

Atlantic Richfield Company

Mike Mc Anulty

Liability Manager

317 Anaconda Road

Butte MT 59701

Direct (406) 782-9964

Fax (406) 782-9980

August 30, 2023

Nikia Greene
Remedial Project Manager
US EPA – Montana Office
Baucus Federal Building
10 West 15th Street, Suite 3200
Helena, Montana 59626

Erin Agee
Senior Assistant Regional Counsel
US EPA Region 8 Office of Regional Counsel
CERCLA Enforcement Section
1595 Wynkoop Street
Denver, CO 80202
Mail Code: 8ORC-C

Daryl Reed
DEQ Project Officer
P.O. Box 200901
Helena, Montana 59620-0901

Jonathan Morgan, Esq.
DEQ, Legal Counsel
P.O. Box 200901
Helena, Montana 59620-0901

RE: Butte Priority Soils Operable Unit (BPSOU) Unreclaimed and Insufficiently Reclaimed Sites Request for Change 2023-01

Agency Representatives:

On behalf of Atlantic Richfield Company, the BPSOU Unreclaimed and Insufficiently Reclaimed Sites Request for Change (RFC) 2023-01 is being submitted for review and consideration. The referenced RFC describes the interim field sampling approach to determine the extents of preliminary waste boundaries activities until a field X-ray fluorescence data regression method and path forward is finalized.

If you have any questions or comments, please call me at (907) 355-3914.

Sincerely,



Mike Mc Anulty
Liability Manager
Remediation Management Services Company
An affiliate of **Atlantic Richfield Company**

Atlantic Richfield Company

317 Anaconda Road

Butte MT 59701

Direct (406) 782-9964

Fax (406) 782-9980

Mike Mc Anulty

Liability Manager

Cc: Chris Greco / Atlantic Richfield – email
Josh Bryson / Atlantic Richfield – email
Loren Burmeister / Atlantic Richfield – email
Dave Griffis / Atlantic Richfield – email
Jean Martin / Atlantic Richfield – email
Irene Montero / Atlantic Richfield – email
David A. Gratson / Environmental Standards – email
Mave Gasaway / DGS – email
Adam Cohen / DGS – email
Brianne McClafferty / Holland & Hart – email
David Shanight / CDM – email
Curt Coover / CDM – email
James Freeman / DOJ – email
Amy Steinmetz / DEQ – email
Dave Bowers / DEQ – email
Katie Garcin-Forba / DEQ – email
Jim Ford / NRDP – email
Pat Cunneen / NRDP – email
Katherine Hausrath / NRDP – email
Ted Duaiame / MBMG – email
Gary Icopini / MBMG – email
Becky Summerville / MR – email
John DeJong / UP – email
Robert Bylsma / UP – email
John Gilmour / Kelley Drye – email
Leo Berry / BNSF – email
Robert Lowry / BNSF – email
Brooke Kuhl / BNSF – email
Lauren Knickrehm / BNSF – email
Doug Brannan / Kennedy Jenks – email
Matthew Mavrinac / RARUS – email
Harrison Roughton / RARUS – email
Brad Gordon / RARUS – email
Mark Neary / BSB – email
Eric Hassler / BSB – email
Julia Crain / BSB – email
Brandon Warner / BSB – email
Abigail Peltomaa / BSB – email
Eileen Joyce / BSB – email
Sean Peterson/BSB – email
Josh Vincent / WET – email
Scott Bradshaw / W&C – email
Emily Stoick / W&C – email



