Sampling and Analysis Plan

Former Schwartzwalder Mine Water Treatment Plant

Doc. No.: 25-US-0221_1098-1

Date: July 31, 2025

Prepared for:

COLORADO
Department of Natural Resources

Division of Reclamation, Mining and Safety

Prepared by:

Linkan

2720 Ruby Vista Drive
Suite 101
Elko, NV 89801
775.777.8003

TABLE OF CONTENTS

TABLES

APPENDICES

1.0 INTRODUCTION AND SCOPE

This *Sampling and Analysis Plan* (SAP) addresses activities to collect water samples for analysis from the Former Schwartzwalder Mine Water Treatment Plant (SWTP) located at 8300 Glencoe Valley Road, Golden CO, 80403.

A sampling program will be undertaken at the Site to adequately characterize the mine pool water for contaminants. The sampling program will include the following field operations:

- Prepare the Site,
- Perform surface water and mine pool sampling to confirm that contaminates in the water are in compliance with the provisions of the Colorado Water Quality Control Act, (25-8-101 et seq., CRS, 1973 as amended).
- Sampling requirements related to radiological concerns are found in the RPP, including worker exposure, doses, water/radiological concerns etc.
- This SAP strictly pertains to the sampling of the water, even though some water may have radiological components.

The SAP establishes methodologies for obtaining field samples, describes techniques for identifying sampling locations, and specifies sample collection methodology. Sample hold times and packaging requirements for the designated laboratory are provided.

The SAP is a planning document only and may be changed as necessary to meet project requirements.

2.0 WATER QUALITY SAMPLING AND ANALYSIS

2.1. Roles and Responsibilities

Water Quality Sampling and Analysis will be ensured by an experienced team of Linkan personnel according to the following Organization Chart. Specific responsibilities are defined below under each role.

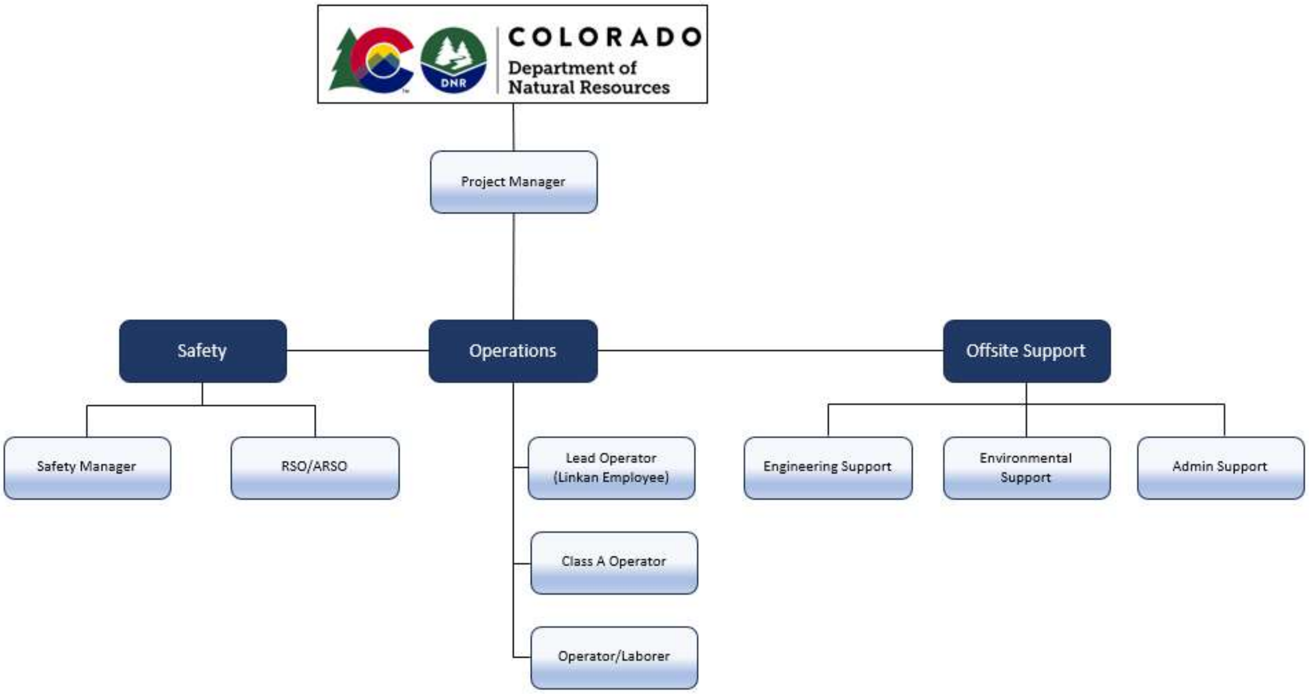

Figure 1 SWTP Organizational Chart

2.1.1. *Project Manager*

The Linkan Project Manager (PM) will have overall responsibility for ensuring that the project meets applicable DRMS, and CDPHE requirements, site specific data quality objectives (DQOs), and Site project requirements. In addition, the PM or their designated employee will be responsible for technical QC and project oversight. The PM will be responsible for the generation of project planning documents, procedures, and policies, and for ensuring that these plans, policies, and procedures are successfully implemented in the field.

2.1.2. *Lead Operator*

The lead operator will be responsible for the overall coordination of operational activities at the site and ensuring that all procedures outlined in the SAP are properly implemented. This individual oversees daily operations, supervises sampling activities, and ensures that all collected data meets quality standards. The Lead Operator serves as the primary point of contact for any operational quality control issues and communicates regularly with the PM. Additionally, the Lead Operator ensures that all team members are adequately trained, understand their responsibilities, and follow established standard operating procedures (SOPs) and safety protocols.

2.1.3. *Class A Operator*

The Class A operator is a senior, certified operator who supports the Lead Operator and is authorized to make key operational decisions in their absence. This individual is responsible for monitoring system performance, optimizing treatment processes, and ensuring that regulatory and quality objectives are met. The Class A Operator oversees the proper calibration, use, and maintenance of monitoring equipment and provides technical oversight to junior operators. They are also responsible for identifying and documenting any deviations from normal operating conditions or quality control procedures and implementing corrective actions as needed.

2.1.4. *Operator*

The Operator is responsible for executing routine operational tasks in accordance with the established procedures. These tasks include monitoring equipment, recording system parameters, making process adjustments, and assisting with field sampling activities as described in the SAP and QAPP. Operators are required to complete field logs and data sheets accurately and report any operational or equipment issues to supervisory personnel. They are expected to follow all site-specific safety, quality assurance, and radiation protection protocols at all times.

