



April 10, 2026

Mr. Wayne Western
Minerals Program Manager
Department of Natural Resources
1594 W. North Temple, Suite 1210
P.O. Box 14580
Salt Lake City, UT 84114-5801

**Re: File Number M-037-0088
Lisbon Valley Copper Mine NOI – Revised Plan – M/037/0088**

Dear Mr. Western:

Thank you for your March 13, 2026 review of our Revised Notice of Intention to Commence Large Mining Operations (NOI) submitted on February 14, 2026. We believe we have responded to all comments and are therefore transmitting Form MR-REV, a copy of our updated NOI and a link to an electronic copy of our Revised NOI, including Figures and Appendices for the Lisbon Valley Mine. The files were voluminous so we are providing the link so you can access Figures and Appendices – let me know if you, or your team, needs assistance. In order to facilitate your review I have attached a table that addresses each of the elements in your checklist.

Once your team determines our submission contains the information necessary for processing, we will provide you with two copies of the plan that can be stamped as required. The link to the electronic files will expire in 45-days or once you provide notice that it is no longer necessary, whichever date is soonest.

Regards,

A handwritten signature in black ink, appearing to read 'Larry Giegerich'.

Larry Giegerich

Link to electronic file copy: <https://app.box.com/s/v0lcs5zok3zr50f7jwynu3loij64hwj6>

Attachment: Completeness Table

**P.O. Box 400
Moab UT 84532**

Completeness Table

	Category	Complete?	Comments	
104	Operator(s), Surface and Mineral Owner(s):			
	1. The name, permanent mailing address and telephone number of the operator responsible for the mining operations and reclamation of the site.	Yes	The name, permanent mailing address, and telephone number are provided in 3.1.1, as well as Table 3.	No changes required
	2. The name, permanent mailing address, and telephone number of the surface landowner(s) and mineral owner(s) of all land to be affected by the operations.	No	Addressed in 3.2.1, 3.2.2, and Table 4. Addresses missing for some parties in Table 4.	Table 4 has been updated
	3. The federal mining claim number(s) lease number(s) or permit number(s) of any mining claims, or federal or state leases or permits included in the lands affected.	No	Addressed in 3.3 and Table 5. Trust Lands leases were omitted from Table 5. Additionally, list all Township, Ranges, and Sections for all lands (Public and Private) that will be affected by mining. Update TLA's new address: 102 South 200 East, Suite 600, Salt Lake City, UT 84111.	Trust lands were added to Table 5. Township Section and Range are included in Table 5 in the BLM format. TLA's address has been updated.
105	Maps, Drawings and Photographs:	No	See below comments. An additional map is needed to depict the total proposed and existing permit boundary for which LVMC is responsible for.	Maps have either been updated or added to the plan to address comments below
	1. A topographic base map must be submitted with the notice of intention. The scale should be approximately 1 inch = 2,000 feet, preferably a USGS 7.5 minute series or equivalent topographic map where available. The following information shall be included on the map:	No	A topographic base map of the Project is not provided in the submission.	Figure 1A

	Category	Complete?	Comments	
	1.11. Property boundaries of surface ownership of all lands which are to be affected by the mining operations;	No	Figure 2 includes a surface ownership map; however, individual parcel boundaries are not included. Additionally, the permit boundary should be depicted on this map.	Figure 2 has been updated
	1.12. Perennial streams, springs and other bodies of water, roads, buildings, landing strips, electrical transmission lines, water wells, oil and gas pipelines, existing wells, boreholes, or other existing surface or subsurface facilities within 500 feet of the proposed mining operations;	No	The submission lacks a map that fully depicts each of the features required by 105.1.12. Including a topographic map may help to address this section.	The base mapping has been updated to include USA topo to address these concerns
	1.13. Proposed route of access to the mining operations from nearest publicly maintained highway. The map scale will be appropriate to show access.	Yes	Addressed in Figure 1. The Utah state map should include highways, for reference. The access map should include a pin for where to park/check-in, such as a guard station or mine office.	No changes required
	1.14. Known areas which have been previously impacted by mining or exploration activities within the proposed disturbed area.	No	Addressed in Figure 4. Figure 4 needs to be updated to depict areas of mining disturbances not caused by LVMC.	Figure 4 has been updated
	2. A surface facilities map shall be provided at a scale of approximately 1" = 200' or other scale as determined necessary by the Division. The following information shall be included on the surface facilities map:	No	See comments below.	
	2.11. Proposed surface facilities, including but not limited to buildings, stationary mining/processing equipment, roads, utilities, power lines, proposed drainage control structures, and, the location of topsoil storage areas, tailings or processed waste facilities, disposal areas for overburden, solid and liquid wastes and wastewater discharge treatment and containment facilities;	No	Addressed in Figures 4&6. Neither figure depicts the locations and sizes of each building.	Table 15 of building sizes has been added to the NOI and Figure 4b has been added with an site buildings labeled.

	Category	Complete?	Comments	
	2.12. A border clearly outlining the acreage proposed to be disturbed by mining operations.	No	A map depicting the total permit boundary and acreage is not included in the submission.	Figure 1a shows the permit area, and Figure 14 shows the planned disturbance within the permit area.
	3. The following maps, drawings or cross sections may be required by the Division:			
	3.11. Regraded Slopes to be left at steeper than 2h:1v;	No	Addressed in Figure 13. The map does not specify whether slopes are to be left at steeper than 2H:1V.	These slopes have been added to Figures 13 and 15.
	3.12. Plans, profiles and cross sections of roads, pads or other earthen structures to be left as part of the postmining land use;	Yes	Addressed in Figure 15 and following pages.	No changes required
	3.13. Water impounding structures with embankments greater than 20 feet in height from the upstream toe of the embankment or greater than 20 acre feet in storage capacity;	Yes	Addressed in Figure 4 and Figure 6. Additional detail needed for technical review.	No changes required
	3.14. Maps identifying surface areas which will be disturbed by the operator but will not be reclaimed, such as solid rock slopes, cuts, roads, or sites of buildings or surface facilities to be left as part of the postmining land use;	Yes	Addressed in Figure 13.	No changes required
	3.15. Sediment ponds, diversion channels, culvert size and locations, and other hydrologic designs and features to be incorporated into the mining and reclamation plan;	No	Addressed in Figure 15. Culvert sizes and locations are not called out.	These have been called out in Figure 15.

	Category	Complete?	Comments	
	3.16. Baseline information maps and drawings including soils, vegetation, watershed(s), geologic formations and structure, contour and other such maps which may be required for determination of existing conditions, operations, reclamation and postmining land use;	No	Soil addressed on Figure 22. Additional detail needed for technical review. Vegetation survey map missing. Geology addressed in Figure 21, which is missing from the submission.	Vegetation survey mapping and soil surveys are provided in Appendix G.
	3.17. A reclamation activities and treatment map to identify the location and the extent of the reclamation work to be accomplished by the operator upon cessation of mining operations. This drawing shall be utilized to determine adequate bonding and reclamation practices for the site;	Yes	Addressed in Figure 13. Additional detail needed for technical review.	No changes required
	3.18. Other maps, plans, or cross sections as may reasonably be required by the Division.	No	Cross sections have been provided for pits. All facility maps and figures should be re-included for technical review.	Cross section mapping is provided, we apologize if these did not transfer in the initial submission.
	4. The operator may submit photographs (prints) of the site sufficient to show existing vegetation and surface conditions. These photographs should show the general appearance and condition of the land to be affected and should be clearly marked as to the location, orientation and the date that the pictures were taken.	Yes	Photographs were included in the submission. Dates should be added to the photos for the technical review.	No changes required
	5. Copies of the underground and surface mine development maps.	Yes	Addressed in Figures 6-9. More underground detail may be needed for the technical review.	No changes required
106	Operation Plan:	Yes	Addressed. See comments below.	No changes required

	Category	Complete?	Comments	
	1. Type of mineral(s) to be mined;	Yes	Addressed in 5.1.	No changes required
	2. Type of operations to be conducted, including the mining/processing methods to be used on-site, and the identification of any deleterious or acid forming materials present or to be left on the site as a result of mining or mineral processing;	Yes	Addressed in Section 5. Additional information may be needed for technical review, such as with the proposed ISR.	No changes required
	3. Estimated acreages proposed to be disturbed and/or reclaimed annually or sequentially;	Yes	Addressed in Section 5.3, Table 1 and Figure 11.	No changes required
	4. A description of the nature of the materials to be mined or processed including waste/overburden materials and the estimated annual tonnages of ore and waste materials to be mined;	Yes	Addressed in Section 5.4 and Table 13.	No changes required
	5. A description of existing soil types, including the location and extent of topsoil or suitable plant growth material. If no suitable soil material exists, an explanation of the conditions shall be given;	Yes	Addressed in Section 5.5.	No changes required
	6. A description of the plan for protecting and redepositing existing soils;	Yes	Addressed in Section 5.5.	No changes required
	7. A description of existing vegetative communities and cover levels, sufficient to establish revegetation success standards in accordance with Rule R647-4-111;	Yes	Addressed in Section 5.6.	No changes required

	Category	Complete?	Comments	
	8. Depth to groundwater, extent of overburden material and geologic setting;	Yes	Addressed in Section 5.7, 5.8, & 5.9.	No changes required
	9. Proposed location and size of ore and waste stockpiles, tailings facilities and water storage/treatment ponds.	Yes	Addressed in Section 5.10.	No changes required
	10. Information regarding the amount of material (including mineral deposit, topsoil, subsoil, overburden, waste rock, or core hole material) extracted, moved or proposed to be moved.	Yes	Addressed in Sections 5.13 & 5.14, and Tables 6, 10, & 13.	No changes required
108	Hole Plugging Requirements: Are there drill holes that need to have a plan? Is there a plan?	Yes	Addressed in Section 7.0.	No changes required
109	1. Projected impacts to surface and groundwater systems;	Yes	Addressed in Section 8.1.	No changes required
	2. Potential impacts to state and federal threatened and endangered species or their critical habitats;	Yes	Addressed in Section 8.2. The 2025 EIS and BLM Management Plan should be included as a Appendices for the technical review.	The 2025 EIS and RMP are included in Appendix H Supporting Documents, additionally the Plan of Operations in Appendix J addresses requirements. These requirements were added to Table 15 in the NOI.

	Category	Complete?	Comments	
	3. Projected impacts of the mining operation on existing soil resources;	Yes	Addressed in Section 8.3, 9.5, and 9.6.	No changes required
	4. Projected impacts of mining operations on slope stability, erosion control, air quality, and public health and safety;	Yes	Addressed in Section 8.4.	No changes required
	5. Actions which are proposed to mitigate any of the above referenced impacts.	No	Addressed in Section 8.5. Need to address impact items 2-4 above.	Section 9.5 was expanded to address impacts and Table 15 added
110	Reclamation Plan:	Yes	Addressed in Section 9.	No changes required
	1. A statement of the current land use and the proposed postmining land use for the disturbed area;	Yes	Addressed in Section 9.1.	No changes required
	2. A description of the manner and the extent to which roads, highwalls, slopes, impoundments, drainages, pits and ponds, piles, shafts and adits, drill holes, and similar structures will be reclaimed;	Yes	Roads: 9.2.6, Highwalls/Pits:9.3.3, Slopes:9.4.1, Impoundments:9.3.4, Drainage:9.3.2, Ponds:9.3.5, shafts/adits:6.1, Drillholes:9.2.1	No changes required
	3. A detailed description of any surface facilities to be left as part of the postmining land use, including but not limited to buildings, utilities, roads, pads, ponds, pits and surface equipment;	No	Please describe facilities to be left which include but not limited to Landfill, ET Cell, fencing, and signs.	Section 10.3 was updated to include additional description

	Category	Complete?	Comments	
	4. A description of the treatment, location and disposition of any deleterious or acid-forming materials generated and left on-site, including a map showing the location of such materials upon the completion of reclamation;	No	Found in Section 9.4.2 and Table 15, please provide volume	Table 15 was updated to include tonnage of NAG/uncertain material
	5. A planting program as best calculated to revegetate the disturbed area.	Yes	This is described in Section 9.5 and 9.6.	No changes required
	5.11. Plans shall include, at a minimum, grading and/or stabilization procedures, topsoil replacement, seed bed preparation, seed mixture(s) and rate(s), and timing of seeding (fall seeding is preferred timing);	Yes	Found in Section 9.6, Table 17, Table 10, and Table 11	No changes required
	5.12. Where there is no original protective cover, an alternate practical procedure must be proposed to minimize or control erosion or siltation.	Yes	Found in Section 9.7: The Operator is currently proposing to not have an alternative procedure.	No changes required
	6. A statement that the operator will conduct reclamation as required by these rules.	Yes	This is located in Section 9.8 and Section 10.0.	No changes required
112	Variance: 1.The operator may request a variance from Rule R647-4-107, 108, or 111, by submitting the following information which will be considered by the Division on a site-specific basis:	Yes	The Operator states that they are not requesting a variance from R647 at this time.	No changes required

	Category	Complete?	Comments	
	1.11. The rule(s) as to which a variance is requested;	N/A		No changes required
	1.12. The variance requested and a description of the area that would be affected by the variance;	N/A		No changes required
	1.13. Justification for the variance;	N/A		No changes required
	1.14. Alternate methods or measures to be utilized.	N/A		No changes required
	2. A variance shall be granted if the alternative method or measure proposed will be consistent with the Act.	N/A		No changes required
	3. Any variance must be specifically approved by the Division in writing.	N/A		No changes required

Application for Mineral Mine Plan Revision or Amendment

Operator: Lisbon Valley Mining Company, LLC

Mine Name: Lisbon Valley Copper Mine **File Number:** M/ 037 /0088

Provide a detailed listing of all changes to the mining and reclamation plan that will be required as a result of this change. Individually list all maps and drawings that are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise or amend the existing Mining and Reclamation Plan. **Include page, section and drawing numbers as part of the description.**

DETAILED SCHEDULE OF CHANGES TO THE MINING AND RECLAMATION PLAN			
			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Existing NOI in total with updated plan that includes planned
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	operations at the Lisbon Valley Mine that were recently reviewed
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	during an EIS process by the BLM. BLM issued a ROD on
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	October 16, 2025.
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	This includes edits to update the plan based on DOGM
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	comments in a letter dated March 13, 2026.
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
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<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments and obligations, herein.

George Shaw 

Print Name Sign Name, Position

April 10, 2026
Date

Return to:
 State of Utah
 Department of Natural Resources
 Division of Oil, Gas and Mining
 1594 West North Temple, Suite 1210
 Box 145801
 Salt Lake City, Utah 84114-5801
 Phone: (801) 538-5291 Fax: (801) 359-3940

FOR DOGM USE ONLY:
File #: M/ _____ / _____
Approved: _____
Bond Adjustment: from (\$) _____
to \$ _____

NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS – REVISION (R647-4-103)

April 2026

Prepared by:

Lisbon Valley Mining Company, LLC



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Definitions

ABA – Acid-Base Accounting

AMA – Active Mining Area

amsl – above mean sea level

AST – Aboveground Storage Tanks

BAT – Best Available Technology

BC-aquifer – Burro Canyon Aquifer

BLM – Bureau of Land Management, United States Department of Interior
Company - Lisbon Valley Mining Company, LLC

CY – Cubic Yards

DOGM – Department of Oil Gas and Minerals

DOI – United States Department of Interior

EIS – Environmental Impact Statement

gpm – gallons per minute

GWDPA – Groundwater Quality Discharge Permit Authorization

HLP – Heap Leach Pad

ICP-AES – Inductively Coupled Plasma Atomic Emission Spectroscopy

ICP- MS – Inductively Coupled Plasma Mass Spectrometry

Lisbon ISR – In-situ Recovery

LLV – Lower Lisbon Valley

LV – Lisbon Valley (existing operations) or

LVCM – Lisbon Valley Copper Mine

mg/L – milligram per liter

MM – Million

MWMP – Meteoric Water Mobility Procedure

MSGP – Multi-Sector General Permit

N-aquifer – Navajo Aquifer

NOI – Notice of Intention

QA – Quality Assurance

QC – Quality Control

ROD – Record of Decision

SITLA – Utah School and Institutional Trust Lands Administration

SX-EW - Solvent Extraction – Electrowinning

SWPPP – Stormwater Pollution Prevention Plan

TDS – Total Dissolved Solids

UDEQ – Utah Division of Environmental Quality

UPDES – Utah Pollutant Discharge Elimination System

USGS – United States Geologic Survey

WRS – Waste Rock Storage

XRD – X-Ray Diffraction

1.0 OBJECTIVES AND NOTICE REQUIREMENTS

The Lisbon Valley Copper Mine (Lisbon Valley, Project) has developed this revision to the existing Notice of Intention (NOI) to Commence Large Mining Operations to include the area that was recently evaluated by the Department of Interior, Bureau of Land Management (BLM) in an Environmental Impact Statement (EIS) process. In 2025, the EIS resulted in a Record of Decision that authorizes additional impact on BLM and Utah School and Institutional Trust Lands Administration (SITLA) administered lands. This NOI revises a currently approved Department of Oil Gas and Minerals (DOGM) NOI, incorporates the operations evaluated by the BLM, and updates operational plans at existing facilities into a single document.

1.1 PLAN OBJECTIVES

The objectives of Plan are to:

- Describe currently approved operations at the Lisbon Valley Mine and adjustments to those operations including:
 - Heap Leach Phase 5
 - Updated process for ores associated with the Heap Leach Phases 1-4
 - Addition of new ponds at existing SX-EW plant
 - A Copper Scrap Recycle and new SX plant within current operations area
- Expand those operational footprints to include updated planning including:
 - Lone Wolf Open Pit and associated Waste Rock Facility
 - Lower Lisbon Valley Heap Leach including Crushing and SX Plants
 - In-Situ Recovery (ISR) wellfields at GTO, Lone Wolf, and Flying Diamond
 - Provide information on mitigation elements to reduce effects of operations
- Provide information on reclamation and closure planning for the operations.

2.0 DURATION OF THE NOTICE OF INTENTION AND WITHDRAWAL OF APPROVAL (R647-4-102)

The Company understands that this Notice of Intention (NOI) including any subsequently approved amendments or revisions remain in effect for the life of the mine. The Company considers the mine life to be the end of the mining and processing activities. **Table 2** contains information regarding the schedule of operations while **Diagram 1** provides a visual representation of that schedule.

3.0 NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS (R647-4-103)

The notice of intention shall address the requirements of the following rules:

- R647-4-104 Operator(s), Surface and Mineral Owner(s) - **Section 4**
- R647-4-105 Maps, Drawings and Photographs – **Section 5**
- R647-4-106 Operation Plan – **Section 6**
- R647-4-108 Hole Plugging Requirements – **Section 8**
- R647-4-109 Impact Assessment – **Section 9**
- R647-4-110 Reclamation Plan – **Section 10**
- R647-4-112 Variance – **Section 12**

Notice of Intention to Commence Large Mining Operations Lisbon Valley Mining Company, LLC (Lisbon Valley, Company) operates an open-pit copper production facility 18 miles southeast of La Sal, Utah in San Juan County. (**Figure 1a** illustrates the topography associated with the site while **Figure 1b** illustrates the location of the facility.) The Company produces cathode copper using a solvent extraction-electrowinning process (SX-EW) that is paired with heap leach facilities as well as copper scrap recycling.

The Lisbon Valley Facility consists of three existing open pits (Sentinel, Centennial, and GTO) and associated waste rock dumps, a heap leach pad (LVH) and ponds, as well as an existing SX-EW facility and ancillary facilities including shops, administrative offices, wells and tanks. The Company plans to install a copper scrap recycling operation that includes an additional SX plant in the boundary of the current operations as well as updated control room configurations and operational activities. The Lower Lisbon Valley Facility consists of an open pit (Lone Wolf), in-situ leach facilities, crusher and conveying facilities, waste rock facility, a heap leach pad (LLVH) and SX plant. **Table 1** has a listing of the facilities, planned disturbance, reclaimed area, and current disturbance.

4.0 OPERATOR(S), SURFACE AND MINERAL OWNER(S) (R647-4-104)

4.1 OPERATOR RESPONSIBLE FOR MINING OPERATIONS AND RECLAMATION AGENTS

4.1.1 Company Information

Lisbon Valley Mining Company, LLC
PO Box 400
Moab, UT 84532
Phone: 435-686-9950
Fax: 435-686-2223
Website: www.lisbonmine.net

Additional contact information can be found in **Table 3**.

4.2 SURFACE LANDOWNERS AND MINERAL LANDOWNERS

4.2.1 Surface Landowners

Information can be found in **Table 4**.

4.2.2 Mineral Owners:

Information can be found in **Table 4**.

4.3 CLAIM NUMBERS, LEASE NUMBERS OR PERMIT NUMBERS

Table 5 contains the federal mining claim number(s), lease number(s), or permit number(s) of any mining claims, or federal or state leases or permits included in the lands affected. The federal information is in the BLM format but includes file numbers, claim names, dates and township section range information. There is also state lease information in **Table 5**.

5.0 MAPS, DRAWINGS AND PHOTOGRAPHS (R647-4-105)

5.1 TOPOGRAPHIC MAP

A topographic base map must be submitted with the notice of intention. The scale should be approximately 1 inch = 2,000 feet, preferably a USGS 7.5-minute series or equivalent topographic map where available. The following information shall be included on the map:

- Property boundaries of surface ownership of all lands which are to be affected by the mining operations; **Figure 2**
- Perennial streams, springs and other bodies of water, roads, buildings, landing strips, electrical transmission lines, water wells, oil and gas pipelines, existing wells, boreholes, or other existing surface or subsurface facilities within 500 feet of the proposed mining operations; **Figure 3**
- Proposed route of access to the mining operations from the nearest publicly maintained highway. The map scale will be appropriate to show access. **Figure 1b**
- Known areas which have been previously/currently impacted by mining **Figure 4 (as approved)** or exploration/infill drilling activities in **Figure 5** within the proposed disturbed area.

5.2 SURFACE FACILITIES MAP

The following information shall be included on the surface facilities map:

- Lisbon Vallen Mine surface facilities, including but not limited to buildings, stationary mining/processing equipment, roads, utilities, powerlines, drainage control structures, topsoil storage, waste rock storage, process ponds and facilities. **Figures 4 – 4b**
- Lower Lisbon Valley surface facilities, including but not limited to buildings, stationary mining/processing equipment, roads, utilities, power lines, proposed drainage control structures, and the location of topsoil storage areas, disposal areas for overburden, solid and liquid wastes and wastewater discharge treatment and containment facilities; **Figure 6**
- A border clearly outlining the acreage proposed to be disturbed by mining operations. **Figures 1a, 4, and 6.**

5.3 OTHER MAPPING

The following maps, drawings or cross sections may be required by the Division:

- Re-graded Slopes to be left at steeper than 2h:1v; **Figures 13 and 15**
- Plans, profiles and cross sections of roads, pads or other earthen structures to be left as part of the postmining land use; **Figures 16 - 19**
- Water impounding structures with embankments greater than 20 feet in height from the upstream toe of the embankment or greater than 20-acre feet in storage capacity;
- Maps identifying surface areas which will be disturbed by the operator but will not be reclaimed, such as solid rock slopes, cuts, roads, or sites of buildings or surface facilities to be left as part of the postmining land use; **Figure 13**

- Sediment ponds, diversion channels, culvert size and locations, and other hydrologic designs and features to be incorporated into the mining and reclamation plan; **Figure 15** and **Appendix I**
- Baseline information maps and drawings including soils, vegetation, watershed(s), geologic formations and structure, contour and other such maps which may be required for determination of existing conditions, operations, reclamation and postmining land use; **Figure 1a** and **Appendices E, G and I**
- A reclamation of activities and treatment map to identify the location and the extent of the reclamation work to be accomplished by the operator upon cessation of mining operations. This drawing shall be utilized to determine adequate bonding and reclamation practices for the site; **Figure 13**
- Other maps, plans, or cross sections may reasonably be required by the Division.

Mapping and information specified above is provided throughout this NOI.

5.4 PHOTOGRAPHS

Appendix B contains photographs from 2017. **Appendix G** contains baseline biological reports including rangeland reports that contain photos illustrating the conditions when the reports were produced.

The operator may submit photographs (prints) of the site sufficient to show existing vegetation and surface conditions. These photographs should show the general appearance and condition of the land to be affected and should be clearly marked as to the location, orientation and the date that the pictures were taken.

5.5 SURFACE MINE DEVELOPMENT MAPS

*Scheduling maps – **Figures 7-9**. Copies of the underground and surface mine development maps.*

The Company is not developing any underground mining facilities.

6.0 OPERATION PLAN (R647-4-106)

The operator shall provide a narrative description referencing maps or drawings as necessary, of the proposed operations including the following information.

6.1 TYPE OF MINERALS TO BE MINED

Lisbon Valley mines copper from deposits that are characterized by low temperature finely disseminated copper minerals in the permeable sandstones of the Cretaceous Dakota and Burro Canyon Formations. The majority of the contained copper occurs as malachite, chalcocite, azurite and tenorite, in that order.

Lisbon Valley is a sandstone hosted copper deposit. These distinct types of deposits are not related to igneous activity. At Lisbon Valley, there are five copper deposits: Centennial, GTO, Sentinel, Lone Wolf and Flying Diamond. These deposits occur near faults of collapsed blocks of Dakota and Burro Canyon Formations. The copper mineralization occurs as strata-bound disseminations that follow favorable zones of permeability in sandstone units. The ore and host rock types are similar across all deposits as are mineralogy and copper grades.

Copper deposits in the Lisbon Valley occur near faults in collapsed blocks of Dakota and Burro Canyon Formations over a former anticline structure. The Lisbon Valley Fault is the most prominent fault and runs parallel to a series of en-echelon faults that extend across the width of Lisbon Valley and strike parallel to the NW/SE anticlinal axis.

Lisbon Valley mineralization is characterized by low-temperature, finely disseminated copper minerals in permeable sandstones of the Cretaceous Dakota and Burro Canyon Formations. Warm, chlorine-rich brines released from the Paradox Formation moved upward through the Lisbon Valley Fault system and stripped loosely bound copper from the red-bed Cutler and Chinle Formations. When the upward-moving mineralizing fluids encountered the impermeable Mancos shale, they spread laterally into the permeable intervals of Dakota and Burro Canyon sandstones. Here the fluids precipitated copper under acceptable redox conditions.

The Centennial deposit lies immediately northeast, and adjacent to the Lisbon Valley Fault. Mineralization is concentrated in the lower Burro Canyon formation but also occurs in all sandstone beds in the Dakota Sandstone. Two anticline collapse faults tilt bedding to the southwest (see **Diagram 2: Geologic Cross Section of the Centennial Deposit**). The Centennial Deposit is approximately 4,000' long and 1,500' wide.

The GTO deposit lies immediately northeast and adjacent to an offset splay of the Lisbon Valley fault. In the GTO deposit, mineralization is concentrated in the lower Dakota Sandstone with mineralization in the Burro Canyon Formation as well. An anticline collapse fault tilts bedding to the east, away from the Lisbon Valley splay fault (see **Diagram 3: Geologic Cross Section of the GTO Deposit**). The GTO deposit is approximately 2,800' long and 750' wide.

The Sentinel deposit is situated on the east side of Lisbon Valley along an antithetic, valley-bounding fault. The deposit is comprised predominantly of oxide ores near the surface and chalcocite ore at depth in the Burro Canyon Formation. The Burro Canyon lies exposed on the east side of the valley and where the Dakota is largely eroded away, leaving Burro Canyon as the remaining host. The deposit plunges steeply into a graben structure on its SW side (see **Diagram 4: Geologic Cross Section of the Sentinel Deposit**). The Sentinel deposit is approximately 1500' long and 800' wide.

The Lone Wolf deposit is located on the east side of Lower Lisbon Valley along an antithetic, valley-bounding fault. The discovered deposit is approximately 7,800 ft long parallel to the NW strike of the valley, and 3,700 ft wide. Mineralization is found in the Dakota Sandstone and Burro Canyon Formations with ore host bed thickness from 60 to 150 ft thick. Copper mineralization occurs primarily as chalcocite and covellite with minor bornite, dignite, and chalcopyrite. The LW deposit is bound by the valley-bounding fault on the northeast but remains open to exploration on the northwest (See **Diagram 5 and 6: Lone Wolf Pit Outline with Cross Sections**).

The Flying Diamond deposit lies along an antithetic, valley-bounding fault in the southeast part of Lower LV. The deposit is approximately 14,000 ft long striking west to northwest, and 400-800 ft wide. Mineralization is concentrated in the Burro Canyon Formation with lesser mineralization in the overlying Dakota Formation. Copper mineralization occurs primarily as chalcocite with minor bornite, digenite and covellite. The Flying Diamond deposit is bounded by the valley-bounding fault on the north and northeast but remains open on the south and southwest.

Sandstones are acid consuming when compared to typical porphyry deposits. At Lisbon Valley, the ore deposits are comprised primarily of chalcocite, a sulfide copper mineral. Approximately 20% of the ore is composed of oxide copper minerals, and the remaining copper minerals are sulfides consisting of covellite and bornite, which are leachable and small quantities of chalcopyrite which is minimally leachable over time.

6.2 TYPE OF OPERATIONS TO BE CONDUCTED

6.2.1 Mining Operations

The mining operations include the Centennial, Sentinel, GTO and Lone Wolf open pits where copper-bearing ore is (or formerly was) mined for processing. The construction of open pits involves blasting of the ore and waste material. The waste material is hauled to existing waste dumps or is used to backfill existing pits. All ore is hauled to Heap Leach Pads (HLP) where it is stacked in 10 to 15 foot lifts. Permits issued through 2025 allowed for stacking on the Lisbon Valley (LV) HLP in Stages 1-3. In 2024, Lisbon Valley worked with the BLM to permit a Stage 4 at the LV HLP as well as operations in Lower Lisbon Valley (LLV) which will include a second HLP (LLV HLP). Prior to movement to one of the HLPs, the ore is planned to be crushed to minus approximately three inches prior to being moved to the heap leach facility.

The Company uses both contractor and owner drilling and contractor blasting. Drilling is completed using a fleet of conventional rotary drills. The blasting contractor then uses an ammonium nitrate and fuel oil (ANFO) explosive. Blast hole depth varies 25-45' and approximate spacing 15-20'.

The Company manages waste rock per the Waste Rock Management Plan approved February 12, 2014. The Waste Rock Management Plan, which includes a detailed discussion of waste rock characteristics, is attached as **Appendix C**.

Refer to **Figures 4 and 6** for Waste dump locations. Waste dump capacities and sizes are detailed in **Table 6**.

Dependent upon water accumulation in the open pits, the Centennial, Sentinel West, and Lone Wolf Pit may be backfilled during the mining process to cover the pre-mine groundwater elevations. Further details regarding backfilling are provided in **Section 6.10.1**. The Company follows the stipulations of the BLM for the treatment of waste material as it relates to pit backfilling as well as waste dump placement and encapsulation requirements.

Open pit mining, **Figures 4 and 6**, occurs in phases in both the Centennial and Lone Wolf Open Pits. In Centennial Pit, the mine design calls for waste to be backfilled in the Pit. The mine design for the Lone Wolf pit utilizes a relatively small WRS and the remaining waste will backfill the pit as mining is phased.

Conventional mining methods are used in the open pits. The Engineering team designs blast patterns. The Geology team uses the geologic model and blast pattern maps to determine rock types in the blast. Blast holes are sampled and assayed for copper grade, acid consumption, and fines content. The Geology team uses blast hole assays and blast pattern map to determine ore boundaries. Boundaries are communicated to Mine Operations and flagged in the open pit where a blast had been performed. Where ore and barren rock (waste) material occur in a blast, a plan is made for selectively mining ore material to be sent to the crushing facility, while waste rock is sent to the designated WRS. Ore is stockpiled at a crushing facility, for sizing to minus 3 inch. The ore is then conveyed, possibly using an overland conveyor, or trucked to the designated HLP where it is stacked.

Pits are mined by first stripping away the barren overburden. Mining is performed by drilling and blasting benches that form the open pit. Ore and overburden are drilled, blasted, loaded by front end loaders and/or hydraulic shovels and hauled using haul trucks. When one bench has been mined to the ultimate outer extent of the open pit, the company then steps inward, away from the exposed vertical wall of the freshly mined area, and drills/blasts the next bench. The vertical walls of each bench are referred to as highwalls. The action of mining a bench to the highwall, then creating the next bench inward creates a stair-step feature in the overall open pit. The heights of each highwall between benches is determined by the stability of the rock in which the mining is performed.

The mine will operate on a schedule of one or two 12-hour shifts per day, seven days per week, and 52 weeks per year. The Company's equipment fleet will be sized to meet a production rate of up to 170,000 tons or more per day.

6.2.1.1 Drilling and Blasting

Open pit mining involves drilling blast holes and blasting the rock. The Company and/or blasting contractors will perform blast hole drilling. Certified blasting contractors are used for the actual blasting operations. When blasting near-surface and/or within 1,500 feet of the Lisbon Valley Road, the Lisbon Valley Road is temporarily barricaded to prohibit vehicle travel during blasting. Blasting times occur daily around midday, and the overall time of road closure is expected to be less than thirty minutes.

The road closure and vehicle crossing is consistent with the Company's existing operations.

6.2.1.2 Pit Water Management

Groundwater is associated with the Burro Canyon geologic unit and all pits mine into that unit. As mining deepens to intercept the groundwater, dedicated sumps are created to manage water seeps. Sumps are pumped to manage water during mining operations, which allows mining of the upper benches to occur while the sumps create a water management zone. New sumps will be created as needed.

All water pumped from the sumps will be used in the beneficiation process, as well as used for dust suppression and fire management.

6.2.2 ISR Mining

ISR mining or In-Situ Recovery mining involves the injection of solution into the orebody to recover minerals. Wells are installed in an orthogonal or hexagonal pattern in which one injection well is surrounded by four to six extraction wells. An extension of this pattern develops an ISR wellfield with approximately equal numbers of injection and extraction wells. ISR wells will be spaced 100-200 feet apart. Each well pad will have one ISR well and an estimated construction disturbance footprint of 50 feet by 50 feet. This disturbance would be temporary for the installation of the ISR well and solution piping only. After the ISR wells are drilled and installed, the pads would be reclaimed back to a size of 10 feet by 10 feet. Access roads would have an average width of 20 feet for standard roads, and 30 feet for roads with solution pipelines. Technical information regarding ISR is contained in **Appendix D**.

Also included with the ISR project for GTO, Lone Wolf, and Flying Diamond is the installation of monitor wells. The disturbance associated with the installation of the monitor wells would be similar to the ISR well pads in initial and final disturbance footprints.

The Company projects construction of approximately 2,420 well pads. The location and expected number of the ISR well pads are as follows:

- GTO ISR Well Field = 153 well pads
- GTO Monitor Wells = 7 new well pads, 6 existing
- Lone Wolf ISR Well Field = 1,049 well pads

- Lone Wolf Monitor Wells = 914 new well pads, 2 existing
- Flying Diamond = 272 well pads
- Flying Diamond Monitor Wells = 11 new well pads

Table 7 details the expected ISR well drilling per year.

ISR mining starts by first drilling a ring of monitor wells around the intended wellfield as well as monitor wells within the center of the proposed ISR wellfield. Half of the monitor wells will be screened in the Burro Canyon aquifer, and half will be screened in the Navajo aquifer. Monitor wells are drilled and developed by a certified well driller and are instrumented with dedicated flow, temperature, and depth meters. Sample ports also will be installed at each wellhead to allow pH and conductivity readings to be performed by onsite employees. Monitor wells are installed (drilled, cased with pump and monitoring devices, and electrified) at least one month prior to drilling ISR wells.

ISR drilling will initially be performed by drilling a pilot hole using a rotary drill rig which will drill through the barren capping rock overlying the target, Lower Burro Canyon Formation. Core drilling will be performed through the target, terminating at contact with the Morrison Formation. The purpose of core drilling is to obtain information on permeability, copper grade, and fracture zones within the target area. Upon completion of pilot hole, the installation of the final ISR wells will be initiated.

All ISR well holes will be drilled using rotary drilling methods, with an outer diameter of 12 inches. ISR wells will be completed with casing and outer sealants as depicted in **Diagrams 7 and 8**. ISR well drilling will take approximately one week per well to drill, after drilling, installation and development of the well will take another week.

Depths of the ISR wells will vary based on the geology of the target.

ISR well (injection and extraction) drilling will be performed by a certified well driller who is responsible for drilling the ISR well, installing the proper casing, pumps, and monitoring devices (**Diagrams 7 and 8**). The Company will be responsible for electrifying the system with electricity provided by overhead or buried line power.

Once the injection wells, extraction wells, and monitor wells are installed, the extraction wells will be operated for at least two weeks to form a stable rate of draw within the target ISR mining area. After a rate of draw is established, low pH solution consisting of diluted sulfuric acid and water (less than 0.5% sulfuric acid by volume) will be gravity fed or pumped into the injection wells. Very little to no pressure will be used when introducing the solution into the injection wells. Instead, the ISR mining will rely on the sweep from the extraction wells to pull the process solution through the target ore zone, which will then be extracted from the extraction wells.

No hydraulic fracturing will occur during the injection process.

6.2.2.1 GTO ISR Mining

ISR mining will start in the GTO ISR mining area. Power for the GTO ISR mining area will be provided by the existing overhead line power. Extraction of the copper from ISR mining is expected to take approximately one to two years from first injection of low pH solution.

The GTO ISR target is downgradient of the existing GTO open pit. The bottom of the mined-out GTO pit will be lined with at least 20' of high acid consuming Upper Burro Canyon Formation prior to ISR mining in the GTO area.

Solutions from the GTO ISR mining area, similar to PLS, will be pumped to the LVM SX-EW plant. The GTO ISR mining area will utilize existing freshwater ponds north of the GTO ISR mining area, which will be converted to process ponds.

6.2.2.2 Lone Wolf ISR Mining

ISR mining in the Lone Wolf will start on the northwest flank of the Lone Wolf Pit, which is located on State Trust Lands. As the Lone Wolf pit is backfilled and completed, ISR mining will advance southeastward along the mineralized trend. The ISR target is down-gradient of the Lone Wolf pit, and ISR mining near the Lone Wolf Pit will only occur in areas where the pit has been backfilled at least 20' above the pre-mining groundwater level.

As the Lone Wolf ISR mining advances southeastward, the northwesternmost wellfields will start to be rinsed.

Process solutions from the Lone Wolf ISR, again similar to PLS, will be managed at the LLV HLP pond system and satellite SX facility.

6.2.2.3 Flying Diamond ISR Mining

ISR mining at Flying Diamond will start on the northwest portion of the ISR field, which is located near the Lone Wolf ISR field. ISR mining will advance southeastward along the mineralized trend.

Flying Diamond is a satellite extension of the Lone Wolf. The Flying Diamond mining area will be mined as described above. As operations advance to southeastward, the northwesternmost wellfields will be rinsed.

Process solutions from the Flying Diamond ISR, again similar to PLS, will be managed at the LLV HLP pond system and satellite SX facility.

6.2.3 Processing Operations

Processing operations involve leaching of ore that is stacked on a lined HLP using an acidified leach solution (raffinate) delivered using drip emitters. In addition, the sides of the HLP are leached using wobblers placed to irrigate the side slopes. As leach solution percolates through the HLP, soluble copper ions dissolve in the acidic solution and are carried along the HLP liner through the solution collection system above the pad liner. Air may be forced into the heap to improve leaching operations. The copper-bearing (pregnant) leach solution, or PLS, flows by gravity from the leach pad to a double-lined collection pond, or PLS pond. Intermediate Leach Solutions (ILS), that are collected, are recirculated to the HLP to improve the grade of the solution and meet the requirement for further processing.

Copper contained in the PLS is extracted from the solution with reagents carried in an organic phase solution in the SX circuit. The resulting copper-depleted aqueous solution, or raffinate, is transferred to a storage pond (raffinate pond) before being reused in the heap leaching process. Copper transferred to the organic solution is removed with an acidic aqueous solution, or lean electrolyte, that will have traveled through the EW circuit. This transfer of copper enriches the electrolyte solution, or rich electrolyte. The rich electrolyte is transferred to the EW cells where the copper is plated onto stainless steel blanks.

The copper plated stainless-steel blanks are harvested from the EW cells. The copper will be removed from the stainless steel with a cathode stripping machine. Copper plates are weighed and bundled for shipment by truck to market.

Diagram 9 illustrates the current leaching and copper production cycle as described above.

The Company operates the existing operations under several environmental permits with Local, State, and Federal agencies. **Table 8** is a summary of all environmental permits; **Appendix H** contains copies of current permits.

6.2.3.1 Crushing

Crushing at LVM occurs, or will occur, during construction and operations. Crushing during construction is used to develop the drainage/bedding layer on the HLP as a protective measure for the liner and to facilitate drainage as part of the design requirements.

Crushing during operations occurs at the Centennial Pit using a sizer that produces a three-inch (3") crush material. This crushing system includes a wobbler system used to separate oversize from undersize material. This will minimize the amount of dust generated during crushing while minimizing the material passing through the crusher. After material passes through a wobbler, the undersize material is conveyed to join the crushed oversize for loading. Oversize from the wobbler is fed to the crushing system that produces a sized material that also reports to leach pad stacking conveyors or a loader that takes material from the stockpiles and loads it into trucks for ultimate placement on the HLP.

Crushing during operations also occurs at the HLP. Material placed in cells that were not crushed is excavated using an excavator and then screened using a double-deck screen, undersized material is conveyed directly back to the HLP for placement. Oversize material is crushed and placed on the conveyor for replacement in the HLP. Crushing ore is used to improve HLP consistency, leachability and ultimately improve stability of the HLP by providing a uniform HLP consistency.

Finally, Lone Wolf crushing consists of two-stage crushing. The first stage contains a stockpile, feeder, grizzly for segregating material by size, a primary crusher, and associated conveyors. The first stage is designed to provide a material that is less than twelve inches (12 inches) in size. The second stage consists of similar processes, a feeder, a secondary crusher and conveyors. Run-of-mine ore is directly dumped into the feed hopper of the crushing facility. The second stage of crushing is designed to provide a product that is less than three inches (3 inches) in size for placement in a stockpile.

The base of the product stockpile has a reclaim feeder conveyor system that will deliver the ore from the crushing facility to the overland conveying system. **Diagram 10** provides a general schematic of the Lone Wolf crushing system that will be associated with the proposed operations.

