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Butte Priority Soils Operable Unit (BPSOU) Draft Final Unreclaimed Sites – Field Sampling Plan (FSP) UR 42 – Area near Walkerville Playground

Mike McAnulty

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August 18, 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) Draft Final Unreclaimed Sites – Field Sampling Plan (FSP) UR 42 – Area near Walkerville Playground

Dear Agency Representatives:

I am writing to you on behalf of Atlantic Richfield Company (Atlantic Richfield) to submit the Butte Priority Soils Operable Unit (BPSOU) Draft Final Unreclaimed (UR) Sites – Field Sampling and Investigation Plan (FSP) for UR 42 – Area near Walkerville Playground (Butte Remediation Evaluation System [BRES] No. 20).

As described in Appendix D, Attachment C to the 2020 BPSOU Consent Decree (CD) (available at <https://www.co.silverbow.mt.us/2161/ButtePriority-Soils-Operable-Unit-Consent-Decree>), known areas listed as UR Solid Media Sites within the BPSOU, along with additional sites identified for remedial actions, may have potentially been impacted by historical mining. The UR sites may pose a threat to human health, contribute metals-impacted sediments to existing or planned wet weather control features, or contribute to the degradation of surface water quality.

A site evaluation will be performed using the means and methods provided in the Atlantic Richfield Final *UR Sites Quality Assurance Project Plan (QAPP)* (referred to herein as UR Sites QAPP; see Attachment 1). The results from the site evaluations will be used to prepare a site declaration and assist with determination of site-specific response actions. Remedial action will be performed following Agency approval of pertinent site-specific remedial action work plans. A link to the UR Sites QAPP is provided in Attachment 1.

This FSP provides details related to the field evaluation of the UR-42 area near the Walkerville Playground (BRES No. 20). The sampling boundary and proposed soil sampling stations are shown on Figure 1.



Field sampling will be performed to determine whether contaminants are present, whether the site is contributing metals-impacted sediment to existing or planned wet weather control features, whether historical mine waste at the site is contributing to the degradation of surface water quality, and whether there are previously unidentified conditions contributing to site deficiencies.

The site evaluation is anticipated to be completed in 2023, after which a site summary and declaration will be prepared to present all available data. The site will be evaluated following the residential land use Soil Action Levels for Human Health and Soil Screening Criteria for Waste Identification under the UR Sites QAPP. If required, remedial action will be performed following Agency approval of pertinent site-specific remedial action work plans.

A list of previously approved FSPs is provided in Attachment 2.

The crosswalk list provided below references where pertinent field sample collection and documentation elements are discussed.

| Element | Reference Location | |
|---|--------------------|------------------------|
| | FSP | UR Sites QAPP |
| Title Page and Approval Authority | Approval Letter | Page i |
| Site Introduction and Appropriate Agency-Approved QAPP* Reference | Page 1, Page 2 | |
| Data Quality Objectives | | Section 2.5 |
| Site and Sampling Objectives | Figure 1 | Section 3.0 |
| Proposed Schedule for Site Field Work | Page 2 | |
| Site Figure | Figure 1 | |
| Sampling Procedures and Standard Operating Procedures (SOPs) | | Section 3.2 Appendix B |
| Sample Analysis Methods | | Section 3.3 |

Background

The UR-42 site is located east of Walkerville Playground (Butte Remediation Evaluation System [BRES] No. 20) and between Dunn Avenue and Clayton Street in Walkerville, Montana. As described in the BPSOU *Source Areas and Reclaimed Boundary Adjustments*¹, reclamation was originally completed within the existing adjacent BRES No. 20 site boundary in 1988 and included site grading and capping with cover soil and revegetating the area. Reclamation occurred again in 2013 and included storm water control improvements. A gravel berm captures flow from Clayton Street and

¹ Atlantic Richfield Company and Butte-Silver Bow, 2022. Draft Final Source Areas and Reclaimed Boundary Adjustments. Prepared by Pioneer Technical Services, Inc. April 4, 2022.

discharges south into the east inlet on Clayton Street. This inlet discharges west through a 1-foot high-density polyethylene (HDPE) pipe to the west inlet at the base of the slope. A V-ditch, gravel-lined channel at the base of the slope discharges south into the west inlet. No other reclamation has been documented on the site.

