#### STATE OF NEVADA

# Department of Conservation and Natural Resources Division of Environmental Protection Bureau of Mining Regulation and Reclamation

#### **Water Pollution Control Permit**

Permittee: Jerritt Canyon Gold LLC

**Jerritt Canyon Mine** 

HC 31 Box 78 Elko, NV 89801

Permit Number: NEV000020
Review Type/Year/Revision: Renewal 2025, Revision 00

Pursuant to Nevada Revised Statutes (NRS) 445A.300 through 445A.730, inclusive, and regulations promulgated thereunder by the State Environmental Commission and implemented by the Division of Environmental Protection (the Division), this Permit authorizes the Permittee to construct, operate, and close the **Jerritt Canyon Mine**, in accordance with the limitations, requirements, and other conditions set forth in this Permit. The Permittee is authorized to beneficiate up to **3,000,000 tons** of ore per year.

This facility is located in Elko County, within portions of Township 38 North (T38N), Range 53 East (R53E), Section 3; T39N, R52E, Sections 1, 2, 11 through 14, and 24; T39N, R53E, Sections 1 through 11, 15 through 22, 27 through 30, and 32 through 34; T40N, R53E, Sections 1 through 36; T40N, R54E, Sections 3 through 8, 17 through 20, and 29 through 32; T41N, R53E, Sections 9, 13, 16, 17, and 19 through 36; and T41N, R54E, Sections 19, 20, and 29 through 34; Mount Diablo Baseline and Meridian, approximately 46 miles north of Elko, Nevada.

The Permittee must comply with all terms and conditions of this Permit and all applicable statutes and regulations.

This Permit is based on the assumption that the information submitted in the application of 2 April 1979, and as modified by subsequent approved amendments, is accurate and that the facility has been constructed and is being operated as specified in the submitted application. The Permittee must inform the Division of any deviation from, or changes in, the information in the application, which may affect the ability of the Permittee to comply with applicable regulations or Permit conditions.

	tive as of <b>XX December 2025</b> , and shall remain in effect until <b>17 Septemb</b> ed, suspended, or revoked.
Signed this the	day of <b>December 2025</b> .
Ashley Taylor, P.E	
Chief, Bureau of M	ining Regulation and Reclamation

# I. Specific Facility Conditions and Limitations

- A. In accordance with operating plans and facility design plans reviewed and approved by the Division the Permittee shall:
  - 1. Construct, operate, and close the facility in accordance with those plans;
  - 2. Contain within the fluid management system all process fluids including all meteoric waters which enter the system as a result of the 25-year, 24-hour storm event; and
  - 3. Not release or discharge any process or non-process contaminants from the fluid management system.

# B. Schedule of Compliance:

- 1. The Permittee shall, 30 days prior to the initiation of mining activity, submit to the Division a written notice of intention to begin operation pursuant to Nevada Administrative Code (NAC) 445A.426.
- 2. By DD Month 2026 (180 days after permit effective date), the Permittee shall submit to the Division an updated TPPC, pursuant to the Nevada Administrative Code (NAC) 445A.398. This temporary plan for permanent closure shall identify the proposed closure method(s) for each facility associated with both the surface and underground components [NAC 445A.108], provide characterization, and outline the procedures, methods and schedule for stabilizing all sources. The plan for both surface and underground components shall, as applicable, address the following initial and conceptual elements, without limitation: draindown model, long-term seepage management plan, cover model/design, and a stormwater diversion channel management plan per Bureau of Mining Regulation and Reclamation (BMRR) Guidance "Preparing Tentative Plans for Permanent Closure" as well as "Guidance for Permanent Closure of Underground Mine Workings".

The schedule of compliance items above are not considered completed until approved in writing by the Division.

C. The fluid management system and facilities covered by this Permit consist of the following process components:

# 1. Regulation Branch Oversight

- a. All components of the Mineral Processing Operations including, but not limited to, the Crushing and Drying circuits, Roaster Circuit, Carbon-in-Leach (CIL) Circuit, Electrowinning and Refining circuits, emission control/emissions treatment devices, and all tanks, basins, sumps, pumps, channels and piping necessary to interconnect process components inside and outside of the buildings;
- b. The double lined leak detected Pregnant Pond, Cooling Pond, Washdown Pond corresponding leak detection systems, as applicable, and any systems (i.e., pipelines and lined trenches) capable of fluid conveyance;
- c. Single lined Tails Splitter-Box Pond, Evaporation Pond (Evap Pond), and earthen lined Emergency Catchment ponds, and any systems (i.e., pipelines and lined trenches) capable of fluid conveyance;

- d. Tailings storage facility (TSF-2 and TSF-3 (West and East Basins)), all associated tailing slurry and water distribution/decantation systems, all underdrain collection, removal, and evaporative systems; and
- e. Transfer pipes, valves, and pumps used in conveyance, control, or detection of process fluids between process components.

# 2. Closure Branch Oversight

- a. Mill Area groundwater remediation and treatment systems;
- b. Tailings Storage Facility TSF-1;
- c. All wells, pumps, and other components that comprise the TSF-1 Seepage Remediation System (SRS); and
- d. DASH, Marlboro Canyon, Gracie, and Snow Canyon Rock Disposal Area (RDA) seepage treatment systems and diversion structure network.



# D. Monitoring Requirements:

Identification		Parameter	Frequency
1.	Water Supply Wells		
	WW-5, WW-7, and STV-WW	Profile I <sup>(1)</sup> and uranium <sup>(4)</sup>	Annually
2.	Sumps, Ports, and Pipes		
	Leak Detection Sumps:	Average daily accumulation (gpd);	Quarterly average of weekly
	Pregnant Pond (PP) estimated sump working volume 1,200 gal	accumulation (gpd),	measurements <sup>(7)</sup>
	Cooling Pond (CP) estimated sump working volume 1,350 gal		
	Washdown Pond (WDP) estimated sump working volume 2,300 gal		
	TSF-3 East Basin (WSR-E) estimated sump working volume 10,000 gal		
	TSF-3 West Basin (WSR-W) estimated sump working volume 10,000 gal		
	Roaster Quench Pit Floor Sump (QPFS)		
	Collection Sumps (non-Leak Detection):  Tailings Storage Facility (TSF-2) estimated sump working volume 10,000 gal  Evap Pond (EP) estimated sump working volume 7,000 gal	Average daily accumulation (gpd);	Quarterly average of weekly measurements <sup>(7)</sup>
	Leak Detection Ports and Pipes:		
	TSF-2 Pipeline Corridor 1 (PC-1)	Average daily	Quarterly average of
	TSF-2 Pipeline Corridor 4 (PC-4)	accumulation (gpd);	weekly measurements
3.	Pond French Drains		
	Evap Pond Spring Drain (EPSD)	Flow (gpm);	Weekly (if flow is present);
	Cooling Pond Upgradient Interceptor Drain (CPID)	Profile $I^{(1)}$ and	Quarterly (if flow is
	Cooling Pond Underdrain (CPUD)	uranium <sup>(4)</sup>	present)
	WSR Spring Drain (WSR-SD)		

	Identification	Parameter	Frequency
4.	Process Solutions Pregnant Pond Solution (PS)	Profile I <sup>(1)</sup> and	Quarterly;
	Cooling Pond Solution (CS)	uranium <sup>(4)</sup> ;	
	Duck Pond French Drain (DPFD)		
	Washdown Pond (WDS)		
	Water Storage Reservoir East (WSR-E)		
	Water Storage Reservoir West (WSR-W)		
	TSF-2 Supernatant Solution (TSP-2)		
	TSF-3 Supernatant Solution (TSP-3)		
	Evaporation Pond Solution (EPS)		
	East Lined Pond (ELP) previously the TSF-1 East Collection Pond (ECP)	Profile I <sup>(1)</sup> and uranium <sup>(4)</sup>	Quarterly;
		Pond elevation (ft amsl)	Weekly;
5.	Event Ponds Starvation Canyon Stormwater Pond (SCSP)	Number of days in use, source	Quarterly;
	Emergency Catchment Pond (ECP)		
	Splitter-Box Pond (SBP)		
6.	Mined Materials Mine Waste Rock Characterization	MWMP <sup>(8)</sup> -Profile I <sup>(1)</sup> and uranium <sup>(4)</sup> and NMSP <sup>(9)(10)</sup> , by rock lithotype;	Quarterly;
	JCM Mill Stockpile Pad	MWMP <sup>(8)</sup> -Profile I <sup>(1)</sup> and uranium <sup>(4)</sup> and NMSP <sup>(9)(10)</sup> , per each ore type; physical stability, presence of water <sup>(12)</sup>	Quarterly (when in use)

