

Idaho Department of Environmental Quality

Ore Processing by Cyanidation Permit CN – 000035

Perpetua Resources Idaho, Inc., (hereafter “permittee”) is hereby authorized to construct, operate, and close a cyanidation facility in accordance with (1) this permit; (2) IDAPA 58.01.13 “Rules for Ore Processing by Cyanidation”; and all other applicable federal, state, and local laws, statutes, and rules. This permit is effective from the date of signature and remains effective until the Director determines that permanent closure is completed or the Director revokes or modifies the permit.

DRAFT

Jess Byrne, Director
Idaho Department of Environmental Quality

Date

Idaho Department of Environmental Quality
Waste Management and Remediation Division
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Acronyms, Units, and Chemical Nomenclature

CA	Compliance activity
CaCO ₃	Calcium carbonate
cfs	cubic feet per second
CN	Cyanide
DEQ	Idaho Department of Environmental Quality
EDT	Early detection threshold
gpd	gallons per day
GW	groundwater
IDAPA	Idaho Administrative Code
IPDES	Idaho Pollutant Discharge Elimination System
lb	pound
LCRS	Leakage collection and recovery system
mg/L	milligrams per liter
mph	miles per hour
pH	Negative of the base 10 logarithm of the activity of hydrogen ion
PCP	Permanent closure plan
QA/QC	Quality Assurance Quality Control
SU	Standard unit
SW	Surface water
TDS	Total dissolved solids
TSF	Tailings Storage Facility
WAD	Weak acid dissociable
WQMP	Water quality monitoring plan

Definitions

Application—Stibnite Gold Project Facility Application for a Permit to Conduct Ore Processing by Cyanidation, October 2, 2024

Cyanidation Facility—The portion of a new ore processing facility, or a material modification or a material expansion of that portion of an existing ore processing facility that uses cyanidation and is intended to contain, treat, or dispose of cyanide containing materials including spent ore, tailings, and process water.

Cyanidation—The method of extracting target precious metals from ores by treatment with cyanide solution, which is the primary leaching agent for extraction.

Degradation— When referring to surface water, “degradation” has the meaning provided in “Water Quality Standards” (IDAPA 58.01.02.10). When referring to ground water, “degradation” has the meaning provided in “Ground Water Quality Rule” (IDAPA 58.011.007).

DEQ—Idaho Department of Environmental Quality

Director—Director of the Idaho Department of Environmental Quality or the director’s designee.

Discharge—When used without qualification, any spilling, leaking, emitting, escaping, leaching, or disposing of a pollutant into waters of the state.

IDL—Idaho Department of Lands

Land Application—A process or activity involving application of liquids or slurries potentially containing cyanide from the cyanidation facility to the land surface for treatment, neutralization, disposal, or groundwater recharge.

Liner—A continuous layer of natural or man-made materials beneath and, if applicable, on the sides of ponds, tailings impoundments, or leach pads that restricts the downward and lateral movements of liquids.

Permanent Closure Plan—A description of the procedures, methods, and schedule that will be implemented to treat and dispose of cyanide-containing materials including spent ore, tailings, and process water and specific conditions in manner that meets the intent and purpose of Idaho Code § 39-118A, Idaho Code § 47-15, and all applicable rules.

Permanent Closure—Activities that result in neutralization, material stabilization, and decontamination of cyanidation facilities and the facilities’ final reclamation.

Permittee—The person in whose name a permit is issued and who is the principal party responsible for complying with IDAPA 58.01.13 and the conditions of this permit.

Person—An individual, corporation, partnership, association, state, municipality, commission, federal agency, special district, or interstate.

Pollutant—Chemicals, chemical waste, process water, biological materials, radioactive materials, or other materials that, when discharged, cause or contribute adverse effects to any beneficial use, or for any other reason, may impact waters.

Pond—A process component that stores, confines, or otherwise significantly impedes the horizontal and downward movement of process water. This term does not include tailings impoundments or nonearthen containers such as vats and tanks.

Postclosure—The period of time after completing permanent closure of a facility when the permittee is monitoring the effectiveness of the closure activities. Postclosure lasts a minimum of 12 months but may extend until the cyanidation facility is shown to be in compliance with the stated permanent closure objectives and requirements of Idaho Code § 47-15 and all applicable rules.

Process Water—Any liquid intentionally or unintentionally introduced into any portion of the cyanidation process. Such liquid may contain cyanide or other minerals, meteoric water, groundwater or surface water, elements and compounds added to the process solutions for leaching or the general beneficiation of ore, or hazardous materials that result from the combination of these materials.

Process-Contaminated Water—Any liquid intentionally or unintentionally mixed with process water or contaminated by the cyanidation process.

Registered Agent—An agent of the permittee that is authorized to receive service of any process, notice, or demand required or permitted by law to be served on the permittee.

Responsible Official—An individual authorized by the permittee to communicate with DEQ on behalf of the permittee on any matter related to the permit. The responsible official provides written certification of information submitted to DEQ as required in this permit. Any notice to or communication with the responsible official is a notice to or communication with the permittee.

Seasonal Closure—Annual cessation of operations caused by weather.

Temporary Closure—Any cessation of operations exceeding 30 days, other than seasonal or permanent.

Water Balance—An inventory and accounting process, capable of being reconciled, that integrates all potential sources of water that are entrained in the cyanidation facility or may enter into or exit from the cyanidation facility. The inventory must include the water-holding capacity of specific structures within the facility that contain process water. The water balance is used to ensure all process water and other pollutants can be contained as engineered and designed within a factor of safety as determined in the permanent closure plan.

