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March 11, 2016

Sherri Stumbo
USDA Forest Service
4350 South Cliffs Dr.
Pocatello, ID 83204

Subject: Biological Selenium Removal Treatment Technology Fluidized Bed Bioreactor Pilot Study February 2016 Progress Report

Dear Sherri,

This progress report summarizes key activities in February 2016 associated with the fluidized bed bioreactor (FBR) pilot study located near Hoopes Spring. This pilot study is being conducted as part of the Smoky Canyon Mine Remedial Investigation/Feasibility Study (RI/FS) to provide information on the effectiveness of the active biological treatment system in removing selenium and other COPCs from South Fork Sage Creek Springs and Hoopes Spring. Operation and monitoring of the pilot study follows the *Pilot Study Work Plan and Sampling and Analysis Plan (Work Plan/SAP), Biological Selenium Removal Treatment Technology Fluidized Bed Bioreactor* (prepared by Formation Environmental, dated September 2014, with revised text and tables dated March 5, 2015), along with Work Plan/SAP Addenda 01, 02, and 03 which Simplot submitted to the Agencies (and were subsequently approved) in the summer of 2015, and Addendum 04 submitted to and approved by the Agencies in January 2016.

Following the treatment system shutdown in late November 2015, the system was restarted on January 17, 2016 and operated continuously through February 10, 2016, when it was shut down in order to optimize the nutrient feeds to the system. Before the system was shut down, sample collection was conducted on January 27, 2016 (Week 0), February 3, 2016 (Week 1), and February 9, 2016 (Week 2). Since the system was shut down, various adjustments and refinements have been made. The system has been restarted, with Week 0 sampling planned in the near future when the system has stabilized.

Identification of Deliverables and Data Transmittals

At the time of this report no laboratory data have been received for samples collected in January and February. Field data collected on February 3 (Week 1) and February 9 (Week 2 are presented in Table 1.0. Field data from the Week 0 sampling on January 27, 2016 were provided with the previous monthly report.

Upcoming Activities

The following activities associated with the FBR pilot study are planned through April 2016, or have occurred as of the date of this progress report:

- Initiation of performance monitoring in mid to late March (Week 0 monitoring as specified in Work Plan/SAP Addendum 01); and
- Continuation of weekly monitoring.

Please contact me if there are questions regarding this monthly progress report.

Sincerely,

Monty Johnson
Environmental Engineering Manager

cc: Sherri Stumbo – USDA Forest Service, 410 East Hooper, Soda Springs, ID 83276 (2 copies)
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Table 1.0
Field Water Quality Data

Biological Selenium Removal Treatment Technology
Fluidized Bed Bioreactor

Week 1		Station >>	Influent	Effluent
		Sample ID >>	SC0216-LSSHS-IN001	SC0216-LSSHS-EF001
		Date >>	2/3/2016	2/3/2016
Analyte	**Units**	**Design Basis**		
Dissolved Oxygen	mg/L	≥ 6	7.44	8.58
ORP	mV		110	197
pH	SU	6 - 9	8.46	7.6
Specific Conductance	umhos/cm		452	460
Temperature	C	8 - 17	12.59	12.13
Turbidity	NTU	< 2	**2.2**	**4.6**

Week 2		Station >>	Influent	Effluent
		Sample ID >>	SC0216-LSSHS-IN002	SC0216-LSSHS-EF002
		Date >>	2/9/2016	2/9/2016
Analyte	**Units**	**Design Basis**		
Dissolved Oxygen	mg/L	≥ 6	8.71	7.74
ORP	mV		193	199
pH	SU	6 - 9	8	7.73
Specific Conductance	umhos/cm		441	459
Temperature	C	8 - 17	12.53	12.36
Turbidity	NTU	< 2	1	**8.2**