2.1.5. *Radiation Safety Officer (RSO) / Alternate Radiation Safety Officer (ARSO)*

The Radiation Safety Officer (RSO) / Alternate Radiation Safety Officer (ARSO) is responsible for ensuring compliance with all applicable radiation safety requirements, including those outlined in the project's Radioactive Materials License(s), as well as regulations established by the Occupational Safety and Health Administration (OSHA), the U.S. Nuclear Regulatory Commission (NRC), the Colorado Department of Public Health and Environment (CDPHE), and all relevant company policies and procedures. The RSO/ARSO oversees the safe handling, use, and storage of radioactive materials and is responsible for maintaining employee exposure to radioactivity as low as reasonably achievable (ALARA). In addition, the RSO/ARSO conducts radiation surveys, exposure assessments, and monitoring activities as required by the QAPP, RPP and regulatory guidelines. The RSO/ARSO also ensures that project personnel receive appropriate radiation safety training and use personal protective equipment and dosimetry correctly. Any incidents involving potential radiation exposure or contamination are thoroughly investigated and reported in accordance with regulatory requirements and internal protocols.

2.2. Training

Training for all Sampling will be conducted by Linkan's Project Manager for all designated personnel who will be sampling. Operators with previous site experience will be tasked with conducting the sampling; they are experienced with all of these sites, sample requirements and history of the sampling; any new personnel will be carefully trained through shadowing and under the purview of the Lead Operator and the Class A Operator to ensure the successful regime is maintained.

2.3. Sample Handling/Conduction

Sampling will be conducted in a manner that assures that samples and field data are representative, and that the resultant data can be compared to subsequent data sets. The sample handling procedures will be followed to maintain the integrity of the samples during collection, transportation, analysis, and reporting. The protocols outlined below present minimum handling procedures during sampling.

Aqueous samples analyzed for dissolved constituents will be filtered in the field at the time of collection and placed in new sample containers provided by the laboratory. The laboratory will have “pre-charged” the aqueous sample containers with preservatives, as appropriate. Samples transmitted to the laboratory will be accompanied by a Chain-of-Custody (COC). A scanned copy (pdf) of the COC also may be sent to the lab.

2.4. Packaging/Shipping of Samples

Individual field sampling team members shall be responsible for the care and custody of samples they collect until the samples are properly transferred to the next authorized person or facility. Each time the responsibility of a sample changes, the new custodian will sign, date, and note the time that the change occurred on the COC. Generally, the person shipping the samples signs the COC, and then the Laboratory Sample Custodian signs the COC when samples are received. As samples are collected, they will be placed in coolers with ice packs to maintain a temperature of ≤ 6ºC for storage during sampling and transport. Samples will be stored in the Site lab refrigerator (located in the SWTP) for the duration of the sampling. Samplers will consider the temperatures the cooler will be exposed to and the duration that the coolers will be stored prior to delivery to the laboratory to ensure that enough ice packs will be used to maintain a cooler temperature of ≤ 6ºC. The COC record(s), the bottle order, and the quote will be placed in a clear plastic bag (e.g., Ziplock bag), sealed, and placed inside the shipping cooler. The coolers will then be securely sealed using shipping tape. If provided by the lab, a custody seal must be signed and dated before being placed on the cooler prior to shipment. A copy of the COC record(s) will be made by the sampling crew (photograph or scanned).

2.5. Sampling Equipment Decontamination

To avoid cross-contamination of compliance and environmental samples and to prevent any transport of contaminants from the site, procedures are followed to decontaminate probes and other equipment that contacts potentially contaminated sample waters.

Supplies:

- 20L drinking water container with tap water
- A supply of Alconox or similar phosphate free lab detergent
- 4L containers of de-ionized water
- Plain paper towels
- Squeeze bottle
- 1 L container

2.6. Monitoring Equipment Decontamination

The following procedures will be conducted for decontaminating water level tapes, well sounders, and interface probes.

- Spray Wash with Alconox and tap water or immerse in a 1L bottle with Alconox.
- Rinse with tap water.
- Air-dry or wipe with a paper towel or Kimwipes.
- Rinse the YSI and replace the probe in the calibration sleeve between sample points.

2.7. Waste

Waste will be generated during the sampling programs. Waste will be temporarily contained and/or disposed of following the procedures outlined below. The means of waste handling and disposal are contingent on the types of waste generated during each project task. The sections below summarize the types of waste materials which may be generated and the methods of disposal to be employed by field personnel.

The types of waste anticipated to be generated from the various sampling activities include:

- Decontamination Water – The quantity of water derived during the decontamination of water sampling equipment will be minimal and will not result in a hazard to the environment. Small quantities of decontamination water will be placed in the plant sump which will be pumped (by the sump pump) back into the mine pool with the RO concentrate.
- Excess Sample Water – Excess surface water and plant water that is not required for analysis will be disposed of in the plant sump. The water from the sump will be pumped (by the sump pump) back into the mine pool with the RO concentrate.
- Personal Protective Equipment – PPE includes protective gloves, etc. as described in the Project Health and Safety Plan. PPE will be disposed of as solid waste.
- Used Sampling Equipment – Used sampling equipment and supplies, such as tubing, filters, high-density polyethylene bottles, etc. will be disposed of as solid waste.

2.8. Sample Nomenclature and Sample Locations

Sample locations for the project can be found in Figure 1. Laboratory samples shall be labeled with the sampling location:

- Outfall 001A
  - This sample is the final effluent water of the SWTP.
  - Samples are to be taken at the effluent tank (autosampler) or at the effluent pipe that discharges to Ralston Creek.
- Mine Pool
  - This sample is the feed water to the plant. The mine pool pump is controlled from inside the SWTP.
  - The sample port is located in the southwest corner of the plant before the flow splits to the two RO units.
  - Samples at this location are to be taken monthly.
- SW-AWD
  - This sample is the north most sample point in Figure 1.
  - Samples at this location are to be taken monthly.
- SW-BPL

- This sample is located south of Outfall 001A (beyond property line).
- Samples at this location are to be taken monthly.