Water Management Plan—A document that describes the results of the water balance and the methods used to ensure pollutants are not discharged from a cyanidation facility into waters of the state unless permitted or otherwise approved by DEQ.

Waters of the State—All accumulations of water, surface and underground, natural and artificial, public and private or parts that are wholly or partially within, flow through, or border upon the State of Idaho except for private waters as defined in Idaho Code § [42-212](#).

Weak Acid Dissociable (WAD) Cyanide—The cyanide concentration as determined by Method C, Weak Acid Dissociable Cyanide, D2036 of American Society of Testing Materials Book of Standards, “Standard Methods for the Examination of Water and Wastewater,” Method 4500-CN-I, or other methods accepted by the scientific community and deemed appropriate by DEQ.

1 Facility Information

This permit covers any portion of the cyanidation facility that is intended to contain, treat or dispose of process water or process-contaminated water containing cyanide.

1.1 Contact and Location Information

Permittee	Perpetua Resources Idaho, Inc.
Permit Number/Facility Identification	CN-000035
Reporting Periods	Annually: January 1 to December 31 Quarterly: Q1 is January 1 to March 31 Q2 is April 1 to June 30 Q3 is July 1 to September 30 Q4 is October 1 to December 31
Facility location	Stibnite Road, Stibnite, Idaho 83677 T 18 N R9 E, Sections 11, 14, 15, 16, 20, 21, 28 Latitude: 44.907944 Longitude: -115.328556
Responsible Official	Alan Haslam, Vice President—Permitting Phone: (208) 901-3053 Email: alan.haslam@perpetua.us Mailing Address: Perpetua Resources Idaho, Inc. 405 S 8th Street, Suite 201 Boise, ID 83702 The permittee must notify DEQ within 30 days if a change in the responsible official occurs.
Registered Agent	Corporation Service Company 1303 12th Avenue Road Nampa, ID 83686 The permittee must notify DEQ within 30 days if a change in the registered agent occurs.
Designed Daily Throughput	25,000 tons/day
Total Lifetime Throughput	115 million tons

1.2 Regulated Facility Portions

Portion ID	Description	Design Capacity
TSF-000-01	Tailings storage facility	115 million tons ore 56 million gallons process water

1.3 Facility Operating Plan

Documents listed in this section require approval by the Idaho Department of Environmental Quality (DEQ) and once approved, are incorporated into and enforceable as elements of this cyanidation permit CN-000035. The following conditions apply to the documents listed in Table 1:

1. The permittee must submit any proposed revisions to the documents listed in Table 1 to DEQ for review and approval before implementation.
2. The permittee must furnish DEQ with a copy of the most current revision of each document listed in Table 1 by March 31 of each year as a single electronic package. The electronic package must include a summary of all revisions made during the operating year. This summary must include a citation specific to each revision.
3. Revisions to the documents listed in this Table 1 are subject to the permit modification process in the rule, "Permit Modification" (IDAPA 58.01.13.750).

Table 1. Operating plan documents incorporated by reference into this permit from *Stibnite Gold Project Facility Application for a Permit to Conduct Ore Processing by Cyanidation, October 2, 2024 (Application)*.

Document ID	Description	Rule Reference
Appendix 6.A, Appendix G	Tailings Storage Facility Construction Management Plan	IDAPA 58.01.13.200.06 IDAPA 58.01.13.200.07.j
Appendix 6.A, Appendix I	Tailings Storage Facility Construction Quality Assurance Manual	IDAPA 58.01.13.200.06.a.vii IDAPA 58.01.13.200.07.j IDAPA 58.01.13.200.10.a—e
Appendix 7.B	Tailings Storage Facility Operations, Maintenance, and Surveillance Manual	IDAPA 58.01.13.200.10.a—e IDAPA 58.01.13.204.b.ii
Appendix 7.C	Emergency and Spill Response Plan	IDAPA 58.01.13.100.03.s.iv IDAPA 58.01.13.200.10.a—e
Appendix 7.D	Cyanide and Cyanide Systems Employee Education Program	IDAPA 58.01.13.200.15
Appendix 7.E Appendix 7.F	Water Management Plan Water Balance Report	IDAPA 58.01.13.100.03.s.ii
Appendix 7.G	Water Quality Monitoring Plan ^a	IDAPA 58.01.13.200.11
Appendix 7.G, Appendix A	Monitoring Well Siting and Construction Plan ^a	IDAPA 58.01.13.200.12
Appendix 7.G; Appendix E Appendix 7.G; Appendix F	Cyanidation Surface Water Quality Assurance Project Plan ^a Cyanidation Groundwater Quality Assurance Project Plan ^a	IDAPA 58.01.13.200.11.h
Appendix 7.H	Permanent Closure Plan ^b	IDAPA 58.01.13.100.03.t

^a A revised water quality monitoring plan and associated appendices was received on December 9, 2024.

^b The permanent closure plan (PCP) was submitted to the Idaho Department of Lands (IDL) on October 3, 2024. IDL ruled the PCP complete on November 5, 2024, and is reviewing for accuracy and compliance with IDAPA 20.03.02.071. Per IDAPA 58.01.13.500.11, the IDL approved PCP will be incorporated by reference as a permit condition (section 2.1.5).

