Senior Hydrogeologist
RI Manager

Andrew Baris
Principal Hydrogeologist / Vice President
RI/FS Manager

Attachment: Figure 1 – Proposal Sampling Locations

cc: John Stroiazzo, Glencore
Steve Wright, CFAC
Lisa DeWitt, Montana Department of Environmental Quality

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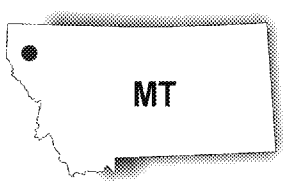
## Legend

- Approximate location of Sample PLD-172 Collected by Calbag
- Proposed 5' Delineation Sampling Locations
- Contingency 10' Sampling Locations




N

5 0 5 10
Feet

Title:

**PROPOSED SAMPLING LOCATIONS FOR LEAD DELINEATION**

2000 ALUMINUM DRIVE
COLUMBIA FALLS, MONTANA

Prepared For:
COLUMBIA FALLS ALUMINUM COMPANY, LLC

ROUX
ROUX ASSOCIATES, INC.
Environmental Consulting & Management

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| Compiled by: A.M. | Date: 28DEC2015 | FIGURE |
| Prepared by: A.M. | Scale: 1 "= 28 ' | 1 |
| Project Mgr: A.B. | Office: NY | |
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