6.2.3.2 Conveyance

At Lone Wolf, the ore is conveyed via overland conveyor. The conveyor traverses the Lisbon Valley Road via overland tunnel bridge, **Diagrams 11 and 12**. When the conveyor reaches the west side of Lisbon Valley Road, the conveyor continues to travel overland to either the LVM HLP Phase 5 expansion or the LLV HLP.

In conjunction with the installation of the conveyor, the elevated haul road along the south side of the LVM HLP will be widened to accommodate the roadway and the conveyor. Known as the LVM Infrastructure Corridor this area will provide access to the HLP as well as contain the conveyor, existing drainage control along the HLP, while still providing haulage access.

The conveyor will be flanked on both sides by twenty-foot (20-foot) vehicle access. The conveyor height will generally be less than 5-ft from ground surface, however in designated big game corridors the conveyor will be elevated to allow wildlife migration to continue un-interrupted. The conveyor path will go cross-county from the Lone Wolf Crusher Facility to the proposed HLP and then northeast. The conveyor route will follow existing haul roads until the conveyor reaches the western-most end of the LVM HLP, where it will again go cross-country to its terminus.

6.2.3.3 Leaching and Processing

Ore from the open pit mining activities is conveyed and stacked on the designated HLPs. Two HLPs are used at the site: LVM HLP, which includes the current configuration (Phases 1-4) as well as an extension of the LVM HLP, Phase 5, and the LLV HLP, which is a new HLP that will be located near the Lone Wolf Pit. HLPs will be stacked in lifts via trucks or radial stacker. Ore is spread on the HLP using dozers.

HLP construction is approved and overseen by the Utah Department of Water Quality. HLPs are constructed using a compaction layer, a liner, a bedding layer as well as a grid of solutions collection pipes. Current and future heap operations are expected to include optimization activities to improve leaching that includes but may not be limited to the introduction of air, optimization of reagents, sizing of materials and replacement on the heap and the inclusion of leaching on the side of the HLP.

Diagram 13 depicts the construction of the liner system under the LLV HLP which involves a protective over liner, LLDPE liner then low permeability clay liners. The construction of the LLV HLP as well as the expansion of the LVM HLP is consistent with the current LVM HLP that is in use.

Diagrams 14 and 15 depict the general application of the leach solution onto the HLPs, as well as the circuit of solution through the processing system. The leach solution is distributed to the top of the leach pad by high density polyethylene (HDPE) piping then the solution is applied to the top of the HLP using drip emitters. As stated previously, wobblers are used on the slopes of the HLP, which would distribute the leach solution over a larger surface area. Approximately 5% of the total HLP surface area would be subject to wobblers, while the remaining 95% of the HLP surface area would be treated via drip emitters.

Copper-laden solution from the leaching of the ore on the HLP is stored in process ponds where the solution will either be recycled back onto the HLP (as ILS) or piped to a Solvent Extraction (SX) plant near the LV HLP or near the LLV HLP for further processing. Recycled barren process solution (raffinate) as well as acid or other recovery reagents will be added to the HLPs to further leaching. Raffinate would be pumped from raffinate ponds to the HLPs. Fresh acid or other reagents would be stored in appropriate containment adjacent to the HLPs.

Phase 5 of the LVM HLP (an expansion of the LVM HLP), the LLV HLP, associated ponds, and a secondary SX plant (a duplicate of the existing SX plant) to minimize solution pumping throughout the operations area, are part of the revision included in this plan. The existing Electrowinning (EW) plant will be used to process rich electrolyte solutions. **Diagrams 9 and 15** illustrate the process flows associated with the secondary SX plant.

6.2.3.4 Scrap Material Re-Processing

The covered facilities in the plant site includes an additional structure where scrap copper materials will be managed and processed. The process includes separating copper from cover materials or shredding large pieces of copper, leaching in tanks and then sending leach solutions through the solutions management system described in in **Section 6.2.3.5**. Waste materials generated in the process will be managed on site in the landfill or shipped off-site as appropriate.

6.2.3.5 Process Solution Management

Process ponds construction is also approved and overseen by the Utah Department of Water Quality. All process ponds are constructed with a base clay liner, followed by 60-mil HDPE liner, a geomesh leak detection liner, and an 80-mil HDPE liner (**Diagram 16**). Process solution (ILS, PLS, and raffinate) will be piped to and from the process ponds. Storm event ponds are constructed like the process ponds and are connected to the process ponds by a weir. Any ponds that contain process water, or impacted stormwater, are interconnected via a weir (or overflow) system that is below the freeboard of the pond.

A stormwater pond, designed to hold stormwater from a 100-year 24-hour intensive storm event, is constructed as a single-liner system, with a 12" clay underliner and an 80-mil HDPE liner. The 100-yr pond will remain empty to ensure maximum capacity in the event of a major storm. The storm pond has an overflow weir into the 100-yr pond. Overall, the combined pond systems have the ability to hold all solution draining from the HLP and stormwater from a 100-yr 24-hr storm event for up to 24 hours of complete power loss. As a further redundancy, the 100-yr pond will have an overflow system that would flow to a compacted catchment area containing a minimum of 10' vertical thickness of coarse

crushed high acid consuming material, and which has a void space volume of one tenth of the 100-yr pond.

Heap leach areas are designed such that all solutions within the leach/processing area drain into the process ponds. As described above, those ponds are designed to meet or exceed the stipulated maximum rain event scenario for the entirety of the process/heap leach footprint in conjunction with the stipulated loss of power period.

Process solution from the LLV HLP and ISR activities is managed through the process ponds described above as well as by double-contained HDPE, Polytetrafluorethylene (PTFE), 316 stainless steel pipes, or equivalent. All solution piping (either HLP or ISR) is double-contained either in HDPE-lined trenches or as double-walled HDPE pipe (**Diagram 17**). Piping runs from the LLV HLP and ISR wellfields to process ponds. Upon reaching active mine areas, the piping is laid along existing haul roads. Final processing activities (EW) is performed at the LVM facilities.

The SX adjacent to the LLV HLP is used to concentrate the copper into a rich electrolyte solution thus reducing the amount of solution pumped throughout the Project site. The SX operates the same as the LVM SX simply processing PLS from the LLV HLP. The location is shown on the **Figure 6**.

Raffinate and rich electrolyte are outputs from the SX. Raffinate solution from the SX is recirculated to the HLP to pick up more copper. Rich electrolyte is pumped to the electrowinning cells where copper is plated onto stainless steel cathodes.

Where visible inspection of piping is not possible, when secondary containment is not in place or when necessary, solution piping is (or will be) equipped with continuous leak detection systems located between the primary and secondary containment (**Diagram 17**).

6.2.3.6 ISR Process Solutions Management

The recovered ISR solutions are the same as the HLP PLS solutions and therefore will be processed in an SX plant. To reduce solutions pumping, these solutions will be processed at the SX plant located in the LLV HLP area. Upon recovery of a rich electrolyte, the solution would be pumped to the LVM processing area for copper recovery and the resultant raffinate would be pumped back to the ISR Mining Area.

6.3 OPERATIONS PHASING

Operations impacts will be planned for the areas described in **Table 1**; however, impact timing is scheduled over a number of years with concurrent reclamation. The overall phasing is shown in **Diagram 1**, described in Table 2, in more specific information below and in the associated Figures.

6.3.1 Ongoing Operations

Operations that were approved as of the date of this revision will continue. These operations include:

- Continued operation and construction of the LVM HLP (through LVM HLP Phase 4);
- Screening and replacement of sized material on the LVM HLP Phases 1 through 4 to improve stability;
- Operation of the Centennial Pit including waste placement where appropriate;
- Operation of the LVM SX-EW plant and associated facilities;
- Concurrent reclamation activities where appropriate;
- Construction of building and associated operational components for copper recycle process;
- Solutions management;

- Operation of Crushing and Screening as well as Screening and Sizing plants and associated conveyors;
- Fresh water pipelines;
- Powerlines and associated transformers;
- Operation of process and monitor wells;
- Maintenance and improvement of roads as needed to minimize air impacts;
- Maintenance (including re-drilling) of freshwater production wells and monitor wells; and
- Operation of ancillary facilities including laboratory, maintenance, and administrative facilities.

6.3.2 Construction Phase

As activities continue under the existing operations, the Company will initiate construction of the LLV facilities near the Lone Wolf Pit. Much of this construction phase is anticipated to last approximately 1 year, and will include construction of the following:

- Expansion of the LVM HLP (LVM HLP Phase 5);
- Construction of additional Process Ponds near the LVM HLP;
- Construction of an LVM Infrastructure corridor along the LVM HLP;
- Relocation of a portion of a natural gas line on the southeast side of the Lone Wolf pit;
- Injection, extraction, and monitor wells associated with ISR operations in the GTO area;
- Solution pipelines for ISR operations in the GTO area;
- Stationary Crushing facility;
- Associated conveyors;
- Overland Bridge to convey crushed ore;
- Fresh water pipelines;
- Powerlines and associated transformers;
- Installation of additional monitor wells;
- Installation of additional freshwater production wells;
- Equipment lineout area with breakroom and truck shop and storage area;
- Overburden removal from the Lone Wolf Pit and stockpiling of overburden in the PO WRS; and
- Installation and improvement of access roads.

The start of the Lone Wolf pit will be in the southwest of the Lone Wolf deposit.

Large scale topsoil removal related to the construction and ongoing disturbance activities in the pit, HLP, and WRS is stored in designated topsoil stockpiles. Topsoil at the ISR wellfields and roads will have windrows of topsoil along the roads and pad extents. A soils survey was performed by Terre West Consulting in October 2019 (**Appendix E**). The soil survey specifies the depth of soil that is salvageable, the type of soil for salvaged, and identify appropriate interim seed mix for the topsoil stockpiles prior to use in reclamation. Soil salvage is discussed in **Section 6.5, 10.6.1, and 11.12**.

Upon completion of the 1-year construction phase, the Company will initiate Phase 1.

6.3.3 Phase 1

Phase 1 includes construction of engineered surface drainage controls, construction of the LVM HLP, initiation of ISR methods in the GTO area shown in **Figure 8**, as well as mining and crushing/conveying activities in the Lone Wolf open pit. Phase 1 is expected to last approximately 5 years.

ISR methods, as described in more detail in **Section 6.2.2**, will commence during Phase 1 in the area known as the GTO which is located predominantly on private land owned by the Company. The initial pilot tests will occur prior to Phase 1 on the Company's private land and mineral holdings in the GTO area. The expansion of GTO ISR activities will include continued road building, installation of injection, extraction, and monitor wells. ISR mining within GTO will continue throughout the 5 years of Phase 1.

Open pit mining of the Lone Wolf, as described in more detail in **Section 6.2.1**, will start in the south/southeast and move toward the north/northwest. The ore mined during this phase from the Lone Wolf pit will be hauled to the associated crusher area, where the ore will be sized then crushed to minus 3" and conveyed overland to the LVM HLP and the LVM HLP Phase V Expansion.

The overburden from the Lone Wolf pit will either be stockpiled in the Lone Wolf WRS or will be backfilled within portions of the Lone Wolf pit. Waste rock management is described in more detail in **Section 6.4** and in **Appendix C**.

Shale from the Lone Wolf open pit mining will be temporarily stockpiled on the Company's private land for use in construction of the LLV HLP. During the latter part of Phase 1, construction of the LLV HLP and associated process ponds will occur.

6.3.4 Phase 2

Phase 2 is expected to last 5 years and includes completion of ISR mining and initiation of decommissioning and rinsing of the GTO ISR area. The latter part of Phase 2 will see the completion of mining in the Lone Wolf open pit, **Figure 6**.

Open pit mining in the Lone Wolf during Phase 2 expands the pit west and Northward, while backfilling the southeast and southwest portions of the mined-out pit. During this phase ore from the Lone Wolf pit will be crushed/conveyed to the LLV HLP. Backfilling operations are managed so that once all ore has been mined, the Lone Wolf pit will be backfilled at least 20' above the pre-mining groundwater level with waste rock. This waste rock will be inert Non-Acid Generating (NAG) material that has been segregated for this purpose and may also include high-acid consuming overburden. Waste rock management is described in more detail in **Section 6.4** and in **Appendix C**.

Phase 2 also includes the commencement of ISR mining of the Lone Wolf's deep ore in the north/northwest portion of the Lone Wolf deposit. Lone Wolf ISR, **Figure 6**, area will be mined, using ISR methods, from northwest to southeast with wellfields in the northwest being installed first, and progressing southeastward over this and the subsequent phase.

6.3.5 Phase 3

Phase 3 includes completion of monitoring in the GTO ISR area, continued leaching of copper from the LVM HLP, and continued operation of the Lone Wolf ISR area. In addition, leaching will commence in the Flying Diamond ISR area, **Figure 6**. Phase 3 is expected to last approximately 4 years.

Phase 3 also includes the initiation of closure of the LVM HLP.

6.3.6 Phase 4

Phase 4 consists of the completion of monitoring in the GTO ISR wellfield, decommissioning and rinsing and the initiation of monitoring in the Lone Wolf ISR area, drain down of the LLV HLP, and during the latter part of Phase 4 the initiation of decommissioning and rinsing of the Flying Diamond ISR.

6.3.7 Phase 5

Phase 5 consists of the final monitoring of the Lone Wolf ISR area, final LLV HLP drain down and monitoring, final rinsing and monitoring of the Flying Diamond ISR area, and closure of the operations, including removal of all structures, reclamation of all disturbance areas. Phase 5 is expected to last 6 years.

The culmination of all phases is final reclamation reached by the end of 31 years from the first initiation of construction activities. Below is more detail about each activity that will occur.

6.4 NATURE OF THE MATERIALS TO BE MINED

A description of the nature of the materials to be mined or processed including waste/overburden materials and the estimated annual tonnages of ore and waste materials to be mined;

The Company breaks the stratigraphy of Lisbon Valley into 17 distinct beds for engineering and environmental management. This breakdown is shown in the Strat Column in **Diagram 18** and is enumerated below.

- Rock Type 1 is Quaternary Alluvium and is wasted.
- Rock Type 2 is Mancos Shale and is either stockpiled for final mine reclamation or wasted.
- Rock Type 3 (Beds 3-5) is upper Dakota Sandstone. This interval can carry some nominal copper grade.
- Rock Type 4 (Beds 6-8) comprises a carbonaceous facies of the Dakota Formation. It contains little copper and is considered Uncertain; therefore, Rock Type 4 is encapsulated near the center of waste dumps.
- Rock Type 5 (Beds 9-10) comprises a shaley facies of the Dakota. This material contains too much shale for heap leaching and is considered Uncertain; therefore, Rock Type 5 is encapsulated near the center of waste dumps.
- Rock Type 6 (Beds 11-13) is comprised of Lower Dakota sandstones and can carry copper grade.
- Rock Type 7 (Beds 14-15) is comprised of the Burro Canyon Formation. Bed 14 is highly calcic and wasted. Bed 15 is the primary ore host in Lisbon Valley. Geochemical testing for beds 14 and 15 is conducted separately.
- Rock Type 8 is comprised of variegated shales of the Jurassic Morrison Formation. This material is wasted. The material in the footwall of the Lisbon Valley Fault is mined and wasted. This material is comprised of Jurassic Entrada, Navajo, Kayenta, and Wingate formations. Acid Based Accounting testing results indicate the Jurassic footwall material is Likely Acid Neutralizing.

Refer to **Diagrams 2, 3, 4, 6, and 18** for additional detail on stratigraphy and geology.

The BAT Monitoring Plan (**Appendix B**) uses a more discrete rock type discernment for the Lower Burrow Canyon Formation and the Morrison Formation when reviewing for testing and management purposes. The geologic determinations in **Section 6.4** are used for identification.

Waste rock is defined as based on ore grade, material size, and acid consumption. Waste rock includes the overburden and inter-burden. Overburden includes Quaternary Alluvium and Cretaceous Mancos Shale. Inter-burden includes barren sandstones and shales within deposits Dakota/Burro Canyon and Jurassic Morrison shales below the deposits.

As per the Waste Rock Management Plan located in **Appendix C**, waste rock monitoring and testing is conducted on an on-going basis. This testing demonstrates that the bulk of all waste rock (Beds 1-4, 9-17 and Jurassic footwall) are Likely Acid Neutralizing. **Table 9** breaks out bed numbers into rock type categories, provides descriptions and characterizes each according to the tested acid neutralization potential. The table portrays the overall acid neutralizing characteristics of waste rock at LVCM.

MWMP testing is used to supplement data to supporting the ABA data and waste rock characterization determinations. The MWMP results corroborate the ABA results in that rock types 3-5's pH results either become slightly more acidic or become slightly more basic and there is a wider range of metals detected through the MWMP analysis when compared to the other rock types. The other rock types (2, 6, 7 & 8) pH's become significantly more basic and 2 or fewer metals are detected through the MWMP analysis.

Refer to the Waste Rock Management Plan for the current Meteoric Water Mobility and ABA data. As seen in the Waste Rock Management Plan and **Table 9**, the purpose of the designation of certain rock types as 'Uncertain' and therefore encapsulated is because of the results of the ABA and MWMP analyses. The mobile metals within rock types 3, 4, and 5 exceed the Utah ground water quality standards and LVCM's background statistics Rock types 1, 2, 6-8, and J did not exceed the background statistics for the LVCM aquifers.

6.5 SOIL TYPES AND PLAN FOR PROTECTING SOILS

A description of existing soil types, including the location and extent of topsoil or suitable plant growth material. If no suitable soil material exists, an explanation of the conditions shall be given;

A description of the plan for protecting and redepositing existing soils;

Topsoil resources (growth media) were evaluated and inventoried during baseline data gathering activities in 1994 and during operations from 2006 to the present, see Baseline Soils Report in **Appendix E**. Growth media stockpiles are strategically and opportunistically located throughout the project area for final reclamation.

Salvage of the A & B horizons of soil amount of topsoil is placed located in topsoil piles. **Table 10** summarizes the topsoil expected for salvage and the total amount placed and available to use. Salvageable growth media is generally stockpiled away from active mining areas, revegetated, and sloped to minimize erosion. Growth media will be stockpiled in the pits, wherever possible, to minimize additional surface disturbance. Growth media stockpile disturbance is itemized in **Table 1**.

In 2012, the Company contracted WP Resources to review activities and success of reclamation activities and propose ongoing reclamation guidelines. LVCM's waste rock rapidly breaks down to a sandy soil. Laboratory analysis concluded that both the waste rock soil and growth media required similar amendments to promote optimal native plant growth conditions and they have similar exchangeable sodium characteristics. The Reclamation Guidelines with the laboratory results are attached as **Appendix F**. While the waste rock soil may have similar chemical characteristics as growth media, the waste rock within the LVCM does not degrade at a rate sufficient to create enough necessary fines to act as 'soil.' Therefore, the guidelines for seed mix and use of waste rock are for consideration only.

The Company's plan to protect existing soils is first to remove soils before mining activities start. Soil salvage depths have varied and will vary depending upon the terrain and depth of soil present for salvage. For example, in hilly areas where the soil layer is very thin, soil will be salvaged where practicable. In valley areas, soil is salvaged to at least one foot (1') in depth. Additional topsoil will be salvaged to a depth ranging from one to three feet (1' to 3') depending upon the suitability of the alluvium for use as growth media, and if additional suitable soil materials are available at depths deeper than one foot (1'), then all suitable soil materials will be salvaged until the existing soil deficiency is erased, in order to facilitate the planned final reclamation.

The second step is to stockpile the soils in an area that will not be disturbed, in a way/shape that reduces erosion, and apply BLM and DOGM approved seed mix to the surface (see **Table 11** for seed mix details). These efforts are to reduce erosion and weed growth.

LVCM stockpiles growth media to reclaim surface disturbance at the site (WRSs and HLPs). **Table 10** details the growth media stockpile quantities and source location. Location of existing topsoil stockpiles and their volumes, as well as possible borrow pits, can be found on **Figures 4 and 6**.

6.6 VEGETATION AND COVER LEVELS

A description of existing vegetative communities and cover levels, sufficient to establish revegetation success standards in accordance with Rule R647-4-111;

Lisbon Valley is relatively typical of this region of the Colorado Plateau in that the valleys are covered in sagebrush, and the hillsides are dominated by pinyon-juniper woodlands. The vegetation inventory is detailed in the FEIS February 1997, and the baseline flora and fauna data was detailed in a 1994 report by Woodward-Clyde attached as **Appendix G**. WP Resources 2012 Reclamation Guidelines report addressed vegetative communities and cover levels attached as **Appendix F**. Further work on biological inventories, including rangeland reporting, was completed by Lisbon Valley and WestLand Resources for the 2025 FEIS, also in **Appendix G**. Color photographs were taken for **Section 5.4** in September of 2016 and are included in **Appendix B** showing the current vegetative communities and cover levels around the mine site.

There is no riparian habitat within the project boundary.

6.7 DEPTH TO GROUNDWATER

Depth to groundwater, extent of overburden material and geologic setting;

Groundwater occurs beneath the project site as four vertically and laterally discontinuous units and is structurally controlled. These include valley fill, Mancos Shale perched units, the Burro Canyon (BC) Aquifer, and Navajo (N) Aquifer. Groundwater ranges from sixty feet (60') below ground surface (bgs) in the valley fill and Mancos Shale, to 300' bgs in the BC Aquifer and 800' bgs to 1000' bgs in the N Aquifer. Baseline hydrogeologic reports are included in **Appendix G**. LVCM monitors groundwater depths quarterly in accordance with Utah Groundwater Discharge Permit UGW 370005 included in **Appendix H**.

6.8 EXTENT OF OVERBURDEN MATERIAL

Depth to groundwater, extent of overburden material and geologic setting;

Overburden material is comprised of soil, alluvium, and Cretaceous Mancos Shale. Rock Characterization is discussed in detail in **Sections 6.4 and 10.4** and the Waste Rock Management Plan has additional detailed information attached as **Appendix C**.

Overburden from the mining activities is either placed as in-pit backfill, used in construction of pads and roads, or hauled to the WRS facilities. The waste is categorized by geologic bed, which is then correlated to the Company's comprehensive database of geochemical properties for the different geologic beds that occur within the localized geographical region. The type of waste that is encountered during active mining is segregated by bed and geochemical properties and placed in the

appropriate location per the Company's existing Waste Rock Management Plan and ongoing characterization through site knowledge and testing as well as the MWMP results.

Specifically, inert sandstone from the RT-2, RT-4, and RT-5 (Upper Dakota Sandstone) is used for road construction and maintenance. Shale from RT-2 (Mancos Shale) is used for HLP and pond clay liners. High acid consuming rock from RT-7 (Upper Burro Canyon) is used for the overflow catchment area.

6.9 GEOLOGIC SETTING

Depth to groundwater, extent of overburden material and geologic setting;

The geologic setting of the project is consistent with Southeastern Utah. Lisbon Valley is located near the center of the Paradox Basin, an asymmetric sedimentary basin of Pennsylvanian to Cretaceous age. The structure and stratigraphy of the basin are dominated by the thick evaporite deposits of the Pennsylvanian Paradox Formation (Paradox). During the Pennsylvanian, the Paradox subsided along a series of northwest trending faults forming a restricted seaway bounded on the northeast by the Uncompaghre Uplift and on the west by the Kaibab Uplift and the Emery High. The seaway accumulated locally thick deposits of evaporates including salt. Plastic deformation of the salt caused by the weight of the overlying sediments caused the salt to flow along pre-existing basement structures where accumulations were thickest. The salt flow formed a series of elongate northwest trending diapirs following the dominant structural fabric of the basin. Anticline structures developed over the diapirs between Middle Pennsylvanian and Late Triassic time. The structures were further deformed during Jurassic, Late Cretaceous, and Early Tertiary by folding, faulting and renewed salt movement.

The initial, most active, period of salt structure growth started in the Late Pennsylvanian to Permian and continued for about 75 MM years until the Middle to Late Triassic. This salt uplift influenced sedimentation of the Permian to Triassic rocks. Sediments were deposited as thin layers, or not at all, over the rising salt diapirs, and as thick layers in adjacent subsiding areas. After a tectonic pause in the Early Jurassic some of the salt diapirs grew again in the Middle Jurassic. Later Jurassic to Cretaceous sediments were deposited above the salt anticlines with little thickness variations. During the Late Cretaceous to Early Tertiary Laramide orogeny, a series of gentle anticlines and synclines were formed. Many of these young anticlines, including Lisbon Valley, were developed as upward extensions of pre-existing salt anticlines. The younger set of anticlines is sub-parallel to the older structures, but not necessarily coincident. Diapiric salt movement was rejuvenated at this time and continues to the present. In Lisbon Valley, the anticline structure is unbreached and the evaporite sequence remains covered by folded and faulted younger rocks reflecting the anticlinal structure created by the still-rising salt. The Lisbon Valley anticline structure is about 15 miles long and is faulted along its longitudinal axis by the Lisbon Valley Fault. The fault strikes N40°W and dips 50°-85° northeast. Its vertical displacement exceeds 3,800' and juxtaposes Cretaceous formations against Permian. At the ends of the Lisbon Valley Fault the structure tends to horsetail into a number of smaller branching fault strands.

Sedimentary stratigraphy within copper deposits includes Quaternary Alluvium, Mancos Shale, Dakota Sandstone, Burro Canyon Formation and The Brushy Basin Member of the Morrison Formation, with Lower Jurassic and Permian formations in the footwall of the Lisbon Valley Fault. LVMC breaks the stratigraphy within the deposits into 17 distinct beds for engineering, production and environmental management. Quaternary alluvium is identified as Bed 1 and is comprised of light brown to red sand, silt and gravel, and stream and flood deposited alluvium. The Cretaceous Mancos Shale is identified as Bed 2. The Mancos shale is a black, dark gray to brownish olive-green, thinly laminated to thin bedded marine shale with occasional limy fossil beds. The Cretaceous Dakota Sandstone has is identified as Beds 3-13. Bed 3 is a buff to white, fine to medium grained sandstone. Bed 4 is a buff to gray, medium grained sandstone to silty sandstone with minor interbedded gray shale. Bed 5 is a buff-colored fine to medium grained sandstone. Bed 6 is a coal bed of variable thickness usually averaging 12' and can grade into carbonaceous shale. Bed 7 is a light to dark gray silty shale. Bed 8 is a poor grade coal bed, usually silty or shaly and typically contains pyrite. Beds 9-10 are usually indistinguishable light to dark gray silty or shaly, fine to medium grained sandstone. Bed 11 is a white to buff colored fine to medium grained sandstone and can contain up to 20% black shale or organics. Bed 12 is a pale green to gray shale. Bed 13 is a white to buff colored medium grained, poorly cemented

sandstone and matrix supported chert pebble conglomerate, with minor pale green to gray shale beds and lenses. The Cretaceous Burro Canyon Formation is identified as beds 14-16. Bed 14 is a red to light gray variegated siltstone and shale. Bed 14 can grade into buff or gray limestone and sometimes contains massive chert beds. Bed 15 is a buff to gray to white, fine to medium grained and rarely coarse-grained sandstone and matrix supported chert pebble conglomerate. Bed 15 can contain pale green to gray shale beds and lenses. Bed 16 is similar to Bed 15 but with poor cementation and is usually indistinguishable from Bed 15. The Jurassic Brushy Basin Member of the Morrison Formation is identified as Bed 17. Bed 17 is a maroon to red to brown variegated siltstone, mudstone and calcareous sandstone.

6.10 LOCATION AND SIZE OF ORE AND WASTE STOCKPILES

Location and size of ore and waste stockpiles, tailings facilities and water storage/treatment ponds.

Ore is stored and processed on the HLPs. A discussion of the LVM HLP and the LLV HLP features and function are in **Section 6.2.3.3**. Refer to **Diagrams 11, 12 and 13** and **Figures 4 and 6**. At the end of the mine life the ore on the heap leach pad will become spent ore. Details regarding the reclamation of the heap leach pad are covered in **Section 10.0**.

The LVM HLP is designed to store 31 million tons of additional ore (current capacity is 28 million tons) while the LLV HLP is designed to store 24 million tons of ore.

There are a number of WRS facilities shown in **Figures 4 and 6** and WRS facility information is in **Table 6**.

All WRS facilities are designed with a maximum 2.5H:1V slope.

There are no tailings facilities at the Lisbon Valley Mining Operations.

Water Storage and Treatment Ponds are discussed in **Section 6.2.3.4** and liner construction is shown in **Diagram 14**.

6.10.1 Backfill Plan

The Centennial Pit will be backfilled with waste Beds 2 through 17 as mining is conducted. Backfilling of the Centennial Pit was approved after a comprehensive NEPA evaluation, see *Centennial Pit Partial Backfilling Revision 3*, submitted March 2015, and the later-approved 2016 Plan for Centennial Backfill Expansion. The specific objective was to assess the potential impacts to groundwater refilling into Centennial Pit and coming in contact with this material after mining is complete. Arcadis's Updated Centennial Pit Backfill Evaluation March 2014 report calculated averaged beds 14 & 15 NNP of 187.2 tons CaCO₃/kt calculated from the 1997 FEIS, operational cauterization (2005 through 2013) and the 2014 column testing program. This NNP value differs from the Waste Rock Management Plan NNP value as the Waste Rock Management Plan is updated annually and is calculated from operational (2005 through current) data. The Centennial Pit Backfilling Evaluation March 2014 was based on extensive testing, including the following.

- Acid-base accounting (ABA)
- Static water leach testing using single and multiple extraction modified meteoric water mobility procedure (MWMP) and Synthetic Precipitation Leaching Procedure (SPLP) testing.
- Kinetic column testing following the procedures specified in the Final Work Plan for Additional Geochemical Testing of Lisbon Valley Mine Waste Rock.¹
- Solid phase elemental analysis by inductively coupled plasma atomic emission spectroscopy and mass spectrometry (ICP-AES and ICP-MS);

¹ Whetstone 2014. Workplan for Additional Geochemical Testing of Waste Rock Jan 2014

- Mineralogy by transmitted light thin-section microscopy and Rietveld x-ray diffraction (XRD).

Further, the testing indicates that backfilling these waste beds will meet Utah Groundwater Quality Standards or improve background levels as regulated by the Utah Division of Environmental Quality (UDEQ). Written authorization for backfilling in the context of this testing is provided by BLM², UDEQ,³ and DOGM⁴.

The Lone Wolf Pit will be backfilled with 228 million tons of material upon completion of mining. The elevation of the Lone Wolf Pit floor is expected to be 5,795 feet above mean sea level (amsl). This represents a depth of approximately 485 vertical feet from the original topography. As the Lone Wolf Pit is mined out, the Lone Wolf Pit floor will be backfilled with waste rock, that has been evaluated for acid generation and potential constituent leaching prior to use in backfilling in accordance with the Company's Waste Rock Management Plan (**Appendix C**). Backfilling of the Lone Wolf Pit floor will bring the final pit closure elevation to approximately 6,165 feet amsl, or approximately 20-feet above the pre-mining groundwater level (**Diagram 6** and shown in **Figure 6**).

The final backfilled Lone Wolf Pit will have un-reclaimed benches and highwalls along the very northeast portion of the open pit, which will have a vertical elevation difference of 6,165 feet amsl at the backfilled floor, and 6,270 feet amsl at the crest of the open pit (representing a vertical difference of approximately 105 feet). Where the Lone Wolf Pit will be left unreclaimed, the highwalls will be constructed with a maximum height of 40' high and will have appropriately sized catch benches to ensuring a long-term stable slope for post-closure (**Diagram 6**).

6.10.2 Backfill Quality Assurance

The Company analyzes blast holes, then surveys and demarks ore/waste boundaries, and creates detailed geologic maps of all pits as part of its grade control process.⁵ This process provides the quality assurance (QA) necessary to discretely identify ore, waste, Bed number, and Rock Type. The same process is used to identify waste for backfilling. The backfill is not anticipated to settle more than 2' based on analogous waste dump surveys conducted by LVMC.

6.11 WATER STORAGE/TREATMENT PONDS

6.12 EPHEMERAL STREAM CHANNELS

Ephemeral stream channels are permanently diverted around open pits as stipulated in the 1997 BLM Record of Decision. Impacts to groundwater, surface water and wildlife have been reviewed and documented in the 1997 EIS.

The 2024 EIS contained a preliminary design of diversion structures to ensure ephemeral flows were diverted around operations. The diversion structures as reviewed as part of the EIS will be installed. Those diversion structures can be seen on **Figure 4 and 6**.

² BLM 2015. Finding of No Significant Impact EA----

³ UDEQ 2015. Groundwater Discharge Permit -----

⁴ Utah Division of Oil, Gas & Mining 2015. Review of Amended Notice of Intent to Commence Large Mining Operations and Updated Centennial Pit Backfill Proposal, Lisbon Valley Mining Company LLC, Lisbon Valley Mine, M/037/0088, San Juan County, UT.

⁵ LVMC 2008 Ore Grade Control Quality Assurance Plan. Aug 2008

6.13 LOCATION AND SIZE OF WATER STORAGE/TREATMENT PONDS

Proposed location and size of ore and waste stockpiles, tailings facilities and water storage/treatment ponds.

The Company stores groundwater in one 240,000 gallon above ground storage tank (AST) and three retention ponds with total storage capacity of 19M gallons. The locations are shown in **Figure 4**. These ponds are designed to be less than 20 acre-feet with berms less than 10 feet tall, so the ponds will not classify as dams.

The solution ponds are designed to separately store four solutions, including PLS (pregnant leachate solution), ILS (intermediate leachate solution), Raffinate (barren solution), and storm water. Solution ponds are regulated by the Utah Department of Water Quality. Refer to **Figures 4 and 6**, the Company's SWPPP in **Appendix H** and **Appendix J**. **Table 12** shows solution capacity per pond.

6.14 INFORMATION ON THE AMOUNT OF MATERIAL EXTRACTED, MOVED OR PROPOSED TO BE MOVED

Information regarding the amount of material (including mineral deposit, topsoil, subsoil, overburden, waste rock, or core hole material) extracted, moved or proposed to be moved.

The types of material to be extracted and/or moved within the LVCM include:

- Copper-bearing ore
- Waste rock
- Topsoil

Tables 6 and 13 outline the amounts and types of material extracted or moved. **Table 10** details the total amounts of topsoil that has been or will be stockpiled and/or readily available for use during final reclamation.

7.0 OPERATION PRACTICES (R647-4-107)

During operations, the operator shall conform to the following practices unless the Division grants a variance in writing:

7.1 PUBLIC SAFETY AND WELFARE

Public Safety and Welfare - The operator shall minimize hazards to the public safety and welfare during operations. Methods to minimize hazards shall include but not be limited to:

7.1.1 Closing or guarding of shafts and tunnels

The closing or guarding of shafts and tunnels to prevent unauthorized or accidental entry in accordance with MSHA regulations;

There is no active underground operation by the Company. If underground operations shafts or tunnels are discovered, appropriate closure activities will be implemented to include signage, fencing, capping or plugging dependent upon the location and discovery.

7.1.2 Disposal of trash, scrap metal, and wood or debris

The disposal of trash, scrap metal and wood, and extraneous debris;

A small landfill is located on Waste Dump A and is approved for use by the Utah Division of Waste Management and Radiation Control. The landfill is designated as a Class IVb under Permit #1902 and is regulated by UAC R315-301 through 320. The maximum footprint of the landfill is less than five acres, is located completely on SITLA land, and will be contained completely within the existing footprint of Waste Dump A. A copy of the Approved Permit Application and Class IVb Solid Waste Permit is included in **Appendix C** as part of the Waste Rock Management Plan.

The Class IVb landfill located on Waste Dump A will contain waste materials approved for disposal. The waste materials will be gathered onsite as the waste types are generated. The waste types will be stored separately by type in trash receptacles suitable for each waste type. The receptacles will be hauled to the landfill location monthly, where they will be emptied in 4- to 6-foot lifts, followed by 24 inches of covering using local waste rock from the Waste Dump A. The waste rock will be placed over the top of the waste materials to stabilize the surface and prevent wind-scattering of the debris. Covering will occur the same day the waste receptacles are emptied. The rock will help hold the waste materials in place and stabilize the surface for the next vertical lift.

The total proposed capacity of the landfill is 57,000 CY. Of that, 75% will be landfilled material, and 25% will be inert rock encapsulation material. The landfill will be used intermittently during ongoing operations; however, the bulk of the capacity will be used at the end of mine life during reclamation and disposal of onsite facilities. The landfill will have, at any time during the life of operations, an excess capacity of 20,000 cubic yards that will be used solely for the disposal of onsite facilities during final reclamation.

7.1.3 Plugging or capping of drill holes

The plugging or capping of drill, core, or other exploratory holes as set forth in Rule R647-4-108;

Section 9.0 fully lays out the requirements for plugging drill holes.

The Company will properly plug drill holes as soon as practical and shall not leave them unplugged for more than 30 days without approval of the Division.

The Company's surface plugging of drill holes shall be accomplished by setting a non-metallic perma-plug at a minimum of 5' below the surface or returning the cuttings to the hole and tamping the returned cuttings to within 5' of ground level. The hole above the perma-plug or tamped cuttings will be filled

with a cement plug. If, the cemented casing is to be left in place a concrete surface plug is not required, provided that a permanent cap is secured on top of the casing.

Drill holes that encounter water, oil, gas or other potential migratory substances and are 2¹/₂" or greater in surface diameter shall be plugged in the subsurface to prevent the migration of fluid from one stratum to another. If water is encountered plugging shall be accomplished as outlined below.

Holes that encounter significant amounts of non-artesian water shall be plugged by placing a 50' cement plug immediately above and below the aquifer(s) or filling from the bottom up (through the drill stem) with a high-grade bentonite/water slurry mixture. The slurry shall have a Marsh funnel viscosity of at least 50 seconds per quart before the adding of any cuttings.

The Centennial Pit Backfill proposal included a monitoring well near the pit for regular water quality testing. The Company has identified the existing well SLV3 as the ground water monitoring point. The Centennial pit may expand to the south and consume SLV3. At this point, the Company will identify another suitable replacement ground water monitoring point. SLV3's UTM NAD83 Zone 12 coordinates are 4,223,407N 664,080E.

7.1.4 Warning signs

The posting of appropriate warning signs in locations where public access to operations is readily available;

Warning signs have been placed at the entrance of the facility identifying the facility as a mine site. Additionally, "No Trespassing" signs are in place where appropriate to restrict access to operational areas.

7.1.5 Berm or barrier construction

The construction of berms, fences and/or barriers above highwalls or other excavations when required by the Division.

Fencing is in place around operational areas to restrict access by the public and provide a barrier. In addition, entrance to active mining operations is signed and gated so inadvertent entry is minimized. Further, berms are in place, as required by MSHA, that are set to half the wheel height of the largest vehicle using the roadway which will limit the ability for passenger vehicles to drive outside of the roadway in the event inadvertent access did occur.

7.2 DRAINAGES

Drainages - If natural channels are to be affected by the mining operation, then the operator shall take appropriate measures to avoid or minimize environmental damage.

Drainages are diverted around operational areas described in **Section 9.6.1** and **Appendix I**. Diverting flows away from operations will protect discharge water quality and ensure that no process materials will be discharged.

7.3 EROSION CONTROL

Erosion Control - Operations shall be conducted in a manner such that sediment from disturbed areas is adequately controlled. The degree of erosion control shall be appropriate for the site-specific and regional conditions of topography, soil, drainage, water quality or other characteristics.

Erosion control measures are discussed in the Stormwater Pollution Prevention Plan (SWPPP), **Appendix J**, and **Section 6.12, 9.1, 9.3.2, and 9.6.2**. In general, waste rock facilities are sloped to encourage revegetation and limit sedimentation. Specific erosion control measures including rock armouring, silt fencing or wattles, as well as diversions and ponds are used to ensure that water management does not cause damage.

7.4 DELETERIOUS MATERIALS

Deleterious Materials - All deleterious or potentially deleterious material shall be safely removed from the site or kept in an isolated condition such that adverse environmental effects are eliminated or controlled.

Process materials that may be considered deleterious are managed within a process area that is contained and not discharged. Petroleum is stored in secondary containment that is sized to be 110% of the largest vessel within the containment. Other chemical storage is maintained in areas where chemicals can be well managed, dependent up on the chemical and storage needs. Reagents that are delivered in solid form will be mixed in totes or tanks either on the heap or within secondary containment for use in the leaching and SX-EW facility. All process chemicals and other materials will be removed from the site – either sold or disposed depending upon the material – at closure. **Section 10.0** discusses reclamation of the site.

HLP materials will be maintained on the lined facilities so drain down from the facility is managed for reclamation and remains isolated from the environment. **Section 10.3.4** discusses reclamation of the HLP.

Waste rock placement has been discussed in **Section 6.10**. **Table 13** contains a breakdown of materials moved from the pits that may be uncertain for acid generation and therefore encapsulated within the WRS facilities. The amounts in this table may change as development/infill drilling and testing are completed.

7.5 SOILS

Soils - Suitable soil material shall be removed and stored in a stable condition where practical so as to be available for reclamation.

See Section 9.6.1. Table 15 contains a summary of the soil stockpile materials.

7.6 CONCURRENT RECLAMATION

Concurrent Reclamation - During operations, disturbed areas shall be reclaimed when no longer needed, except to the extent necessary to preserve evidence of mineralization for proof of discovery. Areas which have been disturbed but are not routinely or currently utilized shall be kept in a safe, environmentally stable condition.

Concurrent reclamation is on-going at Lisbon Valley. Pits are backfilled and WRS facilities have been reclaimed as they are completed. **Table 1** shows acreages of disturbance and reclamation acres. **Section 10.0** more fully discusses reclamation.

8.0 HOLE PLUGGING REQUIREMENTS (R647-4-108)

Drill holes shall be properly plugged as soon as practical and shall not be left unplugged for more than 30 days without approval of the Division. The procedures outlined below are required for the surface and subsurface plugging of drill holes. The Division may approve an alternate plan, if the operator can prove to the satisfaction of the Division that another method will provide adequate protection to the groundwater resources and long term stability of the land. Dry holes and nonartesian holes which do not produce significant amounts of water may be temporarily plugged with a surface cap to permit the operator to re-enter the hole for the duration of operations.

