

STATE OF NEVADA
Department of Conservation and Natural Resources
Division of Environmental Protection
Bureau of Mining Regulation and Reclamation
Water Pollution Control Permit

Permittee: **Nevada Gold Mines LLC**
Mill 5/6 – Gold Quarry – James Creek Project
1655 Mountain City Highway
Elko, Nevada 89801-2800

Permit Number: **NEV0090056**
Review Type/Year/Revision: **Renewal 2023, 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 **Mill 5/6 – Gold Quarry – James Creek Project**, in accordance with the limitations, requirements, and other conditions set forth in this Permit. The Permittee is authorized to process up to **14,500,000 tons** of ore per year.

The facility is located in Eureka County, within Sections 1-4, 10-15, Township 33 North (T33N), Range 51 East (R51E); Sections 6, 7, 18, T33N, R52E; Sections 4, 5, 8, 9, 16, 21-23, 25-28, 33-36 T34N, R51E; Sections 29, 31, and 32, T34N, R52E, Sections 19, 29, 30, and 32, T35N, R51E, Sections 2-3, 10-15, 23 and 24, T35N R50E, Mount Diablo Baseline and Meridian (MDBM), approximately 6 and 21 miles north of the town of Carlin, 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 applications of 21 March 1985, and 9 November 1990, as modified by subsequent approved amendments, is accurate and that the facility has been constructed and is being operated as specified in the 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.

This Permit is effective as of **Day Month 2023**, and shall remain in effect until **26 April 2027**, unless modified, suspended, or revoked.

Signed this _____ day of **Month 2023**.

Robert Kuczynski, P.E.
Chief, Bureau of Mining 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. A major modification approved with the 2012 Permit renewal authorizes the Permittee to construct the South Waste Rock Disposal Facility West Expansion and associated infrastructure. At least 30 days prior to initiating construction, the Permittee shall submit written notice to the Division of its intent to construct. Material changes to, or departures from, the approved design may require additional engineering review and payment of additional Permit modification fees. The Permittee shall not initiate any construction prior to receipt of written authorization from the Division. The Permittee shall submit a QA/QC report and as-built drawings for each completed phase of the authorized construction in accordance with NAC 445A.427 and shall include updated operating plans as described in NAC 445A.398.2 through NAC 445A.398.6.
2. A major modification approved with the 2012 Permit renewal authorizes the Permittee to construct the Mill 5/6 East Tailings Storage Facility (TSF) as Phase I, Phase II, Phase III, and ‘Bonus Lift’. At least 30 days prior to initiating construction of any identified approved construction phase, the Permittee shall submit written notice to the Division of its intent to construct. Such notice shall clearly identify the phase or phases to be constructed and shall include updated operating plans as described in NAC 445A.398.2 through NAC 445A.398.6. Material changes to, or departures from, the approved design may require additional engineering review and payment of additional Permit modification fees. The Permittee shall not initiate any construction prior to receipt of written authorization from the Division. The Permittee shall submit a QA/QC report and as-built drawings for each completed phase of the authorized construction in accordance with NAC 445A.427.
3. Within 90-days of the effective date of the Permit (**Day Month 2023**), the Permittee shall provide the Division with an updated Waste Rock Management Plan that addresses the Divisions 07 July 2022 and 31 October 2022 comments on the renewal application.
4. Within 120-days of the effective date of the Permit (**Day Month 2023**), the Permittee shall submit, for Division review and approval, a work plan that details the impact assessment methodology, an evaluation of data gaps to

completing the assessment, the additional testing that will be performed, and a timeframe for submittal of a groundwater recovery and water quality prediction report that quantifies the potential impacts of the Leeville Underground Mine on waters of the State.

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

- C. The fluid management system covered by this Permit consists of, but may not be limited to, the following process components:
1. The North and South Potentially Acid Generating (PAG) Waste Rock Disposal facilities (WRDFs), the Mac Stage 1 Phases II and III PAG WRDFs, and the leak-detected South WRDF Stormwater Collection Pond and Mac WRDF Stage 1 Collection Pond;
 2. The lined Gold Quarry Heap Leach Pad, including leach solution collection system, transfer pipelines and channels, and north perimeter transfer channel leak detection system;
 3. The Gold Quarry Refractory Ore Stockpile Pad, low hydraulic conductivity soil layer base, protective overliner layer, north and south sediment basins, related collection and conveyance berms and spillways; and the associated Gold Quarry Refractory Ore Stockpile Collection Pond, 80-mil high-density polyethylene (HDPE) primary and secondary liners, and leak detection system;
 4. The relocated Gold Quarry Solution Pond, Gold Quarry Solution Pond Pump Back System, 80-mil HDPE composite liner system, and leak collection and recovery system;
 5. Mill 5, including the feeder stockpile with a low hydraulic conductivity soil layer and solution collection and conveyance system, the double synthetically-lined and leak-detected solution collection pond, flotation circuit with dedicated thickener tank and hydraulically-linked containment, and all associated tanks, basins, sumps, and load-out pads;
 6. The Mill 6 & Refractory Ore Treatment Plant (ROTP), including the feeder stockpile and its containment, the quench water cooling circuit and containment including the spray area, cooling pond, and pump station, the emergency spill pond, and the stormwater pond;
 7. The Mill 5 and Mill 6 & ROTP process recovery buildings, including, but not limited to, all tanks, basins, and stemwalls;
 8. The Mill 5 Flotation Concentrate Filter Press Expansion Project process building, concentrate thickener tank, secondary containment systems, and all associated tanks, basins, and stemwalls;
 9. The James Creek TSF, including the basin low permeability soil layer, the underdrainage solution collection system and leak-detected solution conveyance pipeline, and the remediation pump-back and monitoring wells;