2 Compliance Conditions

The following sections specify standard and facility-specific conditions. Standard conditions are required by rule to be included in all permits and are identified by reference to the “Rules for Ore Processing by Cyanidation” (IDAPA 58.01.13).

2.1 General Conditions

2.1.1 Compliance Required (IDAPA 58.01.13.500.01)

The permittee must comply with all conditions of this permit. Issuance or possession of this permit does not relieve the permittee of the responsibility to comply with all other applicable local, state, and federal laws.

2.1.2 Duty to Provide Information (IDAPA 58.01.13.500.04)

The permittee must furnish DEQ, within a reasonable or specified time, any information, including copies of records required by this permit or other applicable rules, that DEQ may request to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit or other applicable rules.

2.1.3 Entry and Access (IDAPA 58.01.13.500.06)

The permittee must allow the Director, or a designee obligated by agreement with the Director to comply with the confidentiality provisions of Idaho Code § 39-111, to:

1. Enter the permitted cyanidation facility at reasonable times and access to records required by this permit.
2. Have access at reasonable times to and copy any records required under the conditions of this permit.
3. Inspect at reasonable times any cyanidation facility, equipment, practice, or operation permitted or required by this permit.
4. Sample or monitor at reasonable times, substances or parameters directly related to permit or regulation compliance.

2.1.4 Permit Availability

The permittee must maintain a copy of, and all modifications to, the current permit at the permitted facilities at all times.

2.1.5 Permanent Closure (IDAPA 58.01.13.500.11)

The permanent closure plan, as approved by the Idaho Department of Lands (IDL), is incorporated by reference into this permit as a permit condition and is enforceable as such.

2.2 Construction Conditions

2.2.1 Construction (IDAPA 58.01.13.500.02)

Construction of individual components of the cyanidation facility authorized by this permit may commence upon DEQ's approval of the final plans and specifications for that component and acceptance of financial assurance for the permanent closure plan approved by IDL (section 7). The permittee must notify DEQ 30 days prior to beginning any construction activities covered under this permit.

2.2.2 Record Plans and Specification (IDAPA 58.01.13.500.03)

An Idaho licensed professional engineer must confirm in writing that all record plans and specifications are complete and accurate. These record plans and specifications must be submitted by the permittee to DEQ within 30 days after completing the construction of each critical phase of the facility as approved by DEQ. The record plans and specifications must be

accompanied by a final construction report. If the construction does not deviate from the approved plans and specifications, a statement to the effect must be submitted by the engineer. DEQ will review the final construction report, including record plans and specifications and results of quality control and quality assurance testing, to verify that the facility was constructed in compliance with and does not deviate from the approved plans and specifications. If DEQ determines the facility was not constructed in compliance with or deviates from the approved plans and specifications, DEQ will provide the permittee written notice of necessary corrective actions within 30 days of receipt of all submittals required by this permit condition. If DEQ provides such written notice, operation of the facility may not begin until DEQ inspects and provides written approval of the corrective actions. Operation of the facility may begin if DEQ does not deliver to the permittee written notice within 30 days of receipt of all submittals required by this subsection.

2.2.3 Notifications (IDAPA 58.01.13.500.05)

After initial construction and seasonal and/or temporary closure, the permittee must, within 30 days, provide written notice to DEQ of the permittee's intentions to commence or restart operations.

At least 30 days before operations, and/or temporary or seasonal operations are completed, the permittee must notify DEQ of the permittee's intentions to temporarily, seasonally, or permanently close operations.

Notification must provide sufficient time for DEQ to provide preoperational or postoperational inspections, as necessary.

2.2.4 Begin Construction (IDAPA 58.01.13.500.10)

If the permittee fails to begin construction of a cyanidation facility within 1 year of the effective date of this permit, the permit will be deemed void.

2.2.5 Facility Specific Conditions

Document	Condition	Rule Reference
Stibnite Gold Project, Tailings Storage Facility, Operations, Maintenance, And Surveillance Manual	Submit an updated plan for DEQ approval removing references to operation or maintenance of the pipeline corridor.	IDAPA 58.01.13.200.10

Document	Condition	Rule Reference
Stibnite Gold Project, Tailings Storage Facility, Design Report, Appendix I - Construction Quality Assurance Manual	Submit an updated plan for DEQ approval. Updates should: <ol style="list-style-type: none"> 1. Identify the person directly responsible for supervising construction and quality assurance/quality control. 2. Specify and provide for documentation of owner acceptance of all underlying components of each containment system. 3. Require the QC provider take and test destructive samples from the liner installer samples. The results of these tests must be included in construction reports supplied to DEQ. 	IDAPA 58.01.13.100.03.r.xvii IDAPA 58.01.13.200.06.a.vii
Stibnite Gold Project, Tailings Storage Facility, Design Report, Appendix H - Technical Specifications	Submit an updated plan for DEQ approval. Updates should: <ol style="list-style-type: none"> 1. Correct earthen materials gradation inconsistencies. 2. For all construction materials provide acid generating potential limits and include testing frequencies and methods. 3. List a maximum hydraulic conductivity for all geosynthetic components of liner systems. 	IDAPA 58.01.13.200.02
Stibnite Gold Project, Tailings Storage Facility, Design Report	Submit an updated plan for DEQ approval. Updates should include: <ol style="list-style-type: none"> 1. Appropriate coefficients of friction against sliding plus a factor of safety at all interfaces of containment construction. 2. Minimum factors of safety evaluations for all liner systems including associated underlying soils and embankments. 	IDAPA.58.01.13.200.06.b.vi IDAPA.58.01.13.200.06.b.vii
Issued for Construction Plans and Specifications	At least 60 days prior to construction, submit for DEQ approval any plans or specifications for the tailings storage facility which are modified or updated following permit issuance.	IDAPA.58.01.13.200.02
General requirements	Supply DEQ with liner batch and testing information specific to lots to be used on the project prior to placement.	IDAPA.58.01.13.200.06.b.ix