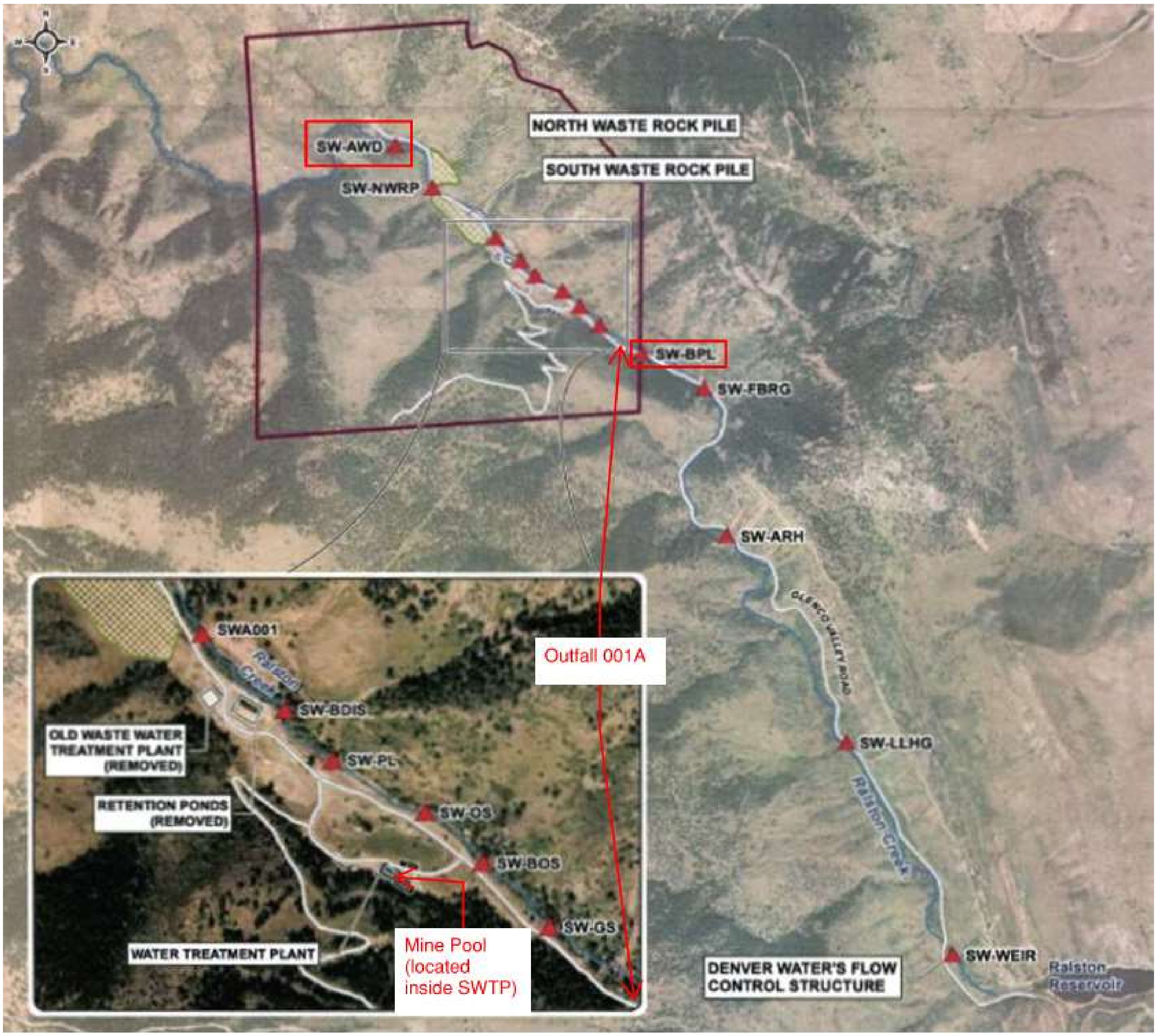

Figure 2 Sample Locations

2.9. Lab Sample Bottles Labeling

The sample containers will be labeled with the following information:

- Project Code: SWO
- Date (YYYY_MM_DD) and time (military/24-hour clock)
- Sample Location ID i.e., SW-AWD

- Preservative type (if any)
- Sample type (i.e., raw, or unfiltered water, filtered water)

2.10. Water Monitoring

The compliance monitoring program objective is to ensure the SWTP meets the effluent maximum concentrations defined in the discharge permit and to provide data to support review of the sites impact on the surrounding receiving environment. The following sampling plans for the Schwartzwalder Mine are dictated by the Colorado Discharge Permit# CO-0001244, Compliance Order IC-150123-1 and the Division of Reclamation, Mining and Safety Monitoring (DRMS) requirements.

2.10.1. *Methods and Procedures*

This section covers the requirements for standard sampling and monitoring, equipment and methods for the sampling and analysis. The objective is to ensure that the field operator collects reliable data and representative samples in a consistent and repeatable manner. It is important that variations of any kind in the reporting data are caused by changes in the environment or operations in the water treatment plant and not due to inconsistent sampling procedure.

Table 2-1 shows the frequencies and parameters for all sample locations for the project. **Table 2-2** shows the sampling requirements for Outfall 001A. **Table 2-3** shows the SW-AWD and SW-BPL field parameters that are required to be recorded during sampling events. **Table 2-4** shows the sampling requirements for SW-AWD and SW-BPL. **Table 2-5** shows the Mine Pool field parameters that are required during sampling events. **Table 2-6** shows the sampling requirements for the Mine Pool.

Table 2-1 Sample Location Frequencies and Parameters

Sample Location	Frequency	Parameter
Outfall 001A	Various	Table 2-2
SW-AWD	Monthly	Table 2-3, 2- 4
SW-BPL	Monthly	Table 2-3, 2- 4
Mine Pool	Monthly	Table 2-5, 2-6

Table 2-2 Outfall 001A Sampling Requirements

Effluent Parameter	Effluent Limitations Maximum Concentrations				Monitoring Requirements		Sampling and Analysis				
	30 Day Average	7 Day Average	Daily Maximum	2-Year Average	Frequency	Sampling Type	Method	Detection Limit	Preservative	Container Type	Hold Time
Effluent Flow (MGD)	0.288		Report		Continuous	Recorder	-	-	-	-	-
pH (su)			6.5-9		5 Days / Week	Grab	-	0.1	No Preservative	HDPE	15 min
COD (mg/L)	100		200		Weekly	Composite	M410.4	10	H_2SO_5	HDPE	28 d
TSS, effluent (mg/L)	20		30		3 Days / Week	Composite	SM2540D	5	No Preservative	HDPE	28 d
Oil and Grease (mg/L)			10		5 Days / Week	Visual or Grab	1664A/B - Gravimetric	2	No Preservative	HDPE	28 d
TDS (mg/L)	Report		Report		Quarterly	Composite	SM2540C	20	No Preservative	HDPE	7 d
As, TR (µg/L)	0.02				2 Days / Month	Composite	M200.8 ICP-MS	0.2	HNO_3	HDPE	180 d
Cd, PD (µg/L)	Report		Report		2 Days / Month	Composite	M200.8 ICP-MS	0.05	HNO_3	HDPE	180 d
Cr+3, TR (µg/L)			50	7.5	2 Days / Month	Composite	Calculation	-	-	HDPE	-
Cr+6, Dis (µg/L)	Report		Report		2 Days / Month	Composite	SM3500Cr-B	5	No Preservative	HDPE	1 d
Cu, PD (µg/L)	12		18	1.8	2 Days / Month	Composite	M200.8 ICP-MS	0.8	HNO_3	HDPE	180 d
CN, WAD (µg/L)			5	0.75	2 Days / Month	Composite	SM4500-CN I	3	NaOH	HDPE	14 d
Fe, Dis (µg/L)	300			45	2 Days / Month	Composite	M200.8 ICP-MS	7	HNO_3	HDPE	180 d
Fe, TR (µg/L)	Report			Report	2 Days / Month	Composite	M200.8 ICP-MS	7	HNO_3	HDPE	180 d
Mn, Dis (µg/L)	50			7.5	2 Days / Month	Composite	M200.8 ICP-MS	0.4	HNO_3	HDPE	180 d
Hg, Tot (µg/L)	Report				2 Days / Month	Composite	M245.1 CVAA	0.2	HCl	Glass	28 d
Ni, PD (µg/L)	Report		Report	Report	2 Days / Month	Composite	M200.7 ICP	8	HNO_3	HDPE	180 d
Se, PD (µg/L)	Report		Report	Report	2 Days / Month	Composite	M200.8 ICP-MS	0.1	HNO_3	HDPE	180 d
Ag, PD (µg/L)	0.13		3.5	0.02	2 Days / Month	Composite	M200.8 ICP-MS	0.1	HNO_3	HDPE	180 d
U, TR (µg/L)	30			22	2 Days / Month	Composite	M200.8 ICP-MS	0.1	HNO_3	HDPE	180 d
Zn, PD (µg/L)	Report		Report	Report	2 Days / Month	Composite	M200.7 ICP	20	HNO_3	HDPE	180 d
B, Tot (µg/L)	0.46				2 Days / Month	Composite	M200.8 ICP	1	HNO_3	HDPE	180 d
Chloride (mg/L)	250			54	2 Days / Month	Composite	SM4500Cl-E	1	No Preservative	HDPE	28 d
Fluoride (mg/L)			2		2 Days / Month	Composite	SM4500F-C	0.15	No Preservative	HDPE	28 d
Sulfate (mg/L)	250			131	2 Days / Month	Composite	EPA M300.0	1	No Preservative	HDPE	28 d
Sulfide (mg/L)	Report			Report	2 Days / Month	Composite	SM4500S2-D	0.02	NaOH ZnAc	HDPE	7 d
Radium 226+228 (pCi/l)	5				2 Days / Month	Composite	Calculation	-	-	-	-
Radium 226, dis (pCi/l)	3		10		2 Days / Month	Composite	M903.1	1.5	HNO_3	HDPE	180 d