A bp affiliated company

Atlantic Richfield Company

Mike Mc Anulty

Liability Manager

317 Anaconda Road

Butte MT 59701

Direct (406) 782-9964

Fax (406) 782-9980

Pat Sampson / Pioneer – email

Andy Dare / Pioneer – email

Karen Helfrich / Pioneer – email

Randa Colling / Pioneer – email

Ian Magruder / CTEC – email

Joe Griffin / CTEC – email

CTEC of Butte – email

Scott Juskiewicz / Montana Tech – email

File: MiningSharePoint@bp.com - email

BPSOU SharePoint - upload

ATLANTIC RICHFIELD COMPANY

RFC - REQUEST FOR CHANGE

DATE August 30, 2023	RFC NO. RFC-UR-2023-01 RFC-IR-2023-01	CONTRACTOR Pioneer Technical Services, Inc.	RFP NO. NA
CONTRACT DESCRIPTION: Insufficiently Reclaimed Sites and Unreclaimed Sites Scope of Work, Appendix D, Attachment C, Section 7.0 and Section 8.0, respectively, of the BPSOU Consent Decree (EPA, 2020).		ATTENTION OF: Nikia Greene and Daryl Reed	
SUBJECT: 2023 UR QAPP and 2023 IR QAPP Field Delineation of Extent of Waste <input type="checkbox"/> ELECTRICAL <input type="checkbox"/> MECHANICAL <input type="checkbox"/> CIVIL <input type="checkbox"/> STRUCTURAL/ARCHITECTURAL <input type="checkbox"/> INSTRUMENTATION <input checked="" type="checkbox"/> ENVIRONMENTAL			
OPERABLE UNIT: Butte Priority Soils Operable Unit (BPSOU) MAJOR WORK TASK: 2023 Unreclaimed and Insufficiently Reclaimed Sites Remedial Boundary Delineation Procedure		REFERENCE DWG., P.O., TAG, SPECIFICATION NO. (FOR DEVIATIONS OR DEFICIENCIES) ETC: BPSOU 2023 Final Unreclaimed Sites Quality Assurance Project Plan and BPSOU 2023 Final Insufficiently Reclaimed Sites Quality Assurance Project Plan	
PROBLEM DESCRIPTION: Section 3.4 Field Delineation of Extent of Waste Sampling Objectives, as referenced in both the 2023 <i>Final Unreclaimed Sites Quality Assurance Project Plan</i> (2023 UR QAPP; Atlantic Richfield Company, 2023a) and the 2023 <i>Final Insufficiently Reclaimed Sites Quality Assurance Project Plan</i> (2023 IR QAPP; Atlantic Richfield Company, 2023b), describes additional field sampling and analysis to determine the extents of preliminary waste boundaries for proposal in site specific remedial action work plans (RAWPs). The procedure relies on field XRF analysis and stipulates a minimum laboratory confirmation sample frequency of 1 sample for every 20 field x-ray fluorescence (XRF) samples (or one per site). The minimum laboratory confirmation frequency was proposed with the assumption that field delineation of waste would occur in 2023, using approved XRF Field Limits (confirmed through regression analysis at a designated statistical confidence), as described in the technical memorandum <i>Field XRF to Laboratory Correlation and Regression Analysis Procedure for Unreclaimed (UR) and Insufficiently Reclaimed (IR) Sites</i> (Atlantic Richfield Company, 2023c). To allow additional time for Agency consideration of the proposed regression method and path forward, while also facilitating scheduled field remediation activities for 2023, this request for change (RFC) is proposed as described below. 2023 UR QAPP (SECTION 3.4) AND 2023 IR QAPP (SECTION 3.4) PROPOSED MODIFICATION: In lieu of obtaining a minimum of 1 laboratory confirmation sample for every 20 field XRF samples (or one per site), laboratory confirmation sample frequency for field delineation of waste will follow logic as described in Section 3.2 of the respective 2023 QAPP and summarized as provided in Attachment 1 (Unreclaimed Sites) and Attachment 2 (Insufficiently Reclaimed Sites). The modification, as proposed, allows Atlantic Richfield Company to use laboratory-generated data to delineate waste boundaries where field XRF concentrations are near the required action limits. Field XRF data may still be used to delineate waste boundaries, but only where exhibited concentrations are outside the pertinent action level confirmation boundaries (plus or minus 35% Unreclaimed areas or plus or minus 25% Insufficiently Reclaimed areas). Upon Agency approval, changes described herein will be implemented for scheduled field remediation activities until the proposed regression method and path forward are finalized. A preliminary list of sites where the proposed method may be implemented in 2023 includes but is not limited to UR-39/BRES No. 08, BRES No. 37, BRES No. 38, UR-01, and UR-40. Additional sites may be identified and communicated to the Agencies prior to implementation. All field XRF and laboratory data will be presented in site-specific RAWPs, to support Agency approval of proposed boundaries. Final data will be presented in site-specific construction completion reports.			