8.1 SURFACE PLUGGING OF DRILL HOLES

Surface plugging of drill holes shall be accomplished by:

- Setting a nonmetallic permaplug at a minimum of five (5) feet below the surface or returning the cuttings to the hole and tamping the returned cuttings to within five (5) feet of ground level. The hole above the permaplug or tamped cuttings will be filled with a cement plug. If cemented casing is to be left in place, a concrete surface plug is not required provided that a permanent cap is secured on top of the casing.
- If the area is tilled farmland, a five (5) foot cement plug must be placed above a permaplug or tamped cuttings so that the top of the cement plug is a minimum of three (3) feet below the ground surface. The hole above the cement plug is filled with soil. If cemented casing is to be left in place, a concrete surface plug is not required provided that a permanent cap is secured on top of the casing. The top of the casing and cap must be a minimum of three (3) feet below the ground surface.

8.2 DRILL HOLES THAT ENCOUNTER WATER

Drill holes that encounter water, oil, gas or other potential migratory substances and are 2-1/2 inches or greater in surface diameter shall be plugged in the subsurface to prevent the migration of fluid from one strata to another. If water is encountered, plugging shall be accomplished as outlined below:

- If artesian flow (i.e., water flowing to the surface from the hole) is encountered during or upon cessation of drilling, a cement plug shall be placed to prevent water from flowing between geologic formations and at the surface. The cement mix should consist of API Class A or H cement with additives as needed. It should weigh at least 13.5 lbs./gal. and be placed under the supervision of a person qualified in proper drill hole cementing of artesian flow. Artesian bore holes must be plugged in the described manner, prior to removal of the drilling equipment from the well site. If the surface owner of the land affected desires to convert an artesian drill hole to a water well, he must notify the Division in writing that he accepts responsibility for the ultimate plugging of the drill hole.
- Holes that encounter significant amounts of nonartesian water shall be plugged by:
- Placing a 50-foot cement plug immediately above and below the aquifer(s); or
- Filling from the bottom up (through the drill stem) with a high-grade bentonite/water slurry mixture. The slurry shall have a Marsh funnel viscosity of at least 50 seconds per quart prior to the adding of any cuttings.

9.0 IMPACT ASSESSMENT (R647-4-109)

The operator shall provide a general narrative description identifying potential surface and/or subsurface impacts. This description will include, at a minimum:

9.1 IMPACTS TO SURFACE AND GROUNDWATER SYSTEMS

Projected impacts to surface and groundwater systems;

9.1.1 Surface Water Protection

Surface water is protected during active mining and processing by use of culverts, manmade and natural stormwater catchments, and manmade and natural drainages (See the Company's SWPPP in **Appendix J**). To the extent possible, stormwater is diverted around the active mine area using existing natural drainage channels and culverts. Where stormwater falls within the active mine area, the stormwater is diverted to onsite manmade and natural catchments where it is either used in beneficiation or allowed to infiltrate or evaporate. Potential impacts associated with long-term surface and ground water hydrology and erosion control will be mitigated during reclamation activities as discussed in more detail in **Section 10.0**.

The Company maintains a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the Utah Pollutant Discharge Elimination System (UPDES) Permit UTR 000737 and UPDES General Multi-Sector General Permit (MSGP). The MSGP authorizes storm water discharges related to Industrial Activities, Group 3, Sector G (Metal Mining). The LVCM is considered an "Active Metal Mining Facility" under the MSGP, and subject to Pollution Prevention Plan Requirements. The SWPPP and the Utah Pollutant Discharge Elimination System permit is attached as **Appendix H**.

The SWPPP describes pollution prevention and control practices designed to minimize the contact of storm water with "significant materials", and thereby avoiding impacts, or otherwise manage water after such contact, so there is no discharge.⁶

The SWPPP authorizes the diversion of surface water around the active mining area (AMA). Activities in the AMA the following:

- Road Construction
- Drilling and blasting
- Open-pit excavation
- Ore and waste rock hauling and stockpiling
- Heap Leaching
- Solvent Extraction-Electro Winning (SX-EW)
- Vehicle maintenance and parking

The Company avoids impacts to surface water systems through implementation of best management practices (BMP) in accordance with the SWPPP. BMP are developed to minimize the potential for non-point source pollution to surface waters.

BMPs include both structural and non-structural controls. Structural controls include:

- Diversion
- Retention
- Erosion and Sediment Control
- Stabilization

⁶EPA defines "Significant materials" to include, but are not limited to: raw materials; fuels; solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of CERCLA; any chemical the facility is required to report pursuant to Section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.

- Energy Dissipation

Structural control methods are implemented to site conditions and modified as site conditions change with on-going mine development. These include:

- Diverting runoff away from roads and other denuded areas by using berms, ditches, and other functionally equivalent diversions.
- Preparation of road drainages and outlets by removing fugitive outfalls and consolidating runoff into designed outfall structures that are capable of managing the expected runoff volume.
- Reducing runoff velocities by using energy dissipation devices and minimizing grade.
- Trapping sediment on-site in sediment ponds, sumps, and other functionally equivalent structural controls.
- Capturing runoff, when practical, to eliminate the potential for storm water discharges.

Diversion channels and retention ponds comprise the primary structural controls at LVCM. These controls are detailed in the detailed drainage design in **Appendix I**. The Company maintains three primary manmade retention ponds. The upper retention pond is located southeast of the leach pad and functions to retain a large portion of surface water runoff from the highest flowing sub basins located on the rim rock south of the leach pad. The lower retention ponds are located east of the GTO Pit and situated on low-permeability Mancos shale. Many of the existing and operational storm water control features will be left in place and expanded upon for post-reclamation hydrologic controls. Such features that will be expanded include drainage diversion channels and catchments. The post-mining control features will also include the permanent diversion of runoff from Dump C and north of the mine area to re-connect with the existing ephemeral Little Valley drainage. This diversion will be designed and installed south of the Sentinel West Pit to allow for unencumbered surface water flow around the Sentinel West Pit and other disturbances.

Non-structural controls include maintenance, spill prevention and response, inspections, training, and record keeping. These controls are detailed in the SWPPP. Culverts are located around the project area in order to ensure storm water is diverted to the designated receiving areas.

9.1.2 Groundwater Protection

Groundwater ranges from 60 feet below in valley fill and Mancos shale units to about 1,000 feet below surface. Groundwater occurs in four low-yield, poor-quality aquifers below the site. These include valley fill, Mancos, Burro Canyon (BC) and Navajo (N) aquifers. The valley-fill aquifer exceeds state ground water quality standards for gross alpha and gross beta levels. Secondary standards are exceeded for dissolved manganese and TDS. The Mancos aquifer exceeds primary standards for sulfate, TDS, gross alpha, and gross beta.

Both the valley fill and Mancos shale aquifers are low-yield perched aquifers, and are hydrologically discontinuous from the deeper BC aquifer, as well as from other areas regionally by function of outcropping. Moreover, the Mancos shale is very low permeability by geologic definition which adds to its poor use as an aquifer. Both the valley fill and Mancos shale aquifers have been locally dewatered by mining and beneficiation activities. The Mancos shale geologic unit outcrops locally, which isolates the LVCM from potentially impacting the aquifer on a regional basis. As the Mancos shale outcrops, it not only drains the Mancos aquifer, but also eliminates the potential continuation of the valley fill aquifer, which occurs in the alluvium overlying the Mancos shale unit. Valley fill aquifers are limited by their occurrences as alluvial deposits. While the word 'aquifer' is used here to describe the Mancos, this unit is highly impermeable, and within the Lisbon Valley Project area and Lower Lisbon Valley (LLV), does not contain sufficient saturation to truly classify as an aquifer by the definition provided by the US Geological Survey (USGS, 2020). The valley fill is a perched aquifer, only receiving recharge from precipitation and surface run-on. Therefore, the use of the word 'aquifer' to describe the valley fill should also be considered a loose interpretation only.

The BC aquifer was classified as Class III by the State of Utah (UDEQ, 1998) because it naturally exceeds Utah Ground Water Quality Standards (R317-6-2) for uranium, gross alpha, and gross beta particle activity. Arsenic, cadmium, aluminum, and iron also commonly exceed Utah groundwater

quality standards. Gross alpha and gross beta particle activity commonly exceed Utah groundwater quality standards in the N-aquifer. Some background water quality samples from the N-aquifer have also contained concentrations of arsenic, aluminum, iron, sulfate, and TDS that exceed Utah groundwater quality standards. Overall, the N-aquifer would be designated as a Class II aquifer by Utah Ground Water Classes (R317-6-3) based on the baseline water quality and ongoing water quality monitoring within the Project area.

The Company monitors groundwater and facilities in accordance with Ground Water Quality Discharge Permit (GWDP) UGW370005 in compliance with the provisions of the Utah Water Pollution Control Act. The GWDP is in the process of being updated to reflect the re-start of operations. The GWDP, as written, assumes all ground water monitoring controls as already approved in the existing GWDP. The existing GWDP describes how potential impacts to groundwater are minimized by the design and construction of process facilities that under normal operating conditions will not discharge.

In December 2018, Whetstone Associates provided the Company with a 20-year summary report of the water quality monitoring data that had been collected by Whetstone from water wells throughout the Project Area from a period ranging from 1998 through to 2018. As part of the summary report, Whetstone performed an evaluation of the ground water flow direction and the communications (or lack thereof) between the aquifers that exist within the Project Area.

According to the report, there is a large unsaturated zone that exists between the BC and N aquifers. Moreover, both the BC and N aquifers are highly segmented, with faults generally acting as barriers to flow across faults. Of note, active mining has been performed within the Lisbon Valley Active Mine Area, with open pits being deepened yearly. Over the twenty-year monitoring event, there has been no indication of communication between the BC and N aquifers, as would have resulted in change in water quality and overall water chemistry of the distinct aquifers. The 2018 Whetstone report in the GWDP indicates that water quality impacts the N-aquifer as a result of mining in Lisbon Valley have not been detected to date, and that because local impacts to the Burro Canyon and N-aquifer are negligible or not expected, measurable regional impacts to the N-aquifer and Dolores River system are not expected.

Moreover, there is no indication of dewatering of the N aquifer which was a question posed in the 1997 ROD as it relates to the Dolores River system. Therefore, the Company maintains high confidence that the empirical results of the 20-year monitoring support that no impacts to surface or ground water has or will occur as mining continues.

The results of the 20-year monitoring are available as annual submissions to the DWQ in accordance with the Company's GWDP. The GWDP provides background water quality, groundwater protection levels, Best Available Technology (BAT), and monitoring requirements. Implementation and maintenance of BAT protects groundwater and surface water from potential contaminant sources, including solution ponds, leach pad, SX/EW plant, waste dumps, and processing facilities. These facilities are constructed with clay composite/synthetic liners, maintained, and monitored in accordance with the BAT standards. Above ground storage tanks (AST) and other reagent storage are contained with synthetic liners or otherwise contained in concrete. BAT monitoring includes:

- a. Leak Detection under Leach Pad and Ponds
- b. Pad Settlement
- c. Solution Water Balance to Maintain Storm Water Capacity in Ponds
- d. Heap Slope Stability
- e. Diversion Ditch Erosion
- f. Waste Rock Chemistry (Acid/Base)
- g. Sediment in Retention Ponds and Diversions
- h. Spill Containment

A copy of the GWDP included in **Appendix H** and BAT Monitoring Plan is included in **Appendix J**.

As stated above, the facilities, including the process ponds, are constructed with underlying clay layers, and are also constructed within an area underlain by limestone and Mancos shale. The combination

of the manmade installed controls and geologic controls further enhance the protection of water resources. To date, there have been no indication through the continued ground water monitoring of impacts to ground water quality as a result of the ongoing operations.

Pit pools are simulated to accumulate in the GTO and Sentinel West pit at or near the pre-mining groundwater elevation. The pit pool simulation data will not change as seen in the updated GWDP. The Centennial Pit is approved to backfill above the pre-mining groundwater level, therefore, there is no pit pool expected.

Pit pools in the GTO and Sentinel Pits are authorized by the existing GWDP and anticipated to concentrate some chemical constituents, metals, and TDS. Chemical constituents include sulfate, chloride, sodium, and calcium. Metals include aluminum, arsenic, selenium, molybdenum, manganese, iron, uranium, and zinc.

During the permitting process and as part of the 1997 Environmental Impact Statement process the potential for the development of pit lakes for the Centennial, Sentinel and GTO pits were studied. The existing GWDP describes the two hydrogeologic models used to predict potential post mining pit lake scenarios. The first model was based on the classical hydrologic flow in the horizontal direction, and the second model was based on a vertical flow model. Field testing suggests that the vertical model most appropriately represents groundwater flow (drilling and testing of paired shallow and deep monitoring wells MW96-7A and MW96-7B [Adrian Brown Consultants 1996b]) and a vertical spreadsheet model was developed for each of the proposed pits. The vertical model was a numerical implementation of the following concept:

In this system, flow is predominantly vertical. Infiltration moves to the upper saturated zones, where it is essentially perched. Most of the infiltration seeps vertically to the underlying materials, which ultimately drain to the deep basin sediments, which in turn drain to the [Delores] river. Little groundwater flow takes place laterally in the shallow saturated zone [Burro Canyon aquifer], due to its segmentation (Adrian Brown Consultants, 1996c).

Additional detail regarding pit pools is found in the Whetstone Associates 2008 Annual Update and 2018 Hydrogeologic Update of the Lisbon Valley Hydrogeologic System Evaluation. The reports provide a detailed summary of the previous numerical ground water modeling and predicted pit pools and water quality.

A separate Centennial Pit Backfilling pit pool model and water quality predictions were developed in support of the backfill permitting process in 2014. The Sentinel and GTO pits were not included in this model.

Anticipated impacts to water quality due to the Centennial Pit backfilling were simulated and potential effects on post-mine groundwater quality resulting from backfilling the Centennial Pit were evaluated. The discussion of model parameters references the Lisbon Valley Mine Updated Centennial Pit Backfill Evaluation provided in 2014.

A more recent Hydrogeologic Evaluation was performed by Whetstone in 2018 and summarizes the previous reports as well as provides updated evaluations based on optimized pit designs. This evaluation was part of the Company's GWDP application and reviewed by the Utah Department of Water Quality.

The earlier performed simulations are documented in Arcadis's *Lisbon Valley Mine Updated Centennial Pit Backfill Evaluation* of March 2014, Whetstone's *Method and Results for Additional Geochemical Testing of Lisbon Valley Mine Waste Rock* of March 2014, and Whetstone's *Method and Results for 2015 Geochemical Testing of Lisbon Valley Mine Waste Rock* of January 2016. Reference the Centennial Pit Backfilling documentation for current pit pool and water quality predictions related to the Centennial pit as described below.

- Backfilling will prevent the accumulation of a pit pool, along with the associated evapo-concentration of salts. A pit pool, and the associated increases of total dissolved solids, is simulated to degrade the N-Aquifer under worst-case conditions. A pit pool is currently approved through Federal and State agencies.

- Backfilling will prevent formation of any acidic condition, due to the acid-neutralizing characteristics of the backfill materials.
- Backfilling will protect, and ostensibly improve, post-mine groundwater quality. Uranium concentrations in the backfill are predicted to be lower than the pre-mining uranium concentrations in groundwater. The raw unadjusted dissolved uranium concentrations ranged from 0.1376 to 0.1979 mg/L in the Bed 15 column leachates and from 0.0063 to 0.0125 mg/L in the Bed 15 column leachates. These values are lower than the average concentration of 0.341 mg/L in background well MW2A and substantially lower than the maximum value of 0.456 mg/L. These facts are documented extensively in the record.
- The kinetic column testing suggests that the interaction of backfilled waste rock and rebounding groundwater will result in lower uranium concentration in groundwater than what was there historically.
- The water quality in the backfilled pit is also expected to be significantly better quality than in a pit lake subject to concentration through evaporation.
- The Burro Canyon aquifer is a perched, laterally discontinuous, aquifer with Class III limited use groundwater that naturally exceeds drinking water quality standards. Protection limits for uranium in this aquifer are set in such a manner that no increase in concentrations is allowed. The results of kinetic column testing on proposed backfill material indicates that water quality in the column leaches has lower uranium concentrations than in the pre-mining groundwater.
- Water quality outside of the Centennial Pit is generally of better quality, but remains Class II. DWQ's understanding of the data submitted thus far indicates minimal offsite migration will occur due to the compartmentalization and limited extent of both the local perched aquifer and the deeper "regional" aquifer.
- Modeling and kinetic column testing indicates that water quality will improve relative to the pre-mining baseline. Furthermore, a pit lake and the associated TDS increase will not occur.

Based on the above, UDEQ approved LVCM's backfilling proposal in a letter to the BLM.⁷

The anticipated impacts to the BC aquifer due to the dewatering of pits and extraction of groundwater for mineral processing include a reduction of the availability of groundwater in the immediate project area (Adrian Brown Consultants 1996a) and the development of pit pools in the GTO and Sentennial pits.

The shallow aquifer (BC-aquifer) will slowly recharge in the years following mining. Groundwater elevations, in the vicinity of the open pits, will never regain pre-mining elevations due to the annual evaporation of recharge water through the exposed pit walls and open pits. Potential impacts are tempered by the following: 1) the shallow aquifer (BC) is currently not used for any beneficial purposes either within the active mine area, the mined area of the fault-isolated and compartmentalized BC aquifer, or within a two mile radius, and 2) the water naturally exceeds the State of Utah drinking water quality standards for arsenic, uranium, TDS, radionuclides, and other parameters. Potential uses of the water are limited at present and would be similarly limited in the future. The backfilling of the Centennial pit will allow for the water level in the compartmentalized BC aquifer to recover in the immediate area. The backfill material is not expected to generate problematic groundwater chemistry. (BLM Centennial Pit Backfilling Mine Plan Modification for the Lisbon Valley Mine, San Juan County, Utah 2015)

The deeper aquifer (N-aquifer) will only be impacted by groundwater extraction as this aquifer is well below the host material being mined. This aquifer will slowly recharge in the years following mining, however, initially less water will be available to move downgradient of the project site northeast toward the Dolores River. It is possible that flows in the Dolores River could be affected, however, the

⁷ Utah Department of Environmental Quality 2014. Evaluation of Lisbon Valley Mining Company's Proposal to Backfill the Centennial Pit. 22 August 2014

percentage of total flow in the Dolores River contributed by the deep aquifer in the Lisbon Valley area is very small and would likely be undetectable. (BLM FEIS 1997)

The Lone Wolf Pit was evaluated as part of the 2024 EIS with the expectation that the impacts to groundwater would be very similar to the impacts assessed in the prior studies. Mining will be below the groundwater level while backfilling will be to a level above the existing water elevation.

ISR Mining at Flying Diamond, GTO, and Lone Wolf was evaluated by UDEQ during the underground injection control (UIC) permitting process as well as the Environmental Protection Agency (EPA) during the Aquifer Exemption (AE) process. Because the BC aquifer is perched, laterally discontinuous with Class III limited use groundwater exceeding drinking water quality standards as well as the closure plan to rinse the aquifer to develop a final steady state quality. The determination that the ISR work at the site would not affect detrimentally groundwater resources that were used as an underground source of drinking water.

9.1.3 Water Rights Use and Water Quantity Protection

The Company maintains the only active water rights within the active mine area. An inventory of active water rights in the LVCM was used to identify the location and status of water rights points of diversion within a 2-mile radius of the LVCM. The inventory was based on water rights records on file with the UDWR.

According to the findings, the Company is the only user of water within the LVCM, with a total annual allowable usage of 2,664.56 acre-feet. The Company maintains detailed records of the amount of water used annually for the mining and processing of copper ores. The Company recirculates water through the process circuit as much as feasible to reduce the overall water consumption however due to the arid environment, makeup water is required practically year-round.

Impacts to water rights outside of the LVCM are unlikely based upon the compartmentalized nature of the ground water in the district. This assumption is further supported by the continued water level monitoring, which commenced in 1994 and has been ongoing since. The ground water level monitoring has tracked the trend of the valley fill, BC, and N aquifers. The Valley Fill Aquifer has exhibited a general trend of decreased levels since monitoring commenced. Of interest in this data is the downward trend was noted to start well before mining in the area became active. This may indicate that the valley fill aquifer is more susceptible to precipitation and to other withdrawals than activities associated with the permittee's copper mining.

The Burro Canyon Aquifer has exhibited a general upward trend in water level since monitoring commenced in 1994. While some production wells have a clear localized effect on ground water levels, that effect is short-lived while the wells are pumping, and tend to have a quick recovery back to static. Moreover, the localized drawdowns of the production wells do not appear to have any translational effects on surrounding wells and thus the aquifer in general.

While the production wells have a clear localized drawdown effect on the Navajo aquifer, the aquifer as monitored for the entire LVCM and LLV has exhibited insignificant change in ground water level within the larger Lisbon Valley and Lower Lisbon Valley areas. In fact, in most monitoring wells, the ground water level of the Navajo aquifer has exhibited a small rise since monitoring commenced.

The Company provides summaries of cumulative water well drawdown annually to the DWQ in their annual Hydrogeologic Update (2018 Whetstone Hydrogeologic Report; 2019 Annual Hydrogeologic Report; **Appendix K**).

9.1.3.1 Water Usage for Open Pit Mining

The Company presently has freshwater production wells, which are screened in the Burro Canyon aquifer and the Navajo aquifer. Due to the compartmentalized nature of the Burro Canyon aquifer within the area, the rate of withdrawal from the Burro Canyon can create localized cones of depression within

the aquifer. While this is temporarily beneficial for ensuring open pit mining can occur, as well as beneficial to maximize sweep efficiency through the ore zone during ISR mining (as will be discussed in more detail below), this may lead to localized concentrations of total dissolved solids within the aquifer. To overcome this, the Company intends to continue to explore and drill for freshwater production wells that are spatially distant to reduce the risk of localized drawdowns from occurring. The Navajo aquifer does not appear to be as compartmentalized as the Burro Canyon aquifer in this local region. Precious drilling for freshwater production by the Company has indicated that targets for wells producing 100 gallons per minute (gpm) from the Navajo aquifer varies throughout the local region. The Company intends to use the information gathered over the last 30 years of exploration and research to identify new targets for both Burro Canyon and Navajo aquifer freshwater production wells.

As pits and HLPs expand, additional production water will need to be produced and wells that are located within facility footprints will need to be replaced. The total number of active wells will be dependent upon water needs, well production, and operations. New wells will be drilled in both the Navajo and Burro Canyon aquifers and based on geophysical studies.

All fresh water will be transported around the operations by buried HDPE freshwater piping, buried to a depth of at least four feet. New piping will be installed along roadways or within utility corridors to facilitate access and maintenance opportunities.

Total expected water consumption for the entirety of the open pit mining activities is:

- Ore wetting (initial crushing and heap leaching): 11,218.4 acre-feet
- Anticipated evaporation from the LLV and LV HLPs: 11,885.2 acre-feet
- Anticipated evaporation from the LLV process ponds: 2,647.9 acre-feet
- Dust Suppression and fire control: 3,998.2 acre-feet

Table 14 details the expected annual water consumption for the duration of the operation.

Total Water Demand for the life of the mine is **29,749.7 acre-feet**. Water demand is directly related to the mining rate and stacking/wetting of fresh ore.

9.1.3.2 Expected Water Usage for ISR Mining

As the Company intends to recirculate all extracted solutions ISR Mining Areas, the total water usage during active ISR mining is expected to be negligible.

Based upon test work performed by the Company, the pore volume for the target ore has been quantified at 13% and an expected final rinse of 100% of pore volume is anticipated. Therefore, an estimated 6,556 acre-feet of fresh water will be necessary to rinse the ISR mining areas. This water will not be lost however, as all water extracted during the final rinsing phase will be used in the Company's ongoing heap leaching, or evaporated, during the closure of the LLV HLP. All estimated water expected to be used for ISR mining and rinsing is included in the Company's estimated water consumption for open pit mining.

9.2 IMPACTS TO STATE AND FEDERAL THREATENED AND ENDANGERED SPECIES AND HABITAT

Potential impacts to state and federal threatened and endangered species or their critical habitats;

The 2025 EIS evaluated habitat impacts as well as impacts to state and federal threatened and endangered and special status species. The overall evaluation reviewed the following species to determine if there would be any project impacts:

- Desert Bighorn Sheep – no lambing grounds or migration corridors
- Desert Kit Fox – no active burrows and 5 inactive burrows
- Elk and Mule Deer – winter range overlaps the area however the fawning range does not
- Ferruginous Hawk – no known nesting
- Golden Eagle – two nests exist within 0.5 miles
- Greater Sage Grouse – none detected, no habitat and no leks within 2 miles
- Gunnison’s Sage Grouse – none detected, and leks within 0.6 miles
- Gunnison’s Prairie Dog – 16 active colonies were detected
- Migratory Bird Treaty Act – raven and red-tailed hawk nests have been detected
- Monarch Butterfly – no host plants (milkweed) was detected
- Pronghorn – no fawning grounds
- Western Burrowing Owl – one potentially active burrow was detected approximately 0.1 miles from planned disturbance
- White tailed prairie dogs – no colonies detected
- Milkweed – none detected
- Navajo Sedge – none detected
- Tuhy’s aromatic scurf pea – none detected

The Company has proposed mitigation actions to meet the BLM Resource Management Plan requirements for the biological resources that have the potential to be impacted. In general, the mitigation elements include working with the Utah Department of Wildlife Resources to translocate species, provide watering stations (where appropriate) that will ensure species are drawn away from operations, timing construction activities to avoid important times for species hibernation, nesting, fledging, or other times. The Company will also continue to perform surveys for species and habitat as appropriate.

9.3 IMPACTS ON SOIL RESOURCES

Projected impacts of the mining operation on existing soil resources;

Soil resources are discussed in **Section 6.5** and **Section 10.6**.

9.4 IMPACTS ON SLOPE STABILITY, EROSION CONTROL, AIR QUALITY AND PUBLIC HEALTH AND SAFETY

Projected impacts of mining operations on slope stability, erosion control, air quality, and public health and safety;

Slope stability is maintained by good geotechnical practice and operational control. Final reclamation, discussed more fully in **Section 10**, of earthen facilities describe final slopes and erosion control plans. Illustrations of cross sections of the HLP, WRS and open pits can be found in **Figures 16, 17, and 18**.

Air quality is regulated by the Utah Division of Air Quality, impacts to air quality must meet the National Ambient Air Quality Standards which are designed to protect public health “at the fenceline” meaning there will be no impact to public health and safety due to operations at Lisbon Valley.

Public Health and Safety is protected through layers of permitting, engineering control, environmental control, restricted access, and good reclamation practice.

9.5 PROPOSED MITIGATION

Actions which are proposed to mitigate any of the above referenced impacts.

Planned mitigation specific to the 2025 EIS process and the new facilities described herein have been included in **Table 15** in this plan.

9.5.1 Actions to Mitigate Impacts to Surface and Ground Water

9.5.1.1 Surface Water

Surface water impacts will be mitigated during active mining by ensuring culverts are maintained and cleared of debris. Natural drainage channels surrounding the mine area will be kept in place and not impounded or otherwise impacted by mining. Where impacted, the Company will work with the appropriate agencies to design and install re-routes to ensure surface water flow is continued unencumbered. Surface water that falls within the active mine area will be diverted to onsite holding ponds or manmade catchment areas to ensure no outfalls occur. **Figures 4 and 6** show the proposed surface water controls during mining activities.

Post mining surface water controls include the installation of drainages as appropriate on waste dumps and/or around the pits to reconnect the drainages with existing natural ephemeral drainage channels. Most of the culverts located within the active mining area will be removed upon reclamation of the access roads. Some culverts may remain if needed for appropriate conveyance of runoff to the designated drainage routes.

9.5.1.2 Process Solution

Process solution will be controlled during active mining by keeping the process ponds in good working condition, as well as the heap leach drainages and pipes. Critical spares of all major pumps will be kept onsite and will be regularly maintained to ensure their availability in the case of a pump failure. Other controls will include ensuring the 100-yr storm pond remains empty for use as its intended purpose during large 100-year 24-hour storm events.

The effluent will be characterized by initiating quarterly and/or annual (as deemed appropriate by the Division and DWQ) compliance monitoring of the effluent in the PLS and RAFF ponds. The effluent will be analyzed for the same constituents as specified in the Company’s GWDP. Anticipated long-term drain down water quality will be characterized by the implementation of humidity cell testing of existing stacked ore and fresh ore, as it is mined. The humidity cell testing will be run for a minimum of 20 weeks to approximate the potential remaining acid neutralizing capabilities of the ore would be upon completion of mining and leaching. These humidity cell tests will be performed for a range of ore material and already-stacked leached ore material to provide a relatively representative dataset of the leach pad in its entirety.

Post-mining control of effluent drain down will be monitored and controlled by the installation of Evaporation or Evapotranspiration cells (**Section 10.4.4; Appendix L**).

9.5.1.3 Ground Water

Ground water impacts will be mitigated during active mining by ensuring the process ponds, leach pad drainage ditches, pipes, and overall process facilities are kept in good working condition to ensure no

release to the ground water occurs. Quarterly monitoring of the production and monitor wells will continue to track analytes in the ground water. The Company has a SWPPP and SPCC that provides guidelines for the protection of surface and ground water within the Project. Other ground water protection will include the concurrent backfilling of the open pits.

Design and construction of the HLP cover to minimize infiltration, as well as construction of evaporation cells, will help minimize any impacts to groundwater from the HLP facilities.

9.5.2 Actions to Mitigate Impacts to Biological Resources

Biological Resource mitigation will be completed by following the requirements detailed in the Plan of Operations that was approved by the BLM. This plan and the mitigation details can be found in **Appendix J, LLV Mine Plan of Operations October 2025, V9, Section 3.16**. These 2025 mitigation requirements have been included in **Table 15** in this plan.

9.5.3 Actions to Mitigate Impacts to Cultural Resources

Cultural Resource mitigation will be completed by following the requirements detailed in a Historic Properties Treatment Plan developed by the BLM. Elements of how this will be developed are also contained in the table in Section 3.16 of the Plan of Operations referenced above. These 2025 mitigation requirements have been included in **Table 15** in this plan.

9.5.4 Actions to Mitigate Impacts to Air Resource Impacts

Air Resource mitigation will be completed by following the requirements detailed in the Plan of Operations that was approved by the BLM. This plan and the mitigation details can be found in **Appendix J, LLV Mine Plan of Operations October 2025, V9, Section 3.16**. These 2025 mitigation requirements have been included in **Table 15** in this plan. In addition, the Company will comply with the Air Permit requirements as they are issued by the Utah Department of Environment.

9.5.5 Actions to Mitigate Impacts to Soil Resources

Soil resources impacts are mitigated by stockpiling soil for use in reclamation. There is more information on soil resources in **Section 6.5** and **Section 10.6**.

10.0 RECLAMATION PLAN (R647-4-110)

Each notice of intention shall include a reclamation plan, including maps or drawings as necessary, consisting of a narrative description of the proposed reclamation including, but not limited to:

10.1 CURRENT LAND USE AND PROPOSED POSTMINING LAND USE

A statement of the current land use and the proposed postmining land use for the disturbed area;

The current land use in Lisbon Valley is mining, rangeland, recreation, and wildlife habitat. Post-mining land use will be mining, rangeland, recreation, and wildlife habitat.

10.2 DESCRIPTION OF RECLAMATION OF ANCILLARY FACILITIES

A description of the manner and the extent to which roads, highwalls, slopes, impoundments, drainages, pits and ponds, piles, shafts and adits, drill holes, and similar structures will be reclaimed;

10.2.1 Drill Hole Plugging

All fresh water wells, monitor wells, and ISR wells scheduled to be removed will be abandoned by pulling the pumps and drill casing, and completely backfilling the holes from total depth up to the surface with bentonite using a tremie pipe by a Utah state licensed contractor in accordance with UAC R655-4-14.

The Company is proposing to leave eight monitor wells in place for an additional ten years following final closure, for post-closure monitoring purposes. These monitor wells, as described in more detail in the following sections, will be tested annually, with half of the wells screened in the Burro Canyon aquifer, and half of the wells screened in the Navajo aquifer. Due to the infrequency of testing, these wells will be powered by portable diesel generators during the annual water quality testing. Therefore, there is no need for electricity to remain after final closure.

10.2.2 Crusher, Conveyors, and Conveyor Tunnel

The crusher, conveyors, and overland bridge will all be removed during reclamation activities. The equipment will be hauled from the PO, where they will either be sold, recycled, and/or taken to designated landfill facilities. Associated concrete foundations will be broken and buried a minimum of ten feet below final topography. All power to the crusher, conveyors, and bridge will be disconnected. Buried powerlines will be left in place. Overhead powerlines and poles will be removed, and the areas regraded and reseeded.

10.2.3 Equipment Lineout and Breakroom

All equipment, buildings, and charging stations associated with the equipment lineout and breakroom will be removed with any associated footings broken and buried in place. Building and tank details are contained in **Table 16**. All electricity to the equipment lineout and breakroom will be disconnected, and all powerlines and poles removed. Throughout, the hardened surfaces will be broken, and the entire area topsoiled and re-seeded.

10.2.4 Equipment Maintenance and Fueling Station

The equipment maintenance buildings will be removed, and the foundations broken and buried in place. All fuel tanks will be drained by a proper and certified company, and the tanks removed from site. The lined containment will be pumped out by a certified company, and the liner will be removed to a facility that is approved for receipt of hydrocarbon-contaminated equipment. Throughout, the area will be regraded, with hardened surfaces broken, and the entire area topsoiled and re-seeded.

10.2.5 Removal of Buildings, Structures, and Facilities

All buildings will be removed from site upon closure of operations. Structures that may remain, as detailed in earlier sections, include certain access roads, evaporation cells, monitor wells, culverts, and the engineered drainage.

10.2.6 Roads, and other Ancillary Facilities

All surfaces, haul roads, and roads not deemed essential by DOGM, or the BLM will be reclaimed. Reclamation will include removal of asphalt (if applicable), ripping/re-grading, and re-seeding. The ripping and/or re-grading of the haul roads and adjacent slopes (if applicable) will be performed to match surrounding terrain and surface conditions.

10.2.7 Electrical Substation, Transformers, and Overhead Powerlines

All electrical substations, transformers, and overhead powerlines will be disconnected from electricity and removed from site. Associated concrete foundations will be broken and buried in place. Throughout, the area will be re-graded, with hardened surfaces broken, and the entire area topsoiled and re-seeded.

10.2.8 Natural Gas Pipeline

The natural gas pipeline is not owned by the Company. Reclamation of this pipeline is not the responsibility of the Company.

10.2.9 ISR Wellfields

As part of the Underground Injection Control permitting with the Utah Department of Environmental Quality, Division of Water Quality, ISR decommissioning and aquifer rinsing requirements were specified and permitted. Those requirements are described below and are incorporated by reference here.

10.2.9.1 *Completion of Economic Extraction*

At the stage when recovery of copper from the resource is calculated as no longer economic the addition/dosing of sulfuric acid is terminated.

10.2.9.2 *Rinsing*

A two-year rinsing process will include the following three steps:

Step 1--Wellfield resting: Injection will cease, and solution will rest in place for 7 months. During this rest period, solutions will neutralize, and hydraulic control will be maintained by pumping a subset of the extraction wells that are spatially distanced throughout the wellfield. Solutions will be pumped to the ISR dedicated collection ponds for evaporation.

Step 2--Wellfield recirculation: over the course of 9 months, approximately five pore volumes of solution will be circulated through the wellfield. Solution removed from the wellfield will be pumped to collection ponds for evaporation as described above. During this time, a lesser amount (approximately 300 gpm) of fresh makeup water will be injected into the wellfield. This strategy will continue to maintain hydraulic control.

Step 3—Pumping: one pore volume will be pumped from the wellfield and evaporated. As it is removed it will be replaced with a pore volume of fresh water from LVMC's nearby wells.

10.2.9.3 Closure Monitoring

During the two-year rinsing process, eight rounds of quarterly groundwater monitoring, will be conducted to evaluate the rinsing process. Six monitoring wells and four extraction wells will be monitored eight times during the rinse. Monitoring results will be reported to the regulators as required in the draft permit.

After completion of the rinsing process, wells will be plugged and abandoned.

Total decommissioning and rinsing time for the ISR mining areas is expected to be approximately three years (two years for rinsing and a year for well closure/abandonment). An additional five years will involve groundwater monitoring from the monitor wells.

All wellheads will be removed, along with all solution piping. The process ponds associated with the portable mineral extraction units will be drained of all liquids as part of the drain down. Once drained, the HDPE liner will be folded into the center of the pond areas, and the ponds will be filled in back to natural topography. A minimum of six inches of topsoil will then be placed over the top of the ponds, and the area will be seeded.

The SX plant will be closed and demolished. This will include appropriate disposal of operations fluids through recycling, closure and removal of any tanks, liners, buildings, and equipment. Any foundations may be broken up and buried after testing.

All power to the ISR wellfields will be disconnected. Buried powerlines will be left in place. Overhead powerlines and poles will be removed, and the areas regraded and reseeded.

Groundwater chemistry will be monitored as part of the closure, as required in the UIC permit issued by UDEQ.

10.2.9.4 Provisions for Post-Closure Management

Provision for post-closure management will be dependent upon the input from the Federal and State Agencies. Specific provisions to post-closure management regarding the ISR wellfields will be dependent upon input from the EPA, BLM, and UDWQ. Monitoring of the ISR wellfields is described in more detail below.

10.3 DETAILED DESCRIPTION OF SURFACE FACILITIES TO REMAIN

A detailed description of any surface facilities to be left as part of the postmining land use, including but not limited to buildings, utilities, roads, pads, ponds, pits and surface equipment;

10.3.1 Facilities Remaining Post-Closure

As described above, the only facilities expected to remain post closure are:

- Engineered drainages (**Appendix I**);
- Culverts associated with drainage plans and under the Lisbon Valley Road;
- Evaporation/Evapotranspiration cells near the HLP facilities; and
- Eight monitor wells and associated access roads.

In addition, the open pits, WRS facilities (including the landfill on WRS Facility – A Dump) and HLPs will be reclaimed but remain. The open pits will consist of a berm to restrict access, backfilled pits to cover the original groundwater elevation, (**Section 10.3.3**) benches that are above the backfill areas, along with the highwalls associated with the benches. The benches are designed to be a catchment for highwalls in the event of instability. Pits will also be fenced where berming is not appropriate due

to topography constraints. Backfilled areas and berms will be revegetated. The WRS and HLPs will be reclaimed as described below.

Finally, signage, roads, and other elements that may be required for use after closure will remain. The roads specifically were detailed by the BLM in their analysis in 2026. Appropriate signage will be installed to indicate restricted access areas, private property, and or dangerous conditions. Other elements may include stock tanks associated with leases, livestock watering locations associated with winter range, or access points associated with cultural properties. Some of these elements will only be developed as the project advances, so exact locations and specific elements are not currently available.

10.3.2 Surface Water Mitigation

Engineered drainages are installed as part of the operations. Engineered drainages are designed to last post-mining and will not be removed during closure activities. Culverts associated with the engineered drainage that will be installed under the Lisbon Valley Road will remain post-closure. All other culverts will be removed and the ephemeral drainages in those areas where culverts were installed will be re-formed to match the surrounding drainage channel. Sediment traps and erosion control structures, including rock check dams, may be expanded as necessary based on drainage monitoring in accordance with the SWPPP.

10.3.3 Mine Reclamation and Pit Backfilling

Mining in the open pits is performed in stages; pit backfilling will occur as a natural part of the operation. Upon closure of the operations, mine reclamation will include installation of a 6-foot-high berm around remaining high walls to enhance the safety of the public. Signage will be placed at least every 100-ft on the top of the berm indicating the presence of a drop-off. Access ramps will also be bermed off in similar fashion. Highwalls that will remain in the mines will be optimized to achieve a stable configuration using site testing, modeling, and optimizing pre-split. Final surface reclamation will include seeding and revegetation to a minimum of 70% of the baseline vegetation cover. The seeding method will vary and include hydroseeding, drill seeding, and aerial seeding with the objective to meet the reclamation standard.

If, after two years of monitoring, the seeding does not appear to be successful, additional seeding may occur as necessary.

10.3.3.1 Waste Rock Storage

The Company concurrently regrades and/or reclaim dumps as they are completed. This will include grading to a final contour that maximizes conformance with existing topography. WRS facilities as well as backfill will be regraded concurrently, but final reclamation involving topsoil placement may not occur until the WRS facility in its entirety has been completed. Roughened surfaces will be created by dozers tracks and, if necessary, scarifying seeding after topsoil placement has occurred. Rilled areas will be backfilled and repaired as necessary during the mine life. During final reclamation of the WRS, any additional rilling created by surface water runoff will be repaired as necessary prior to final topsoil placement.

Depending upon location, final surface reclamation will include the placement of six to twelve inches (6-12") of growth media, seeding and revegetation. The exception to this is an area of the Waste Dump C that revegetated to a level where disturbance to place topsoil would not be considered Best Management Practice. In this case, Waste Dump C remains with the existing vegetated areas, and only those areas that require re-disturbance will be re-graded, topsoiled, and re-seeded.

When the operational life of the landfill facility on Waste Dump A has ended, final capping will be accomplished using acid neutralizing waste rock from the surrounding WRS. The final cover will be no less than 12" in thickness. Following the final capping, topsoil will be spread to a depth of no less than 12" on top of the capped landfill. The topsoil will be taken from the topsoil stockpile located north of Waste Dump A.

Topsoil placement will likely occur in fall of the reclamation year. This will be done to allow for re-seeding of the area in late fall, which is the preferred re-seeding season. The seed mixture to be used will be approved by DOGM, BLM, and SITLA. If, during the subsequent years following final seeding, excessive rilling is seen to occur, rilled areas will continue to be backfilled and repaired as necessary to comply with the reclamation standards of R647-4-111.

Seeding in all areas of the active mine plan boundary will be performed using either aerial seeding, broadcast seeding, or other methods that have been proved to have viability within the LVCM.

10.3.4 Heap Leach Pad

To ensure long-term stability and reduced overall drain down, the leach pad surface will be crowned and/or graded outward to minimize infiltration. The leach pad will drain to designated drainage channels that eventually report to the designated stormwater catchment areas. Depending upon the channel length and slope the channels may be ripped on the slopes to minimize erosion.