10. The Mill 5/6 Central TSF (originally the “New Mill 2/5 TSF,” then “Mill 5/6 TSF”) including the low permeability soil basin cover layer, the supernatant pond synthetic liner, the embankment and underdrainage solution collection systems, embankment and basin monitoring systems, the underdrainage reclaim solution ponds, and their leak detection systems, the Gold Quarry Waste Rock Embankment, and the Gold Quarry East Side Mill 5/6 Central TSF Alluvium Storage Facility;
11. Single-lined ponds for process spillage and stormwater along the tailings pipeline corridor and in the Mill 5 yard, including but not necessarily limited to: Tailings Emergency Catch Pond #4, Tailings Emergency Catch Pond #5, Mill 5 Concrete Emergency Catch Pond, and Mill 6 Emergency Catch Pond;
12. The Mill 5/6 Tailings Booster Pump House and Caro’s Acid Plant, and the Mill 5/6 West Tailings Booster Pump House;
13. The Leeville Mine backfill material stockpile, refractory ore stockpile, the Leeville Section 3 WRDF (LS3-WRDF) with double HDPE-lined and leak detected runoff containment pond, the Leeville Mine waste stockpile, seepage collection ditch, and single-lined HDPE site run-off collection pond;
14. The Leeville Paste-Fill Plant, lined Paste-Fill Site Containment Area, double-lined Paste-Fill and LSL6 Stormwater Ponds, surface and underground paste-fill pipelines, tailings stockpile, cement and fly ash silos, and all associated tanks, bins, hoppers, pads, and boreholes;
15. The Pete Mine WRDF, Phase IA, Phase IB, and Phase II, with engineered low permeability clay layer base, the solution collection channel with single HDPE liner, the Spring PT-WRDFS French drain, the Pete WRDF runoff solution collection pond and solution overflow pond with primary and secondary HDPE liners and leak detection and recovery systems, the Pete refractory ore stockpile (ROS) pad with low permeability clay layer base, and the Pete ROS pad collection pond with double HDPE liner and leak detection and recovery system;
16. The Mill 5/6 West TSF (Phases I, II, and III), 80-mil HDPE liner system, embankment seal zone, embankment and underdrainage solution collection and conveyance systems, embankment and basin monitoring systems, and the 80-mil HDPE-lined Underdrain Valve Access Pad;
17. The Mill 5/6 East TSF (Phases I, II, III, and Bonus Lift), 80-mil, single layer, double-textured HDPE, basin and upstream embankment liner, liner protective cover layer, embankment seal zones, embankment and underdrainage solution collection and conveyance systems, embankment and basin monitoring systems, the 80-mil, double-lined and leak-detected North Underdrain Pond and South Underdrain Pond with piped and leak-detected spillway, and the 80-mil, double-lined and leak detected sub-grade North Reclaim Sump and South Reclaim Sump; and

18. Transfer ditches, channels, pipelines, valves, pumps, sumps, conveyors, containment, and other equipment used in the conveyance, transfer, control, or detection of fluid or material between components.

D. Monitoring Requirements:

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
1. <u>Water Supply Tank</u> Make-up water (SAL-TK01)	Profile I ⁽²⁾ and uranium ⁽⁴⁾	Annually
2. <u>Leak Detection Systems (sump capacity) Ponds, Reclaim Sumps, and Pipes:</u> GQ Leach Pad and North WRDF Solution Pond (GQSP) (2,250 gal) GQ ROS Collection Pond (GQROSCPLD) (2,140 gal) M5 Feeder Stockpile Pond (M5FSCP) M5/6 Central TSF Relocated Underdrain Pond 1 (P1LCS-A) (2,000gal) M5/6 Central TSF Relocated Underdrain Pond 1 Reclaim Sump (LCRS-5) (2,000 gal) M5/6 Central TSF Underdrain Pond 2 (P2LCS) (350 gal) M5/6 Central TSF Underdrain Pond 2 Pump Intake Pipe (P2PIP) M5/6 Central TSF Underdrain Pond 2 Pump Station (P2PS) M5/6 Central TSF Acid Pond 3(P3LCS) (350 gal) M5/6 Central TSF Acid Pond 3 Pump Intake Pipe (P3PIP) M5/6 Central TSF Acid Pond 3 Pump Station (P3PS) M5/6 East TSF North Underdrain Pond (LCRS-1) (5,000 gal) M5/6 East TSF South Underdrain Pond (LCRS-4) (5,000 gal) M5/6 East TSF North Underdrain Reclaim Sump (LCRS-2) (2,000 gal) M5/6 East TSF South Underdrain Reclaim Sump (LCRS-3) (2,000 gal) M5/6 Quench Pond (QWCP) (2,000 gal) M5/6 Quench Pump Intake Pipe (QWIP) M5/6 Quench Pump Station leakage detection well (QWPS)	Avg daily accumulation or flow, as applicable (gpd); For QWPS only, Profile I ⁽²⁾ and uranium ⁽⁴⁾ of fluid present to determine process versus meteoric source;	Quarterly average of weekly measurements ⁽¹⁾ ; Quarterly average of weekly measurements ⁽⁷⁾ ;

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
M5/6 South WRDF Collection Pond Sump (SWRDFCPLD) (2,250 gal) Mac WRDF-1 Collection Pond (MacWRDFCPLD) (x,xxx gal; to be added with as-built approval) LV LS3-WRDF Runoff Containment Pond (LS3-RCPLD) (550 gal) Leeville Paste-Fill Stormwater Pond (LV-PPLD) (450 gal) LSL6 Stormwater Pond (LSL6-SPLD) (X,XXX gal) PT WRDF Collection Pond (PTWRCPLD) (1,653 gal) PT WRDF Overflow Pond (PTWROPLD) (2,900 gal) PT ROS Collection Pond (PTROSCPLD) (1,616 gal);		
<u>Other Leak Detection Systems:</u>		
M5/6 Quench Pond Apron (QPALD) M6 Weak Acid Bleed Line (M6-ABL) Mill 2 Southwest Yard Pump Sump Inflow Pipe (M2-SWYP)	Flow (gpm)/no flow, or avg daily accumulation (gpd);	Quarterly average of weekly measurements ⁽⁷⁾ ;
M5/6 Central TSF Cut-off Trench 1 (PD1) M5/6 Central TSF Cut-off Trench 2 (PD2) M5/6 Central TSF Cut-off Trench 3 (PD3)	Profile I ⁽²⁾ and uranium ⁽⁴⁾ for cut-off trenches;	Quarterly;
Mac WRDF-1 Transfer Pipeline Secondary Pipe End at Collection Pond (MacTP0)		
Mac WRDF-1 Transfer Pipeline Air Valve Vault 1 (MacTP1)		
Mac WRDF-1 Transfer Pipeline Air Valve Vault 2 (MacTP2)		
Mac WRDF-1 Transfer Pipeline Air Valve Vault 3 (MacTP3)		
Mac WRDF-1 Transfer Pipeline Air Valve Vault 4 (MacTP4)		
Mac WRDF-1 Transfer Pipeline Air Valve Vault 5 (MacTP5)		
Mac WRDF-1 Transfer Pipeline Secondary Pipe near Mill 5/6		