Effluent Parameter	Effluent Limitations Maximum Concentrations				Monitoring Requirements		Sampling and Analysis				
	30 Day Average	7 Day Average	Daily Maximum	2-Year Average	Frequency	Sampling Type	Method	Detection Limit	Preservative	Container Type	Hold Time
Radium 226, total (pCi/l)	10		30		2 Days / Month	Composite	M903.1	1.5	HNO_3	HDPE	180 d
hallium (µg/L)	0.24				2 Days / Month	Composite	M200.8 ICP-MS	0.1	HNO_3	HDPE	180 d
Antimony (µg/L)	5.6				2 Days / Month	Composite	M200.8 ICP-MS	0.4	HNO_3	HDPE	180 d
WET, Chronic											
Pimephales Lethality			Stat Diff & IC25 ≥ IWC		Quarterly	3 Composites / Test	EPA 1001.0	-	No Preservative	HDPE	1 d
Ceriodaphnia Lethality					Quarterly	3 Composites / Test	EPA 1002.0	-	No Preservative	HDPE	1 d
Pimephales Toxicity			Report Stat Diff & IC25		Quarterly	3 Composites / Test	EPA 1001.0	-	No Preservative	HDPE	1 d
Ceriodaphnia Toxicity					Quarterly	3 Composites / Test	EPA 1002.0	-	No Preservative	HDPE	1 d

Table 2-3 SW-AWD and SW-BPL Field Parameters

Parameter	Unit	Frequency
pH	su	Monthly
Temperature	°C	Monthly
Conductivity	µS/cm	Monthly
ORP	mV	Monthly

Table 2-4 SW – AWD and SW – BPL Sampling Requirements

Effluent Parameter	Monitoring Requirements	Sampling and Analysis						
	Unit	Frequency	Sampling Type	Method	Detection Limit	Preservative	Container Type	Hold Time
pH[1]	s.u.	Monthly	Grab[2]	-	-	-	-	15 min
TDS - Total Dissolved Solids	(mg/L)	Monthly	Grab[2]	SM 2540 C	20	No Preservative	HDPE	7 d
TSS - Total Suspended Solids	(mg/L)	Monthly	Grab[2]	SM 2540 D	5	No Preservative	HDPE	28 d
Cyanide - Weak Acid Dissociable	(mg/L)	Monthly	Grab[2]	SM 4500 CN-I	0.003	NaOH	HDPE	14 d
Fluoride	(mg/L)	Monthly	Grab[2]	SM 4500 F	0.15	No Preservative	HDPE	28 d
Sulfate	(mg/L)	Monthly	Grab[2]	EPA M300.0	0.4	No Preservative	HDPE	28 d
Nitrate+Nitrite as N	(mg/L)	Monthly	Grab[2]	EPA M353.2	0.02	No Preservative	HDPE	2 d
Arsenic	(mg/L)	Monthly	Grab[2]	M200.8 ICP-MS	0.0002	HNO_3	HDPE	180 d
Boron	(mg/L)	Monthly	Grab[2]	M200.8 ICP-MS	0.001	HNO_3	HDPE	180 d
Radium 226 + Radium 228 - Total	pCi/L	Monthly	Grab[2]	M903.1	1.5	HNO_3	HDPE	180 d
Gross Alpha Particle Activity	pCi/L	Monthly	Grab[2]	EPA 9310	2	-	-	-
Gross Beta Particle Activity	pCi/L	Monthly	Grab[2]	EPA 9310	4	-	-	-
Thallium - Total Recoverable	(mg/L)	Monthly	Grab[2]	M200.8 ICP-MS	0.0001	HNO_3	HDPE	180 d
Antimony, Total Recoverable	(mg/L)	Monthly	Grab[2]	M200.8 ICP-MS	0.0004	HNO_3	HDPE	180 d
Chromium, Total Recoverable	(mg/L)	Monthly	Grab[2]	M200.8 ICP-MS	0.0005	HNO_3	HDPE	180 d
Molybdenum - Total	(mg/L)	Monthly	Grab[2]	M200.7 ICP	0.0002	HNO_3	HDPE	180 d
Phosphate - Total	(mg/L)	Monthly	Grab[2]	Calculation	0.1	-	-	2 d
Phosphorus - Total	(mg/L)	Monthly	Grab[2]	M200.7 ICP	0.1	HNO_3	HDPE	180 d
Uranium - Total	(mg/L)	Monthly	Grab[2]	M200.8 ICP-MS	0.0001	HNO_3	HDPE	180 d
Copper - Dissolved	(mg/L)	Monthly	Grab[2]	M200.8 ICP-MS	0.0008	HNO_3	HDPE	180 d
Molybdenum - Dissolved	(mg/L)	Monthly	Grab[2]	M200.7 ICP	0.0002	HNO_3	HDPE	180 d
Silver - Dissolved	(mg/L)	Monthly	Grab[2]	M200.8 ICP-MS	0.0001	HNO_3	HDPE	180 d
Uranium - Dissolved	(mg/L)	Monthly	Grab[2]	M200.8 ICP-MS	0.0001	HNO_3	HDPE	180 d
Zinc - Dissolved	(mg/L)	Monthly	Grab[2]	M200.7 ICP	0.02	HNO_3	HDPE	180 d

Notes: [1] pH will be taken in the field with a calibrated probe
[2] Grab sample is assumed since there is no specific call out in the documentation

Table 2-5 Mine Pool Field Parameters

Parameter	Unit	Frequency
Static Depth of Water	ft below top of casing (ft bloc)	Monthly
pH	su	Monthly
Temperature	°C	Monthly
Conductivity	µS/cm	Monthly
ORP	mV	Monthly
Dissolved Oxygen	mg/L	Monthly