Site UR-42 is a steep area, and residents use portions of the site for personal storage and access to the Walkerville Playground. The V-ditch is not visible, however storm water inlets on the top of Clayton Street and the southeast corner of the basketball court were located.

The Walkerville Playground (BRES No. 20) is adjacent to the proposed UR-42 site and will be sampled following the Park Soil Sampling QAPP² under the RMAP program. Sampling efforts for Walkerville Playground are expected to take place in 2023.

Previous Sampling Efforts

The Geocortex web-based database at <https://eis2.woodardcurran.com/Html5Viewer/index.html?viewer=BPButte.BPSOU> contains the records for previous soil samples collected within the BPSOU. No previous sampling efforts were found on BRES No. 20 - Walkerville Playground. Two previous sample locations were found on other nearby BRES sites: BRES 21 and BRES 158³. The BPSOU action levels are listed in Table 1 and Table 2 of the UR Sites QAPP Section 2.5.

Preliminary Site Evaluation

A preliminary site visit was conducted during development of this sampling plan to qualify current site conditions and identify areas of focus for additional evaluation. Photograph 1 through Photograph 3, taken during the preliminary site inspection, show current site conditions. The site investigation found the site to have a steep slope from Clayton Street to BRES No. 20. This area is well vegetated with weeds present throughout the site. No barren areas were found on the site.

² Atlantic Richfield Company and Butte-Silver Bow, 2023. Draft Final 2023 Residential Metals Abatement Program (RMAP) Quality Assurance Project Plan (QAPP) Annual Update (Non-Residential Parcels). Prepared by Pioneer Technical Services, Inc. June 7, 2023.

³ Sampling was completed at BRES No. 158 in 2022 under the Insufficiently Reclaimed Further Remedial Elements Scope of Work (FRESOW).



Photograph 1: Site overview from Clayton Street.



Photograph 2: Site overview from the BRES No. 20 basketball court.

Butte-Silver Bow, the city of Walkerville, and ARCO Environmental Remediation LLC own the site, which has a steep slope that has a tier (bench) on the upper southeast portion. It appears a private property owner flattened this area and made a rock support wall to store a personal trailer. Another private property owner is using the north portion of the site for personal storage as well.



Photograph 3: Sediment from properties above Clayton Street.

Sediment migration is evident along the upper east portion of the site. The vegetation on the site edge and the storm water inlet prevent sediment from migrating onto the site, however a significant amount is located on Clayton Street.

Figure 1 illustrates the proposed sample stations as sited during the preliminary site evaluation.

Site Characterization Plan

Per the UR Sites QAPP, the site will be sampled from three depth intervals [(1) 0 to 2 inches, (2) 2 to 6 inches, and (3) 6 to 12 inches]. Opportunistic samples may be obtained in the field at the discretion of field sampling personnel or Agency oversight representative(s). The field team leader will be responsible for determining the appropriate sampling number and depth of samples as dictated by field conditions.

Results will be used to prepare the site declaration and prescribe site remedial improvements. The overall site will be sampled following the procedures in the UR Sites QAPP to determine the spatial characterization of waste, extent of transient material, and concentrations which exceed levels

listed in Table 1 or Table 2 of the UR Sites QAPP. Results will be used to assist in the determination of the final site declaration.

Sampling Procedure

All soil sampling and characterization activities and procedures within the site boundary will follow the UR Sites QAPP. Samples will be obtained from the sample stations listed below. The UR Sites QAPP also describes the quality assurance/quality control policies and procedures that will be used during sample collection and analyses.

| Sample Station | Three Depth Intervals (inches) |
|----------------|-----------------------------------|
| UR-42-SS01 | (1) 0-2, (2) 2-6, and (3) 6-12 |
| UR-42-SS02 | (1) 0-2, (2) 2-6, and (3) 6-12 |
| UR-42-SS03 | (1) 0-2, (2) 2-6, and (3) 6-12 |

This field work is anticipated to be completed in 2023, depending on site conditions.