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
Tailings Booster Pump House (MacTP6); <u>Mill 5/6 West TSF Underdrain Valve Access Pad Pipelines to M5/6 Central TSF Underdrain Pond 1:</u> Basin Underdrain Pipeline (U-RP) Embankment Face Drain Pipeline(E-RP) Embankment Foundation Drain Pipeline (F-RP)	Flow (gpm)/no flow	Quarterly average of weekly measurements
3. <u>Piezometer Measurements</u> <u>M5/6 Central TSF:</u> Basin underdrain: B-2, B-4, B-6, B-8, B-9, B-14, B-15, B-19 Embankment: E-2, E-4, E-5, E-6, E-7, E-8, E-9 Solids: T2B3 <u>M5/6 West TSF:</u> Basin underdrain: P-1B, P-3B, P-4, P-5A, P-6 Embankment – upstream: EP-1A, EP-2A, EP-3A Embankment – centerline: EP-1B, EP-2B, EP-3B <u>M5/6 East TSF:</u> Embankment: EP-1, EP-2, EP-3, EP-4, EP-5, EP-6, EP-7, EP-8, EP-9, EP-10, EP-11, EP-12 Basin underdrain: BP-1A, BP-1B, BP-2, BP-3, BP-4	Hydraulic head (feet)	Weekly
4. <u>Process Solution</u> GQ Pregnant Solution (PREG); M5/6 TSF Tailings Slurry (liquid) (TW) M5/6 TSF Reclaim (RW) M5/6 Quench Water in Pond (QW)	Profile I ⁽¹⁾ and uranium ⁽⁴⁾ ; Profile I ⁽¹⁾ and uranium ⁽⁴⁾	Q1 & Q3; Quarterly

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
9. <u>Site Water Quality Monitoring Wells</u> GQ pad & JC TSF: GQ-7B, GQ-10B, GQE-265 M5/6 Central TSF: SL-1(A), SL-2, SL-3, M56-1/M56-1A, M56-2A M5/6 West TSF: M56-4 M5/6 East TSF: M56-5 Area 20 Refractory Ore Stockpile: M56-3	Profile I ⁽¹⁾ and uranium ⁽⁴⁾ , water and collar elevation (feet AMSL), water level (feet bgs)	Quarterly
10. <u>James Creek Remediation/Monitor Wells⁽¹⁴⁾</u> Pump-back wells PB-1, PB-2	Specific conductance (μS/cm), field pH, water level (feet bgs); Profile I ⁽¹⁾ and uranium ⁽⁴⁾	Quarterly; Annually
11. <u>WRDF Effluent</u> GQ North WRDF Effluent (NWRDF-E) GQ South WRDF Effluent (SWRDF-E) Mac WRDF-1 Effluent (MacWRDF-E); North WRDF East Sump French Drain (NWRDF-EE)	Profile I ⁽¹⁾ and uranium ⁽⁴⁾ ; Flow (gpd)	Quarterly if flowing; Quarterly average of weekly measurements
12. <u>Leeville Mined Materials Backfill (LVBF)</u> LS3-WRDF Waste Rock ⁽¹⁵⁾ (LVW)	NMSP ⁽⁹⁾⁽¹⁰⁾ , MWMP ⁽⁸⁾ - Profile I ⁽¹⁾ and uranium ⁽⁴⁾ , and comparison of NMSP to on-site NCV data collected from split of sample	Q1 & Q3 ⁽¹⁶⁾

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
<p>13. <u>Leeville Collection Ponds</u> Site Run-off Collection Pond (LVCP) LS3-WRDF Runoff Containment Pond (LS3-RCP); Leeville Paste-Fill Stormwater Pond (LVPP) LSL6 Stormwater Pond (LSL6-SP)</p>	<p>Profile I⁽¹⁾ and uranium⁽⁴⁾; Avg fluid depth (feet)</p>	<p>Q1 & Q3, except quarterly for LVPP; Quarterly average of weekly measurements</p>
<p>14. <u>Pete Mined Materials</u> Non-PAG Waste (PTNPW) PAG Waste (PTPW) Encapsulation Waste placed on Pete Facility (PTEW) Pete Phase 5 In-Pit WRDFs: Pete In-Pit (PT-IP-WRDF) Pete Bajo 1 (PB-WRDF-1) Pete Bajo 2 (PB-WRDF-2) Pete Bajo 3 (PB-WRDF-3)</p>	<p>NMSP⁽⁹⁾⁽¹⁰⁾, MWMP⁽⁸⁾-Profile I⁽¹⁾ and uranium⁽⁴⁾, tonnage placed in each completed PAG cell or placed in each non-PAG location during the quarter, and comparison of NMSP to on-site NCV data collected from split of sample</p>	<p>Q1 & Q3⁽¹⁶⁾</p>
<p>15. <u>Pete Ponds</u> WRDF Collection Pond (PTWRCP) WRDF Overflow Pond composite (PTWROP) ROS Collection Pond (PTROSCP)</p>	<p>Profile I⁽²⁾ and uranium⁽⁴⁾; Avg fluid depth (feet)</p>	<p>Q1 & Q3; Quarterly average of weekly measurements</p>
<p>16. <u>Pete French Drains</u> Spring PT-WRDFS (PT-WRDFS) at discharge pipe</p>	<p>Profile I⁽²⁾ and uranium⁽⁴⁾; Avg flow (gpd)</p>	<p>Quarterly; Quarterly average of weekly measurements</p>
<p>17. <u>Pete WRDF Collection Channel Leak Detection Pipes</u> Collection Pond Channel (PTWRCP) Overflow Pond Channel (PTWROP)</p>	<p>Flow (gpm)/no flow</p>	<p>Quarterly average of weekly measurements</p>