Primary solution ditches will be partially filled (to the excavation height, approximately 18") with coarse, durable, and permeable material for the purpose of maintaining conveyance of subsurface drain down that is not intercepted by the piping system. During this process, the piping and solution monitoring ports will be protected for post-mining monitoring and effluent transport during ongoing drain down.

Any stormwater channels exiting the HLP will be separated from the underlying drain down channels either by a combination of filter fabric, a clay layer, HDPE, and/or some other mechanism. Stormwater drainages along the leach pad will be installed in such a manner as to ensure isolation of the heap effluent from stormwater runoff. Final designs will be location dependent and be submitted for evaluation to regulatory agencies, such as DOGM and UDWQ, as appropriate.

The final configuration for the leach pad is designed so that continuous slope lengths will be kept under 100 vertical feet over a distance of 250 horizontal feet in order to reduce flow velocity.

The HLP will experience an estimated five-year drain down period prior to final closure, followed by an additional five years of closure monitoring. This drain down period will follow practices that the Company has in place and are contained in **Appendix L**. Those practices include:

1. Recirculation of leach solution (referred to as 'effluent') back onto the HLP, and enhanced evaporation using sprayers, nozzles, wobblers, or other methods.
2. Pumping solutions from the SX-EW facilities, as well as residual acid and other appropriate operations solutions to processing ponds for recirculation onto the HLP, again with enhanced evaporation.
3. Decommissioning of the HLP once copper is no longer extracted at economic rates.

Upon stabilization of the drain down effluent, the HLP will be regraded with slopes flattened to 2.5H:1V, filling in the associated pipe ditches. The top of the HLP will be regraded to have a gentle fall to designated ripped drainage channels that will run the length of the HLP top and around the HLP slopes. Once grading has been complete, the top of the HLP will be capped, dependent upon location, with six or twelve inches (6" or 12") of clay, then HLP will be capped with at least eighteen inches (18") of coarse alluvium, followed by one (1) foot of topsoil/growth media. The HLP will then be seeded using mechanical, hydroseeding, drone seeding, or other appropriate method. Depending upon the technique for seeding that is chosen, the surface may be roughened prior to seeding. For the remaining closure period, the site will be monitored and repaired/reseeded as necessary.

After closure is completed, it is expected that evaporation will outpace precipitation on the HLP so there will be minimal influx of water that will not create drainage from the HLP. If in fact, drainage from the HLP continues after the HLP is capped and closed appropriate technologies will be employed to manage that drainage. At the current time, conversion of the ponds into evaporation ponds would be

the most appropriate management tool available; however, the Company commits to evaluate other technologies that may be available at the time if appropriate.

10.3.5 Solution and Storm Water Ponds

The solution and stormwater ponds will be converted into post-closure evaporation cells. Information on the heap drain down and proposed construction of the cells is found in **Appendix L**. As a general matter, ponds required for evaporation will be filled 50% with coarse material then capped with a crushed sandstone (sand) to act as a capillary layer to facilitate evaporation.

Stormwater ponds at the HLPs will be left intact for post-mining emergency storm water controls while the drain down of the HLP is ongoing. Once drain down has reached a stable condition and the HLPs surface has been reclaimed and deemed stable, stormwater ponds associated with the HLP will be reclaimed by folding in the HDPE liner and pushing material to create a more natural-looking stormwater collection area. This reclaimed pond would continue to act as a stormwater catchment in the event of a major storm event.

The reclaimed stormwater pond area may be designed to ensure stable connectivity continues between the reclaimed leach pad stormwater channel and natural channels, and possibly as overflow catchment for the evaporation cells. The pond would be reclaimed in such a manner that it would allow for infiltration and evaporation of stormwater during a specific design storm event, while excess stormwater during larger events could, depending upon location, be discharged. This concept is preliminary in nature and further refinement, and design will be performed in conjunction with DWQ and the Division at least one year prior to site closure by the Company. These ponds will have a beneficial long-term post-mining use for the continued diversion of stormwater from the leach pad to the natural drainages.

The three manmade water storage ponds (haul road pond and two GTO ponds) will be reclaimed by pushing material back into the ponds. As no HDPE or other liner material was used in the construction of these ponds, no further reclamation treatments are proposed. Upon regrading the ponds, the areas will be re-seeded.

The onsite constructed wetlands located north of the Truck Shop will be reclaimed by folding the liner inward and backfilling the area with material bermed during the original construction of the wetlands.

10.4 DESCRIPTION OF TREATMENT, LOCATION AND DISPOSITION OF DELETERIOUS MATERIALS

A description of the treatment, location and disposition of any deleterious or acid-forming materials generated and left on-site, including a map showing the location of such materials upon the completion of reclamation;

As part of the closure process, all toxic and/or deleterious materials (as defined by Utah Administrative Code R647-1-106) will be removed from site and taken to a designated recycling facility.

10.4.1 Waste Rock Selective Handling

Acid generating and uncertain waste rock that is not backfilled into the open pits will be isolated during standard mining operations within the waste dumps and effectively neutralized by encapsulation inside waste rock with an NPR three times the acid generation potential. Encapsulation thickness will include forty feet (40') of buffer material on all surrounding portions of the acid generating and uncertain waste rock. Waste dump surfaces will be sloped to 2.5H:1V and revegetated to stabilize the slopes and minimize erosion. The Waste Rock Management Plan in **Appendix C** includes on the cover page a picture of waste rock being encapsulated. Amounts of this material are included in **Table 13** and as operations progress through development/infill drilling and additional testwork, the amounts may be updated.

10.4.2 Reagents, Fuels, Oils, and Acid

A listing of tanks containing reagents, fuels, oils, and acid used by the Company is provided in **Table 17** (tank sizes are detailed in **Table 16**). All reagents, fuels, oils are contained in tanks, drums, totes, or other containers. Acid is contained in tanks and the leach circuit. All containers are located within secondary containment.

Upon closure, the SX/EW circuits will be isolated. All acid and acidic/copper-laden (non-hydrocarbon) solvents will be drained into the solution ponds for recycling onto the heap leach pad as part of the closure plan.

All hydrocarbons and organic solvents (including used oil, diesel, unleaded gasoline, etc.) will be isolated in their respective tanks and stored until removed by a vendor, dependent upon the inventory allocation system, in the event of repurchase, or a certified hydrocarbon recycling company. The company uses a pay on demand system for inventory and as such does not own the unused petroleum products stored in the tanks, vendors will have the right to recover the products they own,

In order to minimize product loss and conserve case, tank volumes will managed to ensure product amounts in the tanks are minimized and not wasted. In the event of an unplanned closure due to bankruptcy or other financial distress, volumes are estimated to be no more than 15% as production is maximized while expenditures are minimized. In the event of a planned closure, volumes would be less approximately 10% as planned drawdowns limit product loss.

10.4.3 Spent Ore

The Company mines ore and sends it to the leach pad. Once the ore is placed on the leach pad, it will remain on the leach pad after the final drain down. The slopes of the leach pad will be pushed down to a 2.5H:1V slope. Refer to **Figure 13** for reclamation and topsoil placement practices. Because the spent ore may be considered deleterious in nature, final reclamation of the leach pad will include three to four feet (3'-4') of capping material consisting of clay, rock and/or a mixture of inert rock and alluvium as detailed in **Section 10.6**.

10.4.4 Process Solution

The Company has developed a Process Fluid Management Plan and Closure Plan for the handling of process solutions both during operations and during closure and post-closure activities. The Plan is found in **Appendix L** and is based on actual drain down experienced at the site during the last site shutdown. Long-term process solution chemistry will be estimated by the employment of water quality tests on PLS and RAFF solution, as well as water quality tests on humidity cell tests (HCT).

Upon closure of the operations, the Company will continue to recirculate process solution onto the leach pad while closure activities and forced evaporation methods are employed.

It is anticipated that the heap ore will have a high level of remaining acid neutralizing potential. The projected amount of acid neutralizing potential of the ore on the HLPs was evaluated using HCT and other techniques. To ensure drain down effluent does not follow existing flow paths, the heap surface may need to be ripped \ during forced evaporation and/or prior to final capping. Heap closure will maintain the designed drainage regime as the underlying liner slope promotes water flow into the process ponds. Solution ditches along the perimeter of the HLP will be maintained during drain down activities. The ditches will be utilized during final reclamation as well by partially filling the ditches with competent rock to create a french drain as the heap is re-graded for final reclamation. This is conceptual in nature and will be refined in coordination with DWQ and the Division. Existing ponds and solution ditches will be repaired and protected as needed to ensure long-term fluid management is maintained.

To ensure process solution quantities are reduced as quickly and efficiently as possible, the Company will implement enforced evaporation techniques that may include enhanced evaporation nozzles installed on existing heap leach piping. The process solution will be evaporated on the leach pad

surface and process ponds and will be evaporated until remaining drain down solution can be managed by the evapotranspiration /evaporation cells (**Appendix L**).

The long-term heap effluent will be managed by evaporation (EV) cells, and based on site-specific modeling parameters and outputs, is estimated to be less than 14 gpm after 4 years. This is estimated to be managed by the EV cells with remote-sensor evaporation fountains. This drain down rate will continue to decrease gradually until a static state is reached. The final EV cell designs will be finalized to accommodate the typical steady state flow rate.

The PLS, ILS, RAFF and Stormwater Pond will be converted into EV cells by first placing 3' of sand, possibly sourced from crusher reject material in the bottom of the dried and double lined ponds. This layer will protect the HDPE from the rock layer. Next, 8' of inert and durable rock will be placed in the cells on top of the 3' cushion layer. The rock will act as a permeable layer with large void space for fluid storage.

Finally, if conversion to evapotranspiration (ET) cells is required to manage solution volume or quality, the ET cells will be capped with 2' of growth media. The rock layer will be capped with 1' of sand that will act as a capillary layer between the rock and the capping growth media. While the purpose of the ET cells is to allow for enhanced fluid dispersal through transpiration, the elevated TDS of the process solution may not support plant growth. Sturdier plants and other methods of final capping will continue to be evaluated as the results from the humidity cell tests provide a more adequate representation of the post-closure drain down solution chemistry. It should be noted that the designs for the ET cells are conceptual and will be further refined and engineered in coordination with DWQ and the Division.

10.4.4.1 Process Fluid Characteristics

The Company has used HCT studies and other analyses to model the potential long-term characteristics of the process fluid as drain down continues through the heaped ore. The general characteristics are estimated based upon data that is known presently by the Company. Such data includes:

1. 24-week Humidity Cell Test of numerous leach pad ore samples taken spatially and vertically distributed within the existing leach pad
2. 2-year study of acid consumption and neutralization potential of LVCM ore
3. MWMP data on LVCM rock types from GTO, Centennial, Sentinel East, and Sentinel West
4. Ground water quality data for the valley fill, BC, and N aquifers in the LVCM
5. Laboratory analysis of PLS and ILS

The Company continues to perform HCT, MWMP, and other studies on the ore and effluent.

To estimate the potential long-term characteristics of the process effluent, it is first important to understand the basic rock type and its chemical makeup that is contained within the heap leach pad. The primary ore host within the LVCM is Bed 15. Bed 15 is composed of the Burro Canyon formation, which, as summarized from the Company's extensive exploration hole database, is a fine-grained to medium-grained white sandstone and which is usually quite pure in form.

The Company has kept detailed records of the ore host encountered at the LVCM as mining was performed starting in 2006. Moreover, the Company has collected quarterly samples of the different beds that were mined and sent them off for MWMP. As detailed in the Company's Waste Rock Management Plan, the purpose of performing the MWMP is to provide proper characterization and handling of mined rock to limit its potential to generate acid or liberate other constituents, primarily metals, into the environment. The results of the MWMP provide an indication of what, if any, constituents may release from the rock as a function of time.

From the Company's MWMP dataset, Bed 15 results were extracted. The results of the Bed 15 MWMP indicates that calcium stays relatively high, having a MWMP result of 18.84 mg/L, and all other elements were well below the limit for the site's background groundwater quality (Appendix D). Therefore, from

the standpoint of native rock, Bed 15 ore is quite inert and is expected, on its own, to have no long-term acid generation potential or metal mobility potential.

The process of extracting the copper from the ore uses sulfuric acid. This acid, when extracting copper, reduces the overall pH of the saturated portions of the leach pad in order to liberate the copper from the rock. This acidification could cause other constituents to mobilize beyond what was seen in the MWMP results. The question, therefore, is how long the acidic solution will stay acidic once drain down occurs and no additional acid is applied to the leach pad.

During a period between 2016 and 2018, the Company performed a two-year test of the average acid application rate and consumption of the LVCM ore. The results of this two-year study show that even at total saturation of the leach pad, which, by the very nature of leach pads, never reaches 100% saturation of the actual rock (unlike in other types of extractive processes such as vat leaching and agitated leaching), the ore itself maintains significant acid neutralization potential. And while these extrapolated numbers are modeled, the model shows a complete re-neutralization of the process effluent to be reached within 300 days of cessation of application of fresh acid.

These findings are further supported by the 24-week HCT that was performed in 2021. The results of this test are summarized in the 2021 Annual Report, and show an overall rise in pH, with a dramatic decrease in acidity. The decrease in acidity correlates with the precipitation of metals out of solution, and a decrease in TDS within the effluent.

The modeled time for drain down and monitored evaporation is estimated at four (4) years from initial shutdown of the plant, after which all remaining solution will be captured by the EV cells. Therefore, it is predicted that the effluent will increase in pH during this period as a function of reduced amount of solution and remaining acid neutralizing potential of the ore itself. What that final pH will be is uncertain, however, based upon the two-year test, and the 24-week HCT, the pH will rise, and will inevitably cause metals to precipitate out of solution. This precipitated metal will be contained within the heap leach pad and the process ponds and encapsulated by the reclamation of the leach pad itself. Long term evaporation of drain down will result in precipitated sludge and metals in the evaporation cells.

To provide a basis for what metals may be contained in the solution prior to a pH rise, the Company has performed a one-time analytical test of the PLS and ILS. While not representative of drain down solution, this test provides a baseline for what metals are present and in solution at a low pH. The complete results can be seen in **Table 18**.

The dissolved metals are typical of a copper solution at a low pH. Neither the PLS nor ILS exceed the UDWQ allowable limits for any measured metal other than cadmium. As the pH of a system rises, significant amounts of cadmium and other soluble metals will precipitate out of solution. Moreover, as the solution is recycled through the leach pad during drain down and forced evaporation, a layer of precipitate will naturally form on the surface of the leach pad, reducing the permeability and potentially acting as a complex to bind the metals from continued dissolution. Therefore, for the interim, it may be assumed that the process effluent will neutralize to some greater or lesser degree during the 4 year drain down.

10.5 PLANTING PROGRAM TO REVEGETATE THE DISTURBED AREA

A seeding program as best calculated to revegetate the disturbed area.

10.6 PLANS FOR GRADING, STABILIZATION, TOPSOIL, AND SEEDING

Plans shall include, at a minimum, grading and/or stabilization procedures, topsoil replacement, seed bed preparation, seed mixture(s) and rate(s), and timing of seeding (fall seeding is preferred timing);

10.6.1 Topsoil

As stated in previous sections, initial disturbance will include clearing the area and collecting the topsoil (growth media) for use in reclamation activities. Based on the expected collection of an average of 3.5

feet of topsoil during initial disturbance activities, the activities proposed would yield sufficient quantities of topsoil for use in reclamation as shown in **Table 19**.

Growth media/topsoil will be spread over the WRS facilities, portions of the backfilled pits, and the HLP using loaders, haul trucks, bulldozers, and graders. Pit highwalls and floors, roads and some yards/storage areas will not be covered with growth media.

Growth media will be spread in the same way for all the reclamation across the site, however the WRS and backfill areas may have additional roughening to the surface, including dozer basins, light ripping, or mechanical seeding techniques. The HLP will have a cap of inert material using a dozer with no compaction or smoothing which will leave areas for seed beds. If necessary, light ripping may occur.

Dependent upon location, final surface reclamation will include the placement of six to twelve inch (16" to 2") of growth media, seeding and revegetation to a minimum of 70% of the baseline vegetation cover.

10.6.2 Regrading and Reshaping

The WRSs and pit backfilled areas will be completed with breaks in slopes, roughened slopes and maximum slope angle 2.5H:1V. Surface water is diverted around the toe of the WRS and backfilled open pits where possible.

The Company will concurrently reclaim the WRSs and backfilled open pits as they are completed. Final surface reclamation will include the placement of topsoil or growth media salvaged during operations as deemed necessary for the soil types, seeding and revegetation. This will include grading to a final contour that maximizes conformance with existing topography. Roughened surfaces are created by dozers spreading the media, if necessary, ripping along contour to approximately 1.5 feet in depth may be necessary.

All haul roads and roads not deemed essential by DOGM, or the BLM will be reclaimed. Reclamation will include ripping/re-grading and re-seeding.

10.6.3 Seeding Method

The seeding method will vary and include broadcasting, mechanical seeding, hydroseeding, and aerial seeding with the objective to meet the reclamation standard of 70% of the baseline vegetation cover.

Seed will be placed using a mechanical seeding, aerial seeding, hydroseeding, or other method that is appropriate based on the time of reclamation and the technologies available. Seeding activities will be scheduled for the fall when possible. Rilled areas created due to uncontrolled precipitation runoff will be backfilled and repaired as necessary through the reclamation period. Those rilled areas will be re-seeded to ensure soil stability is achieved.

The Company will work with the local landowners, the BLM, and the State of Utah to ensure a final reclamation plan conforms with BLM requirements for mine reclamation under 43 CFR 3809.420. As the area is generally used for rangeland, it is the Company's goal to ensure post-closure use is focused on maximizing grasses and forbs suitable for the continuation of a healthy range.

Seeding will be performed with the seed mix found in **Table 11**, based on the rangeland and vegetation surveys performed as well as on-site reclamation testing.

10.6.4 Fertilization

No fertilizers will be used.

10.6.5 Timing of Seeding

If possible, seeding will be conducted in the fall up and until snow begins to accumulate.

10.7 ALTERNATIVE PROCEDURE TO MINIMIZE EROSION OR SILTATION

Where there is no original protective cover, an alternate practical procedure must be proposed to minimize or control erosion or siltation.

Lisbon Valley is currently not proposing an alternative procedure.

10.8 STATEMENT THAT THE OPERATOR WILL CONDUCT RECLAMATION

A statement that the operator will conduct reclamation as required by these rules.

The Company is committed to successful reclamation of the mine site with a minimum of 70% of the baseline vegetation cover. Concurrent reclamation, permit compliance, and surety demonstrate this commitment.

11.0 RECLAMATION PRACTICES (R647-4-111)

During reclamation, the operator shall conform to the following practices unless the Division grants a variance in writing:

During reclamation, the Company will conform to the following requirements.

11.1 PUBLIC SAFETY AND WELFARE

Public Safety and Welfare - The operator shall minimize hazards to the public safety and welfare following completion of operations. Methods to minimize hazards shall include but not be limited to:

- The permanent sealing of shafts and tunnels;
- The disposal of trash, scrap metal and wood, buildings, extraneous debris, and other materials incident to mining;
- The plugging of drill, core, or other exploratory holes as set forth in Rule R647-4-108;
- The posting of appropriate warning signs in locations where public access to operations is readily available;
- The construction of berms, fences and/or barriers above highwalls or other excavations when required by the Division.

See the discussion in **Section 7.1**.

11.2 DRAINAGES

Drainages - If natural channels have been affected by mining operations, then reclamation must be performed such that the channels will be left in a stable condition with respect to actual and reasonably expected water flow so as to avoid or minimize future damage to the hydrologic system.

See the discussion in **Section 7.2**.

11.3 EROSION CONTROL

Erosion Control - Reclamation shall be conducted in a manner such that sediment from disturbed areas is adequately controlled. The degree of erosion control shall be appropriate for the site-specific and regional conditions of topography, soil, drainage, water quality or other characteristics.

See the discussion in **Section 7.3**.

11.4 DELETERIOUS MATERIALS

Deleterious Materials - All deleterious or potentially deleterious material shall be safely removed from the site or left in an isolated or neutralized condition such that adverse environmental effects are eliminated or controlled.

See the discussion in **Section 7.4**.

11.5 LAND USE

Land Use - The operator shall leave the on-site area in a condition which is capable of supporting the postmining land use.

See the discussion in **Section 10.1**.

11.6 SLOPES

Slopes - Waste piles, spoil piles and fills shall be regraded to a stable configuration and shall be sloped to minimize safety hazards and erosion while providing for successful revegetation.

See the discussion in **Section 10.3**.

11.7 HIGHWALLS

Highwalls - In surface mining and in open cuts for pads or roadways, highwalls shall be reclaimed and stabilized by backfilling against them or by cutting the wall back to achieve a slope angle of 45 degrees or less.

See the discussion in **Section 9.4** and **Section 10.3**.

11.8 ROADS AND PADS

Roads and Pads - On-site roads and pads shall be reclaimed when they are no longer needed for operations. When a road or pad is to be turned over to the property owner or managing agency for continuing use, the operator shall turn over the property with adequate surface drainage structures and in a condition suitable for continued use.

See the discussion in **Section 10.2.6**.

11.9 DAMS AND IMPOUNDMENTS

Dams and Impoundments - Water impounding structures shall be reclaimed so as to be self-draining and mechanically stable unless shown to have sound hydrologic design and to be beneficial to the postmining land use.

See the discussion in **Section 10.3.5**. There are no impoundments that are 20 feet in height; the incised ponds described in **Section 10.3.5** contain more than 20 acre-feet of storage capacity.

11.10 TRENCHES AND PITS

Trenches and Pits - Trenches and small pits shall be reclaimed.

See the discussion in **Section 10.3.3**.

11.11 STRUCTURES AND EQUIPMENT

Structures and Equipment - Structures, rail lines, utility connections, equipment, and debris shall be buried or removed.

See the discussion in **Section 10.2**.

11.12 TOPSOIL REDISTRIBUTION

Topsoil Redistribution - After final grading, soil materials shall be redistributed on a stable surface, so as to minimize erosion, prevent undue compaction and promote revegetation.

See the discussion in **Section 10.6**.

11.13 REVEGETATION

Revegetation - The species seeded shall include adaptable perennial species that will grow on the site, provide basic soil and watershed protection, and support the postmining land use.

Revegetation shall be considered accomplished when:

- *The revegetation has achieved 70 percent of the pre-mining vegetative ground cover. If the*

pre-mining vegetative ground cover is unknown, the ground cover of an adjacent undisturbed area that is representative of the pre-mining ground cover will be used as a standard. Also, the vegetation has survived three growing seasons following the last seeding, fertilization or irrigation, unless such practices are to continue as part of the postmining land use; or

- *The Division determines that the revegetation work has been satisfactorily completed within practical limits.*

See the discussion in **Section 10.6**.

12.0 VARIANCE (R647-4-112)

The operator may request a variance from Rule R647-4-107, 108, or 111, by submitting the following information which will be considered by the Division on a site-specific basis:

- The rule(s) as to which a variance is requested;
- The variance requested and a description of the area that would be affected by the variance;
- Justification for the variance;
- Alternate methods or measures to be utilized.

A variance shall be granted if the alternative method or measure proposed will be consistent with the Act.

Any variance must be specifically approved by the Division in writing.

The Company is not requesting a variance from R647 at this time.

13.0 SURETY (R647-4-113)

The Company is actively engaged with the Division for the formulation of an up-to-date reclamation cost estimate. This RCE will be used by the Company and will be adjusted accordingly as new technology and information becomes known.

14.0 FAILURE TO RECLAIM (R647-4-114)

If the operator fails or refuses to conduct reclamation as outlined in the approved notice of intention, the Board may, after notice and hearing, order that reclamation be conducted by the Division and that:

- The costs and expenses of reclamation, together with costs of collection including attorney's fees, be recovered in a civil action brought by the attorney general against the operator in any appropriate court; or
- Any surety filed for this purpose be forfeited. With respect to the surety filed with the Division, the Board shall request the Attorney General to take the necessary legal action to enforce and collect the amount of liability. Where surety or a bond has been filed with other governmental agencies, the Board shall notify such agency of the hearing findings, and seek forfeiture concurrence as necessary.

The Company understands the implications if they fail to reclaim.

15.0 REVISIONS (R647-4-118)

In order to revise a notice of intention, an operator shall file a Notice of Intention to Revise Large Mining Operations (FORM MR-REV). This notice of intention must include all information concerning the revision that would have been required in the original notice of intention.

A Notice of Intention to Revise Large Mining Operations (FORM MR-REV) will be processed and considered for approval by the Division in the same manner as an original notice of intention. The operator will be authorized and bound by the requirements of the existing approved notice until the revision is acted upon and any revised surety requirements are satisfied. Those portions of the approved notice of intention not subject to the revision will not be subject to review under this provision.

Large mining operations which have a disturbed area of ten acres or less in an incorporated area of a county or twenty acres or less in an unincorporated area of a county may refile as a small mining operation. Reclaimed areas must meet full bond release requirements before they can be excluded from the disturbed acreage.

The Company is requesting a revision of its existing NOI M/037/0088 for Lisbon Valley Mine.

16.0 AMENDMENTS (R647-4-119)

An amendment is an insignificant change to the approved notice of intention. The Division will review the change and make the determination of significance on a case-by-case basis.

A request for an amendment should be filed on the Notice of Intention to Revise Large Mining Operations (FORM MR- REV). An amendment of a large mining operation requires Division approval but does not require public notice.

The Company believes this request meets the definition of a revision and is requesting a revision.

17.0 REPORTS (R647-4-121)

On or before January 31 of each year, unless waived in writing by the Division, each operator conducting large mining operations must file an Annual Report of Mining Operations (FORM MR-AR) describing its operations during the preceding calendar year. Form MR-AR, includes:

- *The location of the operation and file number of the approved notice of intention;*
- *The gross amounts of ore and waste materials moved during the year, as well as the disposition of such materials;*
- *The reclamation work performed during the year and new surface disturbances created during the year.*
- *A narrative description of ore extraction, on-site primary processing, exploration, site development work, maintenance, reclamation, and other work performed at the mine site during the year.*

The operator shall include an updated map depicting surface disturbance and reclamation performed during the year, prepared in accordance with Rule R647-4-105.

If an operator is in suspension under R647-4-117, the report submitted by the operator must include the information required by R647-4-121.1 and 121.2, as applicable, and:

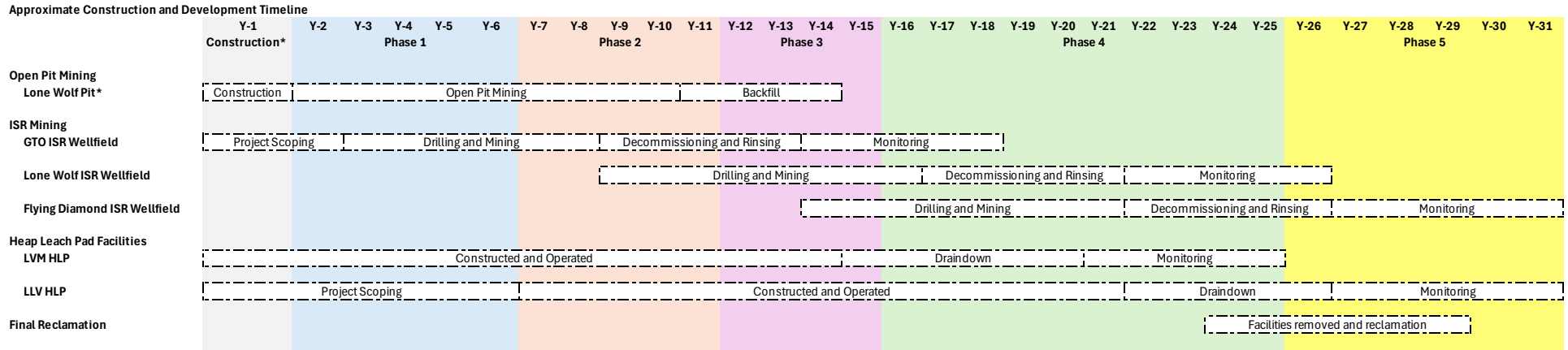
- *The date suspension began or is anticipated to begin;*
- *The date of the last self-inspection and the results of that inspection including, but not limited to, whether the property remains in a safe, environmentally stable condition;*
- *Any steps taken to return the property to, or maintain the property in, a safe, environmentally stable condition; and*
- *Any other information required by the Division under R647-4-117.2.12.*

The operator shall keep and maintain timely records relating to the operator's performance under the Act and shall make these records available to the Division upon request.

The Company will provide the required information.

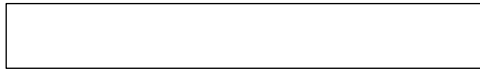
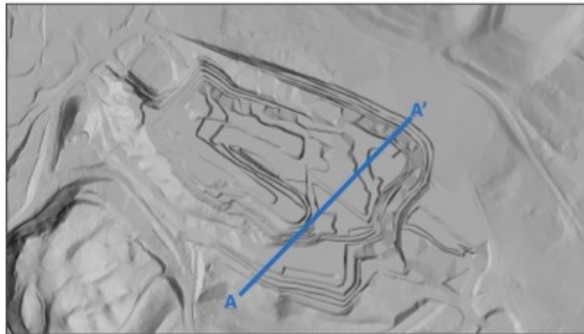
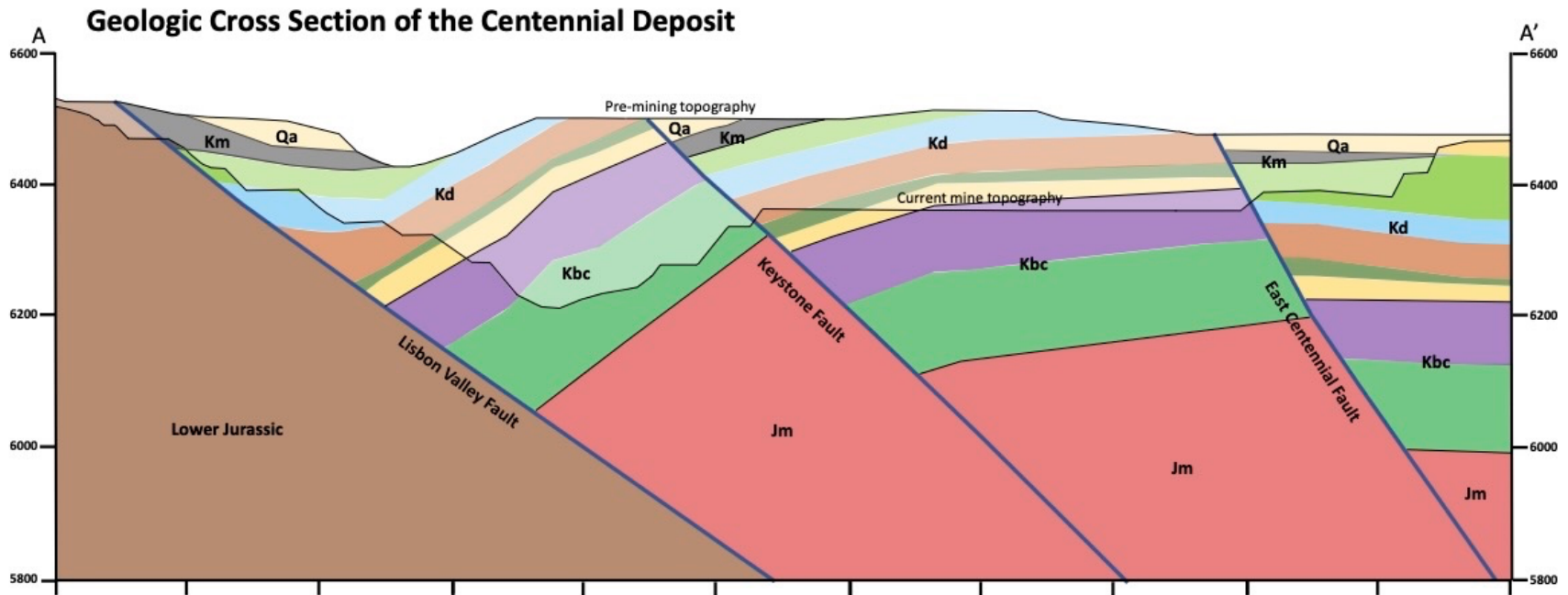
Diagrams

Diagram 1: Operational Duration and Schedule



* Includes natural gas line reroute, process ponds, solution pipelines, crushing facility, conveyors, powerlines, overburden removal from Lone Wolf Pit, and access road construction/improvements

Diagram 2: Geologic Cross Section Centennial Deposit



- | | |
|--------------|----------------|
| Qa Alluvium | Kd Bed 13 |
| Km Mancos Fm | Kbc Bed 14 |
| Kd Beds 3-5 | Kbc Bed 15 |
| Kd Beds 6-10 | Jm Morrison Fm |
| Kd Bed 11 | Lower Jurassic |
| Kd Bed 12 | Fault |