Site Summary Report and Declaration

After the site evaluation and data collection activities are complete, a site evaluation summary report will be prepared and submitted to the Agencies for review and approval. The report will include a summary of all available site sampling data and a site declaration specifying any deficient criteria as specified in the CD.

If you have questions or comments, please do not hesitate to call me at (907) 355-3914.

Sincerely,



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

Attachments:

- Figure 1 – Unreclaimed Reclaimed Sites BRES No.20 – Area near Walkerville Playground Proposed Sample Stations
- Attachment 1 – Document Links
- Attachment 2 – FSP Packages

Cc: Chris Greco / Atlantic Richfield – email
Josh Bryson / Atlantic Richfield – email
Mike Mc Anulty / 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
Brienne 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
Carolina Balliew / 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
CTEC of Butte – email
Scott Juskiewicz / Montana Tech – email

File: MiningSharePoint@bp.com – email
BPSOU SharePoint – upload

Figures

Figure 1 – Unreclaimed Site UR 42 – Area near Walkerville Playground Proposed Sample Stations



THE PARCEL BOUNDARIES SHOWN ARE FOR REFERENCE USE ONLY AND DO NOT REPRESENT A LEGAL SURVEY

| | | |
|-----------------------|---|--|
| ● PROPOSED UR SAMPLE | UNRECLAIMED SITES | PROPERTY OWNERSHIP |
| SD - STORM WATER LINE | BRES No. 20- WALKERVILLE PLAYGROUND * BRES 20 WILL BE SAMPLED PER RMAP PARKS AND PLAYGROUND SOW | ACCESS PROPERTY OWNERSHIP |
| - SANITARY SEWER | | BRES EVALUATION BARREN AREA |
| | | BRES EVALUATION VEGETATIVE IMPROVEMENT |

DISPLAYED AS: _____
 PROJECTION/ZONE: MSP
 DATUM: NAD 83
 UNITS: INT'L FT
 SOURCE: PIONEER/BSR/AR/QSI 2020

0 25 50 100
Feet

FIGURE 1

TECHNICAL SERVICES, INC.

UNRECLAIMED SITE UR No.42 WEST OF WALKERVILLE PLAYGROUND (DUNN AND CLAYTON)

DATE: 5/30/2023

Attachment 1
Document Links

Document Links

Unreclaimed Reclaimed Sites QAPP:

<https://pioneertechnicalservices.sharepoint.com/:f:/s/submitted/EtZbDgcepsdEie6VxUMdW88BbKopRVYj5ZsLN0sG3RkrhA>⁴

⁴ Please note the link provided is valid for one year from the date of this submittal.

Attachment 2
FSP Submittal List

| FSP Package | Sites Included in FSP Package | Status | Agency Submittal Date | Approval Date | Field Implementation | Sites Sampled 2021 | Sites Sampled 2022 |
|-------------|-----------------------------------|----------------|-----------------------|---------------|----------------------|--------------------|--------------------|
| 1 | UR-23, 31, 32, and 39 | Final | 5/19/2021 | 6/8/2021 | 6/29/2021 | 32, 39 | - |
| 2 | UR-24, 26, and 40 | Final | 6/30/2021 | 8/27/2021 | 8/31/2021 | 24, 40 | - |
| 3 | UR-06, 07, 20, 22, 35, and 36 | Final | 7/3/2021 | 8/27/2021 | 8/31/2021 | 35, 36 | 06, 07, 20, 22 |
| 4 | UR-16 and 21 | Final | 8/20/2021 | 8/30/2021 | 9/7/2021 | - | - |
| 5 | UR-12, 13, 33, and 38 | Final | 8/23/2021 | 8/30/2021 | 9/8/2021 | 38, 33 | 13, 12 |
| 6 | UR-05, 27, 28, 29, 30, and 34 | Final | 10/14/2021 | 10/27/2021 | 11/4/2021 | 05, 30, 34 | 28 |
| 7 | UR-01, 02, 03, 04, 15, 17, and 37 | Final | 10/14/2021 | 10/27/2021 | 10/28/2021 | 01, 03 | - |
| 8 | UR-42 | Draft Final | 8/18/2023 | | | - | - |
| 9 | UR-43 | Draft Final | 8/18/2023 | | | - | - |