Identification	Parameter	Frequency
7. Mined Materials Off-site Ores (Toll Ores) and concentrates	MWMP <sup>(8)</sup> - Profile I <sup>(1)</sup> and uranium <sup>(4)</sup> and NMSP <sup>(9)(10)</sup> ,	Quarterly, for each source
	Source of each off- site ore received, WPCP number (if Nevada-Permitted facility),	
	Quantity of ore received, stock-piled and processed (tons)	
8. CIL Tailings Discharge Solids CIL Tailings Discharge Solids prior to release into TSF-2 or TSF-3 (CILTSF)	MWMP <sup>(8)</sup> -Profile I <sup>(1)</sup> and uranium <sup>(4)</sup> and NMSP <sup>(9)(10)</sup>	Quarterly
9. Waste Rock Storage Facilities Marlboro Canyon, Snow Canyon East, Snow Canyon West/Myrtle, Gracie, Pattani, Burns Basin, Alchem C/Sue, Steer, Saval, DASH Northwest, DASH East, DASH West, Murray, Starvation Canyon	Physical stability, presence of water <sup>(12)</sup> ;	Semi-Annually (Q2 and Q4);
Each seep that is flowing	Profile I <sup>(1)</sup> and uranium <sup>(4)</sup> , photograph, field pH (SU) <sup>(13)</sup> , field specific conductance (µS/cm) <sup>(13)</sup>	Semi-Annually, when flowing (Q2 and Q4)

Identification	Parameter	Frequency
10. Surface Water Monitoring – South Fork Owyhee Basin <sup>(14)</sup> Mill Creek (MC-1 and MC-2) Burns Creek (BC-2 and BC-3) Italian Spring Creek (ITSN) Snow Canyon Creek (SC) Jerritt Canyon Creek (JC-2, JC-3, and GD-1) Taylor Canyon Creek (TC-2 and TC-3) Starvation Canyon Creek (STV and STV-10) Water Pipe Canyon Creek (WP-1 and WP-2)	Surface Water Profile – South Fork Owyhee River <sup>(17)</sup> , field temperature (°F) <sup>(13)</sup> , and flow (gpm)	Semi-Annually (Q2 and Q4) (when accessible and flowing)
11. Surface Water Monitoring – North Fork  Humboldt Basin <sup>(15)</sup> Sheep Creek (SHE-10 and SHE-15) Stump Creek (STC) Winters Creek (WC) Foreman Creek (FC, FC-10, and FC-20) Mill Site Drainages (MS-1 and MS-2) Foreman Creek Near Evans Ranch (ERFC)	Surface Water Profile – North Fork Humboldt River <sup>(18)</sup> , field temperature (°F) <sup>(13)</sup> , and flow (gpm)	Semi-Annually (Q2 and Q4) (when accessible and flowing)
12. Other Surface Water Monitoring Points <sup>(16)</sup> Jim Wright's Spring (JWS) Charlie Van Norman's Spring (CVS) Robbin Van Norman's Spring (VNS) Sheep Creek Spring (SHESP-10) Starvation Canyon Spring North and East (STN and STE);	Profile I <sup>(1)</sup> and uranium <sup>(4)</sup> ;	Quarterly (when accessible and flowing);

Identification	Parameter	Frequency
13. Sulfate Reduction Trench (SRT)  Monitoring		
SRT Influent  Marlboro Canyon SRT (MC-DSP-10)  Gracie SRT Influent (GR-INF)  Snow Canyon East Influent (SCE-INF)	Surface Water Profile – South Fork Owyhee River <sup>(17)</sup> , field specific conductance (µS/cm) <sup>(13)</sup> , field temperature (°F) <sup>(13)</sup> , and flow (gpm);	Monthly (when accessible);
SRT Internal Monitoring Points		
Marlboro Canyon SRT Monitoring Ports (MCSRT-1 and MCSRT-5)	Surface Water Profile – South Fork	Monthly (when accessible);
Gracie SRT Monitoring Ports (GRSRT Cell- 1, Cell-6)	Owyhee River <sup>(17)</sup> , field specific conductance	*
Snow Canyon East SRT Monitoring Ports (SCESRT Cell-5, Cell-10, Cell- 15, Cell-20, Cell-25, and Cell-28, Cell-21);	(μS/cm) <sup>(13)</sup> , field temperature (°F) <sup>(13)</sup> , TOC <sup>(22)</sup>	
SRT Compliance Monitoring Points		
Marlboro Canyon SRT-Jerritt Creek Sediment Pond #1 (JCSP-1)	Surface Water Profile – South Fork Owyhee River <sup>(17)</sup> ,	Monthly (when accessible);
Gracie SRT-"Gracie Creek" (an unnamed surface water downgradient of Gracie RDAGDSP-10) <sup>(14)</sup>	TOC <sup>(22)</sup> , field specific conductance (μS/cm) <sup>(13)</sup> , field	
Snow Canyon East SRT-Snow Canyon Creek (SC-100) <sup>(14)</sup> ; MC SRT, GR SRT, and SCE SRT	temperature (°F) <sup>(13)</sup> , and flow (gpm);	
Chemical Reagents, Substrate, and Biological Media addition and/or replacement	Purpose, type, and quantity (gal, lbs, or cubic yards)	Quarterly (when accessible);

Identification	Parameter	Frequency
14. Site Monitoring and Collection Wells		
Jerritt Canyon Monitor Wells (JCM-1 and JCM-16A)	Profile I <sup>(1)</sup> and uranium <sup>(4)</sup> , collar	Quarterly
Groundwater Wells (GW-14A, GW-15, GW-18, GW-20, GW-22, GW-43, GW-47, GW-49, GW-50A, GW-52, GW-54, GW-55, GW-56, GW-57, GW-58, GW-60, GW-61, GW-62, GW-63, GW-64, GW-65R, GW-66, GW-67, GW-68, GW-69A, GW-71 [RW-58], GW-72 [RW-61], GW-75 [RW-66], GW-77 [RW-20], GW-78 [RW-29]), GW-81 [RW-67], GW-86, GW-87	and water elevation (ft amsl)	
Starvation Canyon Monitoring Wells (Up- Gradient [STV-U], Down-Gradient [STV-D])		
TSF-1 Monitoring Wells (GW-13, GW-33, GW-34, GW-79 [RW-68], GW-80 [RW-69], TW-1C, JCM-10B, JCM-20B, HL-1, HL-2)		
TSF-2 Monitoring Wells (GW-82, GW-83A) TSF-3 Monitoring Wells (GW-84, GW-85)		
15. Other Monitoring Wells Dash RDA Study Well (DAR-2) <sup>(23)</sup> ; Monitoring Well Upgradient of Sheep Creek Spring (SH-103)	Profile I <sup>(1)</sup> and uranium <sup>(4)</sup> , collar elevation (ft amsl), and water elevation (ft amsl)	Quarterly, when accessible
16. <u>DASH RDA (Surface Water Monitoring)</u> East DASH UDS- Outflow Channel Northwest DASH UDS-Outflow Channel	Profile I <sup>(1)</sup> and uranium <sup>(4)</sup> , Flow (gpm), field specific conductance (µS/cm) <sup>(13)</sup> , and field temperature (°F) <sup>(13)</sup>	Quarterly

Identification	Parameter	Frequency
17. TSF-1 Piezometers Alluvium (NPZ-A1, NPZ-A2, NPZ-A5, NPZ-A6, NPZ-A7, NPZ-A8, NPZ-A9)  Tailings (NPZ-T1, NPZ-T2, NPZ-T4, NPZ-T5, NPZ-T6, NPZ-T7, NPZ-T8, NPZ-T9)	Hydraulic Head (ft), Water elevation (ft amsl)	Quarterly average of daily measurements
18. Pit Lake Monitoring		
Winters Creek Pit Lake	Presence of Water <sup>(24)</sup> ;	Quarterly;
General Monitoring – each pit lake;	Photograph, lake surface elevation (ft amsl), maximum lake depth (ft), lake area (acres);	Monthly;
Surface Samples <sup>(25)</sup> – each pit lake;	Field pH (SU) <sup>(13)</sup> , field Eh (mV) <sup>(13)</sup> ; DO (mg/L); Profile III <sup>(26)</sup> ;	Monthly;  Quarterly;
	Fiorite III.	Quarterry,
19. Mill Area Groundwater Contamination Pump Back and Monitoring Wells OMW-EX1;	Pumping rate (gpm) and volume pumped (gal);  Profile I <sup>(1)</sup> and uranium <sup>(4)</sup> , VOCs <sup>(27)</sup> , collar and water elevation (ft amsl);	Quarterly average of continuous measurements  Quarterly
DPN-1F, GW-30, OMW-7R, OMW-12, OMW-15R, OMW-16R, OMW-17R, OMW-18R, OMW-19, OMW-20	Profile I <sup>(1)</sup> , uranium <sup>(4)</sup> , VOCs <sup>(27)</sup> , collar and water elevation (ft amsl)	Quarterly
20. Smith Water Treatment Plant (WTP) WTP Discharge Water (WTPD)	Profile I <sup>(1)</sup> and uranium <sup>(4)</sup>	Quarterly

Identification	Parameter	Frequency
21. TSF-2 Piezometer Network TSF-2 North Embankment: TSF-2-PZ-1, TSF-2-PZ-2; TSF-2 East Embankment: TSF-2-PZ-3A, TSF-2-PZ-4; TSF-2 South Embankment: TSF-2-PZ-5, TSF-2-PZ-6A, TSF-2-PZ-7A; TSF-2 West Embankment: TSF2-PZ-8A	Water and collar elevation (ft);  Profile I <sup>(1)</sup> and uranium <sup>(4)</sup>	Monthly (when solution is present)  Quarterly (when solution is present)
22. Process Water Treatment Plant (WTP) Influent, Effluent	Profile I <sup>(1)</sup> and uranium <sup>(4)</sup>	Quarterly
23. Petroleum Contaminated Soil (PCS)  Screening Analysis  Each temporary holding pad and treatment cell, by PCS source type;	VOCs <sup>(27)</sup> , SVOCs <sup>(28)</sup> , TPH <sup>(29)</sup> ;	Quarterly, prior to removal <sup>(30)</sup> ;
Each approved on-site disposal location, by PCS source type	VOCs <sup>(27)</sup> , SVOCs <sup>(28)</sup> , TPH <sup>(29)</sup>	Quarterly after provisional placement <sup>(30)</sup>
24. PCS Hazardous Waste Determinations Each PCS source	Hazardous waste determination <sup>(31)</sup>	When required <sup>(31)</sup>
25. PCS Management Each temporary Holding pad, treatment cell, and disposal location by PCS source type	PCS volume added, volume removed and destination, total volume present (cubic yards)	Quarterly

Identification	Parameter	Frequency
26. Weather Station Facility		
Ambient Conditions	Ambient	Monthly Average of
	temperature,	Daily Measurements
	(min/max), relative	
	humidity (%), wind	
	speed (mph), wind	
	direction (azimuth	
	degree), total	
	precipitation	
	(inches), solar	
	irradiance (W/m <sup>2</sup> ),	
	and SWE (inches)	

The Permittee may request a reduction of the monitoring frequency after four quarters of complete monitoring based on justification other than cost. Such reductions may be considered modifications to the Permit and require payment of modification fees.