Diagram 3 Geologic Cross Section GTO Deposit

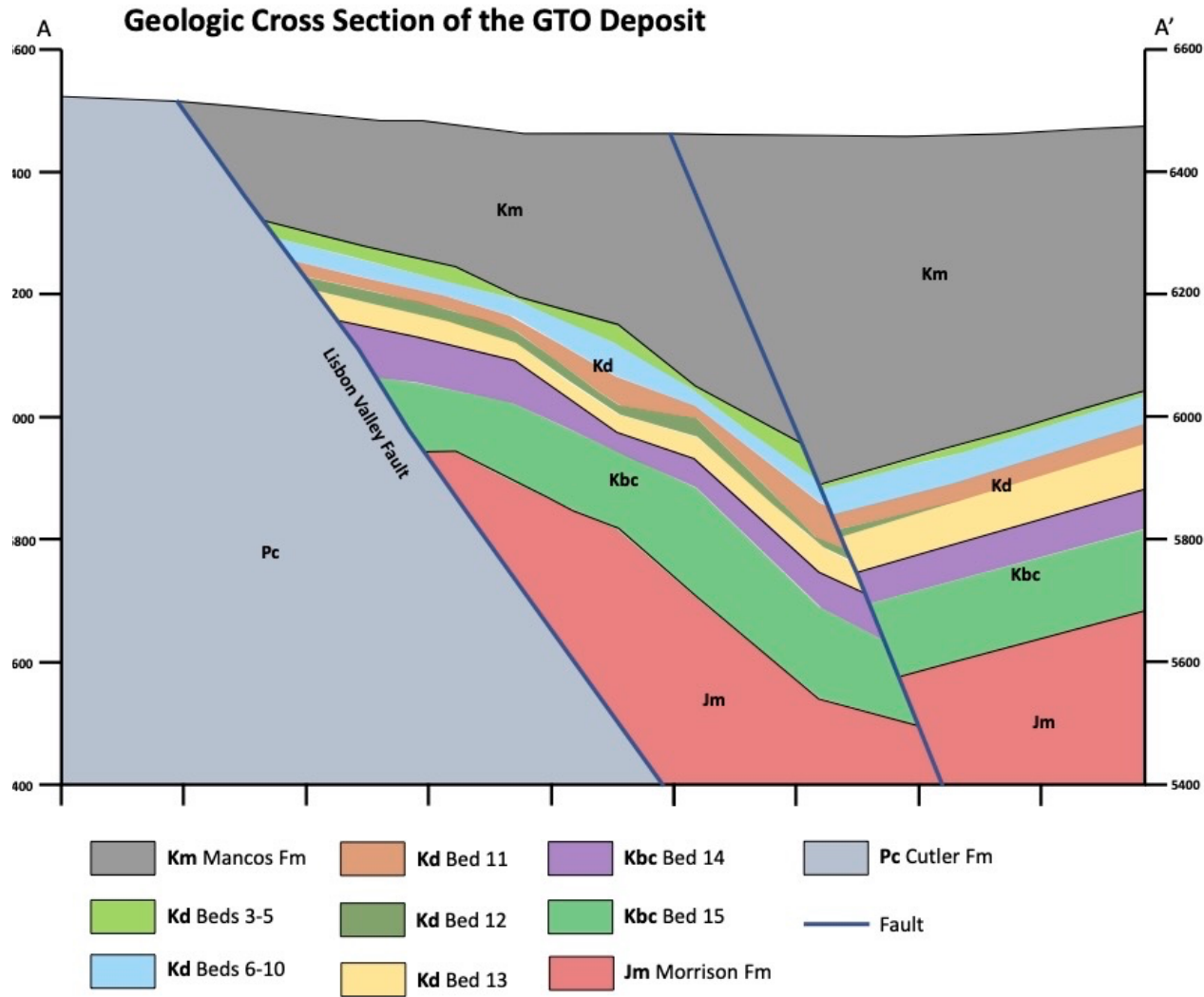


Diagram 4: Geologic Cross Section Sentinel Deposit

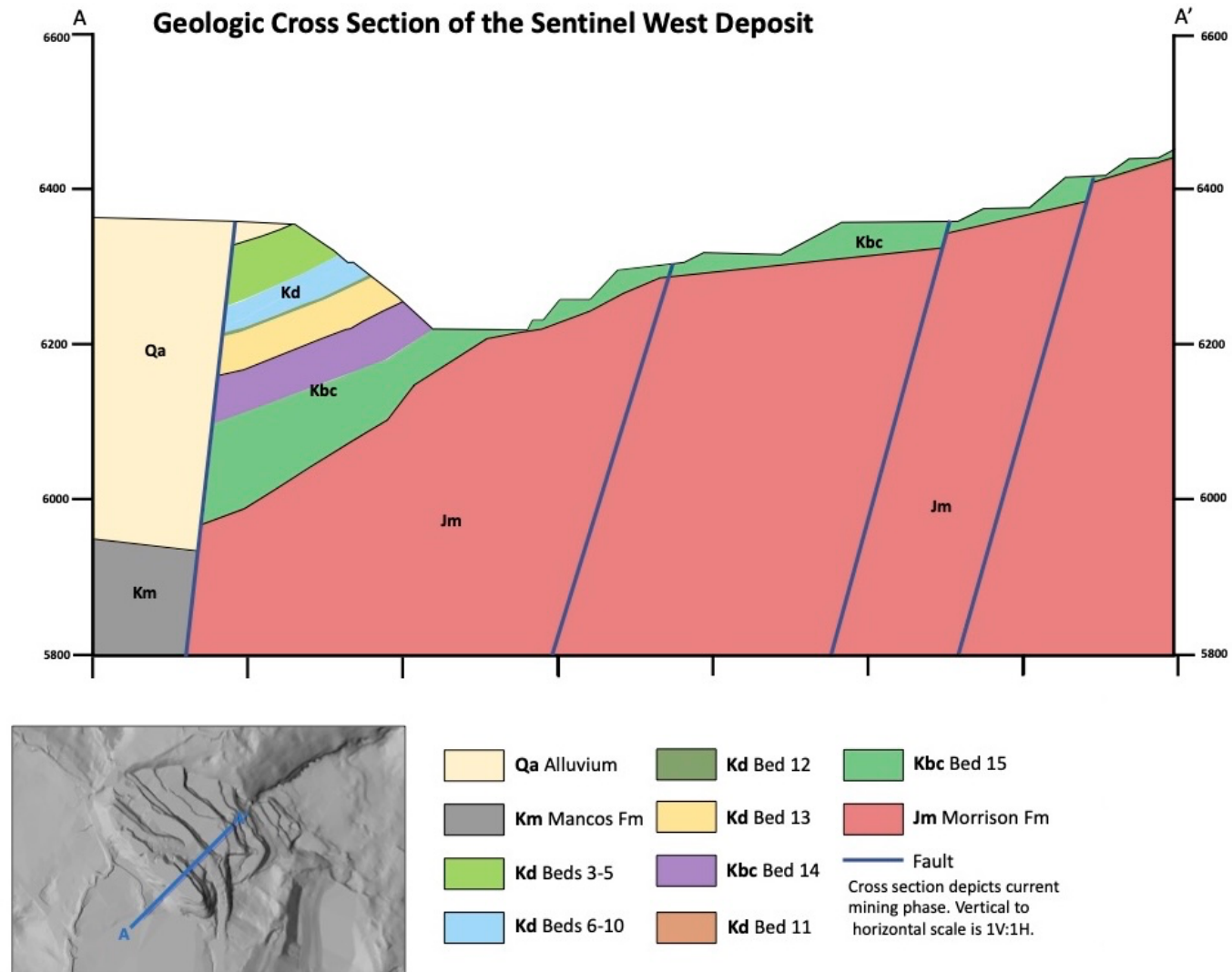


Diagram 5: Lone Wolf Pit Outline with Cross Sections

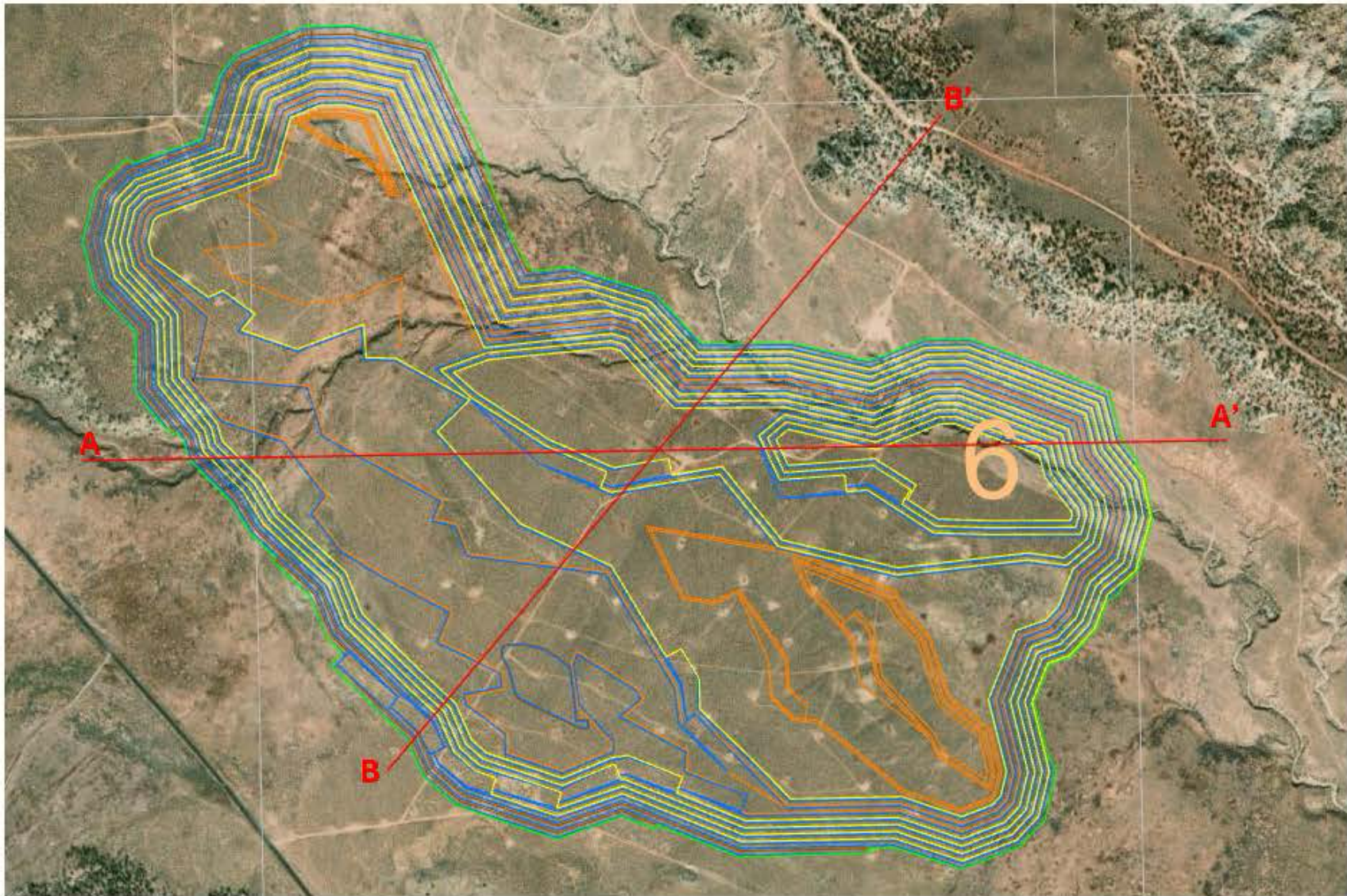


Diagram 6: Conceptual cross-sections of the Lone Wolf Pit

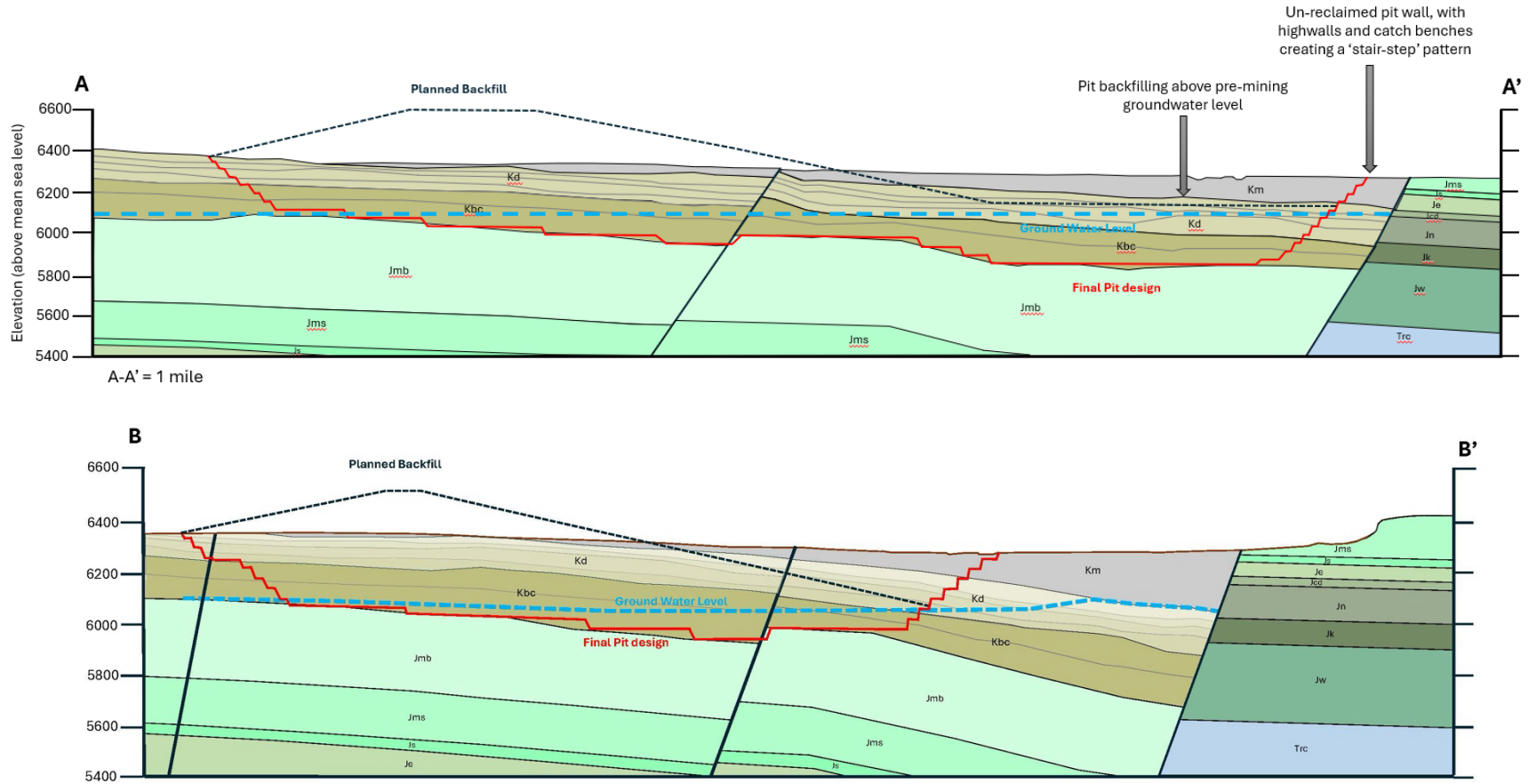
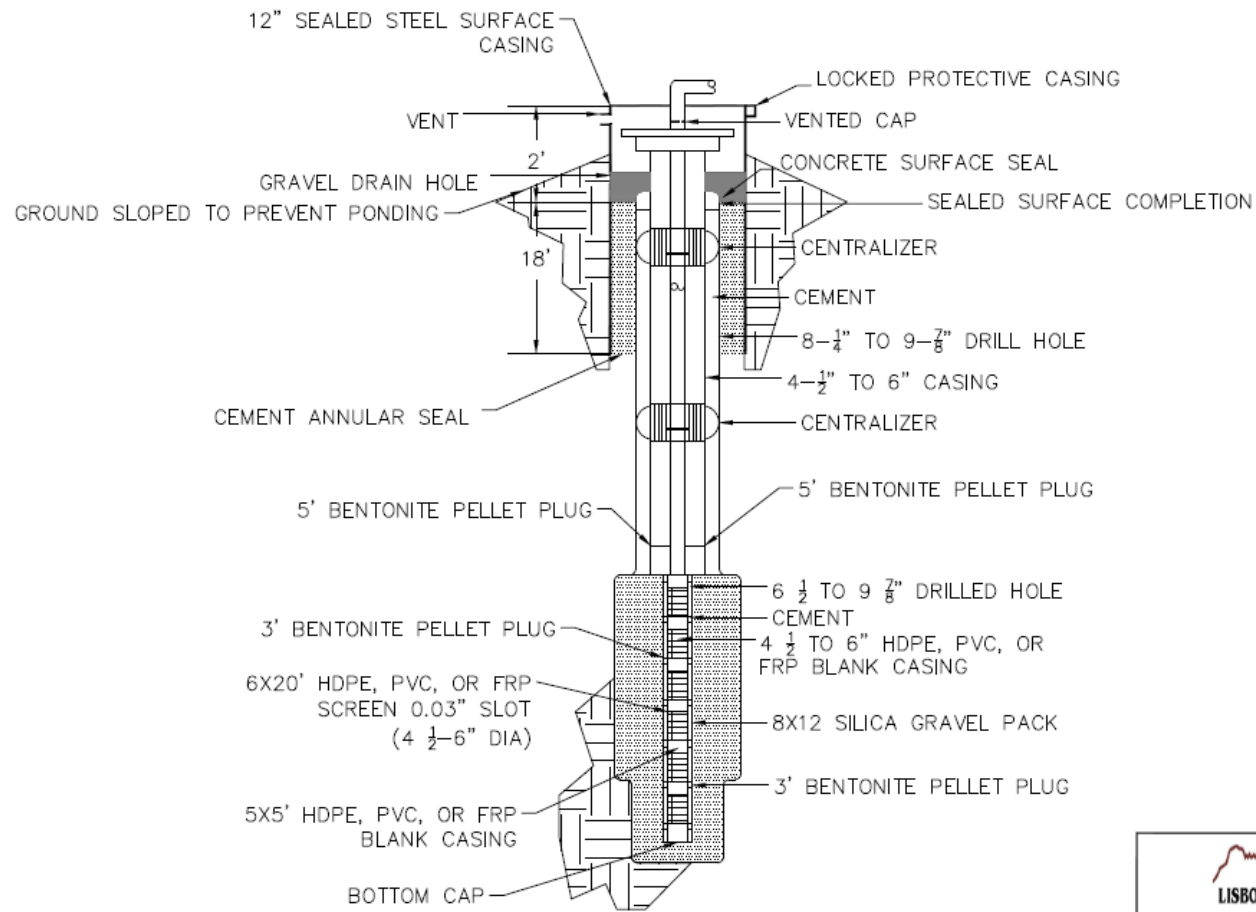



Diagram 7: Typical Injection Well Construction

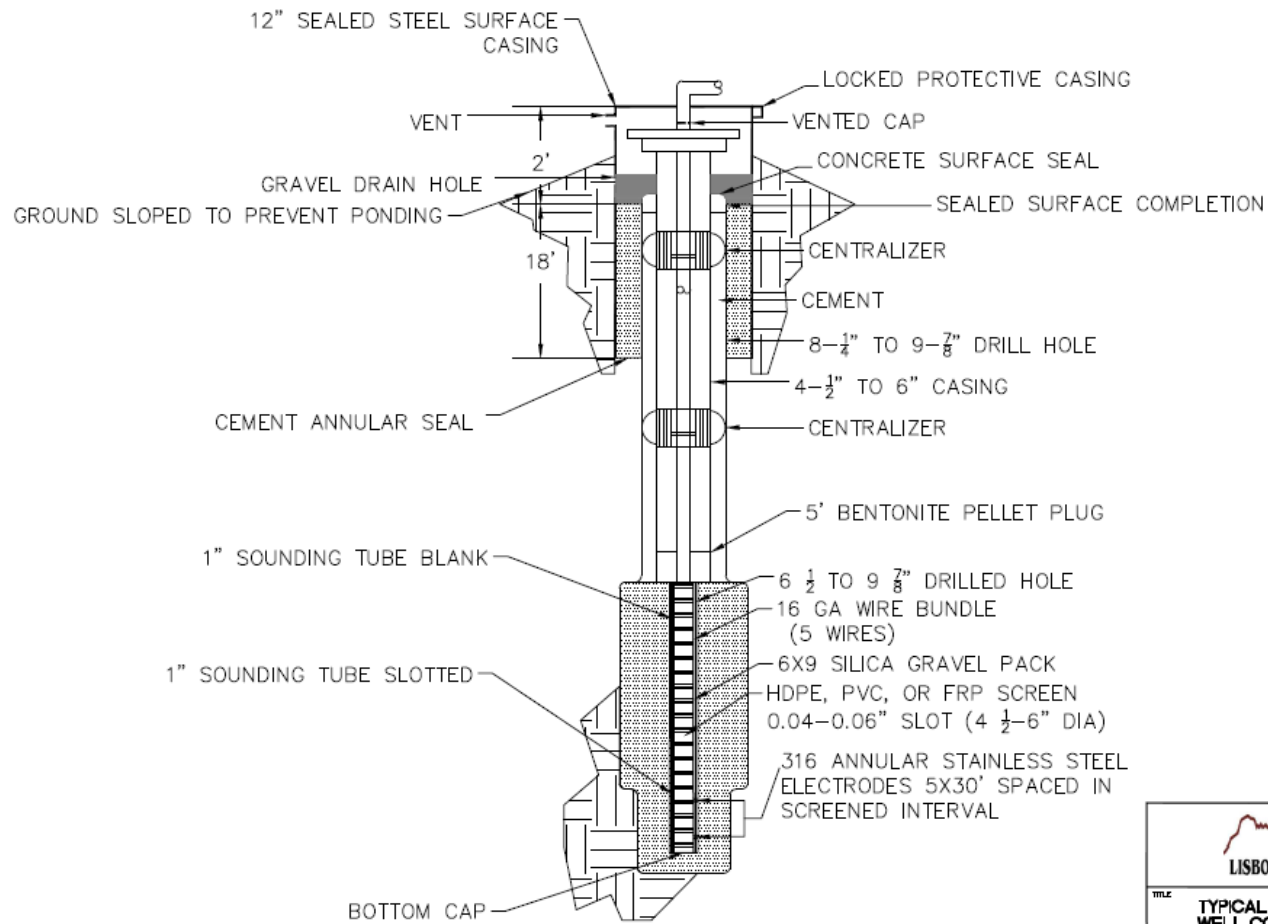


 LISBON VALLEY MINING CO				
TITLE				
TYPICAL LVMC INJECTION WELL CONSTRUCTION (500')				
PROJECT				

SITE				

CLIENT				
LISBON VALLEY MINING				
DESIGNED	CHECKED	FILENAME	DATE	SHEET
LAK	---	WELLCONSTDWG	SEPT 2019	1

Diagram 8: Typical Production Well Construction




 LISBON VALLEY MINING CO			
TITLE	TYPICAL LVMC EXTRACTION WELL CONSTRUCTION (500')		
PROJECT	---		
SITE	---		
CLIENT	LISBON VALLEY MINING		
DESIGNED	CHECKED	FILENAME	DATE
LAK	---	WELLCONSTDWG	SEPT 2019
			SHEET 2

Diagram 9: Leach and Copper Production Cycle

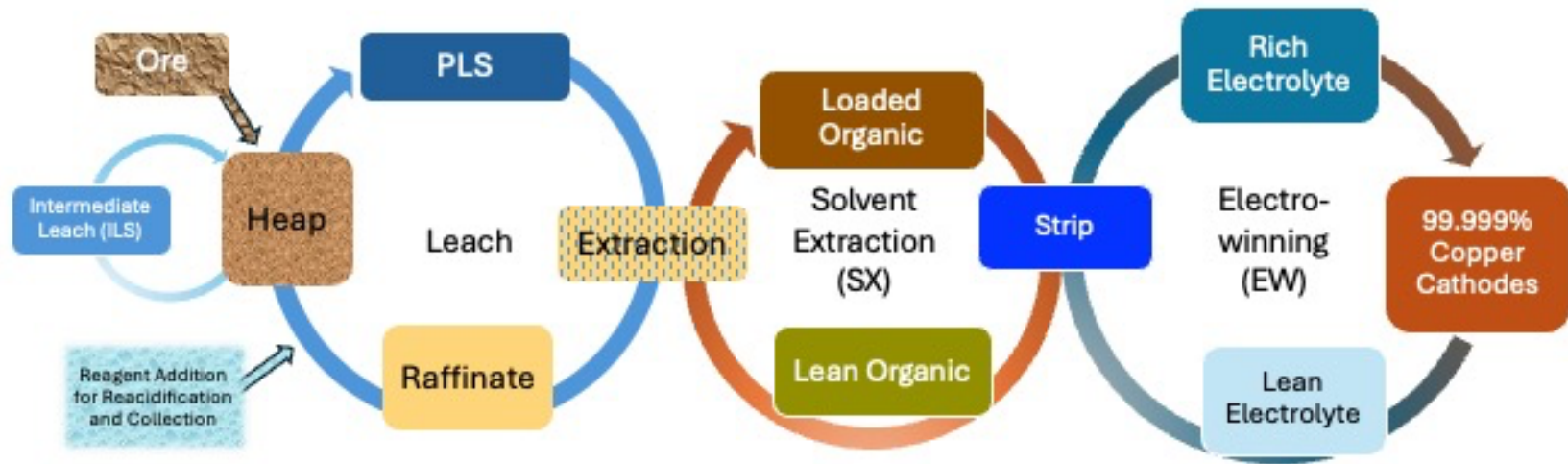


Diagram 10: Crusher Arrangement and General Size

Lone Wolf ore Processing
 (note - dwg Not to Scale)

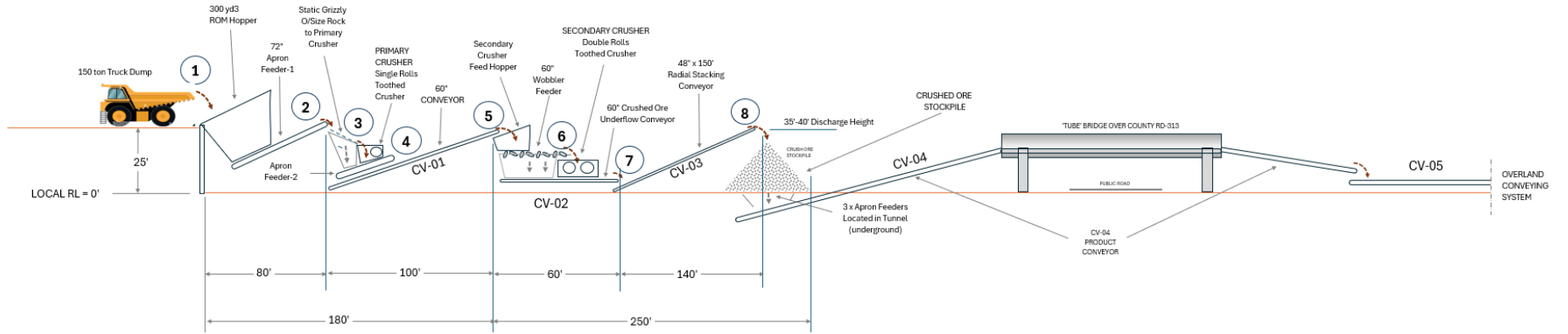


Diagram 11: Tube Gallery Isometric View

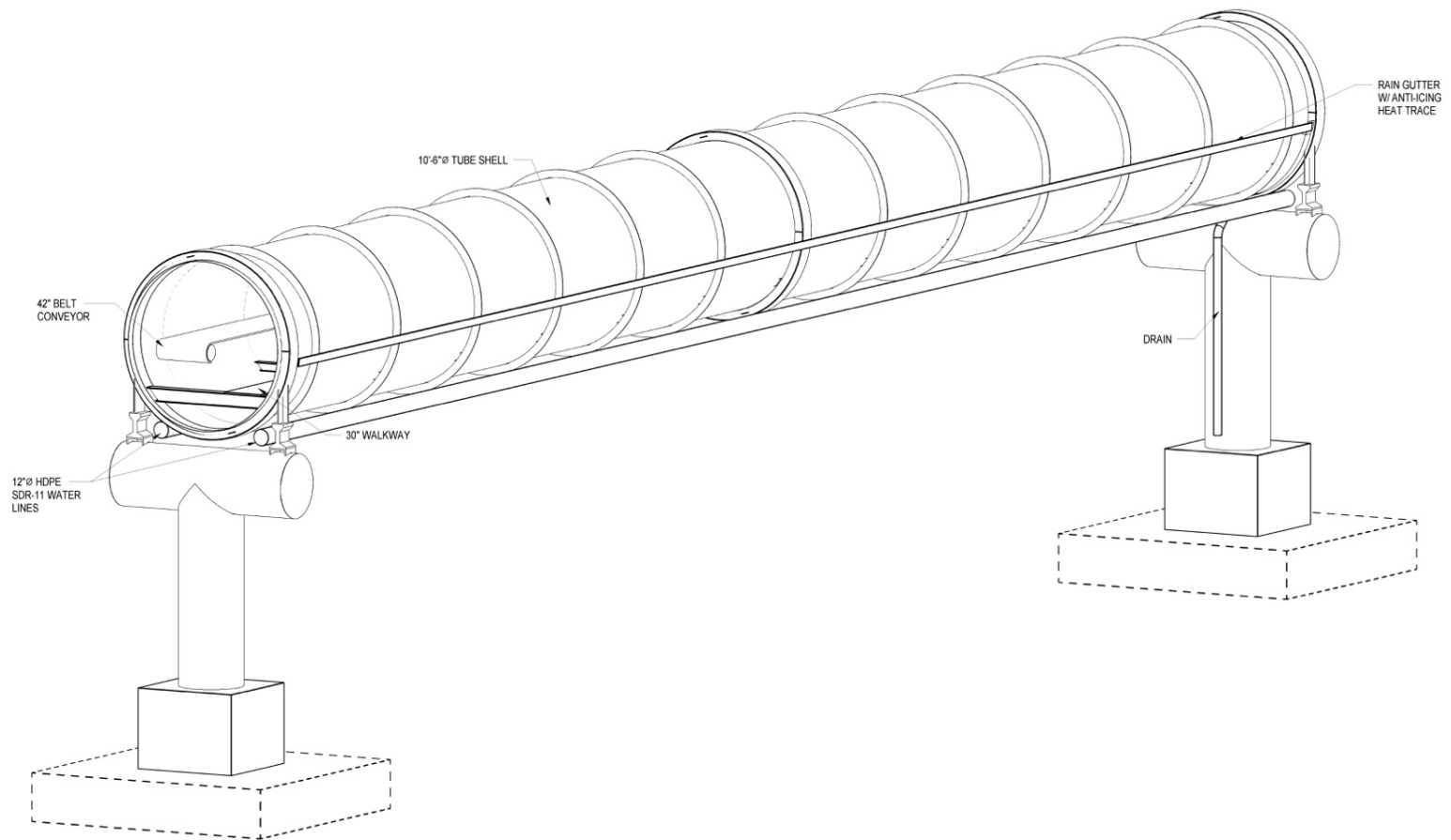
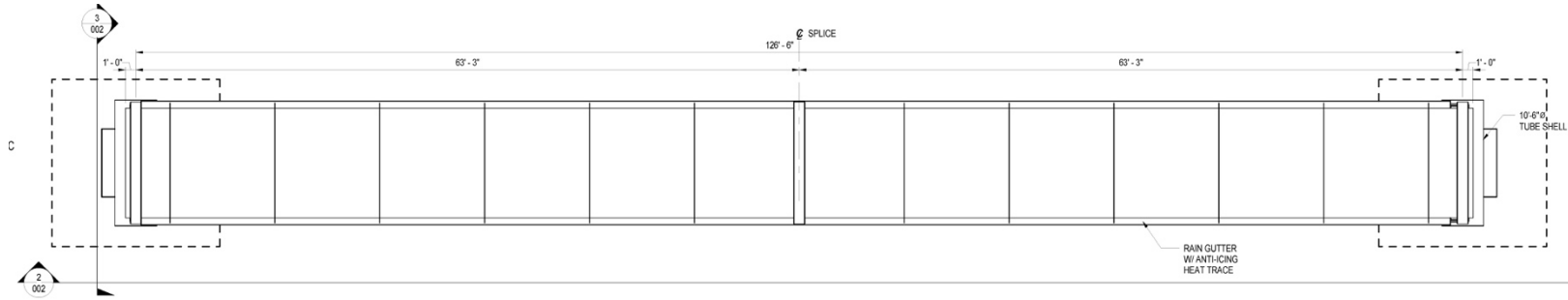
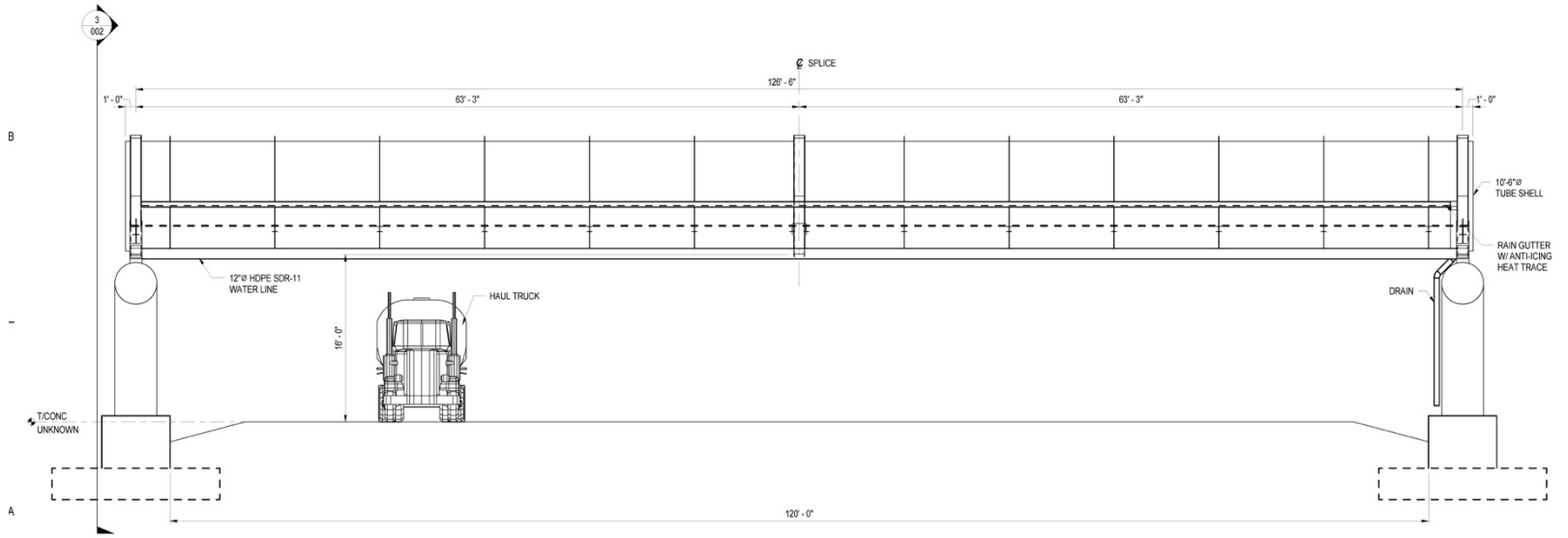


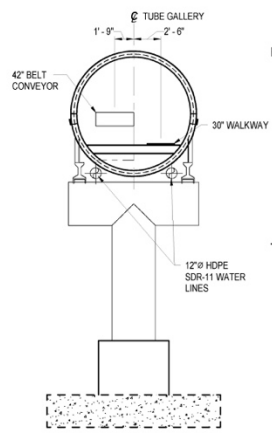
Diagram 12: Tube Gallery Plan, Elevation and Section Views



1 TUBE GALLERY PLAN VIEW
SCALE: 3/16" = 1'-0"



2 TUBE GALLERY ELEVATION VIEW
SCALE: 3/16" = 1'-0"



3 SECTION AT BENT
SCALE: 3/16" = 1'-0"

Diagram 13: Compacted Layer Strategy for HLP Construction

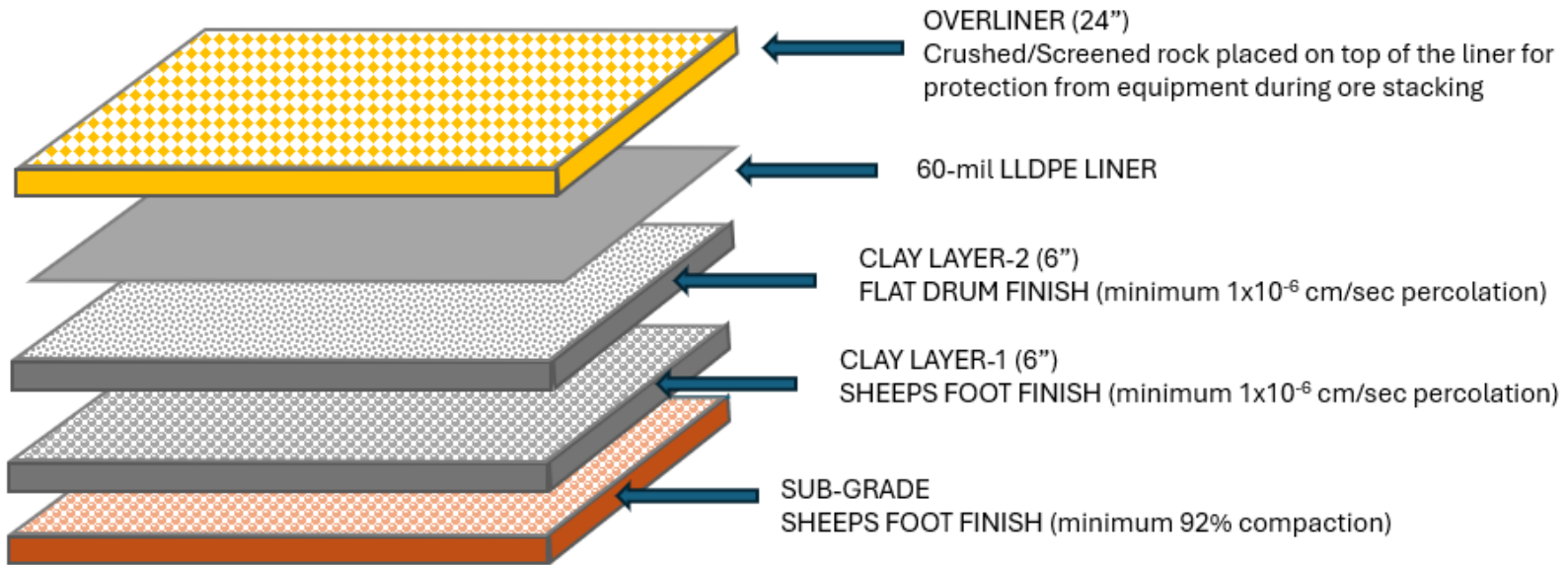
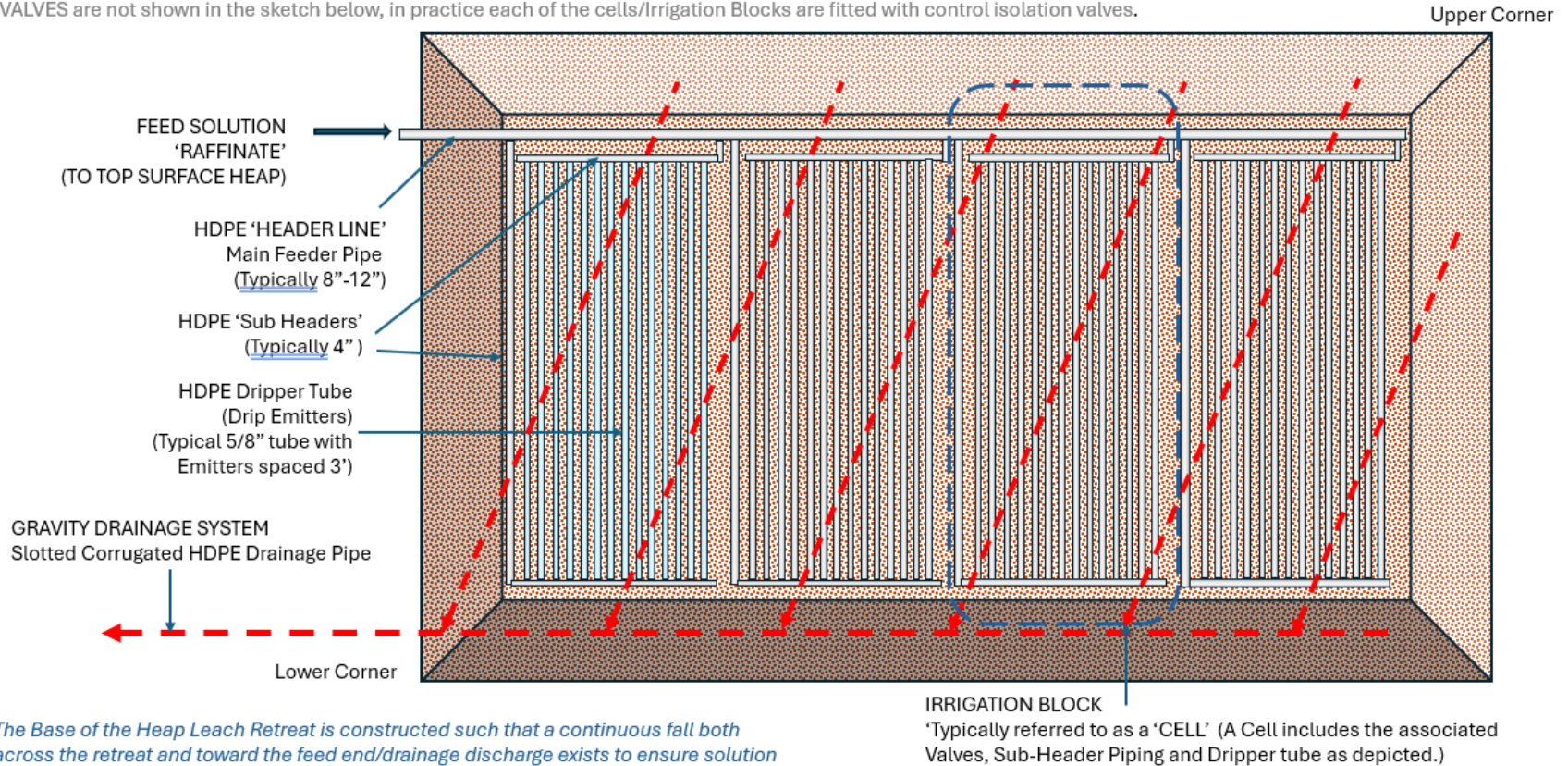


Diagram 14: Heap Leach Irrigation

LVMC - HEAP LEACH IRRIGATION & DRAINAGE SYSTEM

NOTE: The diagram represents what is referred to as a 'Retreat'. The Heap Leach Pad consists of multiple retreats which overlap. As such the Heap Leach at full scale appears to be one large body of ore, it is however a series of Retreats and is managed as such.

VALVES are not shown in the sketch below, in practice each of the cells/Irrigation Blocks are fitted with control isolation valves.



The Base of the Heap Leach Retreat is constructed such that a continuous fall both across the retreat and toward the feed end/drainage discharge exists to ensure solution Does not accumulate excessively within the ore.

Diagram 15: Process Flow

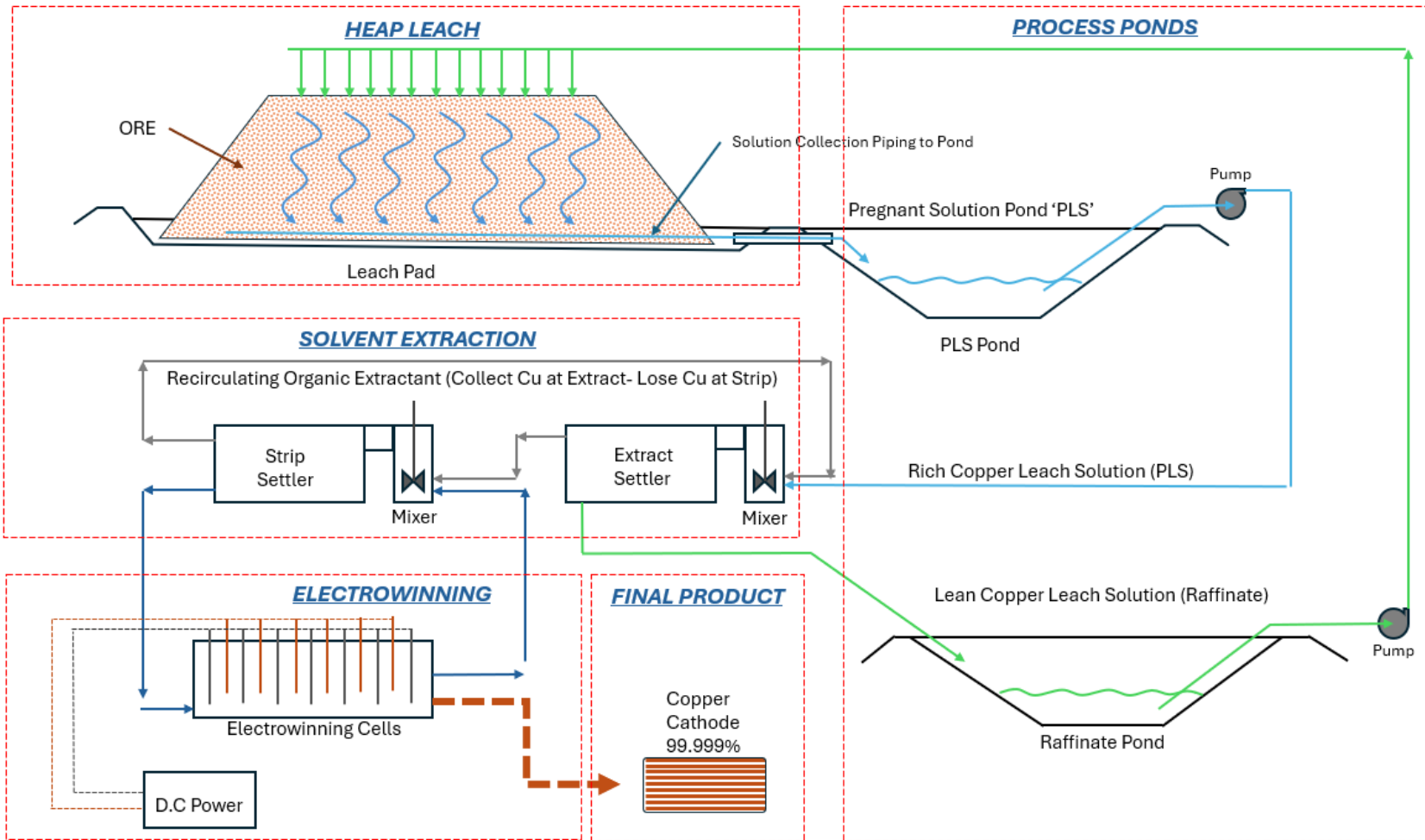


Diagram 16: Compacted Layer Strategy for Process Solution Ponds

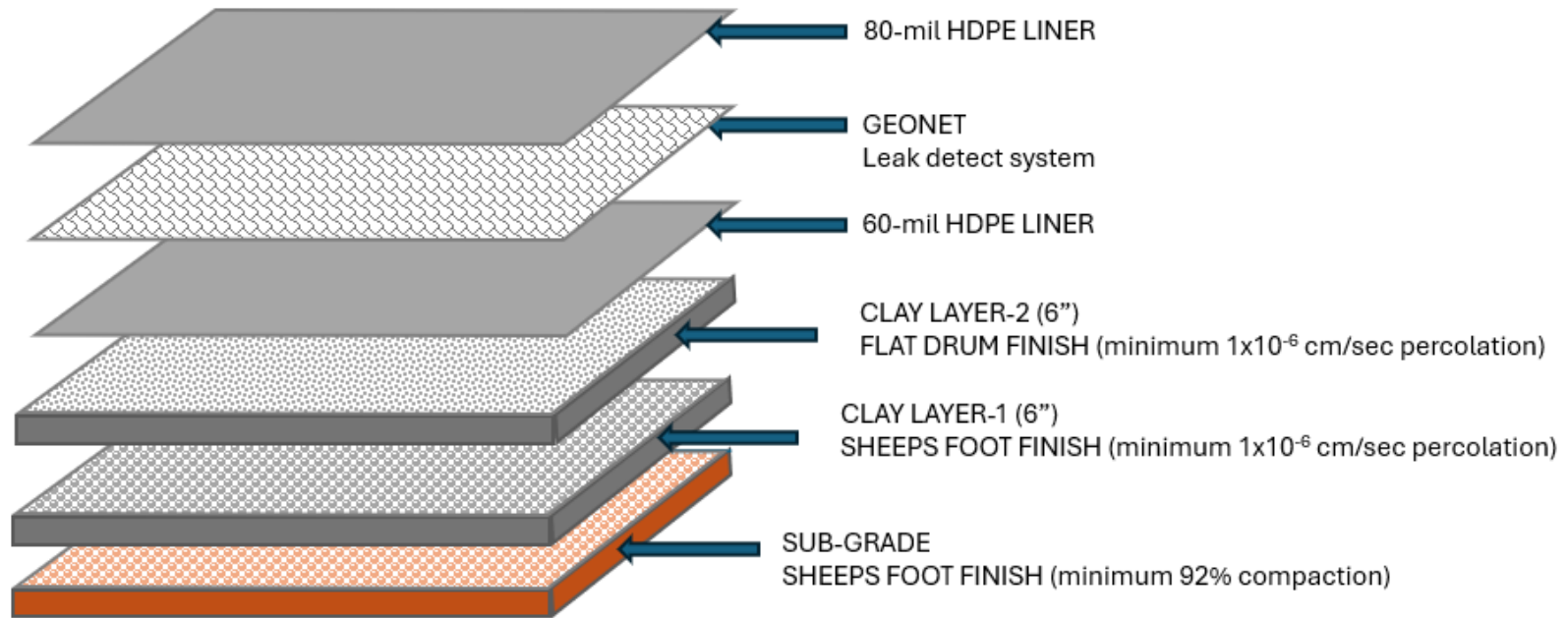


Diagram 17: Potential Dual Piping Arrangement for Overland Piping of Process Solution

DUAL CONTAINMENT PRESSURE PIPE SYSTEM

Typical cross section

<https://www.asahi-america.com/piping-systems-and-welding/double-wall-environmental/fluid-lok-hdpe>

The dual containment piping system uses two concentric pipes with webbing installed between the inner and outer pipes to maintain a uniform cavity/annulus between the two.