REFERENCES:

- Atlantic Richfield Company, 2023a. Butte Priority Soils Operable Unit (BPSOU) 2022 Final Unreclaimed Sites Quality Assurance Project Plan. Atlantic Richfield Company. June 14, 2023.
- Atlantic Richfield Company, 2023b. Butte Priority Soils Operable Unit (BPSOU) 2023 Final Insufficiently Reclaimed Sites Quality Assurance Project Plan. Atlantic Richfield Company. June 14, 2022.
- Atlantic Richfield Company, 2023c. Butte Priority Soils Operable Unit (BPSOU) Field XRF to Laboratory Correlation and Regression Analysis Procedure for Unreclaimed (UR) and Insufficiently Reclaimed (IR) Sites. Prepared by Pioneer Technical Services, Inc. July 3, 2023.
- EPA, 2020. Consent Decree for the Butte Priority Soils Operable Unit. Partial Remedial Design/Remedial Action and Operation and Maintenance. U.S. Environmental Protection Agency. February 13, 2020. Available at <https://www.co.silverbow.mt.us/2161/ButtePriority-Soils-Operable-Unit-Conse>.

ATTACHMENTS:

- Attachment 1: 2023 Unreclaimed QAPP Laboratory Confirmation Sample Submittal Evaluation Logic
- Attachment 2: 2023 Insufficiently Reclaimed QAPP Laboratory Confirmation Sample Submittal Evaluation Logic

	<input type="checkbox"/> Design Deficiency <input checked="" type="checkbox"/> Engineering Change Request <input checked="" type="checkbox"/> Agency Directive <input type="checkbox"/> Construction Deficiency <input type="checkbox"/> Schedule	<input type="checkbox"/> Material Substitution <input type="checkbox"/> Vendor Material Deficiency <input type="checkbox"/> Scope <input type="checkbox"/> Clarification/Information <input type="checkbox"/> Other Final Design Document	
--	---	---	--

RESPONSE/DIRECTIVE

Project Manager *Scott Sam* Date 08/30/2023

Atlantic Richfield Co. Representative *Mike McNulty* Date 08/30/2023

EPA Representative _____ Date _____

DEQ Representative _____ Date _____

- Cc: Chris Greco / Atlantic Richfield – email
 Josh Bryson / Atlantic Richfield – email
 Loren Burmeister / Atlantic Richfield – email
 Dave Griffis / Atlantic Richfield – email
 Jean Martin / Atlantic Richfield – email
 Irene Montero / Atlantic Richfield – email
 David A. Gratson / Environmental Standards – email
 Mave Gasaway / DGS – email
 Adam Cohen / DGS – email
 Brianne McClafferty / Holland & Hart – email
 David Shanight / CDM – email
 Curt Coover / CDM – email
 James Freeman / DOJ – email
 Amy Steinmetz / DEQ – email
 Dave Bowers / DEQ – email



Carolina Balliew / DEQ – email
Katie Garcin-Forba / DEQ – email
Jim Ford / NRDP – email
Pat Cunneen / NRDP – email
Katherine Hausrath / NRDP – email
Ted Duaine / MBMG – email
Gary Icopini / MBMG – email
Becky Summerville / MR – email
John DeJong / UP – email
Robert Bylsma / UP – email
John Gilmour / Kelley Drye – email
Leo Berry / BNSF – email
Robert Lowry / BNSF – email
Brooke Kuhl / BNSF – email
Lauren Knickrehm / BNSF – email
Doug Brannan / Kennedy Jenks – email
Matthew Mavrinac / RARUS – email
Harrison Roughton / RARUS – email
Brad Gordon / RARUS – email
Mark Neary / BSB – email
Eric Hassler / BSB – email
Julia Crain / BSB – email
Brandon Warner / BSB – email
Abigail Peltomaa / BSB – email
Eileen Joyce / BSB – email
Sean Peterson/BSB – email
Josh Vincent / WET – email
Scott Bradshaw / W&C – email
Emily Stoick / W&C – email
Pat Sampson / Pioneer – email
Andy Dare / Pioneer – email
Karen Helfrich / Pioneer – email
Randa Colling / Pioneer – email
Ian Magruder/ CTEC – email
Joe Griffin / CTEC – email
CTEC of Butte – email
Scott Juskiewicz / Montana Tech – email