#### **Abbreviations and Definitions:**

AMSL = above mean sea level; ANP/AGP = Acid Neutralizing Potential: Acid Generation Potential ratio; ASTM = American Society for Testing and Materials; CaCO<sub>3</sub> = calcium carbonate; DO = dissolved oxygen; e = the base of the natural logarithm with approximate value of 2.718; Eh = chemical reduction potential; EPA = U.S. Environmental Protection Agency; epilimnion = the uppermost layer in a stratified lake; gal = gallons; gpd = gallons per day; gpm = gallons per minute; hypolimnion = a lower layer in a thermally stratified lake below the metalimnion; ln = natural logarithm with base e; metalimnion = a middle layer in a thermally stratified lake characterized by a temperature decrease with depth; meg/L = milliequivalents per liter; mg/L = milligrams per liter; MGD = million gallons per day; monimolimnion = the lower layer in a chemically stratified lake that does not mix with other layers; mV = millivolts; MWMP = Meteoric Water Mobility Procedure; N = nitrogen; NAC = Nevada Administrative Code; NDEP = Nevada Division of Environmental Protection; NMSP = Nevada Modified Sobek Procedure; NTU = nephelometric turbidity unit; ORP = Oxidation-Reduction Potential; P = phosphorous; pCi/L = picocuries per liter; PCS = Petroleum-Contaminated Soil; PCU = platinum cobalt units; pH = the negative of the base 10 logarithm of the activity of the hydrogen ion; PQL = Practical Quantitation Limit; Q = calendar quarter of the year; RDL = Reported Detection Limit; stratified = a pit lake that has distinct chemical and/or temperature layers; SU = standard units for pH measurement; SVOCs = semi-volatile organic compounds; SWE = snow water equivalent; TOC = total organic carbon; TPH = total petroleum hydrocarbons; VOCs = volatile organic compounds; WAD = weak acid dissociable; \* = multiplication symbol; > = greater than;  $\geq$  = greater than or equal to;  $\leq$  = less than;  ${}^{\circ}F$  = degrees Fahrenheit;  $\mu g/L$  = micrograms per liter;  $\mu$ S/cm = micro-Siemens per centimeter.

## **Footnotes:**

# (1) Profile I:

General Chemistry Parameters			
Acidity <sup>(2)</sup>	Chloride	pH (± 0.1 SU)	
Alkalinity (as CaCO <sub>3</sub> )	Fluoride	Sulfate	
Bicarbonate <sup>(3)</sup>	Nitrate + Nitrite (as N)	Total Dissolved Solids	
Total <sup>(3)</sup>	Nitrogen Total (as N)	WAD Cyanide	
Metals Dissolved			
Aluminum	Chromium	Potassium	
Antimony	Copper	Selenium	
Arsenic	Iron	Silver	
Barium	Lead	Sodium	
Beryllium	Magnesium	Thallium	
Cadmium	Manganese	Zinc	
Calcium	Mercury		

- (2) All sample analyses resulting in a pH value less than or equal to 5.0 SU shall also be analyzed for acidity (mg/L, as CaCO<sub>3</sub> equivalent).
- (3) All sample analyses resulting in a pH value greater than or equal to 4.5 SU shall be analyzed for Alkalinity (Bicarbonate and Total).
- (4) Uranium (total) shall be reported in mg/L and have the reference value of 0.03 mg/L. If uranium (total) concentration is  $\geq 0.030$  mg/L, analysis for the Profile I<sup>(1)</sup>, Uranium, and Profile R<sup>(5)</sup> is required in the subsequent quarter.
- (5) Profile R:

Parameter	Reference Value/Unit
Gross Alpha (6)	pCi/L
Adjusted Gross Alpha*	15 pCi/L
226Radium	pCi/L
228Radium	pCi/L
226Radium + 228Radium	5 pCi/L

<sup>\*</sup>Adjusted gross alpha is gross alpha minus uranium activity in pCi/L.

(6) If the sample location is known to have a TDS greater than 1,000 mg/L, gross alpha must be analyzed using an appropriate method, e.g., EPA 00-02, EPA 900.0. Additionally, if the reported gross alpha activity is less than or equal to 15 pCi/L and the uncertainty of the adjusted gross alpha analysis is greater than or equal to 15 pCi/L is acceptable (e.g.  $36 \pm 21$  pCi/L would be acceptable since the low range is at 15 pCi/L). Please utilize

- the appropriate method to minimize the uncertainty. See Profile R analyte list on the Division's website for additional information.
- (7) 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 which 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.
- (8) The Meteoric Water Mobility Procedure (MWMP) shall be performed by a Nevada-approved laboratory, in accordance with ASTM Method E 2242-13 (or the most current method).
- (9) Nevada Modified Sobek Procedure (NMSP) shall be performed by a Nevada-approved laboratory, using a LECO-type analysis, in accordance with the most current update. The NMSP is a specific static test or acid-base accounting test.
- (10) When static testing<sup>(9)</sup> characterization of Mined Materials shows the potential for acid generation as set forth in the current version of the Division guidance document "Waste Rock, Overburden, and Ore Characterization and Evaluation," the Permittee shall notify the Division in writing within 10 days of receipt of the sample result, and either:
  - a. Initiate kinetic testing<sup>(11)</sup> or
  - b. request to waive kinetic testing for the individual samples. The request must be made in writing and must be approved in writing by the Division to be considered valid.
- (11) Kinetic testing (humidity cell testing) shall be performed by a Nevada-approved laboratory, in accordance with ASTM Method D 5744-18 Option 'A' (or the most current approved method); tests shall be run for a minimum of 20 weeks and for a longer duration if warranted or recommended by the analytical laboratory or required by the Division; samples shall be collected weekly (all weeks) and measurements shall be recorded for redox potential (Eh), pH, specific conductance (µS/cm) preferably from a raw, nonfiltered aliquot; acidity and/or alkalinity (as determined by the raw extract pH), sulfate, iron (total), plus ferric and ferrous speciation only if pH < 5 SU), shall be analyzed following coarse filtration of the extract; and dissolved calcium and magnesium; Following coarse filtration of the extract, samples for Profile I metals shall be filtered, digested, and analyzed for the dissolved fraction; samples requiring Uranium<sup>(4)</sup> and Profile III<sup>(28)</sup> analysis shall be unfiltered, digested (as applicable) and analyzed for total recoverable concentrations during weeks 0, 1, 2, 4, 8, 12, 16, and 20; 4-week extracts thereafter (i.e., week 24, 28, 32, etc.) shall be analyzed by a Nevada-certified analytical laboratory for Profile I<sup>(1)</sup>, Uranium<sup>(4)</sup>, and Profile III<sup>(26)</sup> parameters, as applicable, and specific conductance (µS/cm) and acidity and/or alkalinity shall be recorded as required by the extract pH; Final results reported shall include initial and final static test results<sup>(9)</sup>, a Profile I<sup>(1)</sup>, Uranium<sup>(4)</sup>, and Profile III<sup>(26)</sup> analysis of the final leachate, all kinetic test results above, and any additional analyses required by the Division. The Division will not consider a request to terminate an HCT until at least week 20. Under no circumstance will the HCT be placed on 'hold' pending Division review.

If the kinetic test results indicate acid generation conditions exist, the Permittee shall

manage these materials in accordance with the Division-approved Waste Rock Management Plan, or if management of potentially acid generating material is not covered in the Waste Rock Management Plan submit in writing, within 30 days, the methods proposed for providing containment of these materials and the anticipated impact this acid generation potential may have on final stabilization of all components affected as defined in Nevada Administrative Code (NAC) 445A.359.