Document	Condition	Rule Reference
General requirements	At least 30 days prior to any construction activity for any facility component or containment structure, notify DEQ to allow for DEQ or third-party representatives to witness QA/QC activities and participate in inspections of underlying components.	IDAPA.58.01.13.200.06.a.vi
Final Construction Report	The final construction report must include, but is not limited to: <ol style="list-style-type: none"> 1. A record of all field changes to the approved design. 2. All QA/QC test results. 3. All material quantities and placement location. 4. Daily reports prepared by QC provider, Engineer, and Contractor. 5. A summary of construction methods and materials. 6. A summary of any problems encountered, and actions taken in response. 7. The liner installer QC report. 	IDAPA.58.01.13.200.02

2.3 Operational Conditions

2.3.1 Season of Operation

January 1 to December 31

2.3.2 Groundwater (IDAPA 58.01.13.200.06.a.i)

The permittee must ensure the operation of approved facility components does not cause a discharge to groundwater in violation of IDAPA 58.01.11.400.01.

In the event discharge from the cyanidation facility that results in degradation of groundwater but does not violate IDAPA 58.01.11.400.01, the permittee must:

1. Notify DEQ within 5 calendar days of the permittee’s receipt of information indicating degradation of groundwater.
2. Cooperate with DEQ in implementing response measures under IDAPA 58.01.11.400.02.

2.3.3 Discharge Response (IDAPA 58.01.13.500.08)

This permit does not authorize any discharge for which authorization is required by law, including but not limited to, the “Rules Regulating the Idaho Pollutant Discharge Elimination System” (IDAPA 58.01.25). If an unauthorized discharge occurs, the permittee must implement the DEQ-approved emergency and spill response plan (section 1.3, Table 1).

2.3.4 Public Access and Wildlife Protection (IDAPA 58.01.200.07.b—c)

Human health and wildlife must be protected by restricting access to cyanidation facility components. Access should be restricted according to Application sections 3.1.5 and 3.1.12 and in accordance with access, fencing, or posting requirements of applicable state and federal regulations.

2.3.5 Temporary/Seasonal Closure (IDAPA 58.01.13.500.09)

The proposed operation plan does not include any seasonal closures. At least 60 days before temporary or seasonal closure, the permittee must submit a temporary or seasonal closure plan to DEQ for approval. The plan must describe the procedures, methods, and schedule implemented to (a) treat and dispose of process water and pollutants, (b) control drainage from the cyanidation facility, (c) control drainage from the surrounding area, and (d) secure storage of chemicals during period of closure. Within 30 days of receiving the plan, DEQ will approve and/or suggest modifications necessary to protect waters of the state. The permittee must ensure that closure complies with an approved plan. The approved plan must be implemented before the permittee completes temporary or seasonal closure. Facilities may not be temporarily or seasonally closed for a period longer than 2 years unless approved by DEQ.

2.3.6 Buffer Zones

New process components containing process water are not allowed within 1,000 feet of any dwelling that is occupied at least part of the year and not owned by the permittee.

2.4 Operational Limits

Category/Facility	Description	Limit (units)
Impoundment Freeboard/TSF-000-001	Minimum freeboard requirement for TSF-000-01 for total reserved storage including wind/wave runup and dry freeboard plus probable maximum flood (Application Appendix E, Table 4-8).	Stage 1: 37 feet
		Stage 2: 26 feet
		Stage 3: 22 feet
		Stage 4: 19 feet
		Stage 5: 18 feet
LCRS Leak Detection Sump/LCRS-1	Average daily flow, calculated by pumped volume divided by day(s) between pumping events (Application Appendix 6.A, Appendix M).	380 gpd
WAD Cyanide/ TSF-000-01	Concentration limit in the liquid fraction (IDAPA 58.01.13.204.03).	50 mg/L

2.5 Compliance Activities

Compliance Activity (CA) Number and Completion Due Date	Compliance Activity Description
CA-000-01 Within 30 days permit issuance	Water Quality Monitoring Plan: Within 30 days of permit issuance, submit a revised WQMP, and associated appendices, for DEQ review and approval. DEQ to provide WQMP comments with permit decision letter.
CA-000-02 At least 30 days prior to well installation	Groundwater Monitoring Well Installation: At least 30 days prior to commencement of drilling activities, submit to DEQ the monitoring well siting and construction plan for final construction approval. If necessary, a site visit with permittee and DEQ staff to confirm exact well location(s) will also be scheduled. During well drilling and installation activities, the permittee will provide DEQ with daily activity reports including drilling progress, geologic formations encountered, depths as which formation water is encountered, and unexpected conditions. Record diagrams including well construction details, well elevation, and a detailed geologic log must be provided to DEQ for each monitoring well in the next annual report (section 4.2).
CA-00-03 Annually	Water Management Plan: Review and update annually the water management plan, incorporating any changes in facility water management or meteorological conditions. The updated plan must be submitted to DEQ for review and approval annually.
CA-00-04 Annually	TSF Tailings Consolidation Analysis and Sampling: Update the tailings consolidation model, design filling model, and design settlement curve with analytical results from tailings production annually.