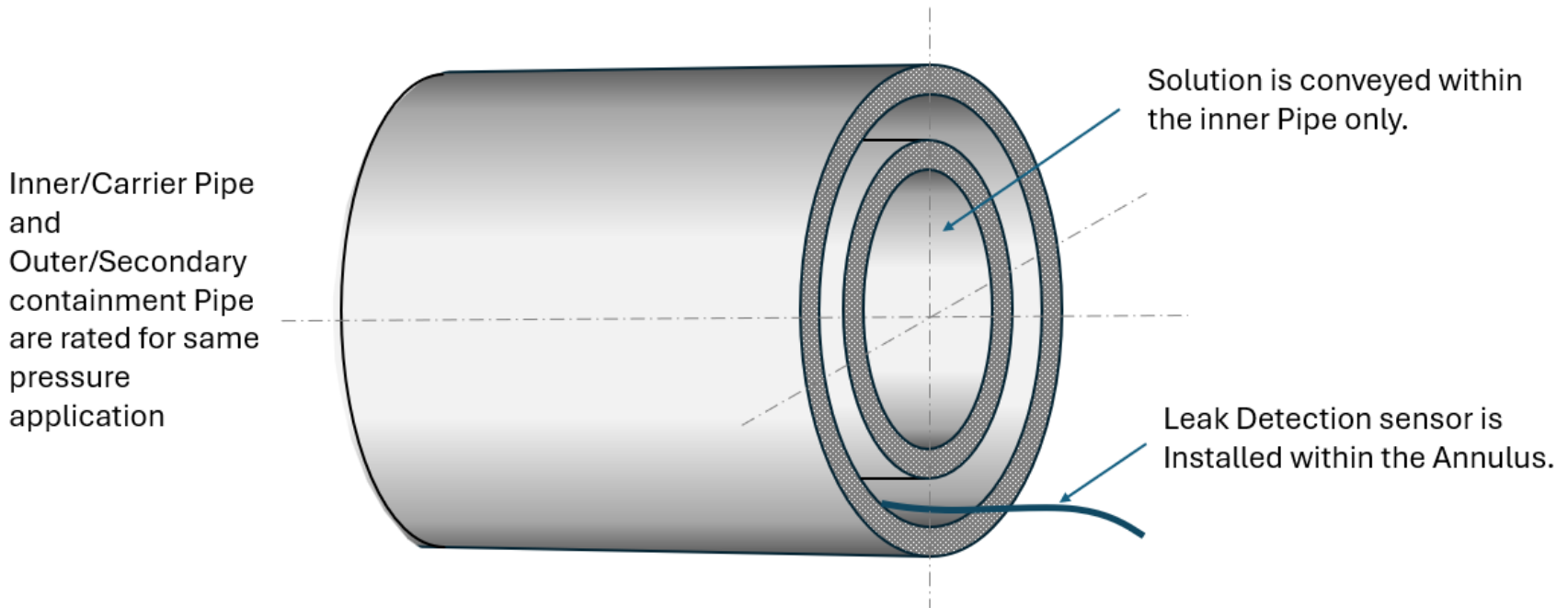
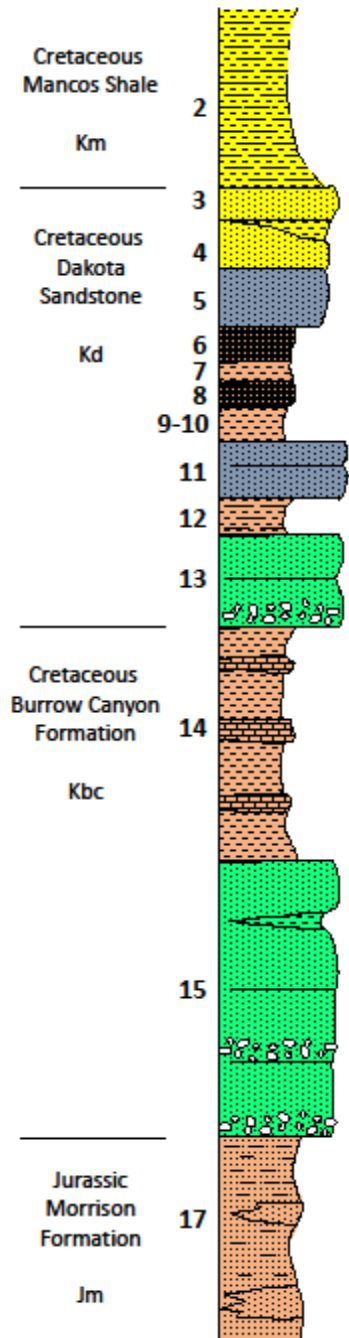


Diagram 18: Stratigraphy Column - LVCM Formation, Lithology, and Bed Number



Over burden: Alluvium, Mancos Shale and Beds 3 and 4

Beds 5 and 11 are typically waste but may have ore grade copper near mineralizing faults

Ore: Beds 13 and 15 typically have ore grade copper but may also be waste

Waste: Beds 6-10, 12, 14 and 17

Stratigraphic Column by C. Bauer and B. Sparks

Tables

Table 1: LVMC Facilities, Disturbance and Reclamation Acreages

Component	Project Plan Disturbance				Area Reclaimed	Current Disturbance			
	Total Planned Disturbance	Private	BLM	SITLA		Total Disturbance	Private	BLM	SITLA
Roads (acres)									
Mine Haul Roads (1)	52.3	12.2	31.4	8.7	0.0	29.2	4.1	20.0	5.1
Road Berms, Staging, Fill	2.6	1.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Light Vehicle Access Roads (1)	50.6	18.0	29.8	2.8	0.0	24.3	9.2	13.8	1.3
ISR Well Roads	37.6	14.6	14.0	9.0	0.0	0.0	0.0	0.0	0.0
ISR Well Pads	13.5	5.3	5.0	3.2	0.0	0.0	0.0	0.0	0.0
Monitoring Well (27) Pads	0.8	0.2	0.4	0.2	0.0	0.0	0.0	0.0	0.0
Subtotal	157.4	51.9	81.6	23.9	.0	53.5	13.3	33.8	6.4
Leach Pad, Mine Pit, Waste Rock Dump, Borrow Area, Ponds, Stockpiles (acres)									
Waste Dump A (2)	121.8	0.0	74.2	47.6	0.0	121.8	0.0	74.2	47.6
Waste Dump B	128.9	0.0	0.0	128.4	0.0	128.4	0.0	0.0	128.4
Waste Dump C (3)	171.0	0.0	171.0	0.0	71.4	99.6	0.0	99.6	0.0
Lone Wolf WRS (D Dump)	126.2	0.0	126.2	0.0	0.0	0.0	0.0	0.0	0.0
GTO Pit	54.2	6.0	0.0	48.2	0.0	54.2	6.0	0.0	48.2
Sentinel Pit (un-backfilled)	46.3	0.0	46.3	0.0	0.0	46.3	0.0	46.3	0.0
Centennial Pit (un-backfilled)	75.2	0.0	35.0	40.1	0.0	109.5	0.0	56.0	53.5

Component	Project Plan Disturbance				Area Reclaimed	Current Disturbance			
	Total Planned Disturbance	Private	BLM	SITLA		Total Disturbance	Private	BLM	SITLA
Centennial Pit Backfill Area	98.4	0.0	70.4	28.0	0.0	51.0	0.0	44.8	6.2
Lone Wolf Pit (un-backfilled)	74.4	0.0	74.4	0.0	0.0	0.0	0.0	0.0	0.0
Lone Wolf Backfill Area	384.2	10.5	357.7	16.0	0.0	0.0	0.0	0.0	0.0
LVM Leach Pad (Phase 1-4)	266.2	166.5	99.7	0.0	0.0	219.8	166.5	53.4	0.0
LVM Leach Pad (Phase 5)	61.6	0.0	61.6	0.0	0.0	0.0	0.0	0.0	0.0
LVM Process Pond	28.1	27.7	0.4	0.0	0.0	22.8	22.3	0.4	0.0
LLV Leach Pad	139.4	130.7	8.7	0.0	0.0	0.0	0.0	0.0	0.0
LLV Process Ponds	41.5	30.6	6.4	4.5	0.0	0.0	0.0	0.0	0.0
Fresh Water Ponds	17.9	5.6	4.4	7.9	0.0	11.8	2.3	1.6	7.9
Growth Media Stockpiles	104.0	15.6	66.7	21.6	0.0	45.0	16.7	6.7	21.6
Employee Housing (4)	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal	1,943.3	397.2	1,203.1	342.3	71.4	910.2	213.8	383.1	313.4
Yards (acres)									
LLV Crusher Yard	52.3	43.7	8.6	0.0	0.0	0.0	0.0	0.0	0.0
LVM Sizer Area	3.7	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LVM Process Area Facilities – SX-EW, Truck Shop,	105.2	18.6	75.1	11.5	0.0	112.6	23.4	77.8	11.5

Component	Project Plan Disturbance				Area Reclaimed	Current Disturbance			
	Total Planned Disturbance	Private	BLM	SITLA		Total Disturbance	Private	BLM	SITLA
Maintenance, Lab, Sizer, SW Centennial, Admin									
LLV SX Process Area	8.2	0.0	8.2	0.0	0.0	0.0	0.0	0.0	0.0
GTO Yards (N and S of Pit)	27.1	7.0	0.0	20.0	0.0	27.1	7.0	0.0	20.0
Leach pad Yards (W, S, SE, NE)	22.6	10.9	11.7	0.0	0.0	22.6	10.9	11.7	0.0
Yards Subtotal	219.1	83.9	103.6	31.5	.0	162.3	41.3	89.5	31.5
Linear Features (acres)									
Drainage Control Features	54.3	25.2	20.1	9.1	0.0	7.5	3.7	3.0	0.8
Ore Conveyor	11.2	7.4	2.5	1.3	0.0	0.0	0.0	0.0	0.0
LVM Infrastructure Corridor	37.2	4.2	32.9	0.0	0.0	0.0	0.0	0.0	0.0
Solution Pipeline	15.2	3.6	8.6	3.0	0.0	0.0	0.0	0.0	0.0
Fresh Water Pipeline	1.5	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas and Powerline (4)	34.7	10.2	22.0	2.5	0.0	0.0	0.0	0.0	0.0
Subtotal	154.1	52.	86.3	15.9	.0	7.5	3.7	3.0	.8
Project Total	2,473.8	585	1,474.6	413.6	71.4	1,133.5	272.1	509.3	352.1

NOTES

- (1) Haul roads within pits, waste dumps, heap leach, and yards are accounted for elsewhere for reclamation purposes; additionally, some light vehicle roads will not be reclaimed or are used by the public and others are included in yards and operations areas
- (2) Waste Dump A in this table includes the landfill area which was separated for reclamation calculations.
 - Waste Dump C has been partially reclaimed, with 54.6 acres totally reclaimed; 16.8 acres need reseeding, 64.7 acres re-graded without topsoil/seeding and 34.9 acres not reclaimed.
- (3) These facilities are either not operations related or will be owned and operated by utilities and excluded from bonding calculations

Table 2: Mine Life Information

Operating Area	Planned Life (Years)	Est. Timing Year	Years											
			0	1-3	4-5	5-6	7-10	11-13	14-16	17-19	20-22	23-25	26-31	
GTO Pit Area	NM													
Sentinel Pit Area	NM													
Centennial Pit Area	35	On-Going	x	x										
Lone Wolf Pit Area		2		x	x	x	x	x						
LVM Heap	55	On-Going	x	x	x	x	x	x	x	x	x			
LVM SX-EW Plant	60	On-Going	x	x	x	x	x	x	x	x	x			
Lone Wolf Heap	16	7					x	x	x	x	x			
Lone Wolf SX	17	7					x	x	x	x	x			
GTO ISR*	6	1		x	x	x								
Lone Wolf ISR*	8	9					x	x	x	x				
Flying Diamond ISR*	8	14							x	x	x			
Reclamation/Closure**	24	On-going	x	x	x	x	x	x	x	x	x	x	x	x

NM – not being mined, Sentinel is being backfilled with waste within Sentinel and if needed Centennial Pit Waste can support.

* IRS Wellfield life only includes copper production period and does not include Decommissioning and Rinsing or Monitoring – those times are included in Reclamation/Closure

Table 3: Mine Contact Information

Name	Address	Phone	Email	Status/Position
Lisbon Valley Copper Mine (LVCM)	920 South Country Road 313 La Sal, UT 84532			Company
CT Corporation System	1108 E. South Union Ave Midvale, UT 84047			Registered Utah Agent
<i>Delegation of Authority</i>				
George Shaw	PO Box 400 Moab, UT 84532	917-297-5556	gshaw@lvmcholdings.com	CEO
Larry Giegerich	PO Box 400 Moab, UT 84532	775-433-5020	lgiegerich@marianaminerals.com	GM/COO Primary Point of Contact
James Haag	PO Box 400 Moab, UT 84532	970-985-9835	jhaag@marianaminerals.com	Environmental Manager

Table 4: Surface Landowners and Mineral Owners

Name	Contact Information
Both Surface Land and Mineral Owners	
Lisbon Valley Mining Company, LLC	PO Box 400 Moab, UT 84532 435-686-9950
Bureau of Land Management (BLM)	Moab District Office, 82 East Dogwood Moab, UT 84532 435-259-2100
State of Utah, School and Institutional Trust Lands Administration (SITLA)	102 South 200 East, Suite 600 Salt Lake City, UT 84111 801-538-5100
Ralph and Marylin Hawks	2095 S. Plateau Road Moab, UT 84532
Surface Landowner (only)	
Michael and Joan Wilcox	HC 63, Box 151 Monticello UT 84535
Cross Canyon Grazing Association, LLLP	P.O. Box 32 Blanding UT 84511
Mineral Owner (only)	
Tintic Uranium % Ronny Cutshall	1309 S Penn St Salt Lake City, UT 84105
Ralph and Marylin Hawks	2095 S. Plateau Road Moab, UT 84532
Mary Patterson Brandon	3635 Arbolado Drive Las Vegas, NV 89121
Est Thomas E. Patterson George O Patterson II, Executor	719 Huntridge Dr. Moab, UT 84532
Redd Royalties	P.O. Box 247 La Sal, UT 84530-0247
Raymod T. Duncan Walter Duncan Inc Vincent J. Duncan	100 Park Ave, Suite 1200 Oklahoma City, OK 73102

Table 5: Claims and Leases

Serial Number	Lead File Number	Legacy Serial Number	Legacy Lead File Number	Claim Name	County	Case Disposition	Claim Type	Date Of Location	Meridian Township Range Section	Subdivision
BLM Claims										
UT101301192	UT101301192	UMC140640	UMC140457	SECURITY # 48	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SE
UT101339044	UT101339044	UMC140627	UMC140457	SECURITY # 35	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW, SW
UT101339265	UT101339265	UMC140629	UMC140457	SECURITY # 37	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NE, NW, SE, SW
UT101339332	UT101339332	UMC140641	UMC140457	SECURITY # 49	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SW
UT101349723	UT101349723	UMC140628	UMC140457	SECURITY # 36	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW, SW
UT101401319	UT101401319	UMC140827	UMC140827	SECURITY # 3	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0300S 0260E 031	SW
UT101401414	UT101401414	UMC140619	UMC140457	SECURITY # 27	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW
UT101401677	UT101401677	UMC140607	UMC140457	SECURITY # 5	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0300S 0260E 031	SW
UT101401680	UT101401680	UMC140609	UMC140457	SECURITY # 9	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0300S 0260E 031	SW
UT101401734	UT101401734	UMC140647	UMC140457	SECURITY # 55	SAN JUAN	ACTIVE	LODE CLAIM	1/28/1966	26 0310S 0260E 005	SE
UT101402334	UT101402334	UMC140636	UMC140457	SECURITY # 44	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SW
UT101402366	UT101402366	UMC140611	UMC140457	SECURITY # 14	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 006	NW
UT101402507	UT101402507	UMC140632	UMC140457	SECURITY # 40	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NE, SE
UT101403075	UT101403075	UMC140646	UMC140457	SECURITY # 54	SAN JUAN	ACTIVE	LODE CLAIM	1/28/1966	26 0310S 0260E 005	SE
UT101403187	UT101403187	UMC140638	UMC140457	SECURITY # 46	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SE
UT101403735	UT101403735	UMC140622	UMC140457	SECURITY # 30	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW
UT101404368	UT101404368	UMC140639	UMC140457	SECURITY # 47	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SE

Serial Number	Lead File Number	Legacy Serial Number	Legacy Lead File Number	Claim Name	County	Case Disposition	Claim Type	Date Of Location	Meridian Township Range Section	Subdivision
UT101404620	UT101404620	UMC140618	UMC140457	SECURITY # 26	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW
									26 0310S 0260E 006	NE
UT101404722	UT101404722	UMC140630	UMC140457	SECURITY # 38	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NE, SE
UT101404931	UT101404931	UMC140645	UMC140457	SECURITY # 53	SAN JUAN	ACTIVE	LODE CLAIM	1/28/1966	26 0310S 0260E 005	SE, SW
									26 0310S 0260E 008	NE
UT101405392	UT101405392	UMC140610	UMC140457	SECURITY # 11	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0300S 0260E 031	SE
UT101405949	UT101405949	UMC140621	UMC140457	SECURITY # 29	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW
UT101406994	UT101406994	UMC140608	UMC140457	SECURITY # 7	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0300S 0260E 031	SE
UT101408229	UT101408229	UMC140631	UMC140457	SECURITY # 39	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NE, SE
UT101409093	UT101409093	UMC140620	UMC140457	SECURITY # 28	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW
UT101409124	UT101409124	UMC140635	UMC140457	SECURITY # 43	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SW
UT101409142	UT101409142	UMC140634	UMC140457	SECURITY # 42	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SW
UT101420563	UT101420563	UMC140643	UMC140457	SECURITY # 51	SAN JUAN	ACTIVE	LODE CLAIM	1/28/1966	26 0310S 0260E 005	SW
UT101422908	UT101422908	UMC140642	UMC140457	SECURITY # 50	SAN JUAN	ACTIVE	LODE CLAIM	1/28/1966	26 0310S 0260E 005	SW
UT101425325	UT101425325	UMC140614	UMC140457	SECURITY # 18	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 006	NW
UT101425957	UT101425957	UMC140616	UMC140457	SECURITY # 20	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 006	NE
UT101426427	UT101426427	UMC140615	UMC140457	SECURITY # 19	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 006	NE, NW
UT101454657	UT101454657	UMC140617	UMC140457	SECURITY # 25	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0300S 0260E 031	SE
UT101455011	UT101455011	UMC140648	UMC140457	SECURITY # 56	SAN JUAN	ACTIVE	LODE CLAIM	1/28/1966	26 0310S 0260E 005	SE
UT101477736	UT101477736	UMC140633	UMC140457	SECURITY # 41	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SW

Serial Number	Lead File Number	Legacy Serial Number	Legacy Lead File Number	Claim Name	County	Case Disposition	Claim Type	Date Of Location	Meridian Township Range Section	Subdivision
UT101480097	UT101480097	UMC140613	UMC140457	SECURITY # 16	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 006	NE
UT101508312	UT101508312	UMC140612	UMC140457	SECURITY # 15	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 006	NE
UT101528369	UT101528369	UMC140637	UMC140457	SECURITY # 45	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SE, SW
UT101547512	UT101547512	UMC140644	UMC140457	SECURITY # 52	SAN JUAN	ACTIVE	LODE CLAIM	1/28/1966	26 0310S 0260E 005	SW
UT101600455	UT101600455	UMC140625	UMC140457	SECURITY # 33	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW, SW
UT101600493	UT101600493	UMC140624	UMC140457	SECURITY # 32	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NE
UT101601954	UT101601954	UMC140626	UMC140457	SECURITY # 34	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW, SW
UT101608471	UT101608471	UMC140623	UMC140457	SECURITY # 31	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NE, NW
UT101301192	UT101301192	UMC140640	UMC140457	SECURITY # 48	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SE
UT101302130	UT101302130	UMC356898	UMC356889	LADY BUFF 10	SAN JUAN	ACTIVE	LODE CLAIM	2/28/1995	26 0300S 0250E 022	SE
									26 0300S 0250E 023	SW
UT101302400	UT101302400	UMC129775	UMC129428	CD 3 FRACTION	SAN JUAN	ACTIVE	LODE CLAIM	4/6/1973	26 0300S 0250E 025	SE
									26 0300S 0250E 036	NE
UT101339044	UT101339044	UMC140627	UMC140457	SECURITY # 35	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW, SW
UT101339258	UT101339258	UMC354556	UMC354543	RP # 39	SAN JUAN	ACTIVE	LODE CLAIM	10/15/1993	26 0300S 0250E 025	SE
									26 0300S 0260E 030	SW
UT101339265	UT101339265	UMC140629	UMC140457	SECURITY # 37	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NE, NW, SE, SW
UT101339271	UT101339271	UMC129737	UMC129428	CD 6 FRACTION	SAN JUAN	ACTIVE	LODE CLAIM	4/12/1973	26 0300S 0250E 035	NE
UT101339332	UT101339332	UMC140641	UMC140457	SECURITY # 49	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SW

Serial Number	Lead File Number	Legacy Serial Number	Legacy Lead File Number	Claim Name	County	Case Disposition	Claim Type	Date Of Location	Meridian Township Range Section	Subdivision
UT101339346	UT101339346	UMC354601	UMC354543	STEP # 25	SAN JUAN	ACTIVE	LODE CLAIM	10/26/1993	26 0300S 0250E 027	SW
									26 0300S 0250E 034	NW
UT101339451	UT101339451	UMC327781	UMC327775	OXIDE # 6	SAN JUAN	ACTIVE	LODE CLAIM	9/1/1989	26 0300S 0250E 023	SE, SW
									26 0300S 0250E 026	NW
UT101339698	UT101339698	UMC354596	UMC354543	STEP # 20	SAN JUAN	ACTIVE	LODE CLAIM	10/26/1993	26 0300S 0250E 027	SE
									26 0300S 0250E 034	NE
UT101339720	UT101339720	UMC354557	UMC354543	RP # 40	SAN JUAN	ACTIVE	LODE CLAIM	10/15/1993	26 0300S 0250E 025	SE
									26 0300S 0260E 030	SW
UT101339937	UT101339937	UMC354599	UMC354543	STEP # 23	SAN JUAN	ACTIVE	LODE CLAIM	10/26/1993	26 0300S 0250E 027	SE, SW
									26 0300S 0250E 034	NE, NW
UT101340695	UT101340695	UMC129785	UMC129428	GLOBE # 10	SAN JUAN	ACTIVE	LODE CLAIM	9/1/1970	26 0300S 0250E 023	SE, SW
									26 0300S 0250E 026	NE
UT101349723	UT101349723	UMC140628	UMC140457	SECURITY # 36	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW, SW
UT101370499	UT101370499	UMC378398	UMC378387	JT 163	SAN JUAN	ACTIVE	LODE CLAIM	7/8/2005	26 0310S 0260E 009	SE
UT101370500	UT101370500	UMC378399	UMC378387	JT 164	SAN JUAN	ACTIVE	LODE CLAIM	7/8/2005	26 0310S 0260E 009	SE
UT101370501	UT101370501	UMC378400	UMC378387	JT 165	SAN JUAN	ACTIVE	LODE CLAIM	7/8/2005	26 0310S 0260E 009	SE
UT101370502	UT101370502	UMC378401	UMC378387	JT 166	SAN JUAN	ACTIVE	LODE CLAIM	7/8/2005	26 0310S 0260E 009	SE
									26 0310S 0260E 010	SW
UT101370503	UT101370503	UMC378402	UMC378387	JT 167	SAN JUAN	ACTIVE	LODE CLAIM	7/8/2005	26 0310S 0260E 010	SW
UT101370504	UT101370504	UMC378403	UMC378387	JT 168	SAN JUAN	ACTIVE	LODE CLAIM	7/8/2005	26 0310S 0260E 010	SW

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UT101370865	UT101370865	UMC376534	UMC376508	JT 100	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 015	NW, SW
UT101370866	UT101370866	UMC376535	UMC376508	JT 101	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 015	SW
UT101370867	UT101370867	UMC376536	UMC376508	JT 102	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 015	NE, NW, SE, SW
UT101370868	UT101370868	UMC376537	UMC376508	JT 103	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 015	SE, SW
UT101370869	UT101370869	UMC376538	UMC376508	JT 104	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 015	NE, SE
UT101370870	UT101370870	UMC376539	UMC376508	JT 105	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 015	SE
UT101370871	UT101370871	UMC376540	UMC376508	JT 106	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 015	NE, SE
UT101370872	UT101370872	UMC376541	UMC376508	JT 107	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 015	SE
UT101370873	UT101370873	UMC376542	UMC376508	JT 108	SAN JUAN	ACTIVE	LODE CLAIM	5/3/2005	26 0310S 0260E 015	NE, SE
UT101370874	UT101370874	UMC376543	UMC376508	JT 109	SAN JUAN	ACTIVE	LODE CLAIM	5/3/2005	26 0310S 0260E 015	SE
UT101370875	UT101370875	UMC376544	UMC376508	JT 110	SAN JUAN	ACTIVE	LODE CLAIM	5/3/2005	26 0310S 0260E 014	NE, NW, SE, SW
									26 0310S 0260E 015	NE, SE
UT101370876	UT101370876	UMC376545	UMC376508	JT 111	SAN JUAN	ACTIVE	LODE CLAIM	5/3/2005	26 0310S 0260E 014	SE, SW
									26 0310S 0260E 015	SE
UT101371674	UT101371674	UMC376548	UMC376508	JT 124	SAN JUAN	ACTIVE	LODE CLAIM	5/4/2005	26 0310S 0260E 009	SE
UT101371675	UT101371675	UMC376549	UMC376508	JT 125	SAN JUAN	ACTIVE	LODE CLAIM	5/4/2005	26 0310S 0260E 009	SE
UT101371676	UT101371676	UMC376550	UMC376508	JT 126	SAN JUAN	ACTIVE	LODE CLAIM	5/4/2005	26 0310S 0260E 009	SE
									26 0310S 0260E 010	SW
UT101371677	UT101371677	UMC376551	UMC376508	JT 127	SAN JUAN	ACTIVE	LODE CLAIM	5/5/2005	26 0310S 0260E 015	NW

Serial Number	Lead File Number	Legacy Serial Number	Legacy Lead File Number	Claim Name	County	Case Disposition	Claim Type	Date Of Location	Meridian Township Range Section	Subdivision
UT101371678	UT101371678	UMC376552	UMC376508	JT 128	SAN JUAN	ACTIVE	LODE CLAIM	5/5/2005	26 0310S 0260E 015	NW
UT101371679	UT101371679	UMC376553	UMC376508	JT 129	SAN JUAN	ACTIVE	LODE CLAIM	5/5/2005	26 0310S 0260E 015	NW, SW
UT101371680	UT101371680	UMC376554	UMC376508	JT 130	SAN JUAN	ACTIVE	LODE CLAIM	5/5/2005	26 0310S 0260E 015	SW
UT101371681	UT101371681	UMC376555	UMC376508	JT 131	SAN JUAN	ACTIVE	LODE CLAIM	5/5/2005	26 0310S 0260E 007	SE
UT101371682	UT101371682	UMC376556	UMC376508	JT 132	SAN JUAN	ACTIVE	LODE CLAIM	5/3/2005	26 0310S 0260E 008	SW
UT101371683	UT101371683	UMC376557	UMC376508	JT 133	SAN JUAN	ACTIVE	LODE CLAIM	5/5/2005	26 0310S 0260E 007	SE
									26 0310S 0260E 018	NE
UT101371684	UT101371684	UMC376558	UMC376508	JT 134	SAN JUAN	ACTIVE	LODE CLAIM	5/5/2005	26 0310S 0260E 008	SW
									26 0310S 0260E 017	NW
UT101371685	UT101371685	UMC376560	UMC376508	JT 136	SAN JUAN	ACTIVE	LODE CLAIM	5/6/2005	26 0310S 0260E 008	SW
UT101371686	UT101371686	UMC376561	UMC376508	JT 137	SAN JUAN	ACTIVE	LODE CLAIM	5/6/2005	26 0310S 0260E 005	SE, SW
									26 0310S 0260E 008	NE, NW
UT101371687	UT101371687	UMC376562	UMC376508	JT 138	SAN JUAN	ACTIVE	LODE CLAIM	5/6/2005	26 0310S 0260E 004	SW
									26 0310S 0260E 005	SE
									26 0310S 0260E 008	NE
									26 0310S 0260E 009	NW
UT101371688	UT101371688	UMC376563	UMC376508	JT 139	SAN JUAN	ACTIVE	LODE CLAIM	5/6/2005	26 0310S 0260E 008	NE, NW
UT101371689	UT101371689	UMC376564	UMC376508	JT 140	SAN JUAN	ACTIVE	LODE CLAIM	5/6/2005	26 0310S 0260E 008	NE
									26 0310S 0260E 009	NW
UT101371690	UT101371690	UMC376565	UMC376508	JT 141	SAN JUAN	ACTIVE	LODE CLAIM	5/6/2005	26 0310S 0260E 008	NE, NW

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UT101372278	UT101372278	UMC376566	UMC376508	JT 142	SAN JUAN	ACTIVE	LODE CLAIM	5/6/2005	26 0310S 0260E 008	NE
									26 0310S 0260E 009	NW
UT101372401	UT101372401	UMC376567	UMC376508	JT 143	SAN JUAN	ACTIVE	LODE CLAIM	5/6/2005	26 0310S 0260E 008	NE, NW
UT101372402	UT101372402	UMC376568	UMC376508	JT 144	SAN JUAN	ACTIVE	LODE CLAIM	5/6/2005	26 0310S 0260E 008	NE, NW, SE, SW
UT101372403	UT101372403	UMC376569	UMC376508	JT 145	SAN JUAN	ACTIVE	LODE CLAIM	5/6/2005	26 0310S 0260E 008	SE
UT101372404	UT101372404	UMC376570	UMC376508	JT 146	SAN JUAN	ACTIVE	LODE CLAIM	5/6/2005	26 0310S 0260E 008	SE, SW
UT101372405	UT101372405	UMC376571	UMC376508	JT 147	SAN JUAN	ACTIVE	LODE CLAIM	5/6/2005	26 0310S 0260E 008	SE, SW
UT101372406	UT101372406	UMC376572	UMC376508	JT 148	SAN JUAN	ACTIVE	LODE CLAIM	5/6/2005	26 0310S 0260E 008	SE, SW
									26 0310S 0260E 017	NE, NW
UT101372407	UT101372407	UMC376573	UMC376508	JT 149	SAN JUAN	ACTIVE	LODE CLAIM	5/6/2005	26 0310S 0260E 005	SW
									26 0310S 0260E 006	SE
									26 0310S 0260E 007	NE
									26 0310S 0260E 008	NW
UT101372408	UT101372408	UMC376574	UMC376508	JT 150	SAN JUAN	ACTIVE	LODE CLAIM	5/6/2005	26 0310S 0260E 007	NE
									26 0310S 0260E 008	NW
UT101372409	UT101372409	UMC376575	UMC376508	JT 151	SAN JUAN	ACTIVE	LODE CLAIM	5/6/2005	26 0310S 0260E 007	NE
UT101374608	UT101374608	UMC375967	UMC375967	JT 44	SAN JUAN	ACTIVE	LODE CLAIM	4/22/2005	26 0310S 0260E 010	NE, SE
UT101375308	UT101375308	UMC375968	UMC375967	JT 45	SAN JUAN	ACTIVE	LODE CLAIM	4/22/2005	26 0310S 0260E 010	SE
UT101375309	UT101375309	UMC375969	UMC375967	JT 46	SAN JUAN	ACTIVE	LODE CLAIM	4/22/2005	26 0310S 0260E 010	NE, SE

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UT101375310	UT101375310	UMC375970	UMC375967	JT 47	SAN JUAN	ACTIVE	LODE CLAIM	4/22/2005	26 0310S 0260E 010	SE
UT101375311	UT101375311	UMC375971	UMC375967	JT 48	SAN JUAN	ACTIVE	LODE CLAIM	4/22/2005	26 0310S 0260E 010	NE, SE
UT101375312	UT101375312	UMC375972	UMC375967	JT 49	SAN JUAN	ACTIVE	LODE CLAIM	4/22/2005	26 0310S 0260E 010	SE
UT101400707	UT101400707	UMC330150	UMC330150	NU ZUNI 45	SAN JUAN	ACTIVE	LODE CLAIM	12/31/1989	26 0300S 0250E 035	NE, SE
UT101401317	UT101401317	UMC360263	UMC360263	GKS 58	SAN JUAN	ACTIVE	LODE CLAIM	5/6/1996	26 0300S 0250E 023	SW
									26 0300S 0250E 026	NW
UT101401319	UT101401319	UMC140827	UMC140827	SECURITY # 3	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0300S 0260E 031	SW
UT101401325	UT101401325	UMC129718	UMC129428	SENTINAL NO 1	SAN JUAN	ACTIVE	LODE CLAIM	1/1/1954	26 0300S 0250E 025	SW
UT101401414	UT101401414	UMC140619	UMC140457	SECURITY # 27	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW
UT101401677	UT101401677	UMC140607	UMC140457	SECURITY # 5	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0300S 0260E 031	SW
UT101401680	UT101401680	UMC140609	UMC140457	SECURITY # 9	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0300S 0260E 031	SW
UT101401697	UT101401697	UMC129826	UMC129428	CW 16	SAN JUAN	ACTIVE	LODE CLAIM	6/30/1973	26 0300S 0250E 025	NE, NW, SW
UT101401705	UT101401705	UMC129828	UMC129428	CW 22	SAN JUAN	ACTIVE	LODE CLAIM	6/30/1973	26 0300S 0250E 024	SW
									26 0300S 0250E 025	NW
UT101401734	UT101401734	UMC140647	UMC140457	SECURITY # 55	SAN JUAN	ACTIVE	LODE CLAIM	1/28/1966	26 0310S 0260E 005	SE
UT101401974	UT101401974	UMC354552	UMC354543	RP # 33	SAN JUAN	ACTIVE	LODE CLAIM	10/15/1993	26 0300S 0260E 030	SW
UT101402109	UT101402109	UMC129827	UMC129428	CW 19	SAN JUAN	ACTIVE	LODE CLAIM	6/30/1973	26 0300S 0250E 025	NE, NW
UT101402113	UT101402113	UMC129769	UMC129428	ALPHA # 5	SAN JUAN	ACTIVE	LODE CLAIM	9/1/1959	26 0300S 0250E 025	SE, SW
UT101402178	UT101402178	UMC129795	UMC129428	KWR # 7	SAN JUAN	ACTIVE	LODE CLAIM	10/8/1970	26 0300S 0250E 026	NW
UT101402189	UT101402189	UMC129801	UMC129428	KWR 13 (FRACT)	SAN JUAN	ACTIVE	LODE CLAIM	12/27/1971	26 0300S 0250E 025	SE

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UT101402334	UT101402334	UMC140636	UMC140457	SECURITY # 44	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SW
UT101402366	UT101402366	UMC140611	UMC140457	SECURITY # 14	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 006	NW
UT101402378	UT101402378	UMC354580	UMC354543	STEP # 4	SAN JUAN	ACTIVE	LODE CLAIM	10/26/1993	26 0300S 0250E 027	SE
UT101402399	UT101402399	UMC359002	UMC359001	GKS 49	SAN JUAN	ACTIVE	LODE CLAIM	12/15/1995	26 0300S 0250E 026	NE, SE
UT101402493	UT101402493	UMC354588	UMC354543	STEP # 12	SAN JUAN	ACTIVE	LODE CLAIM	10/26/1993	26 0300S 0250E 027	SW
UT101402507	UT101402507	UMC140632	UMC140457	SECURITY # 40	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NE, SE
UT101402580	UT101402580	UMC349339	UMC349339	CD # 7A	SAN JUAN	ACTIVE	LODE CLAIM	3/21/1992	26 0300S 0250E 025	NE, NW
UT101402728	UT101402728	UMC354567	UMC354543	RP # 53	SAN JUAN	ACTIVE	LODE CLAIM	10/15/1993	26 0300S 0250E 025	SE
UT101402886	UT101402886	UMC129765	UMC129428	ALPHA # 1	SAN JUAN	ACTIVE	LODE CLAIM	9/1/1959	26 0300S 0250E 025	SW
UT101403053	UT101403053	UMC330151	UMC330150	NU ZUNI 46	SAN JUAN	ACTIVE	LODE CLAIM	12/31/1989	26 0300S 0250E 035	NE
UT101403075	UT101403075	UMC140646	UMC140457	SECURITY # 54	SAN JUAN	ACTIVE	LODE CLAIM	1/28/1966	26 0310S 0260E 005	SE
UT101403087	UT101403087	UMC129794	UMC129428	KWR # 6	SAN JUAN	ACTIVE	LODE CLAIM	10/8/1970	26 0300S 0250E 026	NE
UT101403108	UT101403108	UMC129784	UMC129428	GLOBE # 9	SAN JUAN	ACTIVE	LODE CLAIM	9/1/1970	26 0300S 0250E 026	NE
UT101403183	UT101403183	UMC354566	UMC354543	RP # 52	SAN JUAN	ACTIVE	LODE CLAIM	10/15/1993	26 0300S 0250E 025	SE
UT101403187	UT101403187	UMC140638	UMC140457	SECURITY # 46	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SE
UT101403504	UT101403504	UMC129767	UMC129428	ALPHA # 3	SAN JUAN	ACTIVE	LODE CLAIM	9/1/1959	26 0300S 0250E 025	SW
UT101403711	UT101403711	UMC354574	UMC354543	RP # 67	SAN JUAN	ACTIVE	LODE CLAIM	10/16/1993	26 0300S 0250E 024	SW
									26 0300S 0250E 025	NW
UT101403722	UT101403722	UMC357437	UMC357400	GKS 38	SAN JUAN	ACTIVE	LODE CLAIM	7/22/1995	26 0310S 0250E 001	SE
UT101403735	UT101403735	UMC140622	UMC140457	SECURITY # 30	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW

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UT101403744	UT101403744	UMC354568	UMC354543	RP # 54	SAN JUAN	ACTIVE	LODE CLAIM	10/15/1993	26 0300S 0250E 025	SE
UT101404272	UT101404272	UMC354575	UMC354543	RP # 74	SAN JUAN	ACTIVE	LODE CLAIM	10/16/1993	26 0300S 0250E 023	SE
									26 0300S 0250E 024	SW
UT101404281	UT101404281	UMC129730	UMC129428	COLT	SAN JUAN	ACTIVE	LODE CLAIM	9/25/1953	26 0300S 0250E 025	SW
									26 0300S 0250E 026	SE
UT101404368	UT101404368	UMC140639	UMC140457	SECURITY # 47	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SE
UT101404385	UT101404385	UMC129787	UMC129428	C-W-G FRACTION 1	SAN JUAN	ACTIVE	LODE CLAIM	12/24/1973	26 0300S 0250E 026	NE, NW
UT101404620	UT101404620	UMC140618	UMC140457	SECURITY # 26	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW
									26 0310S 0260E 006	NE
UT101404703	UT101404703	UMC129766	UMC129428	ALPHA # 2	SAN JUAN	ACTIVE	LODE CLAIM	9/1/1959	26 0300S 0250E 025	SW
UT101404722	UT101404722	UMC140630	UMC140457	SECURITY # 38	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NE, SE
UT101404825	UT101404825	UMC129728	UMC129428	CAMEL	SAN JUAN	ACTIVE	LODE CLAIM	9/25/1953	26 0300S 0250E 025	NW, SW
									26 0300S 0250E 026	NE, SE
UT101404931	UT101404931	UMC140645	UMC140457	SECURITY # 53	SAN JUAN	ACTIVE	LODE CLAIM	1/28/1966	26 0310S 0260E 005	SE, SW
									26 0310S 0260E 008	NE
UT101404932	UT101404932	UMC129793	UMC129428	KWR # 5	SAN JUAN	ACTIVE	LODE CLAIM	10/8/1970	26 0300S 0250E 026	NE
UT101404936	UT101404936	UMC357436	UMC357400	GKS 37	SAN JUAN	ACTIVE	LODE CLAIM	7/22/1995	26 0310S 0250E 001	NE, SE
UT101404944	UT101404944	UMC129797	UMC129428	KWR 9 (FRACT)	SAN JUAN	ACTIVE	LODE CLAIM	12/27/1971	26 0300S 0250E 026	NE
UT101404950	UT101404950	UMC354551	UMC354543	RP # 32	SAN JUAN	ACTIVE	LODE CLAIM	10/15/1993	26 0300S 0260E 030	SW

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UT101405213	UT101405213	UMC354545	UMC354543	RP # 23	SAN JUAN	ACTIVE	LODE CLAIM	10/15/1993	26 0300S 0260E 030	SE, SW
UT101405381	UT101405381	UMC354564	UMC354543	RP # 50	SAN JUAN	ACTIVE	LODE CLAIM	10/15/1993	26 0300S 0250E 025	NE, SE
UT101405383	UT101405383	UMC354608	UMC354543	STEP # 32	SAN JUAN	ACTIVE	LODE CLAIM	10/27/1993	26 0300S 0250E 035	SE
UT101405392	UT101405392	UMC140610	UMC140457	SECURITY # 11	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0300S 0260E 031	SE
UT101405571	UT101405571	UMC354590	UMC354543	STEP # 14	SAN JUAN	ACTIVE	LODE CLAIM	10/26/1993	26 0300S 0250E 027	SW
UT101405578	UT101405578	UMC129798	UMC129428	KWR 10	SAN JUAN	ACTIVE	LODE CLAIM	12/27/1971	26 0300S 0250E 023	SE
									26 0300S 0250E 026	NE
UT101405609	UT101405609	UMC129727	UMC129428	SENTINAL NO 10	SAN JUAN	ACTIVE	LODE CLAIM	1/1/1954	26 0300S 0250E 025	NW
									26 0300S 0250E 026	NE
UT101405794	UT101405794	UMC129771	UMC129428	ALPHA # 7	SAN JUAN	ACTIVE	LODE CLAIM	9/1/1959	26 0300S 0250E 025	SE, SW
UT101405906	UT101405906	UMC357408	UMC357400	GKS 9	SAN JUAN	ACTIVE	LODE CLAIM	7/19/1995	26 0300S 0250E 023	SE, SW
UT101405949	UT101405949	UMC140621	UMC140457	SECURITY # 29	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW
UT101406203	UT101406203	UMC354602	UMC354543	STEP # 26	SAN JUAN	ACTIVE	LODE CLAIM	10/26/1993	26 0300S 0250E 027	SW
									26 0300S 0250E 034	NW
UT101406626	UT101406626	UMC357409	UMC357400	GKS 10	SAN JUAN	ACTIVE	LODE CLAIM	7/21/1995	26 0300S 0250E 035	NW
UT101406994	UT101406994	UMC140608	UMC140457	SECURITY # 7	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0300S 0260E 031	SE
UT101406996	UT101406996	UMC354563	UMC354543	RP # 49	SAN JUAN	ACTIVE	LODE CLAIM	10/15/1993	26 0300S 0250E 025	NE
UT101407986	UT101407986	UMC129783	UMC129428	GLOBE # 2	SAN JUAN	ACTIVE	LODE CLAIM	9/1/1970	26 0300S 0250E 026	NW
UT101407988	UT101407988	UMC354609	UMC354543	STEP # 33	SAN JUAN	ACTIVE	LODE CLAIM	10/27/1993	26 0300S 0250E 035	SE
UT101408014	UT101408014	UMC327780	UMC327775	OXIDE # 5	SAN JUAN	ACTIVE	LODE CLAIM	9/1/1989	26 0300S 0250E 023	SE