- (12) Provide a visual evaluation of each stockpile or waste rock storage facility for physical stability (e.g., stable, unstable, or slope failure), presence of water and seepage. If visibly unstable, or slope failure, describe. For presence of water, identify whether the surface and toes of the waste rock storage facility are dry, damp, or wet (ponded or flowing water). If seepage is emanating from any portion of a waste rock storage facility, the Permittee shall perform the required monitoring for seeps.
- (13) Field measurements (e.g., temperature, specific conductance, pH, Eh, etc.) shall be made at the Project site concurrent with the monitoring activity using a calibrated instrument, and do not require analysis by a laboratory certified or approved by the State of Nevada as otherwise specified in Part II.E.5. Field measurements must be accompanied by appropriate calibration information.
- (14) Surface Water Monitoring Sites—Surface Waters Subject to South Fork Owyhee River water quality standards (NAC 445A.1456)
  - JC-2 Jerritt Creek approximately 5,000 ft upgradient from the USFS boundary.
  - JC-3 Jerritt Creek at USFS boundary.
  - GD-1 Downgradient from Gracie RDA but upstream of the confluence with Jerritt Canyon Creek.
  - MC-1 Below Mill Creek RDA.
  - MC-2 Mill Creek at the USFS Boundary.
  - BC-2 Discharge from Burns Creek as it exits Burns Basin RDA
  - BC-3 Burns Creek at the USFS Boundary.
  - SC Snow Canyon Creek at an elevation of 6,150 ft amsl.
  - SC-100 Snow Canyon Creek downgradient of Snow Canyon RDA at elevation of approximately 6,900 feet amsl
  - GDSP-10 Gracie Creek (formerly an unnamed tributary downgradient of Gracie RDA).
  - ITSN Italian Spring Creek, 800 ft upstream of its confluence with Burns Creek.
  - STV Starvation Canyon Creek Monitoring Site STV, located approximately 8,800 ft upstream of confluence of Starvation Canyon Creek and Taylor Canyon Creek, and approximately 6,200 ft upstream of surface water monitoring point STV-10.
  - STV-10 Starvation Canyon Creek Monitoring Site #10, located approximately 2,600 ft upstream of confluence of Starvation Canyon Creek and Taylor Canyon

Creek.

- TC-2 Taylor Canyon Creek Monitoring Site #2, located approximately 5,590 ft upstream of confluence of Starvation Canyon Creek and Taylor Canyon Creek, on south side of S.R.-226.
- TC-3 Taylor Canyon Creek Monitoring Site #3, located approximately 5,435 ft downstream of confluence of Starvation Canyon Creek and Taylor Canyon Creek, on south side of S.R.-226.
- WP-1 Water Pipe Canyon Creek Monitoring Site #1, located approximately 8,200 ft upstream of surface water monitoring point WP-2.
- WP-2 Water Pipe Canyon Creek Monitoring Site #2, located approximately 2,500 ft upstream of confluence of Water Pipe Canyon Creek and Taylor Canyon Creek.
- (15) Surface Water Monitoring Sites—Surface Waters Subject to North Fork Humboldt River water quality standards (NAC 445A.1362)
  - FC Foreman Creek between 6,100 and 6,200-ft amsl elevation.
  - FC-10 Foreman Creek "mill side" upstream of surface water monitoring point FC -20.
  - FC-20 Foreman Creek "mill side" upstream of surface water monitoring point FC.
  - MS-1 In the drainage that feeds Foreman Creek due east of the tailings impoundment at the 6,220-ft amsl.
  - MS-2 In the drainage that feeds Foreman Creek to the southeast of the tailings impoundment at the 6,220-ft amsl.
  - STC Stump Creek at an approximate elevation of 6,760 ft amsl.
  - SHE-10 Sheep Creek Monitoring Site #10, near USFS Boundary, downstream of DASH RDA.
  - SHE-15 Sheep Creek Monitoring Site #15, upstream of northwest DASH RDA
  - WC Winters Creek above the confluence with the Middle Fork of Winters Creek.
  - ERFC Foreman Creek at the 6,400-ft amsl elevation just downstream of Evans Ranch and upstream of the mill.
- (16) Other Monitoring Sites:
  - JWS Spring located about 1/2 mile east of Jim Wright's Ranch. Identified as Niagara Spring on USGS 7.5 Quad map.
  - CVS Spring at Charlie Van Norman's Ranch. Sampled at hose bib in Mr. Van Norman's backyard.
  - VNS Spring that is the water source for Robin Van Norman's Ranch, located approximately 500 ft south of Mill Creek at the USFS boundary.
  - SH-103 Monitoring Well upgradient of Sheep Creek Spring

# SHESP-10 Sheep Creek Spring

STN Starvation Canyon Spring-North, located approximately 620 ft north of Starvation Canyon surface water monitoring point STV.

STE Starvation Canyon Spring-East, located approximately 680 ft east of Starvation Canyon surface water monitoring point STV.

(17) Surface Water Profile – South Fork Owyhee River (per NAC 445A.1236 and 445A.1362):

General Chemistry Parameters		
Alkalinity (as CaCO <sub>3</sub> )  Bicarbonate <sup>(3)</sup> Total <sup>(3)</sup>	Fluoride	Sodium Adsorption Ratio (SAR) <sup>(21)</sup>
	Hardness (as mg/L CaCO <sub>3</sub> ) <sup>(20)</sup>	Sulfate
	Nitrate (as N)	Sulfide, Total (as undissociated hydrogen sulfide)
Ammonia, Total (as N)	Nitrite (as N)	Total Dissolved Solids
Chloride	Nitrate + Nitrite (as N)	Total Suspended Solids
Color (PCU)	Nitrogen, Total (as N)	Turbidity (NTU)
Cyanide, Free	pH (± 0.1 SU)	
Dissolved Oxygen	Phosphorus, Total (as P)	
Metals		
Aluminum	Chromium (III), Dissolved <sup>(19)</sup>	Nickel, Dissolved
Antimony, Total	Chromium (VI), Dissolved <sup>(19)</sup>	Potassium
Arsenic, Dissolved	Copper, Dissolved	Selenium, Total
Barium, Total	Iron, Total	Silver, Dissolved
Beryllium, Total	Lead, Dissolved	Sodium
Boron, Total	Magnesium	Thallium, Total
Cadmium, Dissolved	Manganese, Total	Zinc, Dissolved
Calcium	Mercury, Dissolved	
Chromium, Total	Molybdenum, Total	

(18) Surface Water Profile – North Fork Humboldt River (per NAC 445A.1236 and 445A.1456):

General Chemistry Parameters		
Alkalinity (as CaCO <sub>3</sub> ) Bicarbonate <sup>(3)</sup>	Fluoride	Sodium Adsorption Ratio (SAR) <sup>(21)</sup>
Total <sup>(3)</sup>	Hardness (as mg/L CaCO <sub>3</sub> ) <sup>(20)</sup>	Sulfate
	Nitrate (as N)	Sulfide, Total (as undissociated hydrogen sulfide)
Ammonia, Total (as N)	Nitrite (as N)	Total Dissolved Solids
Chloride	Nitrate + Nitrite (as N)	Total Suspended Solids
Color (PCU)	Nitrogen, Total (as N)	Turbidity (NTU)
Cyanide, Free	pH (± 0.1 SU)	_
Dissolved Oxygen	Phosphorus, Total (as P)	
Metals		
Aluminum	Chromium (III), Dissolved <sup>(19)</sup>	Nickel, Dissolved
Antimony, Total	Chromium (VI), Dissolved <sup>(19)</sup>	Potassium
Arsenic, Dissolved	Copper, Dissolved	Selenium, Total
Barium, Total	Iron, Total	Silver, Dissolved
Beryllium, Total	Lead, Dissolved	Sodium
Boron, Total	Magnesium	Thallium, Total
Cadmium, Dissolved	Manganese, Total	Zinc, Dissolved
Calcium	Mercury, Dissolved	
Chromium, Total	Molybdenum, Total	

- (19) Analyze and calculate for chromium species only if total chromium exceeds 0.005 mg/L.
- (20) Hardness = (2.497 \* Ca) + (4.118 \* Mg), where Ca is the calcium concentration in mg/L and Mg is the magnesium concentration in mg/L.
- (21) Sodium Adsorption Ratio (SAR) = Na + / [ (Ca 2+ + Mg 2+ )/2] 0.5, where Na is the sodium concentration in mg/L, Ca is the calcium concentration in mg/L, and Mg is the magnesium concentration in mg/L.
- (22) Total Organic Carbons (TOC's) analyzed by a Nevada-certified laboratory using the most recent published version of EPA Method 9060A.