3 Limitations and Monitoring Requirements

The permittee must conduct monitoring as required in this section, unless otherwise specified in a DEQ-approved temporary or seasonal closure plan.

All monitoring required in this section must be conducted according to the approved water quality monitoring plan (WQMP) and quality assurance project plans.

3.1 Inspections (IDAPA 58.01.13.20.10.a—c)

The permittee must evaluate the integrity and performance of all containment systems by performing inspections of all containment systems and piping and conveyance systems that carry process water. The permittee must perform the surveillance activities for the TSF in accordance with Application Appendix 7.B, Section 6.

The permittee must also make weekly inspections for wildlife mortality for approved cyanidation facility components in accordance with Application Appendix 7.B, Section 4.2.3 and Appendix 7.G, Section 5.2.1.

3.2 Process Water Monitoring

Monitoring Point Description and Location	Sample Type and Frequency	Parameters (units)
OPS-1: TSF-000-01 Influent	Discharge bi-weekly Water quality quarterly	Flow (average gpd) WAD CN (mg/L)
OPS-3: Supernatant/Reclaim water	Discharge bi-weekly Water quality quarterly	Flow (average gpd) Group 1 ^b
LRCS-1: TSF LRCS collection sump ^a	Discharge bi-weekly Water quality quarterly	Volume (total gallons pumped per monitoring event) Group 1 ^b
OD-1: TSF Overdrain collection sump ^a	Discharge bi-weekly Water quality quarterly	Volume (total gallons pumped per monitoring event) Group 1 ^b

Notes:

^a Sumps must be inspected and evacuated on a more frequent basis than weekly if the fluid level is above the top of the sump or the invert of any pipe that discharges into the sump, whichever level is lower, or if the potential exists to exceed the sump capacity. Records are required documenting volume, date, and time of extraction to show that sumps are maintained in this condition.

^b Group 1 constituents are as follows:

Constituent ^a	Fraction	Unit
pH	N	S.U.
Total Dissolved Solids (TDS)	N	mg/L
Alkalinity, CaCO ₃	N	mg/L
Cyanide (free)	T/D	mg/L
Cyanide (total)	T/D	mg/L
Cyanide (WAD)	T/D	mg/L
Calcium	T/D	mg/L
Chloride	T/D	mg/L
Magnesium	T/D	mg/L
Potassium	T/D	mg/L
Sodium	T/D	mg/L
Sulfate	N	mg/L
Nitrate	N	mg/L
Aluminum	T/D	mg/L
Antimony	T/D	mg/L
Arsenic	T/D	mg/L
Cadmium	T/D	mg/L
Copper	T/D	mg/L
Iron	T/D	mg/L
Lead	T/D	mg/L
Manganese	T/D	mg/L
Mercury	T/D	mg/L

Constituent ^a	Fraction	Unit
Thallium	T/D	mg/L
Zinc	T/D	mg/L

Notes:

^a Constituents should be analyzed using laboratory methods in the approved WQMP or other methods as approved by DEQ.

S.U. = standard unit

N = primary sample

D = dissolved

T = total

mg/L = milligrams per liter

3.3 Meteorological Monitoring

Monitoring Point Description	Sample Type and Frequency	Parameters (units)
Weather Station TSF-000-001	Daily	Temperature (°C): Mean, Minimum, Maximum Mean Daily Windspeed (mph) Mean Daily Wind Direction (degrees azimuth) Total Precipitation (inches of water, including snow water equivalent)

Note: Weather station locations must be selected based on best practices for deploying weather stations in the field. Depending on site-specific conditions and the size of the cyanidation facility, weather stations for each facility component may be required.

3.4 Groundwater Monitoring

3.4.1 Groundwater Monitoring Locations

Monitoring Point Number	Common Designation	Type	Location
GW-OPF-01	GW-29	Upgradient	Ore Processing Facility
GW-OPF-02	GW-31	Upgradient	Ore Processing Facility
GW-OPF-03	GW-10	Upgradient	Ore Processing Facility
GW-OPF-04	MWH-A10	Upgradient	Ore Processing Facility
GW-OPF-05	GW-28	Compliance	Ore Processing Facility
GW-OPF-06	GW-24	Compliance	Ore Processing Facility
GW-OPF-07	GW-27	Compliance	Ore Processing Facility
GW-OPF-08	GW-30	Compliance	Ore Processing Facility
GW-OPF-09	GW-25	Compliance	Ore Processing Facility
GW-OPF-10	GW-26	Compliance	Ore Processing Facility
GW-TSF-01	GW-7	Upgradient	Tailings Storage Facility
GW-BL-01	MWH-A01	Baseline	Tailings Storage Facility
GW-BL-02	MWH-A02	Baseline	Tailings Storage Facility
GW-BL-03	SRK-GM-40S	Baseline	Tailings Storage Facility
GW-BL-04	SRK-GM-37S	Baseline	Tailings Storage Facility