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
18. <u>Backflushing of TSF Underdrain Systems</u> M5/6 Central TSF M5/6 West TSF M5/6 East TSF	Flush in accordance with applicable schedule and protocols ⁽¹⁷⁾	Quarterly
19. <u>Gold Quarry Refractory Ore Stockpile Collection Pond & Sump Monitoring</u> Collection Pond Solution (GQROSCP); Acid Rock Drainage (ARD) Collection Sump (STARD)	Profile I ⁽¹⁾ and uranium ⁽⁴⁾ if fluid present; Avg flow pumped (gpd)	Quarterly; Quarterly average of weekly measurements
20. <u>Mill 5 Liquid Flotation Concentrate Slurry</u> Off-site shipments	Tons shipped by destination	Quarterly
21. <u>Processing Off-site Ore and Carbon Fines</u> Individual batch size(s) by Source; Composite sample of each batch processed by Source ID	Source ID, tons, dates processed; NMSP ⁽⁹⁾⁽¹⁰⁾ and MWMP ⁽⁸⁾ -Profile I ⁽¹⁾ and uranium ⁽⁴⁾	Quarterly; Quarterly ⁽¹⁶⁾
22. <u>Gold Quarry East Side Mill 5/6 Central TSF Alluvium Storage Facility</u>	Tons of alluvium placed	Quarterly
23. <u>Leeville Paste-Fill Plant</u> Tailings Stockpile; Paste-Fill	WAD Cyanide ⁽¹⁸⁾ (mg/kg); MWMP ⁽⁸⁾ -Profile I ⁽¹⁾ and uranium ⁽⁴⁾ ; Slump ⁽²¹⁾ (inches), Crush strength ⁽²²⁾ (psi), binder percent, aggregate percent, percent Portland cement in binder	Quarterly ⁽¹⁹⁾ ; Quarterly ⁽¹⁹⁾⁽¹⁶⁾ ; Quarterly average of weekly measurements ⁽²⁰⁾

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
24. <u>Leeville Underground Mine Workings</u> EMP Inventory	Mapped percent abundance of EMPs ⁽²³⁾ , NMSP ⁽⁹⁾ and MWMP ⁽⁸⁾⁽²⁴⁾ - Profile I ⁽¹⁾ and uranium ⁽⁴⁾	Annually
25. <u>PCS Screening Analyses</u> Each temporary holding pad and treatment cell, by PCS source type; Each approved on-site disposal location, by PCS source type	VOCs ⁽²⁵⁾ , SVOCs ⁽²⁶⁾ , TPH ⁽²⁷⁾ ; VOCs ⁽²⁵⁾ , SVOCs ⁽²⁶⁾ , TPH ⁽²⁷⁾	Quarterly, prior to removal ⁽²⁸⁾ ; Quarterly after provisional placement ⁽²⁸⁾
26. <u>PCS Hazardous Waste Determinations</u> Each PCS source	Hazardous waste determination ⁽²⁹⁾	When required ⁽²⁹⁾
27. <u>PCS Management</u> 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
28. <u>Pit Lake Monitoring</u> Gold Quarry Pit General Monitoring – each pit lake; Water Column Monitoring ⁽³¹⁾ – each pit lake; Surface Samples ⁽³³⁾ – each pit lake;	Presence of Water ⁽³⁰⁾ ; Photograph, lake surface elevation (ft amsl), maximum lake depth (ft), lake area (acres); Continuous field temperature (°F) ⁽³²⁾ and specific conductance (µS/cm) ⁽³²⁾ with depth (ft); Field pH (SU) ⁽³²⁾ , field Eh (mV) ⁽³²⁾ ; Profile III ⁽³⁵⁾ ;	Quarterly Monthly; Monthly; Monthly; Quarterly;

<u>Identification</u>	<u>Parameter</u>	<u>Frequency</u>
Depth Samples ⁽³⁴⁾ – each pit lake that is >25 feet deep or has an outflow to groundwater	Field pH (SU) ⁽³²⁾ , field Eh (mV) ⁽³²⁾ , depth below surface (ft); Profile I ⁽¹⁾ and uranium ⁽⁴⁾ , depth below surface (ft)	Monthly; Quarterly
29. <u>Surface Water Monitoring</u> James Creek Upgradient monitoring location (JC-INLET) Downgradient Monitoring Location (JC-FENCE)	Surface Water Profile ⁽³⁶⁾	Quarterly, when flowing
30. <u>Waste Rock Storage Facilities</u> GQ North, GQ South, Pete, Mac, and Leeville Section 3 WRSF; Each seep that is flowing	Physical stability, presence of water ⁽³⁹⁾ ; Profile I ⁽¹⁾ and uranium ⁽⁴⁾ , photograph, field pH (SU), field specific conductance (μS/cm)	Semi-Annually (Q2 and Q4); Semi-Annually, when flowing (Q2 and Q4)
31. <u>Weather Station Facility</u> Ambient Conditions	Ambient temperature, (min/max), relative humidity (%), wind speed (mph), wind direction (azimuth degree), total precipitation (inches), solar irradiance (W/m ²), and SWE (inches)	Daily

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; CaCO₃ = 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; meq/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; 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; TPH = total petroleum hydrocarbons; VOCs = volatile organic compounds; WAD = weak acid dissociable; * = multiplication symbol; > = greater than; ≥ = greater than or equal to; < = less than; °F = degrees Fahrenheit; µg/L = micrograms per liter; µS/cm = micro-Siemens per centimeter

Footnotes:

(1) Profile I:

General Chemistry Parameters		
Acidity ⁽²⁾	Chloride	pH (± 0.1 SU)
Alkalinity (as CaCO ₃) Bicarbonate ⁽³⁾ Total ⁽³⁾	Fluoride	Sulfate
	Nitrate + Nitrite (as N)	Total Dissolved Solids
	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	--
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- (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 CaCO₃ 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 ≥ 0.030 mg/L, analysis for the Profile I⁽¹⁾, Uranium, and Profile R⁽⁵⁾ 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

*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 to minimize the uncertainty, 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 (e.g. 36 ± 21 pCi/L would be acceptable since the low range is at 15 pCi/L). See Profile R analyte list on the Division’s website for additional information: https://ndep.nv.gov/uploads/land-mining-regs-guidance-docs/20220513_AnalyteList_Profile_R_ADA.pdf.
- (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. (for closure permits, if inspection frequency is relaxed from weekly, also add the following: Sumps must also be inspected during, if possible, and after major storm events in accordance with Part I.I, and at any other time when an increase in leakage flow may occur (e.g., during spring melt, etc.)). 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 NMSF is a specific static test or acid-base accounting test.