- (23) DASH RDA Studies, Angle-of-Repose Slopes, Borehole Locations:
  - DAR-2 Located approximately 250 ft southeast of DAR-1 and drilled to an estimated depth of 190 ft bgs and target the DASH RDA underdump drainage system (UDS).
- (24) For presence of water, state whether the pit surface is dry, damp, or wet (ponded or flowing water). If ponded water has been present for at least one year, the Permittee shall perform the required monitoring for pit lakes.
- (25) The surface samples must be collected less than 10 feet below the surface of the pit lake.
- (26) Profile III:

General Chemistry Parameters		
Acidity <sup>(2)</sup>	Fluoride	Sulfate
Alkalinity (as CaCO <sub>3</sub> )	Nitrate + Nitrite (as N)	Total Dissolved Solids
Bicarbonate <sup>(3)</sup>	Nitrogen, Total (as N)	Total Suspended Solids
Total <sup>(3)</sup>	pH (± 0.1 SU)	
Chloride	Phosphorus	
Metals Totals		
Aluminum	Copper	Potassium
Antimony	Iron	Selenium
Arsenic	Lead	Sodium
Barium	Lithium	Strontium
Beryllium	Magnesium	Thallium
Boron	Manganese	Tin
Cadmium	Mercury	Uranium
Calcium	Molybdenum	Vanadium
Chromium	Nickel	Zinc

- (27) Volatile Organic Compounds (VOCs) analyzed by a Nevada-certified laboratory using the most recent published version of EPA Method 8260.
- (28) Semi-Volatile Organic Compounds (SVOCs) analyzed by a Nevada-certified laboratory using the most recent published version of EPA Method 8270.
- (29) Total Petroleum Hydrocarbons (TPH) analyzed by a Nevada-certified laboratory using EPA Method 8015 Modified. If any gasoline-range petroleum is suspected, or if the

- source-type is unknown, both TPH-P (purgeable) and TPH-E (extractable) are required. Otherwise, only TPH-E is required.
- (30) Each segregated source type of PCS must be sampled separately pursuant to the approved sample collection protocol. For temporary holding pads and treatment cells, analyses are required only in quarters when PCS removal from the pad is anticipated. Removal to an on-site disposal location is authorized if PCS meets screening levels. For approved on-site disposal locations, analyses are required only in quarters when PCS has been provisionally placed subject to screening results.
- (31) A hazardous waste determination is required: a) Initially, for each PCS source prior to management under the PCS Management Plan; b) When a PCS waste stream is suspected to have changed character since the last determination; and c) When a hazardous constituent is detected during screening analyses at a concentration suggestive of hazardous waste. Determinations must be performed pursuant to 40 Code of Federal Regulations (CFR) 262.11 using operator knowledge and/or applicable analytical testing methods described in EPA publication SW-846. Operator knowledge must be adequately described and sufficient to justify the determination.
- E. Quarterly and annual monitoring reports and release reporting shall be in accordance with Part II.B.
- F. All sampling and analysis accuracy shall be in accordance with Part II.E.

#### G. Permit Limitations

- 1. The daily accumulation of flow that exceeds 150 gpd averaged over the quarter in any of the leak detection sumps, ports, or pipes identified in Part I.D.2.
- 2. The daily accumulation of flow that exceeds 50 gpd averaged over the year in any of the leak detection sumps or ports identified in Part I.D.2.
- 3. Failure to meet a Schedule of Compliance or Continuing Investigation date or requirement.
- 4. All analytical samples shall be analyzed as mentioned in the Footnotes or Section II.E, as applicable.
- 5. The TSF-1 SRS shall be operated, maintained, and monitored at all times to preclude further migration of seepage. Remedial efforts shall continue to ensure contraction of the overall extent of the tailings seepage plume.
- 6. The Permittee shall not store process solution in any single-lined pond for more than 20 consecutive days.
- 7. Those portions of the Wet Mill which are inactive shall not be used without first conducting an engineering evaluation and submitting a report to the Division verifying compliance with current design requirements for approval.
- 8. Pond freeboard shall not be less than 2 feet for all ponds except for the Evap Pond which shall not be less than 3 feet.
- 9. The TSF-2 Tailings slurry discharge is limited to 1,496,500 dry tons per year.

- 10. The TSF-2 Phase 4 embankment crest elevation shall not exceed 6,402 feet amsl and the maximum permitted operational elevation shall not exceed 6,398 feet amsl.
- 11. TSF-2 shall be managed as necessary to maintain a minimum 4-foot freeboard. In beach areas, a dam crest elevation shall be maintained 4 feet higher than the adjacent maximum tailings elevation.
- 12. TSF-3 shall be managed as necessary to maintain a minimum 2-foot freeboard. In beach areas, a dam crest elevation shall be maintained 2 feet higher than the adjacent maximum tailings elevation.
- 13. Tailings material may not be removed from the tailings impoundment, except with prior written authorization from the Division.
- 14. No further raises shall be constructed on TSF-1, as it is now in closure.
- 15. The volume of standing water collected in the Roaster Quench Pit must be kept to a minimum.
- 16. Evaporation systems shall be operated to maximize the evaporation of solution from TSF-2, TSF-3, and the Evap Pond.
- 17. The following surface water quality standards apply to Snake Region: Owyhee River, South Fork and its tributaries, including Jerritt Creek, Mill Creek, Burns Creek, Stump Creek, Winters Creek, Snow Canyon Creek, Gracie Creek, Italian Spring Creek, Sheep Creek, Starvation Canyon Creek, Taylor Canyon Creek, and Water Pipe Canyon Creek, in accordance with NAC 445A.1236 and 445A.1362: Surface Water Profile and associated Most Restrictive Beneficial Use Standards for South Fork Owyhee River (for a complete list of applicable standards, refer to NAC 445A.1362, 445A.1236, and 445A.121):

<u>Parameter</u>	Standard or Standard Calculation Equation (μg/L, except as noted)
Alkalinity (as CaCO <sub>3</sub> )	$\geq$ 20 mg/L
Ammonia, Total (as N)	mg/L per NAC 445A.118 <sup>(d)</sup>
Antimony, Total	146
Arsenic, Dissolved <sup>(a)</sup>	50
Barium, Total	2.0 mg/L
Beryllium, Total	100
Boron, Total	750
Cadmium, Dissolved <sup>(a)(b)</sup>	$(1.101672 - \{\ln(\text{hardness})(0.041838)\}) * e^{(0.7409\{\ln(\text{hardness})\} - 4.719)}$
Calcium	Measure and report (as mg/L calcium) for hardness determination
Chloride	250 mg/L
Chromium, Total	100
Chromium (III), Dissolved <sup>(a)(d)</sup>	$(0.860)$ * $e^{(0.8190\{\ln(\text{hardness})\}+0.6848)}$

<u>Parameter</u>	Standard or Standard Calculation Equation (d) (µg/L, except as noted)
Chromium (VI), Dissolved <sup>(a)</sup>	11
Color	75 PCU
Copper, Dissolved <sup>(a)(d)</sup>	$(0.960)*e^{(0.8545\{\ln(\text{hardness})\}-1.702)}$
Cyanide, Free <sup>(a)</sup>	5.2
Dissolved Oxygen	≥ 6.0 mg/L
Fluoride	1.0 mg/L
Hardness <sup>(b)</sup>	Calculate and report (as mg/L CaCO <sub>3</sub> )
Iron, Total <sup>(a)</sup>	1.0 mg/L
Lead, Dissolved <sup>(a)(d)</sup>	(1.46203-{ln(hardness)(0.145712)})*e <sup>(1.273{ln(hardness)}-4.705)</sup>
Manganese, Total	200
Magnesium	Measure and report (as mg/L magnesium) for hardness determination
Mercury, Dissolved <sup>(a)</sup>	0.77
Molybdenum, Total <sup>(a)</sup>	1.65 mg/L
Nickel, Dissolved <sup>(a)(d)</sup>	$(0.997)*e^{(0.8460\{\ln(\text{hardness})\}+0.0584)}$
Nitrate (as N)	10 mg/L
Nitrite (as N)	0.06 mg/L
рН	6.5 – 9.0 SU
Phosphorus, Total (as P)	0.1 mg/L
Sodium Adsorption Ratio (SAR)	8 meq/L
Selenium, Total (a)	5.0
Silver, Dissolved <sup>(a)(d)</sup>	$(0.85)*e^{(1.72\{\ln(\text{hardness})\}-6.59)}$
Sulfate	250 mg/L
Sulfide, Total (as un-dissociated hydrogen sulfide) <sup>(a)</sup>	2.0
Thallium, Total	13
Total Dissolved Solids	500 mg/L
Total Suspended Solids	10 mg/L
Turbidity	50 NTU
Zinc, Dissolved <sup>(a)(d)</sup>	$(0.986)*e^{(0.8473\{ln(hardness)\}+0.884)}$

<sup>(</sup>a) The standard may be exceeded once every three years per NAC 445A.1236.

- (b) For calculated aquatic life standards, hardness (as mg/L CaCO<sub>3</sub>) is determined via the equation in Part I.D., Footnote (18). See Part I.D., Abbreviations and Definitions for reference. Include all calculated standards with each monitoring report, as applicable.
- (c) For calculated aquatic life standards, sodium adsorption ratio (SAR) is determined via the equation in Part I.D., Footnote (19). See Part I.D. Abbreviations and Definitions for reference. Include all calculated standards with each monitoring report, as applicable.
- (d) For a complete list of applicable surface water standards, refer to NAC 445A.118, 445A.121, 445A.122, 445A.1236, and 445A.1362.
- 18. The following surface water quality standards apply to Humboldt River, North Fork and tributaries at the national forest boundary and its tributaries, including Foreman Creek, in accordance with NAC 445A.1236 and 445A.1456: Surface Water Profile and associated Most Restrictive Beneficial Use Standards for North Fork Humboldt River (for a complete list of applicable standards, refer to NAC 445A.1456, 445A.1236, and 445A.121):