Monitoring Point Number	Common Designation	Type	Location
GW-TSF-02	GW-S1N	Compliance	Tailings Storage Facility
GW-TSF-03	GW-S1S	Compliance	Tailings Storage Facility
GW-TSF-04	GW-S2N	Compliance	Tailings Storage Facility
GW-TSF-05	GW-S2S	Compliance	Tailings Storage Facility
GW-TSF-06	GW-S3N	Compliance	Tailings Storage Facility
GW-TSF-07	GW-S3S	Compliance	Tailings Storage Facility
GW-TSF-08	GW-S4N	Compliance	Tailings Storage Facility
GW-TSF-09	GW-S4S	Compliance	Tailings Storage Facility
GW-TSF-10	GW-S5N	Compliance	Tailings Storage Facility
GW-TSF-11	GW-S5S	Compliance	Tailings Storage Facility

3.4.2 Groundwater Monitoring, Sampling, and Analyses

Monitoring Points	Sample Type and Frequency	Constituents (units)
All groundwater monitoring points in permit section 3.4.1	As defined in Application Appendix 7.G	Depth to water (feet) Water table elevation (feet above mean sea level)
	As defined in Application Appendix 7.G	Appendix 7.G, Table 4-3

3.4.3 Groundwater Threshold Concentrations and Compliance Criteria

In addition to the monitoring requirements in section 3.4.2, the permit includes threshold concentrations and compliance criteria for each compliance point in section 3.4.1. Threshold concentrations are derived from existing conditions and provide for early detection of discharges of pollutants (IDAPA 58.01.13.200.11.f). Early detection thresholds (EDT) for each compliance point (section 3.4.1) are specified in Table 4-4 of the WQMP and are incorporated by reference into the permit. Any exceedances of EDTs requires notifying DEQ according to section 5 of the permit. The permittee must initiate the approved response plan (section 1.3) and specific actions that will result in mitigating an exceedance of any threshold.

Compliance criteria are water quality concentrations that must not be exceeded to prevent degradation of groundwater according to Idaho’s “Groundwater Quality Rule” (IDAPA 58.01.11). Compliance criteria are required by IDAPA 58.01.13.200.11.e and are derived from IDAPA 58.01.11, or existing conditions for constituents above groundwater quality standards. As requested by the permittee, DEQ set groundwater point(s) of compliance (IDAPA 58.01.11.401) and issued a point(s) of compliance determination on August 25, 2023. Compliance criteria for each compliance point (section 3.4.1) are specified in Table 4-4 of the WQMP and are incorporated by reference into the permit. Any exceedance of compliance criteria requires notifying DEQ according to section 5 of the permit. The permit does not authorize degradation of groundwater and exceedance of compliance criteria may be permit noncompliance.

3.5 Surface Water Monitoring

3.5.1 Surface Water Monitoring Locations

Monitoring Point Number	Common Designation	Water Body	Type	Location
SW-OPF-01	SW-18	EFSFSR	Upgradient	Ore Processing Facility
SW-OPF-02	SW-17	Garnet Creek	Upgradient	Ore Processing Facility
SW-OPF-03	SW-16	Garnet Creek	Compliance	Ore Processing Facility
SW-OPF-04	SW-15	EFSFSR	Compliance	Tailings/Reclaim Pipeline
SW-OPF-05	SW-20	EFSFSR	Compliance	Ore Processing Facility
SW-OPF-06	SW-14	EFSFSR	Compliance	Ore Processing Facility
SW-TSF-01	SW-23	Meadow Creek	Upgradient	Tailings Storage Facility
SW-TSF-02	SW-24	Meadow Creek, northwest tributary	Upgradient	Tailings Storage Facility
SW-TSF-03	SW-41	Meadow Creek	Compliance	Tailings Storage Facility
SW-TSF-04	SW-22	Meadow Creek	Compliance	Tailings Storage Facility
SW-TSF-05	SW-19	Meadow Creek	Compliance	Tailings Storage Facility

EFSFSR = East Fork South Fork Salmon River

3.5.2 Surface Water Monitoring, Sampling, and Analyses

Monitoring Points	Sample Type and Frequency	Constituents (units)
All surface water monitoring points in permit section 3.5.1	As defined in Application Appendix 7.G	Discharge (cubic feet per second)
	As defined in Application Appendix 7.G	Appendix 7.G, Table 3-9

3.5.3 Surface Water Threshold Concentrations and Compliance Criteria

In addition to the monitoring requirements in section 3.5.2, the permit includes threshold concentrations and compliance criteria for each compliance point in section 3.5.1. Threshold concentrations are derived from existing conditions and provide for early detection of discharges of pollutants (IDAPA 58.01.13.200.11.f). Early detection thresholds (EDT) for each compliance point (section 3.5.1) are specified in Table 3-10 of the WQMP and are incorporated by reference into the permit. Any exceedances of EDTs requires notifying DEQ according to section 5 of the permit. The permittee must initiate the approved response plan (section 1.3) and specific actions that will result in mitigating an exceedance of any threshold.

Compliance criteria are water quality concentrations that must not be exceeded to prevent degradation of surface water per Idaho’s “Water Quality Standards” (IDAPA 58.01.02). Compliance criteria are required by IDAPA 58.01.13.200.11.e and are derived from IDAPA 58.01.02, or existing conditions for constituents above water quality standards. Compliance criteria for each compliance point (section 3.5.1) are specified in Table 3-10 of the WQMP and

are incorporated by reference into the permit. Any exceedance of compliance criteria requires notifying DEQ according to section 5 of the permit. The permit does not authorize degradation of surface water and exceedance of compliance criteria may be permit noncompliance.

4 Reporting Requirements

4.1 Quarterly Reporting

The permittee must submit quarterly reports to DEQ in an approved electronic format on or before 30 days after the quarter ends. The reports must contain the following:

1. Monitoring results for any monitoring required by section 3 during the reporting period. If the permittee monitors any parameter for compliance purposes more frequently than required by this permit, the results of this more frequent monitoring must be included in the reporting of the data submitted in the quarterly report.
2. A queryable electronic database containing all required facility data collected under this permit including the most recent monitoring results obtained during the reporting period.
3. Any deviations from monitoring requirements and quality assurance and quality control plans.
4. A record of any exceedances of early detection thresholds or compliance criteria, including specific actions taken under the approved response plan to mitigate an exceedance.
5. A record of any releases and the specific actions taken in response as required by the approved emergency spill and response plan.
6. A record of any noncompliance with any condition, limitation, or criteria of this permit.

Cyanidation facilities that have not initiated construction or operations must submit a quarterly report identifying the status of construction and operation of the facility. Surface water and groundwater monitoring required under this permit must be performed continuously upon permit issuance regardless of the operational status of the cyanidation facility.

4.2 Annual Reporting

The permittee must submit an annual report to DEQ in an approved electronic format on or before March 31 of each year, for the preceding calendar year. The report must contain the following:

1. A brief summary of site operations, including the number of tons of ore processed by cyanidation during the year, any construction or expansion activities, and the integrity of the systems for containing or managing process water and process-contaminated water.

2. A brief summary of any DEQ-approved modifications to the permit's section 1.3 operating plans from the preceding calendar year and the current approved version of operating plans.
3. An annual process water monitoring report summarizing the results of monitoring conducted as required by section 3.2. The annual process water monitoring report should include:
 - a. Summary of process water volume and quality collected for all locations in section 3.2.
 - b. Copies of all field sampling forms, chain of custody forms, and laboratory analytical reports.
 - c. Results of quality assurance/quality control review.
4. The reviewed and updated Water Management Plan. The review should include an annual water management summary including an annual water budget, storage volumes in containment systems from the prior year, and a summary of any changes to the plan as a result of facility operations or metrological conditions.
5. An annual consolidation report, including updates the tailings consolidation model, design filling model, and design settlement curve with analytical results from tailings production annually.
6. An annual water quality monitoring report summarizing the results of monitoring conducted under the DEQ-approved WQMP. The annual water quality monitoring report should include the following:
 - a. Summary of all meteorological, hydrologic, and hydrogeologic data collected as required by the approved WQMP for both the previous calendar year and the period of record. Provide data in an electronic database format.
 - b. Trend analysis based on the full period of record including background data when available, identifying statistically significant changes in water quality and quantity.
 - c. Copies of all field sampling forms, chain-of-custody forms, and laboratory analytical reports.
 - d. Results of quality assurance/quality control review.
 - e. Any additional information as specified in section 5.3 of the approved WQMP.
7. A brief summary of any plan updates, water balance reconciliations, and statistical analysis must be provided in the annual report. The summary should briefly describe the methods used and any significant findings.

If the permittee monitors any parameter for compliance purposes more frequently than required by this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the annual report.

4.3 Submittals

All electronic and hard copy submittals required by this permit must be submitted to the following:

Cyanidation Program Manager
Idaho Department of Environmental Quality
1410 N. Hilton St.
Boise, ID 83706

All submittals to DEQ pertaining to this permit must include the following certification statement and be signed by the permittee's responsible official:

I certify that the information provided in this submittal was prepared in conformance with all permit conditions and applicable regulations and is to the best of my knowledge, true, accurate and complete, and I acknowledge that knowing submission of false information is a permit violation and a violation under IDAPA 58.01.13.900, which may result in permit revocation as provided for in IDAPA 58.01.13.850.01 or other enforcement action as provided for under Idaho law.

5 Noncompliance Reporting

According to IDAPA 58.01.13.500.07, the permittee must report the following to DEQ:

1. Orally, as soon as possible but no later than 24 hours from the time the permittee knows or should reasonably know of any noncompliance with the permit that may endanger the public health or environment. Noncompliance that may endanger the public health or the environment includes but is not limited to the following:
 - a. Any event in violation of the "Water Quality Standards" (IDAPA 58.01.02) or "Groundwater Quality Rule" (IDAPA 58.01.11).
 - b. Any event that would exceed operational limits or conditions in this permit.
 - c. Any unauthorized release—no matter how small—of process water, process-contaminated water, or any other cyanide-containing material from any portion of the cyanidation facility to the land surface or discharge to waters of the state.
2. In writing, within 5 working days from the time a permittee knows or should reasonably know of any event that may be or that may result in a violation of this permit; or "Rules for Ore Processing by Cyanidation" (IDAPA 58.01.13); or "Water Quality Standards" (IDAPA 58.01.02); or "Groundwater Quality Rule" (IDAPA 58.01.11). This report must contain the following:
 - a. A description of the event and its cause; if the cause is not known, steps taken to investigate and determine the cause.
 - b. The period of the event including, to the extent possible, the individual involved in the incident and the time and date of the incident.
 - c. The measures taken to mitigate or eliminate the event and protect the public health.
 - d. Steps taken to prevent recurrence of the event.
3. In writing, confirmation of any conditions that may result in violation of any permit condition.

4. In writing, when the permittee knows or should reasonably know of relevant facts not submitted or incorrect information submitted in a permit application or any report or notice to the Director or DEQ. Those facts or the correct information must be included as a part of this report.

Reports under section 5.1 must be made to DEQ Boise Regional Office at (208) 373-0550, and in case of a public health emergency, also call the 24-hour Idaho Emergency Medical Services Communications Center number at (800) 632-8000.

Written reports under this section must be made according to section 4.3.

6 Administrative

6.1 Records Retention

The permittee must retain during construction, operation, closure, and postclosure monitoring, all records of monitoring activities and analytical results, including all original data logging files for continuous monitoring instrumentation, and all calibration and maintenance records. The period of retention must continue until DEQ approves the permanent closure report for the cyanidation facility under IDAPA 58.01.13.502, or all litigation involving the cyanidation facility is finally resolved, whichever is later.

6.2 Permit Limitations

Issuance of this permit does not convey any property rights or any exclusive privilege nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations. The issuance of this permit does not constitute authorization of the permitted activities by any other state or federal agency or private individual or entity and does not excuse the permittee from the obligation to obtain any other necessary approvals, authorizations, or permits.

7 Financial Assurance

7.1 Financial Assurance Required

The permittee is required to provide financial assurance per the Idaho Mined Land Reclamation Act (Idaho Code § 47-15) and associated rules. Construction and operation of the cyanidation facility under this permit is prohibited until the permittee submits proof acceptable to DEQ that financial assurance for the cyanidation facility permanent closure plan has been provided as required by Idaho Code § 47-15.

7.2 Insufficiency

In the event the financial assurance is forfeited as described in the Idaho Mined Land Reclamation Act (Idaho Code § 47-15), DEQ may seek to recover the amount necessary to implement permanent closure under this permit and the “Rules for Ore Processing by Cyanidation” (IDAPA 58.01.13), as provided by law.

8 Permit Modification

8.1 Modifications Allowed

This permit may be modified at the request of the permittee or when the Director determines cause exists for permit modification.

The permittee’s requests for modification must include a written description of the modifications, data supporting the modification request, and causes and anticipated effects of the modification.

Pursuant to IDAPA 58.01.13.750.01, if the Director determines that cause exists for permit modification, the Director will notify the permittee in writing and request information necessary for the Director to modify the permit.

Causes for permit modification are as follows:

1. A material modification or material expansion in the cyanidation facility operation, design, or closure plan; or
2. Natural phenomena substantially different from those anticipated in the original permit.

8.2 Modification Procedure

The Director will evaluate the request for modification of this permit, based on the information provided by the permittee or otherwise obtained by the Department, and determine if the modification requires a major permit modification or a minor permit modification.

8.2.1 Major Permit Modification

Major permit modifications are subject to the provisions in IDAPA 58.01.13.100, 200 through 205, 300, 400, and 450. Changes that require a major permit modification include but are not limited to the following:

1. Material modifications or material expansions to a cyanidation facility as defined by these rules.
2. A significant increase or decrease in the time the cyanidation facility is expected to be in operation.

3. Requests to modify or change water quality compliance criteria and/or water quality compliance monitoring points.

8.2.2 Minor Permit Modification

Minor permit modifications are not subject to the provisions of IDAPA 58.01.13.750.100, 300, and 400. The permittee must notify and receive approval from DEQ before making minor modifications. Minor permit modifications are those that, if granted, would not result in any increased hazard to the environment or to the public health. Within 30 days of receipt of a written request for a minor modification, DEQ will complete an evaluation of the request and either approve or deny the request in writing. Minor modifications may include but are not limited to the following:

1. The correction of typographical errors in an approved permit.
2. Legal transfer of ownership or operational control.
3. A change in the requirements for monitoring or reporting frequency of the quality or quantity of the project air, water or waste generated.
4. A change in the cost estimates submitted by a permittee to the Idaho Department of Lands to complete permanent closure.
5. A change or modification required by a state or federal requirement that supersedes the authorities of these rules.

9 Transfer of Permits

This permit may be transferred to a new permittee if the new permittee provides written notice to DEQ that contains the following:

1. A specific date for transfer of permit responsibility, coverage, and liability between the current and new permittees.
2. Demonstration that the new permittee has established appropriate financial assurance for permanent closure of the facility.
3. The information required in IDAPA 58.01.13.100.03.b., 100.03.d., 100.03.e. and 100.03.g.

DEQ will either approve or deny the transfer of this permit within 30 days of receipt of notice that the current permittee wishes to transfer the permit to a new permittee. DEQ will deny the request for transfer of this permit if the new permittee has not provided the information required in IDAPA 58.01.13.800.01.

10 Permit Revocation

10.1 Cause of Revocation

A material violation of this permit or IDAPA 58.01.13 may be grounds for the Director to revoke this permit. A violation that is shown to have occurred as the result of an unforeseeable act of

God despite the permittee's reasonable efforts to comply with all applicable legal requirements will not be considered grounds for revocation.

10.2 Preliminary Decision

The Director will provide the permittee written notice of a preliminary decision to revoke a permit, including a statement of the reasons for the preliminary decision and reference to the procedure for requesting a revocation hearing under IDPA 58.0.13.850.03.

10.3 Revocation Hearing

A preliminary decision to revoke this permit becomes final 35 days after the date of the written notice of the preliminary decision unless the permittee requests in writing an administrative hearing before the preliminary decision becomes final. A request for an administrative hearing must be in the form of and will be considered as a petition to initiate a contested case under the "Rules of Administrative Procedure before the Board of Environmental Quality" (IDAPA 58.01.23).