- (10) When static testing⁽⁹⁾ 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⁽¹¹⁾ 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, pH, specific conductance ($\mu\text{S}/\text{cm}$), acidity and/or alkalinity (as deemed appropriate by the laboratory), sulfate, iron (total, plus ferric and ferrous speciation if total iron $> 0.6 \text{ mg}/\text{L}$ and $\text{pH} < 5 \text{ SU}$), and dissolved calcium and magnesium; weekly filtered extracts per the method will be digested and analyzed for total recoverable concentrations during week 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(1), Uranium, and Profile III⁽³⁴⁾ parameters, as applicable, and specific conductance ($\mu\text{S}/\text{cm}$) and acidity and/or alkalinity shall be recorded as recommended by the analytical laboratory; final results reported shall include initial and final static test results⁽¹⁰⁾, a Profile I⁽¹⁾ 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.
- (12) Except as may otherwise be required by this Permit, potentially acid generating (PAG) materials and associated fluids shall be managed in accordance with Permittee’s “*Refractory Ore Stockpile and Waste Rock Dump Design, Construction and Monitoring Plan*” (1995 version applies to PAG waste rock dumps and refractory ore stockpiles constructed prior to 2003; January 2003 version applies to construction of new PAG waste rock dumps and refractory ore stockpiles or to construction that expands pre-2003 PAG waste rock dumps and refractory ore stockpiles beyond their pre-2003 fluid containment structure locations) and the most current version of the Division guidance document “*Waste Rock, Overburden, and Ore Evaluation*.” If required in writing by the Division, based on static testing⁽¹¹⁾ characterization of materials in Parts I.D.8, I.D.12, I.D.14, or I.D.21 that show the potential for both acid generation and degradation of waters of the State,

as managed, the Permittee shall notify the Division in writing and initiate kinetic testing⁽¹²⁾ within 10 days.

- (13) Data shall be collected for quarters in which any deposition of tailings to the James Creek TSF occurred.
- (14) Remediation pump-back wells shall be equipped and maintained in a condition to allow pump-back operations to resume on short notice if required. Additional wells may be required by the Division if conditions warrant.
- (15) LVW characterization shall include material generated during pre-mining development of the Leeville Mine, i.e., production and ventilation shaft sinking, development drifts, raises, etc.
- (16) Samples are composited through the quarter and, due to the time necessary to complete the required analyses, parameters for a given quarter will be reported in the following quarter report.
- (17) Backflushing shall be in accordance with established protocols that include simultaneous flushing of all four basins and cyclical high pressure (55-psi target pressure) and low pressure (35-psi target pressure) flushes for the Mill 5/6 Central TSF. Backflushing of the Mill 5/6 West TSF or Mill 5/6 East TSF shall be in accordance with approved protocols and performed only if necessary as based on operational experience. The backflushing schedule may be adjusted or modified due to operational constraints, including but not limited to, freezing temperatures, evidence of excessive flushing, or the need for the underdrain system to recover. Proposed protocol and schedule changes must be included in the quarterly report.
- (18) The extraction shall be performed by a Nevada-approved laboratory in accordance with ASTM Method D7572. The WAD cyanide analysis itself shall be performed by a Nevada-certified laboratory.
- (19) Sampling and analysis are required only when tailings material is mined and placed on the tailings stockpile.
- (20) Paste-fill monitoring is required only when the Paste-Fill Plant is operating.
- (21) Slump testing of paste-fill samples shall be performed in accordance with ASTM Method C143 or equivalent.
- (22) Crush strength testing of 56-day-cured paste-fill samples shall be performed in accordance with ASTM Method C39 or equivalent. If the curing time for a test cylinder extends into the next calendar quarter, report the test result (pursuant to Part II.B.1.c) in the monitoring report for the quarter in which the test is concluded.
- (23) Map all non-backfilled workings in the Leeville Underground Mine that have been open for at least one year and are safely accessible. In each area, estimate the percentage of mine workings surfaces that are covered with evaporative mineral precipitates (EMPs). Indicate on the map the locations

of all EMP analyses⁽¹⁹⁾. Also provide the general abundance of groundwater, and the sulfur content of the wallrock in each area. In each Permit renewal application, the tentative plan for permanent closure shall be updated based on available data to propose how EMPs in underground mines will be managed in closure to minimize the potential for degradation of waters of the State.

- (24) During the annual EMP inventory, representatively sample and analyze the EMPs present in each general area of the mine. Representatively sample, and separately analyze, each EMP mineral assemblage that is readily distinguishable by color, form, or other properties. If the Nevada-approved laboratory determines that a water to sample ratio greater than one to one, by weight, is warranted for the MWMP⁽¹⁰⁾ extraction, report the ratio used, explain why it was necessary, and calculate the analytical results to a one-to-one basis for comparison with other results. Analyze for acidity whenever alkalinity is below detection.
- (25) Volatile organic compounds (VOCs) analyzed by a Nevada-certified laboratory using the most recent published version of EPA Method 8260.
- (26) Semi-volatile organic compounds (SVOCs) analyzed by a Nevada-certified laboratory using the most recent published version of EPA Method 8270.
- (27) 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.
- (28) 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.
- (29) 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.
- (30) 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.

- (31) A continuous temperature-conductivity profile shall be completed for the entire water column at the deepest location in each pit lake.
- (32) 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.
- (33) The surface samples must be collected less than 10 feet below the surface of the pit lake.
- (34) Depth sampling shall be performed at the deepest location in each pit lake. The number and depth of samples shall be determined based on the temperature-conductivity profile of the water column at the time of sampling. If the lake is stratified, collect a separate depth sample from each distinct layer in the water column (e.g., from the epilimnion, metalimnion, hypolimnion, and monimolimnion, as applicable; however, note that the quarterly sample from the surface layer [epilimnion] must be analyzed for Profile III constituents per the surface sample requirements whereas the quarterly depth samples from all other layers are analyzed for Profile I constituents). If the lake is unstratified and between 25 and 50 feet deep, collect one depth sample from the lower half of the water column. If the lake is unstratified and greater than 50 feet deep, collect two depth samples consisting of an intermediate sample from the middle third of the water column and a deep sample from the lower third of the water column. If the lake is less than 25 feet deep but includes an outflow to groundwater (i.e., it is a hydrologic flow-through pit lake), collect a quarterly Profile I surface sample in addition to the quarterly Profile III surface sample.
- (35) Profile III:

General Chemistry Parameters		
Acidity ⁽²⁾	Fluoride	Sulfate
Alkalinity (as CaCO ₃) Bicarbonate ⁽³⁾ Total ⁽³⁾	Nitrate + Nitrite (as N)	Total Dissolved Solids
	Nitrogen, Total (as N)	Total Suspended Solids
	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

- (36) Surface Water Profile – Maggie Creek at the Humboldt River (per NAC 445A.1236 and 445A.1496):

General Chemistry Parameters		
Alkalinity (as CaCO ₃)	Fluoride	Sulfate
Bicarbonate ⁽³⁾	Hardness (as mg/L CaCO ₃) ⁽³⁸⁾	Sulfide, Total (as undissociated hydrogen sulfide)
Total ⁽³⁾		Nitrate (as N)
Ammonia, Total (as N)	Nitrite (as N)	Total Suspended Solids
Chloride	Nitrate + Nitrite	--
Cyanide, Free	pH (± 0.1 SU) ⁽²⁾⁽¹⁹⁾	--
Dissolved Oxygen	Phosphorus, Total (as P)	--
Metals		
Antimony, Total	Chromium (III), Dissolved ⁽³⁷⁾	Molybdenum, Total
Arsenic, Dissolved	Chromium (IV), Dissolved ⁽³⁷⁾	Nickel, Dissolved
Barium, Total	Copper, Dissolved	Selenium, Total
Beryllium, Total	Iron, Total	Silver, Dissolved
Boron, Total	Lead, Dissolved	Thallium, Total
Cadmium, Dissolved	Magnesium, Dissolved	Zinc, Dissolved
Calcium	Manganese, Total	--
Chromium, Total	Mercury, Dissolved	--

- (37) Analyze and calculate for chromium species only if total chromium exceeds 0.005 mg/L.
- (38) 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.
- (39) Provide a visual evaluation of each 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.

E. Quarterly and annual monitoring reports and release reporting shall be in accordance with Part II.B.

F. All sampling and analytical accuracy shall be in accordance with Part II.E.

G. Permit Limitations

1. The daily accumulation or flow exceeding 150 gallons per day averaged over the quarter in the leak detection sumps, pipes, or ports identified in Parts I.D.2 and I.D.17.
2. The daily accumulation or flow exceeding 50 gallons per day averaged over the year in the leak detection sumps, pipes, or ports identified in Parts I.D.2 and I.D.17.
3. Failure to meet a Schedule of Compliance date or requirement.
4. All analytical samples shall be analyzed as mentioned in the Footnotes or Section II.E, as applicable.
5. Except as may otherwise be required by this Permit, a minimum 2-foot freeboard shall be maintained in all ponds.
6. The solution elevation in the Leeville Paste-Fill Stormwater Pond shall be maintained below the invert of the pond inflow transfer channel from the pipeline corridor.
7. The hydraulic head on the piezometers located within the tailings mass, basin underdrain, and embankment, of the Mill 5/6 Central TSF, the Mill 5/6 West TSF, and the Mill 5/6 East TSF, as applicable, must be managed to maintain integrity of the impoundment fluid management system in accordance with the component design and requirements of NAC 445A.437 and NAC 445A.438.
8. Discharge to the Mill 5/6 Central TSF shall be managed to prevent the supernatant pond from extending beyond the limits of the synthetic-lined portion of the facility.
9. The storage of process solution in a single-lined pond for more than 20 consecutive days for any single event.
10. Fluid volume within the Leeville Mine yard surface run-off collection pond must be maintained to meet approved freeboard and 24-hour, 25-year event design criteria. Unless demonstrated to meet Permit water quality standards, fluid removed must be placed in approved containment or into the process circuit.
11. The Leeville Mine Section 3 Waste Rock Disposal Facility (LS3-WRDF) shall be constructed in maximum 25-foot lifts to a maximum height of 105 feet, as

measured vertically from the top of the compacted low permeability base, and final side slopes shall not to exceed an overall slope of 2.5 horizontal to 1 vertical (2.5 H:1V).

12. Failure to construct, manage, or monitor a relevant component and associated control structures in accordance with the appropriate Newmont Mining Corporation “*Refractory Ore Stockpile and Waste Rock Dump Design, Construction and Monitoring Plan*” (1995 or January 2003 as applicable).
13. The Pete WRDF and South WRDF shall conform to the engineered set-backs and individual lift heights and the maximum Pete WRDF height shall not exceed 300 feet and the maximum South WRDF height shall not exceed 500 feet, as measured vertically from the top of the compacted low permeability base, except as may be nominally necessary to accommodate closure requirements.
14. The maximum height of the Pete ROS shall not exceed 100 feet as measured vertically from the top of the compacted low permeability base.
15. The Pete ROS collection pond maximum operating level is 4.5 feet below the spillway to manage the design 100-year, 24-hour storm event volume.
16. Operations to partially backfill the Crow Pit to provide a mule deer migration route corridor shall only use characterized, non-PAG waste rock backfill material.
17. The Mill 5/6 Central TSF, Mill 5/6 West TSF, and Mill 5/6 East TSF supernatant pools shall be managed to maintain a minimum 5-foot operating freeboard and a minimum 3-foot storm event freeboard, as measured vertically from the adjacent embankment crest.
18. The maximum design elevation of accumulated sediment in the Gold Quarry Refractory Ore Stockpile Pad north and south sediment basins is 3 feet above the deepest point in either basin.
19. The depth of solution in the Gold Quarry Refractory Ore Stockpile ARD Collection Sump (STARD) shall not exceed five feet.
20. Approved asphalt pavement in areas that may be subject to process solution spills shall be properly maintained and used in a manner to minimize infiltration and prevent impoundment of liquids, including stormwater. Proper maintenance includes, but is not restricted to, frequent sealing of seams and cracks. When compliance is maintained with this requirement, process solution spills on the asphalt are not considered reportable releases to the environment pursuant to Part II.B.3, unless there is reason to believe otherwise.
21. The South Waste Rock Disposal Facility Collection Pond shall be operated to maintain the design 2-foot freeboard and pond evacuation procedures shall be followed to avoid backflow from the tailings slurry pipelines.

22. Mill 5 liquid flotation concentrate slurry may be shipped off site to the Sage Mill, Twin Creeks Mine (NEV0086018) for processing; shipment to any other site requires prior Division approval.
23. Processing of off-site ore from a new Source, including other permitted facilities owned or operated by the Permittee but not previously approved by the Division, requires submittal of a Source identification and material characterization, in accordance with this Permit, and the tonnage proposed for processing to the Division for review and approval prior to delivery to the site. All off-site ore must be placed on the permitted ore stockpiles or stockpiled within appropriate approved containment, in volumes that do not exceed the design limits of the containment, at all times prior to processing.
24. Tailings relocated internally within the James Creek TSF may be placed in maximum 25-foot lifts to a maximum height of 50 feet and a maximum final side-slope angle of 6H:1V on the Eastern Stockpile and to a maximum height of 125 feet and a maximum final side-slope angle of 5H:1V on the Southern Stockpile.
25. The Gold Quarry East Side Mill 5/6 Central TSF Alluvium Storage Facility shall be constructed for storage of Gold Quarry Pit alluvium only in accordance with the approved design, which includes but may not be limited to, a maximum height of 200 feet constructed in 20-foot lifts with a minimum 175-foot wide ‘outer slope zone’ comprised of material with an upper limit of plasticity of 15 and a moisture content no greater than 8% above the optimum dry density determined by Modified Proctor (ASTM Method D1557) to form a stable 3H:1V east-facing slope and the associated North, South, and Central Runoff/Sediment Collection Pond shall be emptied of sediment as necessary to manage the design 100-year, 24-hour storm event volume at all times.
26. Placement of waste rock on Phase I of the Mac WRDF-1 is restricted to Non-PAG material only, which may be loaded to a maximum height of 385 feet. Phases II and III may be loaded with both PAG and non-PAG material to a maximum height of 475 feet for Phase II, and 495 feet for Phase III, as measured from the specific phase base. Highly plastic clayey alluvium must be placed a minimum horizontal distance of 200 feet from the exterior of the facility. The internal access road along the boundary between non-PAG Phase I and PAG Phase II must be re-established as soon as possible on each new lift and the boundary for PAG placement demarcated with signage.
27. The James Creek TSF may be used to contain process solution only in the event of an emergency via the HDPE overflow pipeline from the Mill 5/6 Tailings Booster Pump House.
28. Tailings material may not be removed from a tailings impoundment, except with prior written authorization from the Division.
29. Unless otherwise approved by the Division, paste-fill shall contain at least 4% binder (binder reduction EDC approved 27 September 2018), and at least 25% carbonate-rich aggregate, as measured using a dry weight basis before water

- addition. The binder shall consist of at least 50% Ordinary Portland Cement or Type 1L Cement by weight with the rest being fly ash or natural pozzolan.
30. Paste-fill samples shall not exceed a maximum allowable slump of 10 inches in any test performed in accordance with ASTM Method C143 or equivalent.
 31. Cured paste-fill samples shall exhibit a minimum 56-day crush strength of 24 pounds per square inch in any test performed in accordance with ASTM Method C39 or equivalent. For applications requiring greater crush strength due to proximity of the backfilled stope/drift to future mining operations, a higher minimum strength shall be specified and reported.
 32. PCS that exceeds screening levels shall not be placed at an on-site disposal location.
 33. No bioremediation or other on-site treatment of PCS is allowed, except for drying and roasting.
 34. The maximum thickness of PCS authorized on temporary holding pads and treatment cells is 6 feet, or less if the capacity or free-board limit is reached. Screening analyses shall be performed and disposal completed in accordance with the PCS Management Plan before, or as soon as possible after, the maximum thickness is reached.
 35. The following surface water quality standards apply to Maggie Creek at the Humboldt River, in accordance with NAC 445A.1236 and 445A.1496:

<u>Parameter</u>	<u>Standard or Standard Calculation Equation^(c)</u> (µg/L, except as noted)
Alkalinity (as CaCO ₃)	≥ 20 mg/L
Ammonia, Total (as N)	mg/L per NAC 445A.118 ^(d)
Antimony, Total	146
Arsenic, Dissolved ^(a)	150
Barium, Total	2.0 mg/L
Beryllium, Total	100
Boron, Total	750
Cadmium, Dissolved ^{(a)(b)}	$(1.101672 - \{\ln(\text{hardness})(0.041838)\}) * e^{(0.7409\{\ln(\text{hardness})\} - 4.719)}$
Calcium	Measure and report (as mg/L calcium) for hardness determination
Chloride	230 mg/L
Chromium, Total	100
Chromium (III), Dissolved ^{(a)(d)}	$(0.860) * e^{(0.8190\{\ln(\text{hardness})\} + 0.6848)}$

<u>Parameter</u>	<u>Standard or Standard Calculation Equation^(c)</u> (µg/L, except as noted)
Chromium (VI), Dissolved ^(a)	11
Copper, Dissolved ^{(a)(d)}	$(0.960)*e^{(0.8545\{\ln(\text{hardness})\}-1.702)}$
Cyanide, Free ^(a)	5.2
Dissolved Oxygen	≥ 5.0 mg/L
Fluoride	1.0 mg/L
Hardness ^(b)	Calculate and report (as mg/L CaCO ₃)
Iron, Total ^(a)	1.0 mg/L
Lead, Dissolved ^{(a)(d)}	$(1.46203-\{\ln(\text{hardness})(0.145712)\})*e^{(1.273\{\ln(\text{hardness})\}-4.705)}$
Manganese, Total	200
Magnesium, Dissolved	Measure and report (as mg/L magnesium) for hardness determination
Mercury, Dissolved ^(a)	0.77
Molybdenum, Total ^(a)	1.65 mg/L
Nickel, Dissolved ^{(a)(d)}	$(0.997)*e^{(0.8460\{\ln(\text{hardness})\}+0.0584)}$
Nitrate (as N)	10 mg/L
Nitrite (as N)	1.0 mg/L
pH	6.5 – 9.0 SU
Phosphorus, Total (as P)	100
Selenium, Total ^(a)	5.0
Silver, Dissolved ^{(a)(d)}	$(0.85)*e^{(1.72\{\ln(\text{hardness})\}-6.59)}$
Sulfate	250 mg/L
Sulfide, Total (as un-dissociated hydrogen sulfide) ^(a)	2.0
Thallium, Total	13
Total Dissolved Solids	500 mg/L
Total Suspended Solids	80 mg/L
Zinc, Dissolved ^{(a)(d)}	$(0.986)*e^{(0.8473\{\ln(\text{hardness})\}+0.884)}$

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

(b) For calculated aquatic life standards, hardness (as mg/L CaCO₃) is determined via the equation in Part I.D., Footnote (38). See Part I.D. Abbreviations for

reference. Include all calculated standards with each monitoring report, as applicable.

- (c) For a complete list of applicable surface water standards, refer to NAC 445A.118, 445A.121, 445A.122, 445A.1236, and 445A.1496.

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. The facility shall install and maintain meteorological stations in the following two locations: near the main mine-site entrance in Section 31, T34N, R52E, and just east of the Mill 5/6 East TSF in Section 18, T33N, R52E, MDBM.
- 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.232 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 approved PCS Management Plan and the

Division Guidance for Mine-Site PCS Management Plans are hereby 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.

N. Continuing Investigations

1. The Permittee shall submit to the Division for review and approval an updated groundwater flow model, pit lake study, and ecological risk assessment with each Permit renewal and with any application to modify the Permit that could affect the pit lake predictive model. The submittal shall also include an ecological risk assessment if the predictive pit lake model indicates the potential for exceedances of a Division Profile III reference value, unless the constituent concentration for each predicted Profile III exceedance is no greater than the concentration evaluated in a previous Division-approved ecological risk assessment for the Project. These studies and assessments shall address, at a minimum, the requirements of NAC 445A.429, and shall include all available data, alternative pit lake or backfill scenarios, and mitigations to reduce ecological risk and the potential to degrade groundwater, as applicable. Approval may require modification of the Permit and payment of modification fees.
2. The Permittee shall submit to the Division for review and approval an updated waste rock management plan (WRMP) with each Permit renewal and with any application to 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.

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 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 both hard copy and 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. Monitoring results for the leak detection sumps, ports, and pipes identified in Parts I.D.2 and I.D.17, and for the piezometers identified in Part I.D.3, reported on NDEP (the Division) Form 0590 or equivalent;
 - b. Analytical results of the solution collected from monitoring locations identified in Parts I.D.2 (QWPS and cut-off trenches only), I.D.4, I.D.5, I.D.9, I.D.11, I.D.13, I.D.15, I.D.16, I.D.19, I.D.29, and I.D.30 (as applicable) reported on NDEP Form 0190 or equivalent;
 - c. Tabular or graphic synopses (whichever is more illustrative) of fluid levels, flow rates, field analytical data, slump and strength data, paste-fill percentages, and other non-analytical data collected from monitoring locations identified in Parts I.D.5, I.D.7, I.D.8, I.D.9, I.D.10, I.D.11, I.D.13, I.D.14, I.D.15, I.D.16, I.D.19, I.D.20, I.D.21, I.D.22, I.D.23, and I.D.30 (as applicable);
 - d. Analytical results of the NMSP and MWMP-Profile I and uranium, and WAD cyanide testing, as applicable, for the solid materials identified in Parts I.D.6, I.D.8, I.D.12, I.D.14, I.D.21, I.D.23, reported on NDEP Form 0190 or equivalent;
 - e. A record of releases, and the remedial actions taken in accordance with the approved Emergency Response Plan on NDEP Form 0490 or equivalent;
 - f. A record of backflushing activities completed during the quarter in accordance with Part I.D.18, a summary report of the effectiveness or problems with the activities, and any proposed changes in the backflushing protocol or schedule due to operational constraints;

- g. Analytical results, copies of hazardous waste determinations, and monitoring results, identified in Parts I.D.25 through I.D.27, pertaining to the approved PCS Management Plan;
- h. 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;
- i. Analytical results for the pit lakes identified in Part I.D.28, reported on NDEP Form 0290 or equivalent;
- j. Other monitoring results for the pit lakes identified in Part I.D.28; and
- k. 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.

Facilities that have not initiated mining or construction, must submit a quarterly report identifying the status of mining or construction. 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 both hard copy and 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 monitoring locations identified in Part I.D.1 and I.D.10, reported on NDEP Form 0190 or equivalent;
 - ii. An EMP inventory report including maps, and analytical results of MWMP-Profile I testing, identified in Part I.D.24; report the analytical results on NDEP Form 0190 or equivalent;
 - iii. A synopsis of releases on NDEP Form 0390 or equivalent;
 - iv. A brief summary of site operations, including the number of tons of ore milled or placed on heaps (as applicable) during the year, number of tons of ore from off-site facilities processed during the year, number of tons of Gold Quarry Alluvium placed during the year, construction and expansion activities, and major problems with the fluid management system;
 - v. A table of total monthly precipitation amounts and other weather data, as applicable, recorded in accordance with Parts I.D.31 and I.H, reported for either a 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, as applicable;
 - vii. Provide any changes to monitoring locations in the past year as mentioned in Part II.C.5
 - viii. A summary describing any operations during the year to partially backfill the Crow Pit to provide a mule deer migration route corridor, the tonnage of backfill material placed, and representative MWMP, NMSP, and Profile I and uranium characterization of the waste rock backfill material used; and
 - ix. Graphs of leak detection flow rates, pH, total dissolved solids (TDS), sulfate, chloride, nitrate + nitrite (as N), WAD cyanide, fluoride, zinc, and arsenic concentration (as applicable), versus time for all non-process fluid sampling points. These graphs shall display a five-year history previous to the date of submittal or the history since initial Permit issuance, whichever is shorter. Additional parameters may be required by the Division if deemed necessary.
- b. Submit the following items to the Closure Branch:
- i. 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.4.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 Regulation (CFR) Part 302 must be reported as required by NAC 445A.3473 and Part II.B.3.a.

- c. A release of a non-petroleum hazardous substance not subject to Parts II.B.3.a. or II.B.3.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 <http://www.ndep.nv.gov> 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.4.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.3.a. or II.B.3.b., report as specified in Part II.B.3.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.3.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 exceedances 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.4.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), 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.; samples for Profile III metals shall be unfiltered, digested, 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 by NAC 445A.365, or 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.410, 445A.414, 445A.4155, 445A.416, 445A.417, 445A.440, and 445A.442, as applicable. The construction or modification shall not commence 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 solutions into a new process component or into an existing process component, which 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 the 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.

Modified by: Matthew Schulenberg

Date: **01 February 2023**

Revision 00: Permit Renewal, effective **Day Month 2022**.