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<u>Parameter</u>	Standard or Standard Calculation Equation (μg/L, except as noted)
Alkalinity (as CaCO <sub>3</sub> )	≥ 20 mg/L
Ammonia, Total (as N)	mg/L per NAC 445A.118 <sup>(d)</sup>
Antimony, Total	146
Arsenic, Dissolved <sup>(a)</sup>	50
Barium, Total	2.0 mg/L
Beryllium, Total	100
Boron, Total	750
Cadmium, Dissolved <sup>(a)(b)</sup>	$(1.101672-\{\ln(\text{hardness})(0.041838)\})*e^{(0.7409\{\ln(\text{hardness})\}-4.719)}$
Calcium	Measure and report (as mg/L calcium) for hardness determination
Chloride	230 mg/L
Chromium, Total	100
Chromium (III), Dissolved <sup>(a)(d)</sup>	$(0.860)$ * $e^{(0.8190\{\ln(\text{hardness})\}+0.6848)}$
Chromium (VI), Dissolved <sup>(a)</sup>	11
Color	75 PCU
Copper, Dissolved <sup>(a)(d)</sup>	$(0.960)*e^{(0.8545\{\ln(\text{hardness})\}-1.702)}$
Cyanide, Free <sup>(a)</sup>	5.2
Dissolved Oxygen	$\geq$ 6.0 mg/L
Fluoride	1.0 mg/L
Hardness <sup>(b)</sup>	Calculate and report (as mg/L CaCO <sub>3</sub> )

<u>Parameter</u>	Standard or Standard Calculation Equation (d) (μg/L, except as noted)
Iron, Total <sup>(a)</sup>	1.0 mg/L
Lead, Dissolved <sup>(a)(d)</sup>	$(1.46203-\{\ln(\text{hardness})(0.145712)\})*e^{(1.273\{\ln(\text{hardness})\}-4.705)}$
Manganese, Total	200
Magnesium	Measure and report (as mg/L magnesium) for hardness determination
Mercury, Dissolved <sup>(a)</sup>	0.77
Molybdenum, Total <sup>(a)</sup>	1.65 mg/L
Nickel, Dissolved <sup>(a)(d)</sup>	(0.997)*e <sup>(0.8460{ln(hardness)}+0.0584)</sup>
Nitrate (as N)	10 mg/L
Nitrite (as N)	0.06 mg/L
рН	6.5 – 9.0 SU
Phosphorus, Total (as P)	100
Sodium Adsorption Ratio (SAR)	8 meq/L
Selenium, Total (a)	5.0
Silver, Dissolved <sup>(a)(d)</sup>	$(0.85)*e^{(1.72\{\ln(\text{hardness})\}-6.59)}$
Sulfate	250 mg/L
Sulfide, Total (as un-dissociated hydrogen sulfide) <sup>(a)</sup>	2.0
Thallium, Total	13
Total Dissolved Solids	500 mg/L
Total Suspended Solids	25 mg/L
Turbidity	10 NTU
Zinc, Dissolved <sup>(a)(d)</sup>	$(0.986)*e^{(0.8473\{\ln(\text{hardness})\}+0.884)}$

- (a) The standard may be exceeded once every three years per NAC 445A.1236.
- (b) For calculated aquatic life standards, hardness (as mg/L CaCO<sub>3</sub>) is determined via the equation in Part I.D., Footnote (18). See Part I.D., Abbreviations, for reference. Include all calculated standards with each monitoring report, as applicable.
- (c) For calculated aquatic life standards, sodium adsorption ratio (SAR) is determined via the equation in Part I.D., Footnote (19). See Part I.D. Abbreviations for reference. Include all calculated standards with each monitoring report, as applicable.
- (d) For a complete list of applicable surface water standards, refer to NAC 445A.118, 445A.121, 445A.122, 445A.1236, and 445A.1456.

Exceedances of these limitations may be permit violations and shall be reported as specified in Part II.B.4.

- H. The facility shall maintain automated or manual calibrated rain and snow gauge(s), which shall be monitored at least daily to record precipitation (inches of water, including snow water equivalent) A written and/or electronic record of precipitation data, and any other weather data required in Part I.D, shall be maintained on site and shall be submitted to the Division upon request, with each Permit renewal application, and pursuant to Parts II.B.1 and II.B.2, as applicable, in a Division-approved electronic format.
- I. The Permittee shall inspect all control devices, systems, and facilities weekly and during (when possible) and after major storm events. These inspections are performed to detect evidence of:
  - 1. Deterioration, malfunction, or improper operation of control or monitoring systems;
  - 2. Sudden changes in the data from any monitoring device;
  - 3. The presence of liquids in leak detection systems; and
  - 4. Severe erosion or other signs of deterioration in dikes, diversions, closure covers, or other containment devices.
- J. Prior to initiating permanent closure activities at the facility, or at any process component or other source within the facility, the Permittee shall submit and obtain approval from the Division, in writing, of a final plan for permanent closure.
- K. The Permittee shall remit an annual review and services fee in accordance with NAC 445A, as applicable, starting July 1 after the effective date of this permit and every year thereafter until the Permit is terminated or the facility has received final closure certification from this Division.
- L. The Permittee shall not dispose of or treat Petroleum-Contaminated Soil (PCS) on the mine site without first obtaining from the Division approval of a PCS Management Plan. PCS shall be managed according to the Plan, and regardless of any prior risk assessment approvals, shall not be left in-situ at permanent closure without Division authorization. This applies to any contaminated soil that formed as the result of a release outside of the PCS management pad. For any hydrocarbon releases to be left in-place until final closure, the Permittee shall submit documentation per NAC 445A.227. The 2009 Jerrit Canyon PCS Management Plan is incorporated into this permit by reference.
- M. When performing dust suppression activities, the Permittee shall use best management practices and appropriate selection of water source and additives to prevent degradation of waters of the State. If a dust suppressant exceeds a water quality standard and the corresponding natural background water concentration in the area where dust suppression will occur, the Permittee shall demonstrate no potential to degrade waters of the State. Any water used for dust suppression from a wash-bay before or after an oil/water separator must be tested for compliance with Profile I and TPH standards initially and then quarterly thereafter. Any water not meeting the Profile I and TPH standards may not be used outside of containment without Division approval.

#### N. Continuing Investigations:

1. <u>Updated Groundwater Flow Model</u>: The Permittee shall submit to the Division for review and approval an updated groundwater flow model with any application to renew and/or modify the Permit. Groundwater flow model shall conform to the most recent Division

guidance documents for groundwater flow models, including but not limited to the Bureau of Mining Regulation and Reclamation's "Guidance for Hydrogeologic Groundwater Flow Modeling at Mine Sites". The study shall address, at a minimum, the requirements of NAC 445A.429, and shall include all available data and mitigations to reduce the potential to degrade groundwater, as applicable. If the Permittee determines that renewal of the Permit will not affect the groundwater flow model; or any underground model, pit lake study, ecological risk assessment, fate and transport model, or any corrective action plan; then in lieu of the aforementioned models, studies, and assessments, the Permittee may submit to the Division for review and approval an evaluation and determination of the continued suitability and adequacy of the existing Division-approved models, studies, and assessments. The evaluation shall consider modeling methodology, current site conceptual model, changes to site operations and physical conditions, and monitoring results. The determination shall compare modeled predictive vs. observed conditions whenever possible. The Division may require an update to any of the aforementioned studies as part of an application to renew or modify the Permit if the Permittee's determination is not approved by the Division.

- 2. Updated Underground Model: The Permittee shall submit to the Division for review and approval an updated underground-workings hydro- and geo- chemical model with any application to renew and/or modify the Permit. This study shall include updated mapping of underground workings, mapping and characterization of evaporative mineral precipitates, then general abundance of groundwater, and the characterization of host rock. These studies and assessments shall address, at a minimum, the requirements of NAC 445A.429, and shall include all available data; alternative underground or backfill scenarios; and mitigations to reduce ecological risk and the potential to degrade groundwater, as applicable. Hydrogeochemical evaluations must include proposed controls to eliminate any potential for noncompliance and a timeline for working with the Division on financial assurances. Approval may require modification of the Permit and payment of modification fees. If the Permittee determines that renewal of the Permit will not affect the groundwater flow model, underground model, pit lake study, ecological risk assessment, fate and transport model, and any corrective action plan, then in lieu of the aforementioned models, studies, and assessments, the Permittee may submit to the Division for review and approval an evaluation and determination of the continued suitability and adequacy of the existing Division-approved models, studies, and assessments. The evaluation shall consider modeling methodology, current site conceptual model, changes to site operations and physical conditions, and monitoring results. The determination shall compare modeled predictive vs. observed conditions whenever possible. The Division may require an update to any of the aforementioned studies as part of an application to renew or modify the Permit if the Permittee's determination is not approved by the Division.
- 3. <u>Updated Waste Rock Management Plan</u>: The Permittee shall submit to the Division for review and approval an updated waste rock management plan (WRMP) with any application to renew or modify the Permit that could affect the WRMP. A revised WRMP must also be approved prior to initiating mining or in-pit backfill activities not previously approved. The WRMP must include representative characterization data for all anticipated waste rock and overburden in accordance with the current version of the Division guidance document "Waste Rock, Overburden, and Ore Evaluation," in addition to a detailed

description of how, when, and where the materials will be managed and monitored, and appropriate controls to eliminate any potential to degrade waters of the State, if applicable. Approval may require modification of the Permit and payment of modification fees. If the Permittee determines that renewal of the Permit will not affect the WRMP, in lieu of an updated WRMP, the Permittee may submit to the Division for review and approval an evaluation and determination of the continued suitability and adequacy of the existing Division-approved WRMP. The evaluation shall consider current conditions, changes to site operations and physical conditions, and monitoring results since WRMP approval.