Table 2-6 Mine Pool Sampling Requirements

Effluent Parameter	Monitoring Requirements			Sampling and Analysis				
	Unit	Frequency	Sampling Type	Method	Detection Limit	Preservative	Container Type	Hold Time
TDS - Total Dissolved Solids	mg/L	Monthly	Grab[1]	SM 2540 C	20	No Preservative	HDPE	7 d
TSS - Total Suspended Solids	mg/L	Monthly	Grab[1]	SM 2540 D	5	No Preservative	HDPE	28 d
Alkalinity as CaCO3	mg/L	Monthly	Grab[1]	SM 2320 B	2	No Preservative	HDPE	14 d
Bicarbonate as CaCO 3	mg/L	Monthly	Grab[1]	SM 2320 B	2	No Preservative	HDPE	14 d
Calcium - Dissolved	mg/L	Monthly	Grab[1]	M200.7 ICP	0.1	HNO3	HDPE	180 d
Dissolved Oxygen[2]	mg/L	Monthly	Grab[1]	-	0.01	-	-	15 min
Carbonate as CaCO 3	mg/L	Monthly	Grab[1]	SM 2320 B	2	No Preservative	HDPE	14 d
Chloride	mg/L	Monthly	Grab[1]	SM 4500 Cl	1	No Preservative	HDPE	28 d
Fluoride	mg/L	Monthly	Grab[1]	SM 4500 F	0.15	No Preservative	HDPE	28 d
Hydroxide as CaCO3	mg/L	Monthly	Grab[1]	SM 2320 B	2	No Preservative	HDPE	28 d
Magnesium - Dissolved	mg/L	Monthly	Grab[1]	M200.7 ICP	0.2	HNO3	HDPE	180 d
Potassium - Dissolved	mg/L	Monthly	Grab[1]	M200.7 ICP	0.5	HNO3	HDPE	180 d
Sodium - Dissolved	mg/L	Monthly	Grab[1]	M200.7 ICP	0.2	HNO3	HDPE	180 d
Sulfate	mg/L	Monthly	Grab[1]	EPA M300.0	0.4	No Preservative	HDPE	28 d
Cyanide - Weak Acid Dissociable	mg/L	Monthly	Grab[1]	SM 4500 CN	0.003	NaOH	HDPE	14 d
Nitrate+Nitrite as N	mg/L	Monthly	Grab[1]	EPA M353.2	0.02	No Preservative	HDPE	28 d
Phosphate - Total	mg/L	Monthly	Grab[1]	Calculation	-	No Preservative	HDPE	-
Phosphorus - Total	mg/L	Monthly	Grab[1]	M200.7 ICP	0.1	HNO3	HDPE	180 d
Aluminum, Dissolved	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.005	HNO3	HDPE	180 d
Antimony, Dissolved	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.0004	HNO3	HDPE	180 d
Arsenic, Dissolved	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.0002	HNO3	HDPE	180 d
Boron, Dissolved	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.001	HNO3	HDPE	180 d
Chromium, Dissolved	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.0005	HNO3	HDPE	180 d
Copper, Dissolved	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.0008	HNO3	HDPE	180 d
Iron, Dissolved	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.007	HNO3	HDPE	180 d
Lead, Dissolved	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.0007	HNO3	HDPE	180 d
Manganese, Dissolved	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.0004	HNO3	HDPE	180 d
Mercury, Dissolved	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.00006	HNO3	HDPE	180 d
Molybdenum, Dissolved	mg/L	Monthly	Grab[1]	M200.7 ICP	0.0002	HNO3	HDPE	180 d
Silver, Dissolved	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.0001	HNO3	HDPE	180 d
Thallium, Dissolved	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.0001	HNO3	HDPE	180 d
Uranium, Dissolved	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.0001	HNO3	HDPE	180 d
Zinc, Dissolved	mg/L	Monthly	Grab[1]	M200.7 ICP	0.006	HNO3	HDPE	180 d
Aluminum, Total	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.005	HNO3	HDPE	180 d
Antimony, Total	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.0004	HNO3	HDPE	180 d
Arsenic, Total	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.0002	HNO3	HDPE	180 d
Boron, Total	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.001	HNO3	HDPE	180 d
Chromium, Total	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.0005	HNO3	HDPE	180 d
Copper, Total	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.0008	HNO3	HDPE	180 d
Iron, Total	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.007	HNO3	HDPE	180 d
Lead, Total	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.0007	HNO3	HDPE	180 d
Manganese, Total	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.0004	HNO3	HDPE	180 d
Mercury, Total	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.00006	HNO3	HDPE	180 d
Molybdenum, Total	mg/L	Monthly	Grab[1]	M200.7 ICP	0.0002	HNO3	HDPE	180 d
Silver, Total	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.0001	HNO3	HDPE	180 d
Thallium, Total	mg/L	Monthly	Grab[1]	M200.8 ICP-MS	0.0001	HNO3	HDPE	180 d
Zinc, Total	mg/L	Monthly	Grab[1]	M200.7 ICP	0.006	HNO3	HDPE	180 d
Gross Alpha	pCi/L	Monthly	Grab[1]	EPA 9310	2	-	-	-
Gross Beta	pCi/L	Monthly	Grab[1]	EPA 9310	4	-	-	-
Radium 226 - Dissolved	pCi/L	Monthly	Grab[1]	M903.1	1.5	HNO3	HDPE	180 d
Radum 226 - Total	pCi/L	Monthly	Grab[1]	M903.1	1.5	HNO3	HDPE	180 d
Radium 228 - Total	pCi/L	Monthly	Grab[1]	M903.1	1.5	HNO3	HDPE	180 d
Radium 226 + Radium 228 - Total	pCi/L	Monthly	Grab[1]	M903.2	1.5	-	-	-

Notes: [1] All samples taken as Grab, not specified in documentation. [2] Dissolved Oxygen will be taken in the field with a calibrated probe.

2.10.2. *Surface Water Sampling*

Surface water samples will be collected as close to established locations in consideration of the safety of sampling personnel and sample quality. Deviations from established sampling locations, if any, will be documented and photographed. Samples will be collected from mid-stream, flow conditions permitting using a clean, disposable container, not the sample bottle. Samples requiring filtration (dissolved metals) will be filtered in the field at the time of their collection. Samples will be placed in labeled bottles pre-charged with preservatives so care must be taken to not overfill the bottles. Once collected, samples will be stored in the plant refrigerator until they are ready to be shipped at which time they are packed into a cooler per section 2.4.

2.10.3. *Daily (Outfall 001-A)*

Daily grab samples of pH will be measured and recorded for reporting purposes.

2.10.4. *Weekly (Outfall 001-A)*

Weekly composite samples will be pulled as an 8-hour composite (4 samples pulled every 2 hours, homogenized). These samples include:

- TSS (3 days per week)
- COD (1 day per week)
- Oil/Grease (daily visual check. If present in Outfall, sample as necessary)

2.10.5. *Biweekly (Outfall 001-A)*

Biweekly samples will be pulled as a composite (4 samples pulled every 2 hours, homogenized) 2 times per month with a minimum of 1 week between sampling events. These samples will be assembled with the weekly and daily samples then brought to the lab or shipped at the end of the week they are taken. These samples include:

- Total Recoverable Metals
- Potentially Dissolved Metals
- Total Metals
- Dissolved Metals
- Major Ions
- Radionucleotides

2.10.6. *Monthly (SW-AWD, SW-BPL)*

As part of the consent order issued by the CDPHE, additional monthly monitoring has been established for SW-AWD and SW-BPL (**Table2-3**). These samples are to be taken only when water is running in Ralson Creek upstream from the facility. These samples include:

- Total Metals
- Dissolved Metals
- Total Recoverable Metals
- Major Ions
- Radionucleotides
- Physical Properties (pH, Temperature, Conductivity, ORP)

- WAD Cyanide

2.10.7. *Quarterly Toxicity Monitoring (Outfall 001-A)*

Whole Effluent Toxicity (WET) testing of Outfall 001A is required on a quarterly basis. Three composite samples (4 samples pulled every 2 hours, homogenized) are collected for 3 separate days.

All samples will be collected at the Outfall 001-A sample location in a 1-Gal provided by the WET Testing laboratory. Samples must be shipped via Next Day Air status or physically brought to the lab on the same day that they were sampled.

2.10.8. *Ground Water Sampling & Preservation*

A change from last years sampling campaign, for the operating period of 2025 DRMS requires sampling only from the Mine Pool. The mine pool sample requirements and required field parameters can be found in **Tables 2-5 and 2-6.**

2.11. Reporting

Samples delivered to the lab will immediately be recorded as received. The lab will analyze the samples, according to the parameters shown for each sample. The reports will be delivered in a reasonable timeframe upon analysis to the Linkan Team, who will then distribute to the DMRS. Quarterly and Monthly Samples will be delivered upon each period, respectively and results will be reported to the Linkan Team upon completion. Results will be reported to the Division.

Reporting requires notification to the CDHPE and DRMS on Service of Amendment Number One to Compliance Order on Consent, Number: IC-150123-1. This is monthly and quarterly reporting for the instream sampling of the creek adjacent to the property which includes SW-AWD and SW- BPL. Normal monthly and quarterly submittals for Outfall 001A need to be reported via the NetDMR portal. This encompasses standard monthly analytes described in the permit. Quarterly sampling of this same location (Outfall 001A) includes TDS and WET testing. These reports are submitted separately to DRMS after submission has been received via the NetDMR online portal. Sampling of the raw untreated influent (Mine Pool) is taken each month. These results are summarized and sent to DRMS. All submissions via the NetDMR portal are the responsibility of the Class A operator.

2.12. Sample Documentation

An example of a COC form is below. Each sample requires a COC with details on the sample and its collection as well as its destination at the lab.

ENERGY LABORATORIES
Trust our People. Trust our Data.

Chain of Custody & Analytical Request Record

www.energylab.com

Page 1 of 1

Account Information *(Billing information)*

Company/Name	Linkan
Contact	Brendan Smith
Phone	775-777-8003
Mailing Address	2720 Ruby Vista Dr
City, State, Zip	Elko, NV 89801
Email	AP@linkan.com
Receive Invoice	☐Hard Copy ☒Email
Receive Report	☐Hard Copy ☒Email
Purchase Order	24-0156
Quote	B17287, B17647
Bottle Order	186551

Report Information *(if different than Account Information)*

Company/Name	Linkan
Contact	Brendan Smith
Phone	775-397-6779
Mailing Address	2720 Ruby Vista Dr
City, State, Zip	Elko, NV 89801
Email	brendan.smith@linkan.com;adam.billin@linkan.c
Receive Report	☐Hard Copy ☒Email
Special Report/Formats:	☐ LEVEL IV ☐NELAC ☐ EDD/EDT *(contact laboratory)* ☐ Other______

Comments

Monthly Sampling for Outfall 001A
Normal suite expanded by 2 composite bottles (1 L unpreserved, 250 mL H_2SO_4) per B17647

Project Information

Project Name, PWSID, Permit, etc.	Schwartswalder Mine
Sampler Name	Greg Ching
Sampler Phone	3038353550
Sample Origin State	Colorado
EPA/State Compliance	☒ Yes ☐ No

URANIUM MINING CLIENTS MUST indicate sample type
☐ Unprocessed Ore
☐ Processed Ore (Ground or Refined) **CALL BEFORE SENDING
☐ 11(e)2 Byproduct Material (Can ONLY be Submitted to ELI Casper Location)

Matrix Codes
A - Air
W - Water
S - Soils/Solids
V - Vegetation
B - Bioassay
O - Oil
DW - Drinking Water

All turnaround times are standard unless marked as RUSH.
Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling – See Instructions Page

	Sample Identification *(Name, Location, Interval, etc.)*	Collection Date	Collection Time	Number of Containers	Matrix *(See Codes Above)*	Anions (E300.0)	Chromium Hexavalent	Metals, Dissolved	Metals, Total	Mercury, Total (E245.1)	Radium 226 Dissolved & Total	Radium 228 Dissolved and Total	Sulfide	Cyanide, WAD	See Attached	RUSH TAT	ELI LAB ID *Laboratory Use Only*
1	Outfall 001A	10/10/24	1300	10	W										●		
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	

ELI is REQUIRED to provide preservative traceability. If the preservatives supplied with the bottle order were **NOT** used, please attach your preservative information with this COC.

Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Greg Ching	10/10/24 1500	[signature]			
	Relinquished by (print)	Date/Time	Signature	**Received by Laboratory (print)**	**Date/Time**	**Signature**

LABORATORY USE ONLY

Shipped By	Cooler ID(s)	Custody Seals	Intact	Receipt Temp	Temp Blank	On Ice	Payment Type	Amount	Receipt Number *(cash/check only)*
		Y N C B	Y N	°C	Y N	Y N	CC Cash Check______	$	

Sample documentation of the lab analysis summary is shown below. Once the samples are submitted to the lab, the specified parameters are summarized and shown in detail as part of the results.

2.13. Corrective Actions

Should any samples require corrective actions, they should be annotated as soon as possible and reported to the Offsite Environmental Support personnel and the Project Manager, as well as the responsible lab as soon as identified. Should a sample need to be collected again, it should be done as soon as reasonably possible to the original sample time/date. Holding times should also be understood so as not to create infractions. Further corrective actions may be required on a case-by-case basis and are the responsibility of Offsite Environmental Support personnel to resolve.

2.14. Laboratory Measurement Performance Criteria

The usability of the field and laboratory analytical data will be established through an evaluation of Data Quality Indicators (DQIs). The Project DQIs include assessments of the precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) of the measurements performed on the project.

The laboratory will analyze the Project samples in “batches.” Each batch will include a variety of laboratory QC samples including, but not limited to, laboratory control duplicates, laboratory control samples (LCS), method blanks (MB), matrix spikes (MS)/matrix spike duplicates (MSD), calibration verification standards (CVS), and reference samples. Based on the results of all laboratory QC samples included in each analytical batch, the lab may reanalyze or qualify associated project samples per their internal guidance (Appendix A). The lab will identify anomalous laboratory QC sample results in their analytical reports. The following is a description of the DQI components of the data usability assessment.

2.14.1. *Precision*

Precision can be defined as the degree of agreement of independent measurements of the same parameter under identical, specified conditions. Precision is quantified using duplicate analyses by the relative percent difference (RPD) method for sample values greater than five times the limit of reporting (MDL) for aqueous samples. The RPD is calculated with the following equation:

$$RPD\ (\%) = \frac{|S_1 - S_2|}{(S_1 + S_2)\ /\ 2} \text{ x } 100$$

Where: S1 = sample concentration
S2 = duplicate concentration

An RPD control limit of 20 percent is used for laboratory duplicates comprised of aqueous matrices. The lab will flag laboratory duplicate sample results outside of control limits. Professional judgment will be given to the application of laboratory results to field duplicates, as these samples incorporate both field and analytical variability.

When one or both aqueous sample values are less than five times the MDL, the RPD method is not applicable. In this case, the control limit for the duplicate analysis is set as the original sample concentration ± the MDL.

2.14.2. *Accuracy*

Accuracy may be defined as the agreement of measurement with an accepted reference or true value. Laboratory accuracy is determined through the analysis of laboratory control samples, spiked samples, and method/calibration verification control samples.

The objective of the spike verification sample is to provide information about the effect of project-specific sample matrices on the sample preparation procedures and the measurement methodology. Accuracy is assessed based on the recovery, expressed as the percentage of the true (known) concentration, of a known concentration added ("spiked") to a sample. The percentage recovery is given by:

$$Recovery\ (\%) = \frac{SSR - SR}{SA}\ \mathrm{x}\ 100$$

Where: SSR = Spiked Sample Result
SR = Sample Result
SA = Spike Added

The lab uses control limits of 85% to 115% for spiked samples. The lab will flag spike sample results outside of control limits.

Laboratory accuracy is also assessed on the recoveries of laboratory control samples (reference or standard) and calibration verification control samples. The percentage recovery for these specific samples is given by:

$$Recovery\ (\%) = \frac{CS_{FOUND}}{CS_{TRUE}}\ \mathrm{x}\ 100$$

Where: CS_{Found} = Measured Control Sample Result
CS_{True} = True Control Sample Result

2.14.3. *Representativeness*

Representativeness is a qualitative assessment of the extent that a discrete measurement describes the greater environment it is intended to represent. Representativeness will be assured by the rational determination of sampling locations, sampling frequency, and sample timing. Adherence to standard operating procedures (SOPs) also ensures that measurements between locations, from event to event, and between individuals are consistent.

Representativeness is also assessed through the generation of blank samples in the field and laboratory.

- Traveling blanks represent a clean sample of water that is taken from the laboratory to the Site and transported back to the laboratory without having been exposed to sampling procedures. Typically, traveling blanks are analyzed only for volatile compounds (e.g., mercury).

The laboratory also utilizes method blank (MB) samples as part of the calibration and the method of performance (bias) processes; method blanks are prepared/extracted/digested and analyzed exactly like the field samples and are intended to detect potential contamination introduced to the sample at the laboratory. The control limit for the MB is the detection limit.

If an analyte is detected in a field blank sample, then sample results within a factor of ten (10) times the concentration found in an associated blank may be considered undetected, based on a review of additional field and laboratory information, and historical data. For example, if an analyte is detected in a blank at the detection limit of "1", samples reported with concentrations of the analyte greater than (10 x 1 = 10) would not be impacted; however, samples reported with concentrations of the analyte less than 10 would be subject to review.

2.14.4. *Completeness*

Completeness is a measure of the percentage of valid measurements (data points) obtained, as a proportion of the number of measurements (data points) planned for the investigation.

Completeness is affected by such factors as access to monitoring locations, sample bottle breakage, and acceptance/non-acceptance (rejection) of analytical results. Percentage completeness is given by:

$$Completeness\ (\%) = \frac{V}{P} \text{ x } 100$$

Where: V = number of valid measurements (data points) obtained by investigation.
P = number of measurements (data points) planned for the investigation.

The goal for data completeness is 90 percent for each sampling event.

2.14.5. *Comparability*

Comparability is a qualitative measure of the extent that valid comparisons between measurements at a different time/place can be made. Comparability will use standard operating procedures, measurement devices, calibration practice, and units' measurement.

2.14.6. *Sensitivity*

Analytical methods were selected with method detection limits equal to or below the applicable permit limit. Individual sample detection limits may vary from method detection limits due to matrix interferences, dilutions, etc.

Additional items not included in the PARCCS evaluation (sections 2.14.1. to 2.14.6.) but included in Linkan's data usability assessment are discussed below.

2.14.7. *Holding Times*

Holding times for analytes are compared to the recommended holding times specified for test methods. If holding times are exceeded, then the results may be qualified as estimated, depending upon review of laboratory and other project data.

Additional field and laboratory QA/QC checks may be performed on a case-by-case basis, depending upon samples and methods employed.

2.15. Data Review and Verification

Field measurement values generally are reported directly in the units of final use on the appropriate field forms without the need for additional calculations (e.g., pH, specific conductance, and water temperature measurements). Field measurement data on forms will be reviewed at several steps to identify anomalous data and transcriptional and/or computational errors.

The laboratory analytical results are reported in units of final use. Upon receipt of the report of analytical results from the laboratory, the results will be reviewed to ensure that:

- The analyses performed, and sample identifications conform to the information on the Chain-of-Custody Record and request for analysis.
- The analyses were performed within the allotted sample holding times.
- The specified detection limit was achieved.

Any discrepancies will be immediately rectified by the Offsite Environmental Support personnel and the laboratory.

APPENDIX A

SURFACE WATER SAMPLING

Schwartzwalder Mine Water Treatment Plant		**Date:**	July 31, 2025
Surface Water Sampling		**Doc. No:**	25-US-0221_1098-1
Division of Reclamation, Mining and Safety			
Written by:	Alex Schwiebert		
Approved by:	Adam Billin		

The most important step in generating water quality data is the collection of representative samples. Water quality data is only as good as the sample. Important decisions will be made on the data reported so it is crucial that good sampling techniques are used to obtain samples that are representative of conditions in the water body.

SECTION 1 SAMPLING SCHEDULE

Surface sampling schedule occurs while the WTP is in operation, and applies to locations: SW-AWD and SW-BPL.