Serial Number	Lead File Number	Legacy Serial Number	Legacy Lead File Number	Claim Name	County	Case Disposition	Claim Type	Date Of Location	Meridian Township Range Section	Subdivision
UT101408196	UT101408196	UMC129782	UMC129428	GLOBE # 1	SAN JUAN	ACTIVE	LODE CLAIM	9/1/1970	26 0300S 0250E 026	NW, SW
UT101408229	UT101408229	UMC140631	UMC140457	SECURITY # 39	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NE, SE
UT101408575	UT101408575	UMC129772	UMC129428	ALPHA # 8	SAN JUAN	ACTIVE	LODE CLAIM	9/1/1959	26 0300S 0250E 025	NE, NW, SE, SW
UT101408788	UT101408788	UMC354578	UMC354543	STEP # 2	SAN JUAN	ACTIVE	LODE CLAIM	10/26/1993	26 0300S 0250E 027	SE
UT101408945	UT101408945	UMC354586	UMC354543	STEP # 10	SAN JUAN	ACTIVE	LODE CLAIM	10/26/1993	26 0300S 0250E 027	SE, SW
UT101409072	UT101409072	UMC129726	UMC129428	SENTINAL NO 9	SAN JUAN	ACTIVE	LODE CLAIM	1/1/1954	26 0300S 0250E 025	NW
UT101409093	UT101409093	UMC140620	UMC140457	SECURITY # 28	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW
UT101409124	UT101409124	UMC140635	UMC140457	SECURITY # 43	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SW
UT101409142	UT101409142	UMC140634	UMC140457	SECURITY # 42	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SW
UT101409152	UT101409152	UMC357425	UMC357400	GKS 26	SAN JUAN	ACTIVE	LODE CLAIM	7/21/1995	26 0300S 0250E 035	SE
UT101409166	UT101409166	UMC357424	UMC357400	GKS 25	SAN JUAN	ACTIVE	LODE CLAIM	7/21/1995	26 0300S 0250E 035	SE
UT101409382	UT101409382	UMC129732	UMC129428	COW	SAN JUAN	ACTIVE	LODE CLAIM	9/25/1953	26 0300S 0250E 025	SW
									26 0300S 0250E 026	SE
UT101420555	UT101420555	UMC129763	UMC129428	CLIMAX NO 1	SAN JUAN	ACTIVE	LODE CLAIM	12/10/1950	26 0300S 0250E 025	SW
UT101420563	UT101420563	UMC140643	UMC140457	SECURITY # 51	SAN JUAN	ACTIVE	LODE CLAIM	1/28/1966	26 0310S 0260E 005	SW
UT101420567	UT101420567	UMC129724	UMC129428	SENTINAL NO 7	SAN JUAN	ACTIVE	LODE CLAIM	1/1/1954	26 0300S 0250E 025	NW
UT101421182	UT101421182	UMC357406	UMC357400	GKS 7	SAN JUAN	ACTIVE	LODE CLAIM	7/19/1995	26 0300S 0250E 023	NE, NW, SW
UT101421271	UT101421271	UMC354546	UMC354543	RP # 24	SAN JUAN	ACTIVE	LODE CLAIM	10/15/1993	26 0300S 0260E 030	SE, SW
UT101421552	UT101421552	UMC356901	UMC356889	LADY BUFF 13	SAN JUAN	ACTIVE	LODE CLAIM	2/28/1995	26 0300S 0250E 022	NE, SE

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									26 0300S 0250E 023	NW, SW
UT101421616	UT101421616	UMC356900	UMC356889	LADY BUFF 12	SAN JUAN	ACTIVE	LODE CLAIM	2/28/1995	26 0300S 0250E 022	SE
									26 0300S 0250E 023	SW
UT101421925	UT101421925	UMC354595	UMC354543	STEP # 19	SAN JUAN	ACTIVE	LODE CLAIM	10/26/1993	26 0300S 0250E 027	SE
									26 0300S 0250E 034	NE
UT101422423	UT101422423	UMC129777	UMC129428	CD 5 FRACTION	SAN JUAN	ACTIVE	LODE CLAIM	4/6/1973	26 0300S 0250E 025	SW
UT101422477	UT101422477	UMC359004	UMC359001	GKS 51	SAN JUAN	ACTIVE	LODE CLAIM	12/15/1995	26 0300S 0250E 035	NE
UT101422614	UT101422614	UMC349342	UMC349339	CD # 10A	SAN JUAN	ACTIVE	LODE CLAIM	3/21/1992	26 0300S 0250E 025	NE, NW
UT101422892	UT101422892	UMC356899	UMC356889	LADY BUFF 11	SAN JUAN	ACTIVE	LODE CLAIM	2/28/1995	26 0300S 0250E 023	NW, SW
UT101422908	UT101422908	UMC140642	UMC140457	SECURITY # 50	SAN JUAN	ACTIVE	LODE CLAIM	1/28/1966	26 0310S 0260E 005	SW
UT101422912	UT101422912	UMC129723	UMC129428	SENTINAL NO 6	SAN JUAN	ACTIVE	LODE CLAIM	1/1/1954	26 0300S 0250E 025	NW
									26 0300S 0250E 026	NE
UT101422933	UT101422933	UMC129776	UMC129428	CD 4 FRACTION	SAN JUAN	ACTIVE	LODE CLAIM	4/6/1973	26 0300S 0250E 025	SE
									26 0300S 0250E 036	NE
									26 0300S 0260E 030	SW
									26 0300S 0260E 031	NW
UT101424459	UT101424459	UMC354597	UMC354543	STEP # 21	SAN JUAN	ACTIVE	LODE CLAIM	10/26/1993	26 0300S 0250E 027	SE
									26 0300S 0250E 034	NE
UT101424650	UT101424650	UMC129774	UMC129428	CD 2 FRACTION	SAN JUAN	ACTIVE	LODE CLAIM	4/6/1973	26 0300S 0250E 025	SW
									26 0300S 0250E 036	NW

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UT101425204	UT101425204	UMC349341	UMC349339	CD # 9A	SAN JUAN	ACTIVE	LODE CLAIM	3/21/1992	26 0300S 0250E 025	SW
UT101425208	UT101425208	UMC129722	UMC129428	SENTINAL NO 5	SAN JUAN	ACTIVE	LODE CLAIM	1/1/1954	26 0300S 0250E 025	NW
UT101425325	UT101425325	UMC140614	UMC140457	SECURITY # 18	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 006	NW
UT101425643	UT101425643	UMC327779	UMC327775	OXIDE # 4	SAN JUAN	ACTIVE	LODE CLAIM	9/1/1989	26 0300S 0250E 023	SE, SW
									26 0300S 0250E 026	NE, NW
UT101425671	UT101425671	UMC327778	UMC327775	OXIDE # 3	SAN JUAN	ACTIVE	LODE CLAIM	9/1/1989	26 0300S 0250E 023	SE
UT101425938	UT101425938	UMC354600	UMC354543	STEP # 24	SAN JUAN	ACTIVE	LODE CLAIM	10/26/1993	26 0300S 0250E 027	SW
									26 0300S 0250E 034	NW
UT101425957	UT101425957	UMC140616	UMC140457	SECURITY # 20	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 006	NE
UT101426060	UT101426060	UMC354584	UMC354543	STEP # 8	SAN JUAN	ACTIVE	LODE CLAIM	10/26/1993	26 0300S 0250E 027	SE
UT101426213	UT101426213	UMC356897	UMC356889	LADY BUFF 9	SAN JUAN	ACTIVE	LODE CLAIM	2/28/1995	26 0300S 0250E 023	SW
UT101426320	UT101426320	UMC354558	UMC354543	RP # 41	SAN JUAN	ACTIVE	LODE CLAIM	10/15/1993	26 0300S 0250E 025	SE
									26 0300S 0260E 030	SW
UT101426427	UT101426427	UMC140615	UMC140457	SECURITY # 19	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 006	NE, NW
UT101438808	UT101438808	UMC376508	UMC376508	JT 64	SAN JUAN	ACTIVE	LODE CLAIM	5/3/2005	26 0310S 0260E 015	NW
UT101438809	UT101438809	UMC376509	UMC376508	JT 65	SAN JUAN	ACTIVE	LODE CLAIM	5/3/2005	26 0310S 0260E 015	NW
UT101438810	UT101438810	UMC376510	UMC376508	JT 66	SAN JUAN	ACTIVE	LODE CLAIM	5/3/2005	26 0310S 0260E 015	NW
UT101438811	UT101438811	UMC376511	UMC376508	JT 67	SAN JUAN	ACTIVE	LODE CLAIM	5/3/2005	26 0310S 0260E 015	NW
UT101438812	UT101438812	UMC376512	UMC376508	JT 68	SAN JUAN	ACTIVE	LODE CLAIM	5/3/2005	26 0310S 0260E 010	SW
									26 0310S 0260E 015	NW

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UT101438813	UT101438813	UMC376513	UMC376508	JT 69	SAN JUAN	ACTIVE	LODE CLAIM	5/3/2005	26 0310S 0260E 015	NW
UT101438814	UT101438814	UMC376514	UMC376508	JT 70	SAN JUAN	ACTIVE	LODE CLAIM	5/3/2005	26 0310S 0260E 010	SW
									26 0310S 0260E 015	NW
UT101438815	UT101438815	UMC376515	UMC376508	JT 71	SAN JUAN	ACTIVE	LODE CLAIM	5/3/2005	26 0310S 0260E 015	NW
UT101438816	UT101438816	UMC376516	UMC376508	JT 72	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 010	SE, SW
									26 0310S 0260E 015	NE, NW
UT101438817	UT101438817	UMC376517	UMC376508	JT 73	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 015	NE, NW
UT101438818	UT101438818	UMC376518	UMC376508	JT 74	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 010	SE
									26 0310S 0260E 015	NE
UT101438819	UT101438819	UMC376519	UMC376508	JT 75	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 015	NE
UT101439731	UT101439731	UMC378387	UMC378387	JT 152	SAN JUAN	ACTIVE	LODE CLAIM	7/7/2005	26 0310S 0260E 009	SW
UT101439732	UT101439732	UMC378388	UMC378387	JT 153	SAN JUAN	ACTIVE	LODE CLAIM	7/7/2005	26 0310S 0260E 009	SW
UT101439733	UT101439733	UMC378389	UMC378387	JT 154	SAN JUAN	ACTIVE	LODE CLAIM	7/7/2005	26 0310S 0260E 009	SW
UT101439734	UT101439734	UMC378390	UMC378387	JT 155	SAN JUAN	ACTIVE	LODE CLAIM	7/7/2005	26 0310S 0260E 009	SW
UT101439735	UT101439735	UMC378391	UMC378387	JT 156	SAN JUAN	ACTIVE	LODE CLAIM	7/7/2005	26 0310S 0260E 009	SW
UT101439736	UT101439736	UMC378392	UMC378387	JT 157	SAN JUAN	ACTIVE	LODE CLAIM	7/7/2005	26 0310S 0260E 009	SW
UT101439737	UT101439737	UMC378393	UMC378387	JT 158	SAN JUAN	ACTIVE	LODE CLAIM	7/7/2005	26 0310S 0260E 009	SW
UT101439738	UT101439738	UMC378394	UMC378387	JT 159	SAN JUAN	ACTIVE	LODE CLAIM	7/7/2005	26 0310S 0260E 009	SW
UT101439739	UT101439739	UMC378395	UMC378387	JT 160	SAN JUAN	ACTIVE	LODE CLAIM	7/8/2005	26 0310S 0260E 009	SE, SW
UT101439740	UT101439740	UMC378396	UMC378387	JT 161	SAN JUAN	ACTIVE	LODE CLAIM	7/8/2005	26 0310S 0260E 009	SE, SW

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UT101439741	UT101439741	UMC378397	UMC378387	JT 162	SAN JUAN	ACTIVE	LODE CLAIM	7/8/2005	26 0310S 0260E 009	SE
UT101440279	UT101440279	UMC376520	UMC376508	JT 76	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 010	SE
									26 0310S 0260E 015	NE
UT101440280	UT101440280	UMC376521	UMC376508	JT 77	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 015	NE
UT101440281	UT101440281	UMC376522	UMC376508	JT 78	SAN JUAN	ACTIVE	LODE CLAIM	5/4/2005	26 0310S 0260E 010	SE
									26 0310S 0260E 015	NE
UT101440282	UT101440282	UMC376523	UMC376508	JT 79	SAN JUAN	ACTIVE	LODE CLAIM	5/4/2005	26 0310S 0260E 015	NE
UT101440283	UT101440283	UMC376524	UMC376508	JT 80	SAN JUAN	ACTIVE	LODE CLAIM	5/3/2005	26 0310S 0260E 010	SE
									26 0310S 0260E 011	SE, SW
									26 0310S 0260E 014	NE, NW
									26 0310S 0260E 015	NE
UT101440284	UT101440284	UMC376525	UMC376508	JT 81	SAN JUAN	ACTIVE	LODE CLAIM	5/3/2005	26 0310S 0260E 014	NE, NW
									26 0310S 0260E 015	NE
UT101440285	UT101440285	UMC376528	UMC376508	JT 94	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 015	NW, SW
UT101440286	UT101440286	UMC376529	UMC376508	JT 95	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 015	SW
UT101440287	UT101440287	UMC376530	UMC376508	JT 96	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 015	NW, SW
UT101440288	UT101440288	UMC376531	UMC376508	JT 97	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 015	SW
UT101440289	UT101440289	UMC376532	UMC376508	JT 98	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 015	NW, SW
UT101440290	UT101440290	UMC376533	UMC376508	JT 99	SAN JUAN	ACTIVE	LODE CLAIM	5/2/2005	26 0310S 0260E 015	SW
UT101453005	UT101453005	UMC129764	UMC129428	CLIMAX NO 2	SAN JUAN	ACTIVE	LODE CLAIM	12/10/1950	26 0300S 0250E 025	SW

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UT101454259	UT101454259	UMC357407	UMC357400	GKS 8	SAN JUAN	ACTIVE	LODE CLAIM	7/19/1995	26 0300S 0250E 023	NE, SE, SW
UT101454657	UT101454657	UMC140617	UMC140457	SECURITY # 25	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0300S 0260E 031	SE
UT101454827	UT101454827	UMC129725	UMC129428	SENTINAL NO 8	SAN JUAN	ACTIVE	LODE CLAIM	1/1/1954	26 0300S 0250E 025	NW
									26 0300S 0250E 026	NE
UT101455008	UT101455008	UMC354576	UMC354543	RP # 75	SAN JUAN	ACTIVE	LODE CLAIM	10/16/1993	26 0300S 0250E 023	SE
									26 0300S 0250E 024	SW
									26 0300S 0250E 025	NW
									26 0300S 0250E 026	NE
UT101455011	UT101455011	UMC140648	UMC140457	SECURITY # 56	SAN JUAN	ACTIVE	LODE CLAIM	1/28/1966	26 0310S 0260E 005	SE
UT101456706	UT101456706	UMC354550	UMC354543	RP # 31	SAN JUAN	ACTIVE	LODE CLAIM	10/15/1993	26 0300S 0260E 030	SW
UT101477257	UT101477257	UMC129788	UMC129428	C-W-G FRACTION 2	SAN JUAN	ACTIVE	LODE CLAIM	12/24/1973	26 0300S 0250E 026	NE
UT101477280	UT101477280	UMC356896	UMC356889	LADY BUFF 8	SAN JUAN	ACTIVE	LODE CLAIM	2/28/1995	26 0300S 0250E 022	SE
									26 0300S 0250E 023	SW
UT101477736	UT101477736	UMC140633	UMC140457	SECURITY # 41	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SW
UT101480096	UT101480096	UMC349340	UMC349339	CD # 8A	SAN JUAN	ACTIVE	LODE CLAIM	3/21/1992	26 0300S 0250E 025	SE
UT101480097	UT101480097	UMC140613	UMC140457	SECURITY # 16	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 006	NE
UT101480105	UT101480105	UMC129721	UMC129428	SENTINAL NO 4	SAN JUAN	ACTIVE	LODE CLAIM	1/1/1954	26 0300S 0250E 025	NW
									26 0300S 0250E 026	NE
UT101492471	UT101492471	UMC354559	UMC354543	RP # 42	SAN JUAN	ACTIVE	LODE CLAIM	10/15/1993	26 0300S 0250E 025	SE

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									26 0300S 0260E 030	SW
UT101492778	UT101492778	UMC129829	UMC129428	GM WALLACE FRACTION	SAN JUAN	ACTIVE	LODE CLAIM	7/12/1970	26 0300S 0250E 025	SW
UT101494030	UT101494030	UMC354598	UMC354543	STEP # 22	SAN JUAN	ACTIVE	LODE CLAIM	10/26/1993	26 0300S 0250E 027	SE
									26 0300S 0250E 034	NE
UT101495727	UT101495727	UMC129719	UMC129428	SENTINAL NO 2	SAN JUAN	ACTIVE	LODE CLAIM	1/1/1954	26 0300S 0250E 025	SW
UT101495929	UT101495929	UMC359005	UMC359001	GKS 52	SAN JUAN	ACTIVE	LODE CLAIM	12/15/1995	26 0300S 0250E 035	NE
UT101502188	UT101502188	UMC354569	UMC354543	RP # 58	SAN JUAN	ACTIVE	LODE CLAIM	10/16/1993	26 0300S 0250E 024	SE, SW
UT101505854	UT101505854	UMC354582	UMC354543	STEP # 6	SAN JUAN	ACTIVE	LODE CLAIM	10/26/1993	26 0300S 0250E 027	SE
UT101508312	UT101508312	UMC140612	UMC140457	SECURITY # 15	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 006	NE
UT101513236	UT101513236	UMC374790	UMC374790	JT 15	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 005	NE, SE
UT101513237	UT101513237	UMC374791	UMC374790	JT 16	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 005	SE
UT101513238	UT101513238	UMC374792	UMC374790	JT 17	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 004	NW, SW
									26 0310S 0260E 005	NE, SE
UT101513239	UT101513239	UMC374793	UMC374790	JT 18	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 004	SW
									26 0310S 0260E 005	SE
UT101513240	UT101513240	UMC374794	UMC374790	JT 19	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 004	NW, SW
UT101513241	UT101513241	UMC374795	UMC374790	JT 20	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 004	SW
UT101513242	UT101513242	UMC374796	UMC374790	JT 21	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 004	NW, SW
UT101513243	UT101513243	UMC374797	UMC374790	JT 22	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 004	SW

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UT101514536	UT101514536	UMC374798	UMC374790	JT 23	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 004	NW, SW
UT101514537	UT101514537	UMC374799	UMC374790	JT 24	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 004	SW
UT101514538	UT101514538	UMC374800	UMC374790	JT 25	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 004	NW, SW
UT101514539	UT101514539	UMC374801	UMC374790	JT 26	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 004	SW
UT101514540	UT101514540	UMC374802	UMC374790	JT 27	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 004	NE, NW, SE, SW
UT101514541	UT101514541	UMC374803	UMC374790	JT 28	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 004	SE, SW
UT101514542	UT101514542	UMC374804	UMC374790	JT 29	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 004	NE, SE
UT101514543	UT101514543	UMC374805	UMC374790	JT 30	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 004	SE
UT101514544	UT101514544	UMC374806	UMC374790	JT 31	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 004	SE
UT101514545	UT101514545	UMC374807	UMC374790	JT 32	SAN JUAN	ACTIVE	LODE CLAIM	3/23/2005	26 0310S 0260E 004	SE
UT101525580	UT101525580	UMC380402	UMC380402	JT 169	SAN JUAN	ACTIVE	LODE CLAIM	11/10/2005	26 0310S 0260E 010	SW
UT101525581	UT101525581	UMC380403	UMC380402	JT 170	SAN JUAN	ACTIVE	LODE CLAIM	11/10/2005	26 0310S 0260E 010	SW
UT101528369	UT101528369	UMC140637	UMC140457	SECURITY # 45	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	SE, SW
UT101528476	UT101528476	UMC129720	UMC129428	SENTINAL NO 3	SAN JUAN	ACTIVE	LODE CLAIM	1/1/1954	26 0300S 0250E 025	NW
UT101528951	UT101528951	UMC416753	UMC416753	GS NO 1	SAN JUAN	ACTIVE	LODE CLAIM	12/1/2011	26 0300S 0250E 023	NW
UT101528952	UT101528952	UMC416754	UMC416753	GS NO 2	SAN JUAN	ACTIVE	LODE CLAIM	12/1/2011	26 0300S 0250E 023	NW
UT101528953	UT101528953	UMC416755	UMC416753	GS NO 3	SAN JUAN	ACTIVE	LODE CLAIM	12/1/2011	26 0300S 0250E 023	NW
UT101528954	UT101528954	UMC416756	UMC416753	GS NO 4	SAN JUAN	ACTIVE	LODE CLAIM	12/1/2011	26 0300S 0250E 023	NW
UT101528955	UT101528955	UMC416757	UMC416753	GS NO 5	SAN JUAN	ACTIVE	LODE CLAIM	12/1/2011	26 0300S 0250E 014	SW

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									26 0300S 0250E 015	SE
UT101528956	UT101528956	UMC416758	UMC416753	GS NO 6	SAN JUAN	ACTIVE	LODE CLAIM	12/1/2011	26 0300S 0250E 014	SW
									26 0300S 0250E 015	SE
UT101528957	UT101528957	UMC416759	UMC416753	GS NO 7	SAN JUAN	ACTIVE	LODE CLAIM	12/1/2011	26 0300S 0250E 015	NW
UT101528958	UT101528958	UMC416760	UMC416753	GS NO 8	SAN JUAN	ACTIVE	LODE CLAIM	12/1/2011	26 0300S 0250E 015	NW
UT101546143	UT101546143	UMC129729	UMC129428	CAT	SAN JUAN	ACTIVE	LODE CLAIM	9/25/1953	26 0300S 0250E 025	SW
									26 0300S 0250E 026	SE
UT101547512	UT101547512	UMC140644	UMC140457	SECURITY # 52	SAN JUAN	ACTIVE	LODE CLAIM	1/28/1966	26 0310S 0260E 005	SW
UT101565424	UT101565424	UMC438883	UMC438883	LS 1	SAN JUAN	ACTIVE	LODE CLAIM	3/7/2018	26 0310S 0260E 008	SW
UT101565425	UT101565425	UMC438884	UMC438883	LS 2	SAN JUAN	ACTIVE	LODE CLAIM	3/7/2018	26 0310S 0260E 008	SW
UT101565426	UT101565426	UMC438885	UMC438883	LS 3	SAN JUAN	ACTIVE	LODE CLAIM	3/7/2018	26 0310S 0260E 008	SW
UT101565427	UT101565427	UMC438886	UMC438883	LS 4	SAN JUAN	ACTIVE	LODE CLAIM	3/7/2018	26 0310S 0260E 008	SW
UT101565428	UT101565428	UMC438888	UMC438883	JT 132	SAN JUAN	ACTIVE	LODE CLAIM	3/7/2018	26 0310S 0260E 008	SW
UT101573040	UT101573040	UMC445803	UMC445803	FOX GAP 1	SAN JUAN	ACTIVE	LODE CLAIM	12/20/2019	26 0300S 0250E 026	SE
									26 0300S 0250E 035	NE
UT101573041	UT101573041	UMC445804	UMC445803	FOX GAP 2	SAN JUAN	ACTIVE	LODE CLAIM	12/20/2019	26 0300S 0250E 026	SE
									26 0300S 0250E 035	NE
UT101573042	UT101573042	UMC445805	UMC445803	FOX GAP 3	SAN JUAN	ACTIVE	LODE CLAIM	12/20/2019	26 0300S 0250E 025	SE, SW
									26 0300S 0250E 036	NE, NW
UT101573043	UT101573043	UMC445806	UMC445803	FOX GAP 4	SAN JUAN	ACTIVE	LODE CLAIM	12/20/2019	26 0300S 0250E 025	SE

Serial Number	Lead File Number	Legacy Serial Number	Legacy Lead File Number	Claim Name	County	Case Disposition	Claim Type	Date Of Location	Meridian Township Range Section	Subdivision
									26 0300S 0250E 036	NE
UT101600455	UT101600455	UMC140625	UMC140457	SECURITY # 33	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW, SW
UT101600486	UT101600486	UMC356895	UMC356889	LADY BUFF 7	SAN JUAN	ACTIVE	LODE CLAIM	2/28/1995	26 0300S 0250E 023	SW
UT101600493	UT101600493	UMC140624	UMC140457	SECURITY # 32	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NE
UT101600517	UT101600517	UMC356894	UMC356889	LADY BUFF 6	SAN JUAN	ACTIVE	LODE CLAIM	2/28/1995	26 0300S 0250E 022	SE
									26 0300S 0250E 023	SW
									26 0300S 0250E 026	NW
UT101600537	UT101600537	UMC354610	UMC354543	STEP # 34	SAN JUAN	ACTIVE	LODE CLAIM	10/27/1993	26 0300S 0250E 035	SE
									26 0300S 0250E 036	SW
UT101601716	UT101601716	UMC129786	UMC129428	C-W-G FRACTION	SAN JUAN	ACTIVE	LODE CLAIM	12/24/1973	26 0300S 0250E 026	NW
UT101601717	UT101601717	UMC359003	UMC359001	GKS 50	SAN JUAN	ACTIVE	LODE CLAIM	12/15/1995	26 0300S 0250E 026	SE
									26 0300S 0250E 035	NE
UT101601946	UT101601946	UMC129773	UMC129428	CD 1	SAN JUAN	ACTIVE	LODE CLAIM	4/6/1973	26 0300S 0250E 025	SW
									26 0300S 0250E 026	SE
UT101601954	UT101601954	UMC140626	UMC140457	SECURITY # 34	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NW, SW
UT101602045	UT101602045	UMC330152	UMC330150	NU ZUNI 47	SAN JUAN	ACTIVE	LODE CLAIM	12/31/1989	26 0300S 0250E 035	NE, SE
									26 0300S 0250E 036	NW, SW
UT101606457	UT101606457	UMC354607	UMC354543	STEP # 31	SAN JUAN	ACTIVE	LODE CLAIM	10/27/1993	26 0300S 0250E 035	NE, SE
UT101608437	UT101608437	UMC129770	UMC129428	ALPHA # 6	SAN JUAN	ACTIVE	LODE CLAIM	9/1/1959	26 0300S 0250E 025	SE, SW

Serial Number	Lead File Number	Legacy Serial Number	Legacy Lead File Number	Claim Name	County	Case Disposition	Claim Type	Date Of Location	Meridian Township Range Section	Subdivision
UT101608471	UT101608471	UMC140623	UMC140457	SECURITY # 31	SAN JUAN	ACTIVE	LODE CLAIM	12/22/1965	26 0310S 0260E 005	NE, NW
UT101609507	UT101609507	UMC354565	UMC354543	RP # 51	SAN JUAN	ACTIVE	LODE CLAIM	10/15/1993	26 0300S 0250E 025	SE
UT101676068	UT101676068	UMC371982	UMC371982	JT 1	SAN JUAN	ACTIVE	LODE CLAIM	9/1/2004	26 0310S 0260E 009	NE
UT101676069	UT101676069	UMC371983	UMC371982	JT 2	SAN JUAN	ACTIVE	LODE CLAIM	9/1/2004	26 0310S 0260E 009	NE
UT101676070	UT101676070	UMC371984	UMC371982	JT 3	SAN JUAN	ACTIVE	LODE CLAIM	9/1/2004	26 0310S 0260E 009	NE
UT101676071	UT101676071	UMC371985	UMC371982	JT 4	SAN JUAN	ACTIVE	LODE CLAIM	9/1/2004	26 0310S 0260E 009	NE
UT101676072	UT101676072	UMC371986	UMC371982	JT 5	SAN JUAN	ACTIVE	LODE CLAIM	9/1/2004	26 0310S 0260E 009	NE
UT101676073	UT101676073	UMC371987	UMC371982	JT 6	SAN JUAN	ACTIVE	LODE CLAIM	9/1/2004	26 0310S 0260E 009	NE
UT101676074	UT101676074	UMC371988	UMC371982	JT 7	SAN JUAN	ACTIVE	LODE CLAIM	9/1/2004	26 0310S 0260E 009	NE
UT101676075	UT101676075	UMC371989	UMC371982	JT 8	SAN JUAN	ACTIVE	LODE CLAIM	9/1/2004	26 0310S 0260E 009	NE
UT101676076	UT101676076	UMC371990	UMC371982	JT 9	SAN JUAN	ACTIVE	LODE CLAIM	9/1/2004	26 0310S 0260E 009	NE
									26 0310S 0260E 010	NW
UT101676077	UT101676077	UMC371991	UMC371982	JT 10	SAN JUAN	ACTIVE	LODE CLAIM	9/1/2004	26 0310S 0260E 009	NE
									26 0310S 0260E 010	NW
UT101676078	UT101676078	UMC371992	UMC371982	JT 11	SAN JUAN	ACTIVE	LODE CLAIM	9/1/2004	26 0310S 0260E 010	NW
UT101676079	UT101676079	UMC371993	UMC371982	JT 12	SAN JUAN	ACTIVE	LODE CLAIM	9/1/2004	26 0310S 0260E 010	NW
UT101676080	UT101676080	UMC371994	UMC371982	JT 13	SAN JUAN	ACTIVE	LODE CLAIM	9/1/2004	26 0310S 0260E 010	NW
UT101676081	UT101676081	UMC371995	UMC371982	JT 14	SAN JUAN	ACTIVE	LODE CLAIM	9/1/2004	26 0310S 0260E 010	NW
UT101821426	UT101821426	UMC445807	UMC445803	FOX GAP 5	SAN JUAN	ACTIVE	LODE CLAIM	12/20/2019	26 0300S 0250E 025	NW, SW
UT101821427	UT101821427	UMC445808	UMC445803	FOX GAP 6	SAN JUAN	ACTIVE	LODE CLAIM	12/20/2019	26 0300S 0250E 023	SE

Serial Number	Lead File Number	Legacy Serial Number	Legacy Lead File Number	Claim Name	County	Case Disposition	Claim Type	Date Of Location	Meridian Township Range Section	Subdivision
									26 0300S 0250E 026	NE, NW
UT101821428	UT101821428	UMC445809	UMC445803	FOX GAP 7	SAN JUAN	ACTIVE	LODE CLAIM	12/20/2019	26 0300S 0250E 023	SE
									26 0300S 0250E 026	NE
UT101825809	UT101825809	UMC367233	UMC367233	GKS 39	SAN JUAN	ACTIVE	LODE CLAIM	3/8/2000	26 0310S 0250E 001	NE
										SE
UT101825810	UT101825810	UMC367234	UMC367233	GKS 40	SAN JUAN	ACTIVE	LODE CLAIM	3/8/2000	26 0310S 0250E 001	SE
UT101825812	UT101825812	UMC367235	UMC367233	GKS 47	SAN JUAN	ACTIVE	LODE CLAIM	3/8/2000	26 0310S 0250E 001	SE
									26 0310S 0250E 012	NE
UT102521806	UT102521806	UMC375617	UMC375617	JT 33	SAN JUAN	ACTIVE	LODE CLAIM	4/5/2005	26 0310S 0260E 003	SW
									26 0310S 0260E 004	SE
UT102521807	UT102521807	UMC375618	UMC375617	JT 34	SAN JUAN	ACTIVE	LODE CLAIM	4/5/2005	26 0310S 0260E 005	NE
UT102521808	UT102521808	UMC375619	UMC375617	JT 35	SAN JUAN	ACTIVE	LODE CLAIM	4/5/2005	26 0310S 0260E 004	NW
									26 0310S 0260E 005	NE
UT102521809	UT102521809	UMC375620	UMC375617	JT 36	SAN JUAN	ACTIVE	LODE CLAIM	4/5/2005	26 0310S 0260E 004	NW
UT102521810	UT102521810	UMC375621	UMC375617	JT 37	SAN JUAN	ACTIVE	LODE CLAIM	4/5/2005	26 0310S 0260E 004	NW
UT102521811	UT102521811	UMC375622	UMC375617	JT 38	SAN JUAN	ACTIVE	LODE CLAIM	4/5/2005	26 0310S 0260E 010	NW, SW
UT102521812	UT102521812	UMC375623	UMC375617	JT 39	SAN JUAN	ACTIVE	LODE CLAIM	4/5/2005	26 0310S 0260E 010	SW
UT102521813	UT102521813	UMC375624	UMC375617	JT 40	SAN JUAN	ACTIVE	LODE CLAIM	4/5/2005	26 0310S 0260E 010	NW, SW
UT102521814	UT102521814	UMC375625	UMC375617	JT 41	SAN JUAN	ACTIVE	LODE CLAIM	4/5/2005	26 0310S 0260E 010	SW
UT102521815	UT102521815	UMC375626	UMC375617	JT 42	SAN JUAN	ACTIVE	LODE CLAIM	4/5/2005	26 0310S 0260E 010	NE, SE

Serial Number	Lead File Number	Legacy Serial Number	Legacy Lead File Number	Claim Name	County	Case Disposition	Claim Type	Date Of Location	Meridian Township Range Section	Subdivision
UT102521816	UT102521816	UMC375627	UMC375617	JT 43	SAN JUAN	ACTIVE	LODE CLAIM	4/5/2005	26 0310S 0260E 010	SE
UT106370356	UT106370356			SECURITY 57		FILED	LODE CLAIM	3/1/2024	26 0310S 0260E 005	NE
UT106370357	UT106370356			STEP 28		FILED	LODE CLAIM	3/1/2024	26 0300S 0250E 035	NW
UT106370358	UT106370356			SECURITY 58		FILED	LODE CLAIM	3/1/2024	26 0310S 0260E 005	NE
UT106392115	UT106392115			LS5	SAN JUAN	FILED	LODE CLAIM	7/9/2024	26 0310S 0260E 008	SW
UT106392117	UT106392117			LS6	SAN JUAN	FILED	LODE CLAIM	7/9/2024	26 0310S 0260E 008	SW
UT106392122	UT106392122			JT 135	SAN JUAN	FILED	LODE CLAIM	8/22/2024	26 0310S 0260E 008	SW
UT106729099	UT106729099			MG 1	SAN JUAN	UNDER REVIEW	LODE CLAIM	3/11/2025	26 0310S 0260E 010	SE
									26 0310S 0260E 011	SW
UT106729100	UT106729099			MG 2	SAN JUAN	UNDER REVIEW	LODE CLAIM	3/11/2025	26 0310S 0260E 010	SE
									26 0310S 0260E 011	NW, SW
UT106729101	UT106729099			JT 171	SAN JUAN	UNDER REVIEW	LODE CLAIM	3/4/2025	26 0310S 0260E 010	SW
UT106729102	UT106729099			JT 174	SAN JUAN	UNDER REVIEW	LODE CLAIM	3/5/2025	26 0310S 0260E 009	SE, SW
UT106729103	UT106729099			JT 176	SAN JUAN	UNDER REVIEW	LODE CLAIM	3/5/2025	26 0310S 0260E 008	SE
									26 0310S 0260E 009	SW
UT106729104	UT106729099			JT 172	SAN JUAN	UNDER REVIEW	LODE CLAIM	2/26/2025	26 0310S 0260E 009	SE
UT106729105	UT106729099			JT 173	SAN JUAN	UNDER REVIEW	LODE CLAIM	3/4/2025	26 0310S 0260E 009	NW, SW

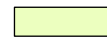
Serial Number	Lead File Number	Legacy Serial Number	Legacy Lead File Number	Claim Name	County	Case Disposition	Claim Type	Date Of Location	Meridian Township Range Section	Subdivision
UT106729106	UT106729099			JT 175	SAN JUAN	UNDER REVIEW	LODE CLAIM	3/5/2025	26 0310S 0260E 009	SW
UT106743746	UT106743746			JT 177	SAN JUAN	UNDER REVIEW	LODE CLAIM	5/8/2025	26 0310S 0260E 004	NW
UT106743747	UT106743746			JT 179	SAN JUAN	UNDER REVIEW	LODE CLAIM	5/8/2025	26 0310S 0260E 004	NE, SE
UT106743748	UT106743746			JT 178	SAN JUAN	UNDER REVIEW	LODE CLAIM	5/8/2025	26 0310S 0260E 004	NE
SITLA Lease Information										
ML-17661								1/1/1959	T30S R25E S36	SW
ML-20569								1/1/1963	T30S R25E S36	E2, NW
ML-53127								3/1/2015	T30S R26E S32	All
ML-534300BA								12/1/2016	T31S R26E S16	All

Table 6: Waste Rock Facility Information

Dump	Total Acres	LOM Volume (MM tons)	Remaining capacity (MM tons)
A	122	35	19
B	128	20	0
C	171	40	0
D (Lone Wolf WRS)	126	29	29
Totals	554	124	48



Well Drilling and Mining



Well Rinsing, Decommissioning and Closure initiation

Table 7: Expected ISR well

	Yr 1 ⁸	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Yr 16	Yr 17	Yr 18	Yr 19	Yr 20	Yr 21
GTO ISR Wellfield																					
Monitor wells			3	4																	
Injection wells			16	20	20	20	15														
Production wells			10	15	20	20	17														
Subtotal Wells			29	39	40	40	32														
Lone Wolf ISR Wellfield																					
Monitor wells								5	5	4											
Injection wells									150	100	100	50	50	50	50	45					
Production wells									100	75	75	40	40	40	39	35					
Subtotal Wells								5	255	179	175	90	90	90	89	80					
Flying Diamond ISR Wellfield⁹																					
Monitor wells ⁸													4	3							
Injection wells														25	25	25	25	25	20	15	10
Production wells														15	15	15	12	12	15	10	8
Subtotal Wells													4	43	40	40	37	37	35	25	18
TOTAL WELLS		143	100	209	240	224	309	4	28	226	151	90	94	133	129	120	37	37	32	25	18

⁸ Year 1 = 2026 the anticipated start date for this MPO

⁹ Flying Diamond Well Rinsing, Decommissioning and Closure start in Year 22 for 5 years then monitoring for 5 years. Completion in Year 31.

Table 8: Environmental Permits

Issuing Agency	Modified or New Permit or License
Federal Bureau of Land Management Moab Field Office	Record of Decision for Proposed Operations (UTU-72499)
US EPA Region 8	Aquifer Exemption (Class III Wells)
Utah Department of Environmental Quality	NPDES Industrial Stormwater Permit (UTR00737)
	Class III UIC Permit (UTU-37-AP-5D5F693)
	Ground Water Discharge Permit (UGW370005)
	Approval Order for Emissions Source (DAQE-AN114620014)
Utah Department of Natural Resources	Large Mining Permit (M/037/0088)
	Reclamation Contract (M/037/0088)
	Water Rights 05-2593; 05-762
San Juan County	Conditional Use Permit (as needed)
	Building Permit

Table 9: Lithology and Bed Description

Lithology	Bed #	Rock Type	Description	Categorization
Quaternary Alluvium	1	1	Unconsolidated sand, silt; and clay.	No Data
Mancos Shale Formation	2	2	Black fissile shale with trace amounts of gypsum. The upper 20-30 feet is usually weathered to a brownish olive-green color.	Likely Acid Neutralizing
Upper Dakota Sandstone	3, 4, 5	3	Bed 3: Except in a small area to the north of the Centennial Pit, Bed 3 is a fine to medium-grained buff sandstone, which is sometimes separated from Bed 4 by a black shale lithologically similar to the Mancos Shale. Usually Beds 3, 4, and 5 are identical and inseparable, forming a 45-60-foot-thick well sorted, buff sandstone bed. In all locales Bed 3 is barren of ore. Beds 4 & 5: Fine to medium-grained buff sandstone, sometimes with minor gray shale and carbonaceous material, but usually rather pure. The thickness is usually 35-40 feet. In some areas there is good ore at the base of Bed 5. In outcrop Bed 5 shows a rectangular jointing pattern with a spacing of about 5 feet.	Uncertain
Dakota Sandstone, coaly beds	6, 7, 8	4	Bed 6: This bed is usually a coal bed but may grade to a carbonaceous shale or even to a carbonaceous sandstone. Thickness is 5-20 feet, usually about 12 feet. Bed 7: Light gray to dark gray shale, similar lithologically to Bed 9 with a thickness of usually about 10 feet. Rarely, however, it is a fine-grained buff sandstone or a fine-grained gray sandstone. Bed 8: Bed 8 is lithologically indistinguishable from Bed 6, except that it is usually a poorer grade coal. It may be either shaly or sandy but is usually a slightly shaly coal about 6-8 feet thick.	Uncertain
Dakota Sandstone, shaley beds	9, 10	5	Beds 9 & 10: Usually indistinguishable. They are usually a light gray shale towards the top, becoming darker towards Bed 11. The contact between 10 and 11 is sometimes gradational but where present, beds 9 and 10 are usually about 35 feet thick.	Uncertain
Lower Dakota Sandstone	11, 12, 13	6	Bed 11: Fine to medium-grained sandstone that is either buff, white, or gray. Bed 11 frequently has 1-20% black shale and can be indistinguishable from 13. Thickness is 2-35 feet and quite variable. Bed 12: This bed is a faintly green to gray shale to very fine-grained sandstone. It is frequently pyritic. Thickness is 5-20 feet, but usually 10 feet.	

Lithology	Bed #	Rock Type	Description	Categorization
			Bed 13: Medium grained white or deep buff sandstone. It can be distinguished from 11 in that it is coarser and more of an orange color when buff, and coarser when white. It can be distinguished from Bed 15 in that it is much softer. Thickness ranges from 20-50 feet and is usually about 30-35 feet.	
Burro Canyon Formation	14, 15	7	Bed 14: Usually about 100 feet thick but varies from 70- 120 feet. Lithologically, it is composed of red shales, green shales, limestones, massive chert beds, and sandstone.	Likely Acid Neutralizing
			Bed 15: Sandstone predominantly medium to coarse grained with remnant feldspar and lithic fragments. Also contains pebble conglomerates, fine grained, well sorted sandstone and thin shale units. Bed 15 is bleached to white or light gray; shale units are bleached to light green.75-150 ft thick.	
Morrison Formation	17	8	Bed 17: Brushy Basin member of the Morrison formation. Red siltstone with interbedded orange medium grained sandstone, and dark red shale. contact between Bed 15 and the Morrison Formation may be ambiguous.	Likely Acid Neutralizing
Jurassic Footwall	N/A	J	Jurassic strata represent continuing deposition in continental environments. Massive sandstones were deposited in eolian conditions, while interbedded sandstone, shale, and siltstone formed in fluvial conditions. Local freshwater limestones were deposited in lacustrine settings.	Likely Acid Neutralizing

Table 10: Topsoil Quantities and Source

Topsoil Piles	Total Est Topsoil Quantities (CY)	Topsoil Quantities Stored (CY)	Source
A	117,200	73,200	Leach Pad, ponds, facilities (shops and admin, plant)
B	322,590	322,590	Leach Pad, ponds, A dump, facilities (shops and admin, plant)
C	236,600	236,600	Centennial pit, facilities
D	138,400	138,400	A dump
E	341,690	341,690	B dump
F	15,400	15,400	A dump, GTO pit
H	165,493	165,493	GTO, Water Pond 1 and 2, A dump
I	3,302,176	0	Lone Wolf Pit and Dump (est)
J	1,038,422	0	Leach Pad (est)
K	641,623	0	Crusher and SX Area (est)
Totals	6,319,594	1,293,373	

NOTE:

Totals for Lone Wolf, Leach Pad and Crusher SX Area are estimated based on area and an average 3.5 feet of growth media recovery for that area, this estimate is approximately 600,000 cubic yards less than the Soils Baseline Report for Lisbon Valley Mining Company, October 31, 2019. Terra West Consulting, Inc. that covered a slightly different alternative.

Table 11: Seed Mix

DOGM Files		
Common Name	Lb/Acre	% of mix
Indian Ricegrass	2.0	11%
Blue Grama	0.5	12%
Sideoats grama	1.0	29%
Chrested Wheatgrass	1.5	9%
Thickspike wheatgrass	1.5	3%
Annual Sunflower	1	2%
Palmer penstemon	0.25	5%
Yellow sweetclover	1.25	10%
Alfalfa	1.25	9%
Fourwing saltbrush	1	2%
Winterfat	0.25	1%
Mountain big sage	0.1	8%
Total	11.6	100%

Table 12: Pond Sizing

Pond Name	Cubic Feet	Gallons	Acre-feet
LVM PLS Pond	1,288,238	9,636,691	29.57
LVM ILS Pond (below weir/outlet)	997,012	7,458,170	22.89
LVM Raff Pond	969,585	7,253,002	22.26
LVM Stormwater Pond	743,036	5,558,295	17.06
LVM Emergency 10-yr 24-hr overflow Pond ("100-yr Pond")	1,840,311	13,766,480	42.25
LVM New Pond	997,012	7,458,170	22.89
LLV PLS Pond (preliminary)	1,288,238	9,636,691	29.57
LLV ILS Pond (preliminary)	1,288,238	9,636,691	29.57
LLV Stormwater Pond (preliminary)	743,036	5,558,295	17.0
LLV Emergency Pond (preliminary)	1,840,311	13,766,480	42.0
TOTAL PROCESS STORAGE	11,995,017	89,728,965	275.37
Haul Road Retention Pond	791,919	5,923,966	18.18
GTO Pond 1	871,198	6,517,014	20.0
GTO Pond 2	871,198	6,517,014	20.0
TOTAL FRESH WATER STORAGE	2,534,315	18,957,994	58.18

Table 13: Material Extracted, Moved or Proposed for Movement

Area	Historic Material Extracted/Moved				Current Period Material Extracted/Moved				Proposed Material Extracted/Moved			
	Total (tons)	Ore (tons)	NAG Waste (tons)	PAG or Uncertain (tons)	Total (tons)	Ore (tons)	NAG Waste (tons)	PAG or Uncertain (tons)	Total (tons)	Ore (tons)	NAG Waste (tons)	PAG or Uncertain (tons)
Production Materials												
GTO (x 1000)	19,529.0	1,909.0	14,754.4	2,865.6								
Sentinel (x1000)	12,876.9	7,538.3	5,338.6									
Centennial (x 1000)	85,431.0	18,745.0	50,003.2	16,682.8	13,378.3	1,552.7	3,922.82	7,902.8				
Lone Wolf (x 1000)	0.0	0.0	0.0	0.0					348,788.8	65,671.6	163,366.1	119,751.1
Total Pits	117,836.9	28,192.30	70,096.10	19,548.40	13,378.3	1,552.7	3,922.82	7,902.8	348,788.8	65,671.6	283,117.2	119,751.1
Reclamation Materials												
Stockpile A	118,584				118,584							
Stockpile B	522,596				522,596							
Stockpile C	383,292				383,292							
Stockpile D	224,208				224,208							
Stockpile E	553,538				553,538							
Stockpile F	24,948				24,948							
Stockpile G	268,099				268,099							
Stockpile LLV 1-2-3									4,696,119			
Total	2,095,265				2,095,265				4,696,119			

Table 14: Expected water consumption per year (reported in acre-feet per annum)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Ore Wetting	219.7	980.4	947.8	1,288.9	1,288.9	1,288.9	1,288.9	1,288.9	1,288.9	1,288.9
HLP Evaporative Loss	503.7	595.2	595.2	595.2	595.2	595.2	843.2	843.2	843.2	843.2
Pond Evaporative Loss	69.1	169.9	169.9	169.9	169.9	169.9	169.9	169.9	169.9	169.9
Dust Suppression	108.1	216.1	216.1	216.1	216.1	216.1	216.1	216.1	216.1	216.1
Total Usage	901	1,962	1,929	2,270	2,270	2,270	2,518	2,518	2,518	2,518
	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18 ¹⁰	Year 19	Year 20
Ore Wetting	47.9	0	0	0	0	0	0	0	0	0
HLP Evaporative Loss	843.2	843.2	843.2	843.2	248.0	248.0	248.0	248.0	248.0	248.0
Pond Evaporative Loss	169.9	169.9	169.9	169.9	49.5	49.5	49.5	49.5	49.5	49.5
Dust Suppression	216.1	216.1	216.1	216.1	216.1	216.1	216.1	216.1	108	108
Total Usage	1,277	1,229	1,229	1,229	514	514	514	514	406	406

¹⁰ Operations reach closure mode and water consumption is recirculation evaporative loss through HLP drain down.

Table 15: BMP Opportunities for Impacts Mitigation

RESOURCE	EPM	DESCRIPTION
AIR QUALITY	Carpooling/bus/van transport of employees	Provide opportunities for carpooling and bus/van transportation for employees travelling to and from work from surrounding communities.
	Dust suppressant on roads	All access roads would have dust suppressant placed on the road to reduce fugitive dust and would be applied as needed to meet opacity limits. Dust suppressant would be environmentally benign and BLM/EPA-approved.
	Engines	New engines - emergency diesel and mobile crusher engines - would be EPA Tier 4 certified.
	Fuels	Clean fuel (ultra-low sulfur diesel) would be used to minimize fuel combustion emissions.
	Wobbler feeder	Feeder dust emissions and fines would be minimized by using a wobbler feeder on the crusher at lone wolf instead of a screen.
	Boilers	Only two of four boilers would operate at any one time.
	Blasting	Under normal operations, blasting would occur a maximum of once per day and 312 times per year, between the hours of 10 am to 7 pm.
	Tanks	Extraction solution tanks would be covered.
CULTURAL RESOURCES	Training	All personnel (including contractors) involved in construction, operation, and maintenance of the project would be instructed (to a degree appropriate to their involvement in the project), with BLM guidance, on the statutes protecting cultural resources, site avoidance, and protection measures prior to being authorized to work in the project area. All employees would receive written information sheets that discuss the importance of cultural resources and archaeological laws including penalties for violation, as well as receiving direct instruction covering the same material.
	Inadvertent discoveries	If cultural resources are discovered during project activities, construction or operation activities would cease at the discovery location (with a 100-foot buffer), and it would be reported to the BLM. No work would occur in that location until an evaluation determination has been made regarding the finding and the BLM has provided a notice to proceed.

RESOURCE	EPM	DESCRIPTION
	Production wells	Production wells would be located within the physical area surveyed for cultural resources; NRHP-eligible cultural resources (i.e., historic properties) would be avoided by production well construction and operation.
GENERAL WILDLIFE AND SPECIAL STATUS WILDLIFE SPECIES	Disturbance calendar	Concentrate new disturbance as much as possible to between September 1 and November 15 as this is the least sensitive time period for all wildlife species.
	Exclusion of birds from process ponds	LVMC would utilize technologies to exclude birds from process ponds which may include blasters, bird balls, netting, liner, etc., appropriate technology would be implemented as practicable.
	Fencing	Fencing would be installed/re-installed only around areas designated by MSHA, around areas of active reclamation, and/or around private land owned/controlled by LVMC. All fencing would be built to BLM specifications, unless otherwise required to restrict access. Fence would be 40 inches tall with four wires at 16/6/6/12-inch spacing and a smooth bottom wire unless otherwise required to restrict access.
	Pinyon tree planting	LVMC would plant pinyon trees during reclamation efforts within reclaimed areas to replace those removed during construction to provide habitat for the pinyon jay.
	Wildlife fencing	Wildlife fencing that meets MSA requirements and is approved by BLM would be installed around process ponds. These fences would act to exclude wildlife from process ponds. Chain link fence at least 8 feet in height would be required to exclude most wildlife species.
	Wildlife watering troughs	In coordination with BLM and DWR, watering troughs may be installed strategically around the project area (no less than 5 watering troughs) to deter wildlife from accessing water from the active areas. These troughs would be filled periodically.
	Eliminate solution ponding on the heap leach facility	Eliminate as much as feasible all solution ponding to reduce evaporation and reduce wildlife draw.
	Power line	The power line and all aboveground electrical facilities would be designed to provide raptor and migratory bird protection in compliance with the standards described in Avian Power Line Interaction Committee's (APLIC) suggested practices for avian protection on power lines (2024).

RESOURCE	EPM	DESCRIPTION
GENERAL WILDLIFE AND SPECIAL STATUS WILDLIFE SPECIES (CONTINUED)	Surveys	<p>Prior to surface disturbance occurring in suitable habitat, a GLM-approved biologist would conduct special status wildlife species surveys for Gunnison's prairie dog, kit fox, and burrowing owl, following BLM-approved protocols. During those surveys, the biologist(s) would document sign or occurrence of special status species within or immediately adjacent to the project area and expand their search as they deem necessary to locate burrows within 0.25 miles. If burrows of Gunnison's prairie dog and/or kit fox are located during surveys, efforts would be coordinated with the BLM to minimize impacts to the species by considering translocating animals to suitable habitat prior to surface disturbance or determining other options to minimize impacts to these species.</p>
	Migratory birds	<p>The primary nesting season for migratory birds (March 1 through August 31) would be avoided to the extent practicable. If surface disturbing activities cannot be avoided in the primary nesting season, an approved biological surveyor with appropriate expertise would conduct migratory bird nest clearance surveys within a 150-foot radius of the disturbance no more than 7-days prior to any ground disturbing activity. If an active nest is discovered (i.e., adults incubating, eggs visible, or chicks observed) the biological monitor would establish the appropriate buffer around the nest in coordination with the BLM wildlife biologist. The buffer is to remain in place unless the biological monitor has determined that the nest is no longer active (i.e., no activity, failed, or young have fledged); at which time the buffers may be lifted; or if, in coordination with the BLM and USFWS, as applicable, the buffers could be reduced. LVMC would coordinate with the USFWS and BLM on proposals to remove nests</p>

RESOURCE	EPM	DESCRIPTION
GENERAL WILDLIFE AND SPECIAL STATUS WILDLIFE SPECIES (CONTINUED)	Raptors	<p>For raptor species not specifically described in the Moab Field Office RMP (BLM 2008a), surface disturbance within the project area buffer would be avoided or minimized in accordance with United States Fish and Wildlife Service (USFWS) Utah Field Office guidelines for raptor protection from human and land use disturbances (Romin and Muck 2002) and best management practices for raptors and their habitats in Utah (BLM 2006). This includes the assumption that all nests are considered active unless documented otherwise and the establishment of appropriate spatial and temporal “no activity” buffers that are to remain in place until determined by a biological monitor that the nest is no longer active, failed, or juveniles have fledged at which time the buffers may be lifted. Modification of the buffers may be considered if evidence suggests (in coordination with and approved by the BLM) that potential impacts associated with the buffer modification would be negligible. Preconstruction raptor surveys would be conducted if project-related surface disturbance is planned between January 1 and August 31.</p>
	Burrowing owl and ferruginous hawk	<p>No surface disturbances would be conducted during the breeding and nesting season (March 1 to August 31 for burrowing owl and March 1 – August 1 for ferruginous hawk) within spatial buffers (0.25 mile for burrowing owl and 0.5 mile for ferruginous hawk) of known nesting sites.</p> <p>An exception would be granted if protocol surveys determine that nesting sites, breeding territories, and winter roosting areas are not occupied.</p> <p>The authorized officer may modify the boundaries of the stipulation area if portions of the area do not include habitat or are outside the current defined area, as determined by the BLM.</p> <p>A waiver may be granted if it is determined the habitat no longer exists or has been destroyed.</p>

RESOURCE	EPM	DESCRIPTION
<p>GENERAL WILDLIFE AND SPECIAL STATUS WILDLIFE SPECIES (CONTINUED)</p>	<p>Golden eagle</p>	<p>No surface-disturbing activities would be allowed within a 0.5 miles radius of documented active golden eagle nest sites from February 1 to July 15 or until fledgling and dispersal of young. Any access created by the action would be outside of nesting season and would be eliminated once action is complete.</p> <p>An exception may be granted by the authorized officer if authorization is obtained from USFWS and UDWR. The authorized officer may also grant an exception if an environmental analysis indicates that the nature or the conduct of the actions, as proposed or conditioned, will not impair the primary constituent element determined necessary for the survival and recovery of the golden eagle.</p> <p>The authorized officer may modify the boundaries of the stipulation area if an environmental analysis indicates and USFWS and UDWR determine a portion of the area is not being used as golden eagle nesting territories.</p> <p>A waiver may be granted if an individual golden eagle nest has been inactive (unoccupied) for at least a period of 3 years. Nest-monitoring data for a 3-year period will be required before the waiver could be granted.</p>

RESOURCE	EPM	DESCRIPTION
GENERAL WILDLIFE AND SPECIAL STATUS WILDLIFE SPECIES (CONTINUED)	Gunnison's prairie dog	<p>No surface-disturbing activities within 660 feet of active prairie dog colonies identified within prairie dog habitat. No permanent aboveground facilities are allowed within the 660 feet buffer.</p> <p>If burrows of Gunnison's prairie dog are located during surveys, efforts would be coordinated with the BLM to minimize impacts to the species by considering translocating animals to suitable habitat prior to surface disturbance.</p> <p>An exception may be granted by the authorized officer if the applicant submits a plan that indicates that impacts of the proposed action can be adequately mitigated or, if due to the size of the town, there is no reasonable location to develop the project and avoid colonies the authorized officer will allow for loss of prairie dog colonies and/or habitat to satisfy terms and conditions of the lease.</p> <p>The authorized officer may modify the boundaries of the stipulation area if portions of the area do not include prairie dog habitat or active colonies are found outside current defined area, as determined by BLM.</p> <p>A waiver may be granted if it is determined that the habitat no longer exists or has been destroyed within the proposed plan boundary.</p>
	Kit fox	<p>No surface disturbances within 200 meters (656 feet) of a kit fox den.</p> <p>An exception may be granted if protocol surveys determine that kit fox dens are not present.</p> <p>The authorized officer may modify the stipulation area if portions of the area do not contain habitat.</p> <p>A waiver may be granted if it is determined that the habitat no longer exists.</p>

RESOURCE	EPM	DESCRIPTION
GENERAL WILDLIFE AND SPECIAL STATUS WILDLIFE SPECIES (CONTINUED)	Mule deer and elk	<p>No surface-disturbing activities from November 15 to April 15 within crucial deer and/or elk winter range to minimize stress and disturbance to deer and elk during winter months.</p> <p>This stipulation does not apply to the maintenance and operation of existing and ongoing facilities. An exception may be granted by the authorized officer if the operator submits a plan which demonstrates that impacts from the proposed action can be adequately mitigated or it is determined the habitat is not being utilized during the winter period for any given year.</p> <p>The authorized officer may modify the boundaries of the stipulation area (1) if a portion of the area is not being used as winter range by deer/elk or (2) if habitat is being utilized outside of stipulation boundaries as winter range and needs to be protected or (3) if the migration patterns have changed causing a difference in the season of use.</p> <p>A waiver may be granted if the winter range habitat is unsuitable or unoccupied during winter months by deer/elk and there is no reasonable likelihood of future winter range use.</p>
	Gunnison sage-grouse	MA-SSS-12: apply BMPs and RDFs (see Gunnison sage-grouse record of decision and approved resource management plan amendment appendix b, best management practices and required design features [BLM 2024]) for authorized activities or infrastructure within OHMA, UHMA, and LCMA to reduce opportunities for Gunnison sage-grouse predators, such as limiting food sources (trash reduction), nesting, cover, or perches. Apply actions specific to the predators of concern for the given Gunnison sage-grouse population (e.g., ravens, red fox, badgers, raccoons, raptors).

RESOURCE	EPM	DESCRIPTION
<p>GENERAL WILDLIFE AND SPECIAL STATUS WILDLIFE SPECIES (CONTINUED)</p>	<p>Gunnison sage-grouse</p>	<p>MA-SSS-15: apply minimization criteria in OHMA, UHMA, LCMA, and adjacent non-habitat (1-mile buffer), as applicable for resources that allow use of OHMA, UHMA, LCMA, and adjacent non-habitat.</p> <p>Minimization criteria would apply to all surface-disturbing activities and allow some use and occupancy while protecting identified resources or values. Areas where minimization criteria are applied are potentially open to surface-disturbing activities, but the BLM may require special constraints during the implementation phase, or the activity could be shifted to protect the specified resource or value. Examples could include timing limitations, relocation of a project away from sensitive habitat areas, application of minimization measures such as design features, or re-siting of a project outside of habitat. During the evaluation and NEPA process the following factors at a minimum will be analyzed:</p> <ul style="list-style-type: none"> • Co-location, consider feasibility and safety concerns • Lek buffers (ma-sss-11, see appendix g, buffer distances and evaluation of impacts on leks) • Sensitive habitat areas (e.g., concentrated nesting, brood-rearing, winter habitats) • Topology and topographic features • Timing limitations (ma-sss-14) • Net surface disturbance (ma-sss-5) <p>Apply BMPs and RDFs – see appendix b, best management practices and required design features</p> <p>Activities that are not considered surface disturbing include, but are not limited to, livestock grazing, cross-country hiking or equestrian use, installing signs, minimum impact filming, vehicular travel on designated routes, and general use of the land by wildlife.</p>

<p>GENERAL WILDLIFE AND SPECIAL STATUS WILDLIFE SPECIES (CONTINUED)</p>	<p>Monarch butterfly</p>	<p>To protect the monarch butterfly, applicable measures found in western monarch butterfly conservation recommendations (USFWS 2023) would be followed to the extent practicable. Specific applicable measures include:</p> <p>Use only native, insecticide-free plants for habitat restoration and enhancement actions. If plants are grown via contract, use grow specifications that limit harmful pesticide residues.</p> <p>Conduct management activities such as mowing and other vegetation manipulation in monarch breeding and migratory habitat outside of the estimated timeframe when monarchs are likely present, as is feasible (October 1 to May 1 in this area of Utah).</p> <p>Use non-chemical pest prevention and management methods and monitor pest pressure to minimize reliance on pesticides for managing insects, mites, weeds, and diseases. For example, employ non-chemical weed control techniques, when feasible.</p> <p>If pesticides are used in monarch butterfly habitat, lessen their potential for harm by adhering to the following guidance:</p> <p>If herbicides are used, apply when plants are more responsive to treatment, and when monarchs and other pollinators are less likely to be nectaring on the plants (e.g., actively growing but not flowering).</p> <p>Use targeted application methods, avoid large-scale broadcast applications, and take precautions to limit off-site movement (e.g., wind drift, discharge from surface water flows).</p> <p>Protect habitat areas from pesticide drift with a pesticide-free spatial buffer. The appropriate width of monarch and pollinator habitat spatial buffers depends on several factors, including weather and wind conditions, but at a minimum, the habitat should be at least 40 feet from ground-based pesticide applications, 60 feet from airblast sprayers, and 200 feet from aerial applications or any systemic insecticide applications or plants grown from treated seeds.</p> <p>If pesticides are used for vector control treatments (e.g., mosquitoes), avoid treatment unless monitoring indicates that the species and numbers exceed a public health threshold. For any mosquito treatments, first employ prevention steps such as reducing standing water. Where possible, draw mosquitoes away from sensitive sites to limit treatment effects in sensitive</p>
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RESOURCE	EPM	DESCRIPTION
		<p>habitat areas.</p> <p>Report milkweed and monarch butterfly observations from all life stages, including breeding butterflies, to the BLM wildlife biologist and western monarch milkweed mapper or via the project portal in the inaturalist smartphone app.</p>
<p>VEGETATION AND SPECIAL STATUS PLANTS</p>	<p>Navajo sedge</p>	<p>In conjunction with spring and seep monitoring, site inventories would be conducted within USFWS-modeled and previously identified suitable habitat for the Navajo sedge (<i>Carex specuicola</i>) to determine habitat quality and occupancy. Surveys would be conducted by an approved botanist based on qualifications accepted by the USFWS and MFO natural resources specialist/botanist. Surveys would be conducted at a time when the plant can be detected (usually June 15 to July 31, however, surveyors should verify that the plant is flowering by contacting the USFWS or MFO natural resources specialist/botanist or demonstrating that the nearest known population is in flower). Surveys would be conducted at all known springs and seeps in the project vicinity in order to make sure surveys occur within 300 feet from the edge of proposed disturbance. Reinitiation of ESA section 7 consultation with the USFWS would be sought immediately if any loss of plants or occupied habitat for the Navajo sedge is anticipated as a result of project activities. Additional site-specific measures may also be employed to avoid or minimize effects to the species. These additional measures would be developed and implemented in consultation with the USFWS to ensure continued compliance with the ESA.</p>

RESOURCE	EPM	DESCRIPTION
VEGETATION AND SPECIAL STATUS PLANTS (CONTINUED)	Tuhy's aromatic scurf pea	<p>Site inventories would be conducted within BLM-modeled and previously identified suitable habitat for the Tuhy's aromatic scurf pea (<i>pediomelum aromaticum</i> var. <i>Tuhyi</i>) to determine occupancy. Surveys must be conducted by an approved botanist based on qualifications accepted by the MFO natural resources specialist/botanist. Surveys would be conducted for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (usually May 1 to June 30, however, surveyors should verify that the plant is flowering by contacting the MFO natural resources specialist/botanist or demonstrating that the nearest known population is in flower). Surveys would occur within 300 feet from the edge of proposed disturbance.</p>
	Milkweed	<p>To minimize potential impacts to the monarch butterfly and its host plants, the presence of milkweed species (<i>asclepias</i> spp.) Would be evaluated during special status plant species surveys prior to surface disturbance. Milkweed species would be noted and georeferenced if observed during special status plant species surveys and if feasible, attempts to avoid the plant would be made (i.e., slight reroutes of proposed linear facilities such as roads, pipelines, stormwater drainages, etc. And slight shifts of features such well pads, if possible).</p>
GRAZING	Grazing	<p>LVMC would provide compensation to those ranching entities that have active, pre-existing range leases on the areas that would be disturbed. Such compensation would be provided only during active disturbance for the number of animal unit months (aums) that would be removed as a direct result of the project's disturbance. Such compensation would be based on the health of the range at the time of disturbance, and would be calculated on a market comparative basis, using spot prices gathered from local, reliable, sources.</p>
	Rangeland health	<p>LVMC would continue to perform annual rangeland health evaluations (LVMC 2025a) and would continue to work with consultants such as understanding ag to improve rangeland health in undisturbed areas as well as improve reclamation techniques.</p>

RESOURCE	EPM	DESCRIPTION
WATER RESOURCES	Groundwater levels	Groundwater levels would be monitored monthly and reported quarterly. If at any time static groundwater levels (not pumping levels) based on monitoring results are more than the drawdown predicted in the model, LVMC would contact the BLM and the Utah division of water resources for further guidance.
	Optimize groundwater usage	Reduce evaporative loss by managing water use on the heaps, using dust suppressants on access roads, and other methods.
	Post-closure surface water management	Install drainages on slopes as appropriate to ensure proper surface water flow for long-term water management. All drainages would be designed to control surface water during high intensity 100-year 24-hour storm events.
	Post-closure surface water management	Drainages would be armored and/or riprapped to ensure long-term stability.
	Post-closure water well access	Maintain line power and access to LLV Navajo aquifer water wells for use by agencies and/or local communities.
	HLPs drain down	HLPs would have associated ponds with adequate capacity to store precipitation and run-off from a 100-year 24-hour storm event.
	Reducing evaporative loss on HLPs	Measures would be taken to reduce evaporative loss from the HLPs by minimizing ponding, using drip emitters, etc.
	Groundwater monitoring	Groundwater monitoring would continue per LVMC's sampling and analysis plan (LVMC 2020a) or as prescribed by the state of Utah, department of water quality.
FLUIDS MANAGEMENT	Biodegradable drilling fluids	LVMC commits to continue using biodegradable drilling fluids in all exploration and water well drilling.
	Lined area delineation	T-posts with white PVC sleeves would be installed at regular intervals around the perimeter line of any HDPE lined containment to improve awareness of liner boundaries (contained/uncontained threshold).
	Proper containment	All containment areas would be designed to hold no less than 110% of the volume of the largest container to be held.

RESOURCE	EPM	DESCRIPTION
VISUAL/NIGHT SKIES	Night lighting	LVMC would reduce light pollution by using measures, such as shielded lighting, while allowing for safe and efficient work during hours of low to no sunlight. Filtered led, narrow band amber led, and dark skies approved lighting fixtures would be used.
SOILS	Open pit sequencing	Ensure the lone wolf pit is mined in sequences to facilitate reclamation and reduce re-handling of material and limit topsoil storage times such as topsoil stripped from phase 2 would be used to reclaim the phase 1 surface waste dump; phase 3 topsoil would be used to reclaim phase 2 backfilled area, etc.
	Reduce topsoil stockpile heights and residence time	Reduce height of topsoil stockpiles to less than 25 feet and ensure topsoil is used in concurrent reclamation to reduce residence in the stockpile as much as feasible.
	Consultation of best available science	LVMC would consult the best available science for reclamation planning such as the concepts and practices from the 2023 USGS oil and gas reclamation – operations, monitoring, methods, and standards (USGS 2023).
PALEONTOLOGICAL	Paleontological resources	All personnel (including contractors) involved in construction, operation, and maintenance of the project would be instructed (with BLM guidance) on the statutes protecting paleontological resources, locality avoidance, and protection measures prior to being authorized to work in the project area. At a minimum, all employees would receive written information sheets that discuss the importance of paleontological resources and paleontological laws including penalties for violation, as well as receiving direct instruction from their supervisor covering the same material.
	Paleontological resources - inadvertent discoveries	In the event that paleontological resources were discovered during project activities, construction or operation activities would cease at the discovery location and it would be reported to the BLM. No work would occur in that location until an evaluation determination has been made regarding the finding and the agency has provided a notice to proceed.
RECLAMATION	Seeding	Areas that are freshly disturbed but would not be further disturbed (berms, slopes, drainage ditches, and catchments) would be seeded as soon as practicable to prevent the spread of noxious and invasive species. In addition, topsoil stockpiles would be seeded.

RESOURCE	EPM	DESCRIPTION
RECLAMATION (continued)	Seeding (continued)	Seed using BLM-approved seed mixes and as prescribed by regenerative range practices. Areas would be rested from grazing for at least two years following re-seeding treatments.
		INCORPORATE BALE GRAZING ALONG TOPSOILED SLOPES TO ENCOURAGE SEED INTRODUCTION AND TOPSOIL STABILITY THROUGH HERD MANAGEMENT.
	Topsoil spreading	Cobbly material and boulders (less than 24 inches diameter) would be incorporated into the topsoil mixture to discourage compaction and allow for water infiltration.
	Biomass utilization	Any trees to be removed during operations, if they provide a suitable biomass for firewood, would be hauled from the mining area to local wood banks that serve native and/or rural populations in need of biomass for heat.
WEED MANAGEMENT	Weed management	<p>Although no noxious weeds have been observed within the existing mine or proposed plan boundary (LVMC 2025a), LVMC would require construction and/or vendor off-road vehicles to be cleaned when brought to the site and vehicles that have been off main roads would be cleaned prior to leaving the site.</p> <p>In the event noxious weeds are found, LVMC would work to implement a plan to ensure there is no spread of noxious or invasive weeds. This plan would include submitting a pesticide use proposal to the BLM for approval prior to herbicide treatment/spraying weeds in the proposed plan boundary. LVMC would monitor for and treat all species based on the state of Utah and San Juan County noxious weeds and invasive species lists. Treatments along engineered drainages would be either via manual removal or herbicide.</p>
OTHER	Road closures	Any necessary road closures would be properly signed. Any closure that may last more than one hour would be advertised locally 24 hours prior to closure.
	Road construction	Only material from Dakota sandstone would be used for road construction, as these beds are inert and have higher competency than other beds.

RESOURCE	EPM	DESCRIPTION
OTHER (continued)	Access	Following operations, BLM would take measures for long-term public access to approximate existing public access. This could be done by BLM adopting and designating as part of the BLM travel plan any roads developed by LVMC as part of the project. All roads not adopted by BLM would be subject to reclamation.
	Signage	All signage would be installed and maintained in accordance with MSHA.
	Waste rock and leach pad reclaimed slopes	All reclaimed slopes would have a slope angle no steeper than 3h:1v.
	Waste rock management	LVMC would follow their existing waste rock management plan (LVMC 2017) in terms of waste dump construction and backfilling (using site specific knowledge, laboratory testing, and encapsulation).
	Employee housing	LVMC is working with San Juan County to facilitate the opportunity for employees to stay near the site (on private property) during shift rotations to attract talented employees, while alleviating housing concerns and travel congestion on the roads. The employee housing would be similar to a duplex trailer arrangement, each with self-contained bathing facilities and a communal cooking arrangement.

Table 16: Building and Tank Sizing

	Description	Building Construction	Length (ft)	Width (ft)	Eave Height (ft)	Slab Thickness (in)
1	Admin Building	Mixed	65	30	10	0
2	Geology Building	Mixed	65	30	10	0
3	Training Room	Mixed	28	30	10	0
4	Men's Changing Room/Bathroom	Mixed	55	10	10	0
5	Women's Changing Room/Bathroom	Mixed	55	10	10	0
6	Admin Locker Room	Mixed	55	10	10	0
7	Guard Shack	Wood	18	12	8	0
8	Lineout	Steel	30	34	10	0
9	Mechanics Office	Mixed	12	16	10	0
10	Hose Room (A)	Steel	40	8	8	6
11	Hose Room (B)	Steel	40	8	8	6
12	Battery Room	Steel	20	8	8	6
13	Mechanics Storage Conex's (A)	Steel	40	8	8	0
14	Mechanics Storage Conex's (B)	Steel	40	8	8	0
15	Mechanics Storage Conex's	Steel	20	8	8	0
16	Pressure Washer Shed	Steel	14	20	8	6
17	EW Conex Change Room	Steel	20	8	8	0
18	Clay Treatment Auger Building	Steel	16	7	12	6
19	Scour Pump Shed	Mixed	10	8	9	0
20	SX Control Room	Mixed	36	24	10	0
21	Solvent Extraction Lab	Steel	20	8	8	0
22	CR-60 Shed	Steel	12	8	9	0
23	Foam Shack	Mixed	10	8	9	0
24	Electrical Shop Conex's (A)	Steel	40	8	8	0
25	Electrical Shop Conex's (B)	Steel	40	8	8	0
26	Electrical Shop Conex's (C)	Steel	40	8	8	0

	Description	Building Construction	Length (ft)	Width (ft)	Eave Height (ft)	Slab Thickness (in)
27	Process Conex (A)	Steel	20	8	8	0
28	Process Conex (B)	Steel	20	8	8	0
29	Leach Pad Conex (A)	Steel	20	8	8	0
30	Leach Pad Conex (B)	Steel	20	8	8	0
31	Leach Pad Conex (C)	Steel	20	8	8	0
32	Blower Conex (A)	Steel	20	8	8	0
33	Blower Conex (B)	Steel	20	8	8	0
34	Blower Conex (C)	Steel	20	8	8	0
35	Blower Conex (D)	Steel	20	8	8	0
36	Blower Conex (E)	Steel	20	8	8	0
37	Aeration Lineout/Shop	Mixed	37	20	12	0
38	Acid Cure Change Room	Mixed	10	10	8	0
39	Tri-Canter Control Room	Steel	13	6	9	0
40	Electrical Shop Conex	Steel	20	8	8	6
41	Truck Shop	Steel	100	70	40	6
42	Substation Control Room	Steel	12	14	9	6
43	Electrowinning Building	Steel	275	70	35	6
44	Truck Scale House	Mixed	6	6	10	6
45	MCC High Voltage Room	Steel	15	11	9	8
46	Solvent Extraction Lab	Steel	210	80	20	6
47	Compressor Building	Steel	25	25	14	6
48	Filter Building	Steel	24	49	20	6
49	Boiler Building	Steel	39	16	15	6
50	Tri-Canter Building	Steel	11	20	9	6
51	Warehouse	Steel	100	60	30	6
52	Sprung Tent	Steel	70	60	20	6
53	Lab	Mixed	60	28	10	6

	Description	Building Construction	Length (ft)	Width (ft)	Eave Height (ft)	Slab Thickness (in)
54	Sample Prep	Steel	40	32	15	6
55	Electrical Shop	Steel	80	40	30	6
56	Process Shop	Steel	82	42	17	6
57	Control Room	Mixed	54	36	25	0
58	Scrap Copper Recycling Building	Mixed	172	80	40	12
59	SX Acid Tank	Steel	15	15	26	6
60	Loaded Organic Tank (North)	Steel	96	10	10	6
61	Loaded Organic Tank (South)	Steel	96	10	10	6
62	Electrolyte Recirculation	Steel	96	10	10	6
63	Filter Feed Tank	Steel	20	20	23	6
64	SX Drain Tank	Steel	10	10	12	6
65	Dissep Electrolyte Filter	Steel	10	10	10	6
66	Spintek Electrolyte Filter (A)	Steel	10	10	10	6
67	Spintek Electrolyte Filter (B)	Steel	10	10	10	6
68	SX Holding Tank	Steel	20	20	23	6
69	Crud Cone Tank	Steel	13	13	14	6
70	Crud Org Recycle Tank	Steel	12	12	12	6
71	Crud Pre Coat Tank	Steel	6.5	7	7	6
72	E-1 Extractor Settler	Steel	70	68	4	6
73	E-2 Extractor Settler	Steel	70	68	4	6
74	S-1 Stripper Settler	Steel	65.5	63	4	6
75	E-1 Primary Mix Tank	Steel	10	10	13	6
76	E-1 Aux Mix Tank (A)	Steel	13	13	13	6
77	E-2 Primary Mix Tank	Steel	10	10	13	6
78	E-1 Aux Mix Tank (B)	Steel	13	13	13	6
79	S-1 Mixer Tank	Steel	12	12	14	6
80	Hot Water Tank	Steel	14	12	12	6

	Description	Building Construction	Length (ft)	Width (ft)	Eave Height (ft)	Slab Thickness (in)
81	Organic Skimmer Tank	Steel	6	6	12	6
82	Acid Cure Tank (A)	Steel	12	12	15	6
83	Acid Cure Tank (B)	Steel	12	12	15	6
84	Acid Cure Tank (C)	Steel	12	12	15	6
85	Acid Cure Tank (D)	Steel	12	12	15	6
86	RO Permeate Tank	Steel	14	14	20	6
87	SX Diesel Tank (A)	Steel	26	8	8	6
88	SX Diesel Tank (B)	Steel	26	8	8	6
89	SX Filter (A)	Steel	10	10	12	6
90	SX Filter (B)	Steel	10	10	12	6
91	SX Filter (C)	Steel	10	10	12	6
92	Plant Water Tank	Steel	20	20	40	6
93	Diesel	Steel	24	24	40	6
94	Unleaded	Steel	26.42	8	8	6
95	Used Oil (A)	Steel	30	5	5	6
96	Used Oil (B)	Steel	10	4	4	6
97	Used Oil (C)	Steel	10	4	4	6
98	Used Oil (D)	Steel	12	5	5	6
99	Used Coolant	Steel	5	5	5	6

Table 17: Tanks

Process Tanks
SX Acid Tank
Loaded Organic Tank (North)
Loaded Organic Tank (South)
Electrolyte Recirculation
Filter Feed Tank
SX Drain Tank
Disep Electrolyte Filter
Crud Cone Tank
Crud Org Recycle tank
Crud Pre Coat Tank
E-1 Extractor Settler
E-2 Extractor Settler
S-1 Stripper Settler
E-1 Primary Mix Tank
E-1 Aux Mix Tank
E-2 Primary Mix Tank
E-1 Aux Mix Tank
S-1 Mixer Tank
Hot Water Tank
Organic Skimmer Tank
Acid cure tank (4)
RO permeate Tank
SX Diesel Tank
SX Diesel Tank
SX Filter (3)
Recycling tanks (5)
Mixing/Storage tank
Misc Reagents - tote/drum storage
Plant water Tank

Truckshop Tanks
Diesel
Unleaded
Used Oil (4)
Used Coolant

Table 18: Process Solution Analysis

Analyte	Units	PLS	ILS
Field Sample ID		LVMC PLS	LVMC ILS
Lab Sample ID		L94515-01	L94547-01
Sample Date		5/9/2012	5/14/2012
Major Ions + Indicator Parameters			
Alkalinity (as CaCO ₃)	mg/l	<2	<2
Bicarbonate (as CaCO ₃)	mg/l	<2	<2
Carbonate (as CaCO ₃)	mg/l	<2	<2
Hydroxide (as CaCO ₃)	mg/l	<2	<2
Calcium, dissolved	mg/l	389	373
Magnesium, dissolved	mg/l	1530	1440
Potassium, dissolved	mg/l	153	146
Sodium, dissolved	mg/l	171	166
Chloride	mg/l	14	14
Sulfate	mg/l	17000	18000
Nutrients			
Phosphorus, total as P	mg/l	46.2	49.4
Nitrate/Nitrite as N, dissolved	mg/l	3.54	2.81
Nitrogen, ammonia	mg/l	8.7	6.2
Metals			
Aluminum, dissolved	mg/l	580	566
Barium, dissolved	mg/l	<0.06	<0.06
Cadmium, dissolved	mg/l	31.9	32.7
Chromium, dissolved	mg/l	0.29	0.261
Copper, dissolved	mg/l	nm	nm
Iron, dissolved	mg/l	912	928
Lead, dissolved	mg/l	0.65	0.634
Manganese, dissolved	mg/l	396	374
Mercury, dissolved	mg/l	<0.0002	<0.0002
Nickel, dissolved	mg/l	3.8	3.6
Selenium, dissolved	mg/l	0.097	0.086
Silver, dissolved	mg/l	<0.001	0.0006
Uranium, total	mg/l	3.17	3.22
Vanadium, dissolved	mg/l	3	3

(nm = not measured)

Table 19: Growth Media Requirements

Estimated LVMC Growth Media Requirements and Soil Availability				
Area	Acres	Sq ft	Cu ft soil	Cu yd
Roads (1)	56.9	2,478,564	2,478,564	91,799
Leach Pads (2,3)	467.2	20,351,232	20,351,232	753,749
WRS areas (2, 3)	547.9	23,866,524	23,866,524	883,945
Process Ponds (2,4)	52.6	2,291,256	2,291,256	84,861
Yards (2,5)	210	9,147,600	4,573,800	338,800
Linear Features (2,6)	63.6	2,770,416	2,770,416	102,608
Totals	1,398.2	60,905,592	56,331,792	2,255,762
2022 Surveyed Soil			34,921,071	1,293,373
Additional Soil Available in Borrow Pits			10,031,694	371,544
Estimated Soil from LLV (7)	892.2	36,119,980	142,541,181	5,279,303
TOTAL SOIL FOR RECLAMATION			187,493,946	6,944,220

NOTES:

1. Haul roads may be covered with topsoil (dependent upon location) all other road berms will be used as growth media cover.
2. Growth media stockpiles, freshwater ponds, housing areas, and pits will not use growth media cover.
3. Leach pads and WRS areas receive 12" of growth media covering clay and waste rock capping (managed separately).
4. Portions of Process Ponds remain in place as evapotranspiration/evaporation ponds.
5. Process related yards receive 6 inches of growth media while storage yards will simply be ripped.
6. Linear features that will require cover material include, conveyors, LVM Infrastructure Corridor and solutions pipelines. The drainage features and freshwater pipeline will not need growth media, and the Natural Gas Pipeline and Powerline are excluded from reclamation.
7. Soils Baseline Report for Lisbon Valley Mining Company, October 31, 2019. Terra West Consulting, Inc. The area incorporated has altered slightly from the original report however this provides a rational estimate based on facility sizing. Estimates based on current areas result in approximately 600,000 less cubic yards of material (**Table 10**) which will still exceed the required amount. As a note LLV will include Lone Wolf Pit, LLV HLP, LLV Crusher and Operations areas and LLV WRS (D Dump).

APPENDIX A

Revision and Amendment Forms

APPENDIX B

Photos

APPENDIX C

Waste Rock Management Plan

APPENDIX D

ISR Technical Information

APPENDIX E

Soils Survey (2019)

APPENDIX F

Reclamation Guidelines

APPENDIX G

Baseline Reporting

APPENDIX H

Operational Permits

APPENDIX I

Drainage Plans and Designs

APPENDIX J

Monitoring and Operations Plans

APPENDIX K

Hydrogeologic Reports

APPENDIX L

Process Fluid Management and Closure Plan