4. <u>Updated Tentative Plan for Permanent Closure:</u> The Permittee shall submit to the Division for review and approval an updated Tentative Plan for Permanent Closure (TPPC) with each application for renewal or any application for modification that could affect the existing approved TPPC, and shall conform to the most recent Division guidance documents regarding TPPC's. The TPPC is a conceptual closure plan, and shall include a description of each facility, provide characterization of each facility, and outline the procedures, methods and schedule for stabilizing all sources. The plan for both surface and underground components shall include, but not be limited to, a draindown model, long-term seepage management, cover model/design, stormwater diversion channel management, and an implementation schedule per Bureau of Mining Regulation and Reclamation (BMRR) Guidance for Preparing Tentative Plans for Permanent Closure as well as Guidance for Permanent Closure of Underground Mine Workings.

# II. General Facility Conditions and Limitations

# A. General Requirements

- 1. The Permittee shall achieve compliance with the conditions, limitations, and requirements of the Permit upon commencement of each relevant activity. The Administrator may, upon the request of the Permittee and after public notice (if required), revise or modify a Schedule of Compliance in an issued Permit if he or she determines good and valid cause (such as an act of God, a labor strike, materials shortage, or other event over which Permittee has little or no control) exists for such revision.
- 2. The Permittee shall at all times maintain in good working order and operate as efficiently as reasonably possible, all devices, facilities, and systems installed or used by the Permittee to achieve compliance with the terms and conditions of this Permit.
- 3. Whenever the Permittee becomes aware that he or she failed to submit any relevant facts in the Permit application or submitted incorrect information in a Permit application or in any report to the Administrator, the Permittee shall promptly submit such facts or correct information. Any inaccuracies found in this information may be grounds for revocation or modification of this Permit and appropriate enforcement action.

# B. Reporting Requirements

- 1. The Permittee shall submit quarterly reports, in a Division-approved electronic format, which are due to the Division on or before the 28th day of the month following the quarter and must contain the following:
  - a. Submit the following items to the Regulation Branch:

- i. Monitoring results from the leak detection sumps, ports, pipes, and pond French drains identified in Part I.D.2, and I.D.3, reported on Nevada Division of Environmental Protection (NDEP) Form 0590 or equivalent;
- ii. Monitoring results from the piezometers identified in I.D.17 and I.D.21;
- iii. Analytical results of the solution collected from monitoring locations identified in Part I.D.3, I.D.4, I.D.9, I.D.12, I.D.14, I.D.15, I.D.16, I.D.18, I.D.19, I.D.20, I.D.21, and I.D.22 reported on NDEP Form 0190 or equivalent;
- iv. Analytical results of the solution collected from monitoring locations identified in Part I.D.10, I.D.11, and I.D.13;
- v. Pumping rates for wells identified in Part I.D.19;
- vi. Number of days ponds in Part I.D.5 are used;
- vii. Pond elevations for ponds identified in part I.D.4;
- viii. Water and collar elevations, and well depths for site monitoring wells identified in Part I.D.14, I.D.15, and I.D.19;
- ix. Analytical results of the MWMP-Profile I and Uranium, and NMSP testing for the materials identified in Part I.D.6, I.D.7, and I.D.8, reported on NDEP Form 0190 and NDEP Form 0620 as appropriate, or equivalent;
- x. Other monitoring details required for off-site ores per Part I.D.7;
- xi. Other monitoring details required for waste rock and stockpiles in I.D.6, and I.D.9;
- xii. Other pit lake monitoring required in part I.D.18;
- xiii. A summary of the reagents used and required reporting per part I.D.13;
- xiv. Field measurements and flow rates for items identified in part I.D.9, I.D.10, I.D.11, I.D.13, and I.D.16;
- xv. A record of releases, and the remedial actions taken in accordance with the approved Emergency Response Plan on NDEP Form 0490 or equivalent;
- xvi. For any kinetic test initiated, continued, or terminated with Division approval during the quarter, provide a brief report of the test status and an evaluation of the results to date, which shall include all analytical data generated from the date testing was initiated through the reporting quarter;
- xvii. A summary of all monitoring locations which had uranium greater than or equal to 0.03 mg/L with the planned next step of sampling per Footnote (4);
- xviii. Analytical results, copies of hazardous waste determinations, and monitoring results, identified in Parts I.D.23 through I.D.25, pertaining to the approved PCS Management Plan; and
- xix. An updated list of all PCS sources managed under the approved PCS Management Plan, with any new or changed sources highlighted, reported on

NDEP Form PCS-01 or equivalent; current screening levels for each on-site disposal location; and a detailed explanation of any revisions to screening levels..

- b. Submit the following items to the Closure Branch
  - i. Analytical results of the solution collected from monitoring locations identified in Part I.D.4, I.D.13, I.D.14, I.D.16, and I.D.17 reported on NDEP Form 0190 or equivalent;
  - ii. Water and collar elevations, and well depths for site monitoring wells identified in Part I.D.14;
  - iii. A summary of the reagents used and required reporting per part I.D.13;
  - iv. Monitoring results from the piezometers identified in Part I.D.17;
  - v. Analytical results for the pit lakes identified in Part I.D.18, reported on NDEP Form 0290 or equivalent;
  - vi. Other monitoring results for the pit lakes identified in Part I.D.18;

Facilities, which have not initiated mining or construction or are inactive, still must submit a status report quarterly. Subsequent to any noncompliance or any facility expansion which provides increased capacity, the Division may require an accelerated monitoring frequency.

- 2. The Permittee shall submit an annual report, in a Division approved electronic format, by February 28th of each year, for the preceding calendar year, which contains the following:
  - a. Submit the following items to the Regulation Branch:
    - i. Analytical results of water quality samples collected from water supply wells identified in Part I.D.1, reported on NDEP Form 0190;
    - ii. Summary of toll ore processed identified in Part I.D.7;
    - iii. A synopsis of spills and releases on NDEP Form 0390;
    - iv. A brief summary of site operations, including the number of tons of ore processed, construction and expansion activities, and major problems with the fluid management system;
    - v. A table of total monthly precipitation amounts reported for either the five-year history previous to the date of submittal or the history since initial Permit issuance, whichever is shorter;
    - vi. An updated version of the facility monitoring and sampling procedures and protocols; and
    - vii. Graphs of leak detection flow rates and concentrations of aluminum, antimony, arsenic, barium, cadmium, chloride, cyanide (free or WAD), iron, lead, magnesium, manganese, mercury, nitrate + nitrite (as N), pH, total dissolved solids, total nitrogen (as N), and uranium, (as applicable), versus time for all fluid sampling points. These graphs shall display either a five-year history previous to the date of submittal or the history since initial Permit issuance, whichever is

shorter. Additional constituents may be required by the Division, if deemed necessary; and

- viii. Provide an updated map of monitoring locations.
- b. Submit the following items to the Closure Branch:
  - i. An annual closure activity status report and an updated evaluation of the TSF-1 FPPC, including but not limited to work performed, cover settlement and performance, and an updated water balance using specific characterization data for each process component with respect to achieving stabilization;
  - ii. A summary of the performance of the seepage remediation system (SRS) for the TSF-1.
  - iii. An updated Tentative Plan for Permanent Closure (TPPC) and Final Plan for Permanent Closure (FPPC), as applicable, incorporating any new site information that may impact these plans. The Plans shall be prepared in accordance with the current version of the Division guidance documents "Tentative Plans for Permanent Closure Guidance" and "Preparation Requirements & Guidelines Permanent Closure Plans & Final Closure Reports," as applicable.
- 3. Release Reporting Requirements: The following applies to facilities with an approved Emergency Response Plan. If a site does not have an approved Emergency Response Plan, then all releases must be reported as per NAC 445A.347 or NAC 445A.3473, as appropriate.
  - a. A release of any quantity of hazardous substance, as defined at NAC 445A.3454, to surface water, or that threatens a vulnerable resource, as defined at NAC 445A.3459, must be reported to the Division as soon as practicable after knowledge of the release, and after the Permittee notifies any emergency response agencies, if required, and initiates any action required to prevent or abate any imminent danger to the environment or the health or safety of persons. An oral report shall be made by telephone to (888) 331-6337, and a written report shall be provided within 10 days in accordance with Part II.B.5.b.
  - b. A release of a hazardous substance in a quantity equal to or greater than that which is required to be reported to the National Response Center pursuant to 40 Code of Federal Regulations (CFR) Part 302 must be reported as required by NAC 445A.3473 and Part II.B.4.a.
  - c. A release of a non-petroleum hazardous substance not subject to Parts II.B.4.a. or II.B.4.b., released to soil or other surfaces of land, and the total quantity is equal to or exceeds 500 gallons or 4,000 pounds, or that is discovered in or on groundwater in any quantity, shall be reported to the Division no later than 5:00 P.M. of the first working day after knowledge of the release. The release shall be reported through the online reporting system available at <a href="http://www.ndep.nv.gov">http://www.ndep.nv.gov</a> or an oral report shall be made by telephone to (888) 331-6337. A written report shall be provided within 10 days in accordance with Part II.B.5.b. Smaller releases, with total quantity greater than 25 gallons or 200 pounds and less than 500 gallons or 4,000 pounds, released to soil or