File: MiningSharePoint@bp.com - email
BPSOU SharePoint - upload
RFC Logbook



2023 Unreclaimed Sites Quality Assurance Project Plan (QAPP)

Laboratory Confirmation Sample Submittal Evaluation Logic

XRF results for all depth interval composite samples (0-2", 2-6", and 6-12" bgs, or equivalent)

Human Health	UR Residential			UR Recreational			UR Commercial		
	Action Level	-35% VALUE	+35% VALUE	Action Level	-35% VALUE	+35% VALUE	Action Level	-35% VALUE	+35% VALUE
Arsenic	250	162.5	337.5	1,000	650	1,350	500	325	675
Lead	1,200	780	1,620	2,300	1,495	3,105	2,300	1,495	3,105
Mercury	147	95.55	198.45	NA			NA		

BPSOU Stormwater	Action Level	-35% VALUE	+35% VALUE
Arsenic	200	130	270
Cadmium	20	13	27
Copper	1,000	650	1,350
Lead	1,000	650	1,350
Mercury	10	6.50	13.50
Zinc	1,000	650	1,350
Any analyte	5,000		

1 or more exceed +35% action level

No confirmation sample needed. Evaluate using Table 2.

1 or more within ±35% action level

Send confirmation sample to Pace

All below -35% action level

No confirmation sample needed. Evaluate using Table 2.

3 or more exceed +35% screening level -OR- 1 or more exceed 5,000 ppm

No confirmation sample needed.

1 or more within ±35% action level -AND- 2 or more within ±35% or exceed +35% screening level

Send confirmation sample to Pace

4 or more below -35% screening level

No confirmation sample needed.

Count the total number of natural XRF and natural laboratory samples for each site. Ensure a minimum of 1/20 (5%) XRF samples collected are submitted for laboratory confirmation. If the 5% minimum is not met, randomly select additional XRF samples to send to Pace for confirmation.

Note: When XRF results are <LOD, compare error value to ±35% action/screening level.

2023 Insufficiently Reclaimed Sites Quality Assurance Project Plan (QAPP)

Laboratory Confirmation Sample Submittal Evaluation Logic

XRF results for all depth interval composite samples (0-6" and 6-18" bgs, or equivalent)

Table 1. BPSOU Soil Action Levels for Human Health (action levels depend on land use)						
Human Health	IR Recreational			IR Commercial		
	Action Level	-25% VALUE	+25% VALUE	Action Level	-25% VALUE	+25% VALUE
Arsenic	1,000	750	1,250	500	375	625
Lead	2,300	1,725	2,875	2,300	1,725	2,875

Table 2. BPSOU Soil Screening Criteria for Storm Water COCs (applies to all land uses)			
BPSOU Stormwater	Action Level	-25% VALUE	+25% VALUE
Arsenic	200	150	250
Cadmium	20	15	25
Copper	1,000	750	1,250
Lead	1,000	750	1,250
Zinc	1,000	750	1,250
Any analyte	5,000		

1 or more exceed +25% action level

No confirmation sample needed. Evaluate using Table 2.

1 or more within ±25% action level

Send confirmation sample to Pace

All below -25% action level

No confirmation sample needed. Evaluate using Table 2.

3 or more exceed +25% screening level
-OR-
1 or more exceed 5,000 ppm

No confirmation sample needed.

1 or more within ±25% action level
-AND-
2 more within ±25% or exceed +25% screening level

Send confirmation sample to Pace

3 or more below -25% screening level

No confirmation sample needed.

Count the total number of natural XRF and natural laboratory samples for each site. Ensure a minimum of 1/20 (5%) XRF samples collected are submitted for laboratory confirmation. If the 5% minimum is not met, randomly select additional XRF samples to send to Pace for confirmation.

Note:
When XRF results are <LOD, compare error value to ±25% action/screening level.