SECTION 2 EQUIPMENT AND MATERIAL

2.1. Equipment and Supplies for Sampling

The sampling team will need to bring the following equipment and supplies with them for each sampling event:

- General field equipment:
  - Radio
  - Compass
  - Site Map
  - GPS
  - Camera
  - Forms and waterproof pens
- Surface water quality sampling
  - YSI Pro DSS
  - pH/conductivity probe and pH paper (backup)
  - Spare batteries for instruments
  - Water quality data sheets (printed on waterproof paper)
  - Copy of field notes from the previous month
  - Nitrile gloves
  - Heavy-duty plastic bags
  - Clipboard
  - Map of sampling sites area

  - Field book
  - Waterproof/permanent sharpies and mechanical pencils
  - Flagging tape
  - De-ionized water (for field blank and decontamination)
  - Plastic beakers
- Sample Bottles
  - Tables 2,4 and 6 (included in the SAP) list the parameters, bottle type, and preservative required
- Cooler and frozen ice packs for samples

SECTION 3 EQUIPMENT STANDARDIZATION AND CALIBRATION

- The pH and conductivity functions of the meter should be standardized daily, before starting field measurements.
  - pH: This should be done for pH 7, and 10 (for alkaline waters) against pH 7, and 10 buffers.
  - Conductivity: one standard.
  - If the instrument is within adequate tolerance to the standards (see manual for those tolerances) then no calibration is necessary.
  - If calibration is necessary, Section 3 Calibration of the YSI Pro DSS provides the steps to calibrate the YSI meter. The manual is included in Appendix A of this SOP.
- Conduct a full calibration procedure prior to the sampling event according to the manual.
- Record the standardization/calibration data.

SECTION 4 WATER SAMPLE COLLECTION

Surface water quality sampling consists of the collection of surface water quality samples. Measuring and recording of field measurements and recording of general site conditions. The laboratory analyses and corresponding sample bottles are indicated in Tables 2,4 and 6 (included in the SAP) which includes the samples bottle type, preservatives, and holding times.

4.1. Water Sample Collection

Collection of surface water samples for laboratory analysis requires care and attention to the prevention of sample contamination in sample collection and prevention of sample degradation in shipping by packing samples securely with sufficient ice or frozen ice packs to maintain the sample temperature ≤ 6 °C. Contamination is controlled by keeping sampling equipment clean, handling sample bottles using clean nitrile gloves, using a clean, plastic disposable container at each location, and exclusion of smokers from field crews.

4.2. Stream Locations

- Sampling locations have been established by the CDPHE. All samples will be taken as close to these established locations as possible, in consideration of the following:
  - Safety of sampling personnel

- Avoidance of potential sources of contamination (e.g., galvanized steel culverts; eroding shorelines; beaver dams/lodges; inflowing tributaries)
- Ensure water sample collection is done upstream of any activities that may disturb the stream bank or bottom (e.g., flow measurements)

- Samples should be taken mid-stream, if possible, by:
  - Wading, if flow/bank conditions are safe to do so
  - With a swing sampler if there are safety concerns
  - Avoid collecting material floating on the water surface, to the extent possible
- All water sample collection is done wearing nitrile gloves, with a clean pair used for each location, and gloves changed as needed at a location depending on materials handled (e.g., handling preservatives, putting a hand down for stability).
- Do not use lab sample bottles for bulk water collections, instead use a clean, plastic disposable container.
- Water samples are collected from stream locations directly into the supplied sample bottles in the following steps:
  - Remove the bottle cap
  - Facing upstream, submerge the mouth of the open sample bottle in the flowing stream, with the mouth pointed into the flow
  - Do not overfill the bottles containing preservative
  - Remove the bottle when full and cap immediately
- For samples requiring filtration (dissolved metals), a filtered sample can be made using a 0.45 micron filter paper, filtration apparatus and a vacuum pump as follows:
  - With sampling gloves on, open and remove the 0.45 microns filter from its package
  - Insert into filtration apparatus.
  - Fill apparatus to appropriate volume with the water sample
  - Actuate the vacuum pump
  - Allow Water to fully filter through the paper.
  - Remove the bottle containing the filtered water and fill the desired laboratory bottles.
- Place collected samples in a cooler with ice or frozen ice packs. Keep samples cool until they are released to the shipping agency.
- Depart site ensuring that nothing is left behind.

4.3. Field Water Quality Measurements

The following parameters will be measured in the field, either directly in the waterbody or promptly (within 15 minutes) on a water sample, at each of the surface water sampling locations:

- Temperature
- Conductivity (μS/cm at ambient temperature)
- pH

- Dissolved Oxygen (Quarterly) at locations listed in the SAP.

Measurements will be made using a YSI Pro DSS meter fitted with a multiparameter sonde.

Collect the following data from the YSI Pro DSS meter and record it.

Follow these steps when taking field measurements with the YSI Pro DSS model:

- Measure field parameters from an area upstream of the sampling activities where the water is not disturbed.
- At the site, turn on the instrument, place the probe into the water, downstream of the water sampling location. Allow the meter to stabilize before taking the readings (take the water quality samples while you are waiting).
- Once the YSI meter has stabilized, write down the measurements.
- Prior to departing the sampling site, ensure that all required data has been collected and is complete and accurate and ensure that all field equipment has been packed up and accounted for. Refer to the previous month's field notes for a comparison of field data.
- Ensure that any unusual occurrences or departures from standard procedures have been recorded and documented.
- Anything out of the ordinary from last time, perform the in-situ measurement again.

SECTION 5 DATA MANAGEMENT

Upon returning from the field, transfer the data from the field sheets into the excel spreadsheet.

END

APPENDIX B

YSI PRO DSS METER OPERATION

Schwartzwalder Mine Water Treatment Plant		**Date:**	July 31, 2025
YSI Pro DSS Meter Operation Procedure		**Doc. No:**	25-US-0221_1098-1
Division of Reclamation, Mining and Safety			
Written by:	Alex Schwiebert		
Approved by:	Adam Billin		

SECTION 1 YSI PRO DSS METER OPERATION PROCEDURE

- Transport the instrument in its travel bag for protection
- Each day, before performing any field measurements:
  - Power on the instrument and allow it to warm up.
  - Standardize the instrument (i.e., verify the instrument calibration by taking pH and conductivity measurements in standards).
  - Calibrate as necessary as detailed below.
  - Power down the instrument.
  - Document the calibration on the standardization/calibration section in the Surface Water Sampling Data Sheet.
- After calibration and before going out to the field, attach the sensor cover to the probe. The sensor cover allows the probe to sink in the stream and serves to protect the sensors.
- At the sampling site:
  - Power on the instrument and let warm-up for 15 minutes before taking any readings.
  - After the warm-up, Select Run if the enabled sensors do not appear on the display.
  - Ensure that the 'probe protector' (sensor cover is fastened securely over the probe so that it does not become lost.
  - Place the probe in the stream or sample to be measured. If there is no flow, continuously stir or move the probe until the readings on the screen stabilize (define stabilize – pH takes the longest to settle, sometimes up to 45 minutes).
  - Document the readings on the Surface Water Sampling Data Sheet.
  - Turn off the machine and pack up for the next sampling site. If time is a factor and the next site is relatively close, keep the machine turned on for the next site but pack the instrument for transport by carefully coiling the cable in one direction and placing it in the travel bag.
  - On completion of sampling that day, remove the sensor cover and install the calibration/sensor cup containing a small quantity of tap or sample water. This will prevent the reference junction on the pH electrode from drying out.
  - Upon returning to the office, remove the probe guard and place/immerse the probe into potassium chloride (KCL) solution within the clear plastic cover.

END