- other surfaces of land, or discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.
- d. Petroleum Products and Coolants: If a release is subject to Parts II.B.4.a. or II.B.4.b., report as specified in Part II.B.4.a. Otherwise, if a release of any quantity is discovered on or in groundwater, or if the total quantity is equal to or greater than 100 gallons released to soil or other surfaces of land, report as specified in Part II.B.4.c. Smaller releases, with total quantity greater than 25 gallons but less than 100 gallons, released to soil or other surfaces of land, or if discovered in at least 3 cubic yards of soil, shall be reported quarterly on NDEP Form 0390 or equivalent.
- 4. The Permittee shall report to the Administrator any noncompliance with the Permit, including any exceedance or deviations from Part I.G.
  - a. Each such event shall be reported orally by telephone to (775) 687-9400, not later than 5:00 P.M. of the next regular work day from the time the Permittee has knowledge of the circumstances. This report shall include the following:
    - i. Name, address, and telephone number of the owner or operator;
    - ii. Name, address, and telephone number of the facility;
    - iii. Date, time, and type of incident, condition, or circumstance;
    - iv. If reportable hazardous substances were released, identify material and report total gallons and quantity of contaminant;
    - v. Human and animal mortality or injury;
    - vi. An assessment of actual or potential hazard to human health and the environment outside the facility; and
    - vii. If applicable, the estimated quantity of material that will be disposed and the disposal location.
  - b. A written summary shall be provided within 10 days of the time the Permittee makes the oral report. The written summary shall contain:
    - i. A description of the incident and its cause;
    - ii. The periods of the incident (including exact dates and times);
    - iii. If reportable hazardous substances were released, the steps taken and planned to complete, as soon as reasonably practicable, an assessment of the extent and magnitude of the contamination pursuant to NAC 445A.2269;
    - iv. Whether the cause and its consequences have been corrected, and if not, the anticipated time each is expected to continue; and
    - v. The steps taken or planned to reduce, eliminate, and prevent recurrence of the event.
  - c. The Permittee shall take all available and reasonable actions, including more frequent and enhanced monitoring to:
    - i. Determine the effect and extent of each incident;

- ii. Minimize any potential impact to the waters of the State arising from each incident;
- iii. Minimize the effect of each incident upon domestic animals and all wildlife; and
- iv. Minimize the endangerment of the public health and safety which arises from each incident.
- d. If required by the Division, the Permittee shall submit, as soon as reasonably practicable, a final written report summarizing any related actions, assessments, or evaluations not included in the report required in Part II.B.5.b., and including any other information necessary to determine and minimize the potential for degradation of waters of the State and the impact to human health and the environment. Submittal of the final report does not relieve the Permittee from any additional actions, assessments, or evaluations that may be required by the Division.

# C. Administrative Requirements

- 1. A valid Permit must be maintained until permanent closure and post-closure monitoring are complete. Therefore, unless permanent closure and post-closure monitoring have been completed and termination of the Permit has been approved in writing by the Division, the Permittee shall apply for Permit renewal not later than 120 days before the Permit expires.
- 2. Except as required by NAC 445A.419 for a Permit transfer, the Permittee shall submit current Permit contact information described in paragraphs (a) through (c) of subsection 2 of NAC 445A.394 within 30 days after any change in previously submitted information.
- 3. All reports and other information requested by the Administrator shall be signed and certified as required by NAC 445A.231.
- 4. All reports required by this Permit, including, but not limited to, monitoring reports, corrective action reports, and as-built reports, as applicable, and all applications for Permit modifications and renewals, shall be submitted in a Division-approved electronic format.
- 5. The Permittee shall submit any new or updated Universal Transverse Mercator (UTM) location data for all monitoring points specified in Part I.D, expressed in meters and decimals of a meter, using the Nevada Coordinate System of 1983 (also known as the North American Datum of 1983 or NAD83, ref NRS 327.005), with each Permit renewal, as-built report, and monitoring plan update, as applicable. Data shall be submitted electronically to the Division in Excel format.
- 6. When ordered consistent with Nevada Statutes, the Permittee shall furnish any relevant information in order to determine whether cause exists for modifying, revoking and reissuing, or permanently revoking this Permit, or to determine compliance with this Permit.
- 7. The Permittee shall maintain a copy of, and all modifications to, the current Permit at the permitted facilities at all times.
- 8. The Permittee is required to retain during operation, closure, and post-closure monitoring, all records of monitoring activities and analytical results, including all original strip chart or data logger recordings for continuous monitoring instrumentation, and all calibration

and maintenance records. This period of retention must be extended during the course of any unresolved litigation.

- 9. The provisions of this Permit are severable. If any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not thereby be affected.
- 10. The Permittee is authorized to manage fluids and solid wastes in accordance with the conditions of this Permit. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of Federal, State, or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under the Water Pollution Control Statutes for releases or discharges from facilities or units not regulated by this Permit. NRS 445A.675 provides that any person who violates a Permit condition is subject to administrative or judicial action provided in NRS 445A.690 through 445A.705.

#### D. Division Authority

The Permittee shall allow authorized representatives of the Division, at reasonable times, and upon the presentation of credentials to:

- 1. Enter the premises of the Permittee where a regulated activity is conducted or where records are kept per the conditions of this Permit;
- 2. Have access to and copy any record that must be kept per the conditions of this Permit;
- 3. Inspect and photograph any facilities, equipment (including monitoring and control equipment), practices, or operations regulated by this Permit; and
- 4. Sample or monitor for any substance or parameter at any location for the purposes of assuring Permit and regulatory compliance.

## E. Sampling and Analysis Requirements

- 1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- 2. For each measurement or sample taken pursuant to the conditions of this Permit, the Permittee shall record the following information:
  - a. The exact place, date, and time of the inspection, observation, measurement, or sampling; and
  - b. The person(s) who inspected, observed, measured, or sampled.
- 3. Samples must be taken, preserved, and labeled according to Division approved methods.
- 4. Standard environmental monitoring chain of custody procedures must be followed.
- 5. Samples shall be analyzed by a laboratory certified or approved by the State of Nevada, as applicable for the method(s) being performed. The Permittee must identify in all required reports the certified and approved laboratories used to perform the analyses, laboratory reference numbers, and sample dates, and for the electronic version of each report only,

- include all associated laboratory analytical reports, including test results, test methods, chain-of-custody forms, and quality assurance/quality control documentation.
- 6. The accuracy of analytical results, unless otherwise specified, shall be expressed in mg/L and be reliable to at least two significant digits. The analytical methods used must have a practical quantitation limit (PQL) equal to or less than one-half the reference value for Profile I, Profile III, and Surface Water Profile parameters. Laboratories shall report the lowest reasonable PQL based on in-house method detection limit studies. Samples shall be analyzed by methods listed in 40 CFR Part 136 Table 1B, as applicable, by a laboratory certified for that method by the State of Nevada - Bureau of Safe Drinking Water Laboratory Certification Program. Samples for Profile I metals shall be filtered, digested, and analyzed for the dissolved fraction, all other Profile I parameters and samples requiring uranium analysis shall be unfiltered, digested (as applicable) and analyzed for the total recoverable fraction; samples for Profile III metals shall be unfiltered, digested, and analyzed for the total recoverable fraction, all other Profile III parameters analysis shall be unfiltered, digested (as applicable) and analyzed for the total recoverable fraction; samples for Surface Water Profile parameters shall be analyzed in accordance with NAC 445A.1236 and other applicable surface water regulations; samples requiring Uranium and Profile R analysis shall be unfiltered, digested (as applicable) and analyzed. For additional guidance, please see the Profile Analytical Lists on the website of the Division: https://ndep.nv.gov/land/mining. Unless otherwise approved by the Division, analytical results that are less than the PQL shall be reported quantitatively by listing the PQL value preceded by the "<" symbol.

# F. Permit Modification Requirements

- 1. Any material modification, as defined at NAC 445A.365, plan to construct a new process component, or proposed change to Permit requirements must be reported to the Division by submittal of an application for a Permit modification, or if such changes are in conformance with the existing Permit, by submittal of a written notice of the changes. The Permit modification application must comply with NAC 445A.391 through 445A.399, 445A.4155, 445A.416, 445A.417, 445A.440, and 445A.442, as applicable. The construction or modification shall not commence, nor shall a change to the Permit be effective, until written Division approval is obtained.
- 2. Prior to the commencement of mining activities at any site within the State which is owned or operated by the Permittee but not identified and characterized in a previously submitted application or report, the Permittee shall submit to the Division a report which identifies the locations of the proposed mine areas and waste disposal sites, and characterizes the potential of mined materials and areas to release pollutants. Prior to development of these areas the Division shall determine if any of these new sources will be classified as process components and require engineered containment as well as Permit modification.
- 3. The Permittee shall notify the Division in writing at least 30 days before the introduction of process solution into a new process component or into an existing process component that has been materially modified, or of the intent to commence active operation of that process component. Before introducing process solution or commencing active operation, the Permittee shall obtain written authorization from the Division.

- 4. The Permittee must obtain a written determination from the Administrator of any planned process component construction or material modification, or any proposed change to Permit requirements, as to whether it is considered a Permit modification, and if so, what type.
- 5. The Permittee must give advance notice to the Administrator of any planned changes or activities which are not material modifications in the permitted facility that may result in noncompliance with Permit requirements.

Prepared by: Allie Thibault Date:

Revision 00:

