FREEPORT-McMoRan
Freeport-McMoRan Chino Mines Company
P.O. Box 10
Bayard, NM 88023

July 31, 2023

Certified Mail # 70182290000117919366

David Ennis, Program Manager
Mining and Minerals Division- EMNRD
Mining Act Reclamation Program
1220 South St. Francis Drive
Santa Fe, NM 87505

Dear Mr. Ennis:

Re: Freeport-McMoRan Chino Mines Company, Closure- Closeout Plan Renewal, Mining Act Permit No. GR002RE

Freeport-McMoRan Chino Mines Company (Chino) is providing a Closure-Closeout Plan (CCP) update for the Continental Mine to the Mining and Minerals Division (MMD). An extension from the May 12, 2023 original submission date for the CCP was granted to Chino by MMD on April 28, 2023, with an extension to July 31, 2023. Chino is submitting the updated CCP, to revise permit GR002RE by replacing the prior version of the CCP. The updated CCP revised the scope of work for closure-closeout of the Continental Mine under the New Mexico Water Quality Act, the Copper Mine Rule and the New Mexico Mining Act.

One hard copy of this renewal application is enclosed, and a copy is provided on the enclosed CD.

Chino appreciates the time and effort spent by the agencies in reviewing this CCP update. If you have any questions or would like to schedule time to review these application documents, please contact me at (575) 694-0013 or Mariana Lafon at (575) 519-9572. Chino will forward the appropriate application payment fee to MMD under separate cover.

Sincerely,

Tyler R. Johnson

Tyler R. Johnson
Chief Environmental Engineer
Environmental Services

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20230726-002

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Continental Mine Closure/Closeout Plan Update

Prepared for

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Submitted by

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July 2023

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SOLUTIONS • INCORPORATED

Signature Page

Continental Mine Closure/Closeout Plan Update

July 2023

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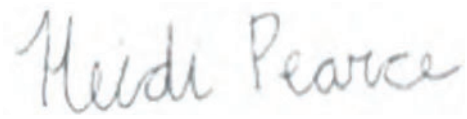

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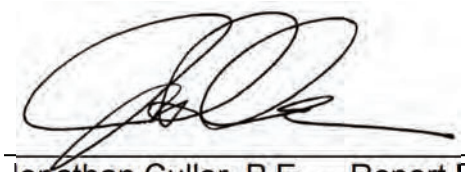

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List of Acronyms

ABA – acid-base accounting

amsl – above mean sea level

AOPHC – Area of Open Pit Hydrologic Containment

BLM – Bureau of Land Management

CCP – Closure/Closeout Plan

Chino – Chino Mines Company

CHR – Cobre Haul Road

CQA – Construction Quality Assurance

CQC – Construction Quality Control

DP – Discharge Permit

EOY – end of year

FA – Financial Assurance

Fe – Magnetite

HLY – Highest Liability Year

HMM – Hanover Mountain Mine

LG WRF – Low Grade Waste Rock Facility

MGTI – Magnetite Tailings Impoundment

MMD – Mining and Minerals Division

MTI – Main Tailings Impoundment

NMAC – New Mexico Administrative Code

NMED – New Mexico Environmental Department

NMMA – New Mexico Mining Act

NMWQA – New Mexico Water Quality Act

NMWQCC – New Mexico Water Quality Control Commission

NOBS – North Overburden Stockpile

NPAG – Not Potentially-Acid Generating

O&M – Operation and Maintenance

OB – Overburden

OSE – Office of the State Engineer

Plan – 2023 CCP

PLS – pregnant leach solution (economic copper-bearing leach solution)

PMLU – post-mining land use

RCE – Reclamation Cost Estimate

SSE – self-sustaining ecosystem

SWRDF – South Waste Rock Disposal Facility

WQCC – Water Quality Control Commission

WRF – Waste Rock Facility

1.0 INTRODUCTION

Freeport-McMoRan Chino Mines Company (Chino) owns and operates an existing mining operation (The Continental Mine) authorized under Permit No. GR002RE issued by the Mining and Minerals Division (MMD) of the New Mexico Energy, Minerals, and Natural Resource Department (MMD, 2005). The Continental Mine is located northeast of Santa Clara, New Mexico (Figure 1) and compromises three mining units: the Continental Pit, the Continental Underground Mine, and the Hanover Mountain Mine (Figure 2).

The Continental Mine is currently operating under an existing Closure/Closeout Plan (2014 CCP; Telesto, 2018) approved under Permit No. GR002RE, and under Discharge Permit-1403 (DP-1403) (NMED, 2019), issued by the New Mexico Environmental Department (NMED). The 2014 CCP describes measures to close and reclaim the Continental Mine if the closure/closeout work had to be performed by a third-party contractor.

DP-1403 requires that an updated CCP be submitted in 2023 (2023 CCP). This 2023 CCP (Plan) includes an updated closure plan and cost estimate for the closure/closeout measures and post-closure/closeout maintenance for mining years 2023 through 2027.

1.1 Purpose of Plan

The purpose of this 2023 CCP is to present a conceptual closure plan consistent with all applicable federal and state regulatory requirements, and to provide a financial assurance (FA) cost estimate which meets the financial assurance requirements of Part 19.10.12 NMAC, DP-1403 (NMED, 2019) and DP-181 (NMED, 2018) as approved by State and Federal Agencies. The Reclamation Cost Estimate (RCE) used for the FA cost estimate can be found in Appendix A. Closure/closeout requirements specific to the Continental Mine include the conditions of Chino's permits issued under the Mining Act and the Mining Act Rules, GR002RE (MMD, 2005), and Discharge Permits DP-1403 and DP-181 (Table 1). Portions of the mine area are subject to additional conditions related to revisions and modifications of GR002RE and other applicable discharge permits. The permit conditions are based upon the requirements of the Mining Act Rules, 19.10 NMAC, and the Water Quality Control Commission Rules, 20.6.2 NMAC. This 2023 CCP update

incorporates the new requirements of the Copper Mine Rule, 20.6.7 NMAC. In addition, for those portions of the Continental Mine on federal public lands that are operated under a Mine Plan of Operations (MPO), the 2023 CCP addresses the requirements of the MPO and 43 C.F.R. Part 3809. The CCP incorporates previously approved closure and reclamation measures designated and intended to address all applicable requirements of 19.10.5 and 20.6.2 NMAC, as well as any additional measures needed to address the requirements of 20.6.7 NMAC and, where applicable, an approved MPO and 43 C.F.R. Part 3809. The CCP includes the closure designs and criteria as well as earthwork takeoffs to meet those requirements. It also provides measures for managing and treating water, monitoring, maintaining, reporting during and after closure, including the post-closure period.

A cost estimate for the purpose of determining the value of the financial assurance performance bond will be prepared following approval of the proposed Continental Mine area reclamation plan included in this CCP. The basis upon which these cost estimates will be developed are outlined in Section 9.0. A water management cost estimate for the proposed water management and water treatment systems is also provided in Appendix B and will serve as the basis for developing a financial assurance cost estimate associated with this component of the CCP.

1.2 Plan Organization

The overall organization of this 2023 CCP update is:

- **Section 1.0** provides an overview of the updated 2023 CCP for Continental Mine
- **Section 2.0** summarizes the permits associated with the Continental Mine
- **Section 3.0** describes the facilities, environment, history, and current disturbances at the Continental Mine
- **Section 4.0** describes the ongoing and completed reclamation projects at Continental, including projects planned through end-of-year (EOY) 2026
- **Section 5.0** describes the proposed reclamation design criteria and performance objectives for surface reclamation and water management and treatment
- **Section 6.0** provides details on the reclamation plans for each of the operational discharge plan (DP) areas at the Continental Mine

- **Section 7.0** describes the closure and post-closure monitoring plans for the Continental Mine along with contingency plans and reporting schedules
- **Section 8.0** provides details of the proposed post-mining land uses (PMLUs) for the Continental Mine and the associated requirements for individual areas
- **Section 9.0** summarizes material take-offs and factors for cost estimates related to reclamation and post-closure monitoring plans
- **Section 10.0** presents the proposed closure schedule associated with this 2023 CCP
- **Section 11.0** is the signature page for the 2023 CCP
- **Section 12.0** lists the references used in preparation of this 2023 CCP

1.3 Regulatory Authority

The New Mexico legislature enacted the New Mexico Mining Act (NMMA) requiring that closeout plans be put in place for applicable mines within the State in 1993. Rules to implement the requirements of the NMMA were promulgated in 1994. This 2023 CCP was prepared to comply with applicable regulations and requirements stipulated in the NMMA and NMAC Title 19, Chapter 10, Part 5, New Mexico Water Quality Act (NMWQA) and the New Mexico Water Quality Control Commission (NMWQCC) Regulations (NMAC Title 20, Chapter 6, Parts 2 and 7). In 2013, NMED adopted new rules for the copper mining industry. Applicable conditions of these new rules (Copper Mine Rules Section 20.6.7 NMAC) have been addressed in this 2023 CCP.

1.4 History of Closure/Closeout Plan Submittal

The following section presents the chronology of CCP submittals and other CCP related documents for the Continental Mine:

- In 1994, the Continental Mine submitted a mining operations site assessment and an existing mining operation permit application which was approved by the MMD on December 3, 1996
- The Continental Mine submitted a preliminary CCP for constructed and unconstructed facilities in June of 1998
- An addendum CCP for mining at Hanover Mountain Mine, the North Waste Rock Facility (WRF) and the Union Hill portion of the South WRF was submitted in October 1998
- An addendum CCP for the Fierro Leach Pad was submitted in 1998
- Also in 1998, a closure-plan supplement was submitted for the proposed Humbolt Leach Facility

- The Continental Mine submitted a closure/closeout conceptual design summary report for constructed and unconstructed facilities in November 1999
- In November 1999, the Continental Mine submitted a conceptual design summary for its proposed Fierro Leach Pad and Pregnant Leachate Solution (PLS)/Raffinate Pipeline
- In April 2001, the Continental Mine submitted an EOY 2001 through 2006 CCP (M3, 2001),
- In February 2001, the Continental Mine submitted a waste rock handling plan for Hanover Mountain Mine which included Continental Pit material (Geotrans, 2001)
- In January 2005, the Continental Mine submitted an update to the 2001 CCP including RCE (Telesto, 2005a)
- In June 2005, the Continental Mine submitted a Closure Plan for mining at Hanover Mountain Mine, Condition 21, DP-1403 (Telesto, 2005b)
- In December 2005, the Continental Mine submitted a standby permit application to the MMD and an interim plan (related to standby) to the NMED, approved respectively by (NMED, 2006) and (MMD, 2007)
- In August 2009, the Continental Mine submitted the 2009 Continental CCP (Telesto, 2009a)
- In January 2012, the Continental Mine applied for a renewal of standby status and received conditional approval on November 21, 2013
- In August 2014, the Continental Mine submitted a new unit application for the Cobre Haul Road (CHR), which included a slight modification to the MMD permit boundary and a closeout plan; both are incorporated herein. The CHR was completed in 2018
- In 2017 the Continental Mine was removed from standby status

1.5 Description of Updated Plan

The MMD and NMED require that existing mines prepare a CCP and the entity responsible for the mine must put into place financial assistance, "sufficient to assure the completion of the performance requirements of the permit, including closure and reclamation, if the work had to be performed by the director or a third-party contractor."

Facility characteristics, reclamation designs, and the RCE presented in this 2023 CCP are based on projected conditions at the Continental Mine at the EOY 2026. Figure 2 shows the location of the existing MMD permit boundary. The planned configuration and reclamation of the mine at EOY 2026 is depicted in Appendix C Sheets 1 through 7. The configuration for EOY 2026 is the year with the greatest anticipated reclamation cost or

the highest liability year (HLY; Appendix C). The NMED and MMD verbally approved using the EOY 2026 configuration for the 2023 updated CCP on February 16, 2023.

This updated Plan for Continental Mine is similar to the 2014 CCP, but with notable differences:

- The Cobre Haul Road closure plan is based on the constructed facility and not the planned facility as it was in 2014
- The Hanover Mountain Mine closure plan is based on the facility as of 2023 and planned facility as of EOY 2026, not the 2014 conceptual facility
- The SWRDF closure plan is based on the facility constructed as of 2023 and planned facility as of EOY 2026, not the 2014 conceptual facility

1.6 Development of CCP Cost Estimate

This 2023 CCP update provides the basis for a third-party FA cost estimate of the proposed reclamation, closure, and post-closure under 19.10.12.1205 NMMA, Permit GR002RE, DP-1403 and DP-181. The 2023 CCP basis contains important information such as the closure schedule, federal and state permit requirements, topographic maps of current and future surface conditions, monitoring schedules, and other relevant details needed for specific rules and permit conditions. The 2023 CCP supports and relies on the knowledge and experience of site-specific studies, reports and CCP submittals, closure, and reclamation work performed on portions of the Continental Mine. Following MMD and NMED approval of the 2023 CCP designs and plans (scope of work), the FA current and net present value calculations which will be submitted for MMD and NMED approval consistent with 19.10.12.1201 NMMA. The basis upon which these cost estimates will be developed will be submitted with the cost estimate.

2.0 PERMITS AND DISCHARGE PLANS

Chino conducts its mining operations pursuant to numerous state and federal regulations. Table 1 lists all federal and state permits, and permit numbers required for the 2023 CCP update. Table 2 summarizes the NMED discharge permits associated with the Continental Mine.

3.0 EXISTING FACILITIES AND CONDITIONS

The following sections describe the Continental Mine facilities and operations, past and current land uses, environmental setting, and mine material characteristics.

3.1 Description of Mine Facilities

Figure 3 provides an overview of the facilities associated with the Continental Mine on an ariel base map. Figure 4 provides a similar overview of the Continental Mine area on a topographic base map and provides a location key for Figure 5 through Figure 8. Figure 5 through Figure 8 show existing topography, facilities, permit boundaries and primary mining facilities in more detail. The mine facilities are described in 3.1.1 through 3.1.11.

3.1.1 Main Tailings Impoundment

Construction of the Main Tailings Impoundment (MTI) began in 1967 and continued until production was temporarily halted in the spring of 1999. As of 2023, the impoundment covers approximately 177 acres. The southern outslope is located within the Area of Open Pit Hydrologic Containment (AOPHC). The Reclaim Pond, which covers an area of approximately 27 acres, is located at the northern end of the impoundment and is separated from the main impoundment by a filter dike. Activities permitted under DP-181 allow the expansion of the MTI to the west and northwest to an area of approximately 268 acres, not to exceed 7,140 feet above mean sea level.

Tailings dam embankments run along the east and south sides of the impoundment for a distance of approximately 5,000 feet, with outslopes ranging from approximately 1.1:1 (horizontal: vertical) to approximately 2.5:1. The impoundment was built using upstream construction methods, with tailings spigotted upstream of raised berms composed of mine rock. Stability buttresses, which reinforce the tailings dam embankments, were constructed along portions of the east and south embankments in 2005 at a slope of 2.5:1 (URS, 2006), and are still stable (Golder, 2009). The MTI is regulated by the Office of the State Engineer (OSE) and is currently generally performing as within expectations (AECOM, 2023).

The physical and chemical properties of tailings materials present in the MTI have been characterized and documented in multiple reports [(SMI, 1997), Daniel B. Stephens and Associates, Inc.; (DBS&A, 1999a), (DBS&A, 1999b), (Geotrans, 2001), (Golder, 2004a), and (Golder, 2004b), (Telesto, 2005c), (Telesto, 2005d), (Golder, 2006), (Telesto, 2008a), (Telesto, 2009b)]. Tailings consist of finely ground material, generated in the milling of ore, composed of silicate material, with considerable portion of carbonate bearing material with substantial neutralizing capacity (Telesto, 2008a). Tailing samples have been classified as non-potentially acid generating (NPAG). GR002RE (Section 9.D.2.b) approves the upper foot of tailings material for use in a three-foot thick cover.

In 2007, a six-inch-thick rock cover was placed over approximately 90 percent of the impoundment surface, to alleviate wind-blown tailings. Approximately 7.6 acres of reclamation test plots were constructed to evaluate cover performance, erosion rates and vegetation success (NMED, 2004). Copper tailing, local soil and rock mixed with minor amounts of magnetite have been placed adjacent to the filter dike on the top surface of the MTI and covered with a dust cover of local borrow material.

3.1.2 Magnetite Tailings Impoundment

The 23-acre Magnetite Tailings Impoundment (MGTI) contains magnetite that was recovered from the milling process. The MGTI embankment was built using upstream construction methods that include tailings spigotted upstream of raised berms, which were composed of local soils.

Production records indicate that approximately 2,881,000 tons of magnetite tailings were produced between 1969 and 1982. Current estimates of impounded tailings tonnage are based on a drilling and sampling program conducted in 2001 and records of ongoing sales. As of April 2021, 575,000 tons of iron have been removed and 653,000 tons of iron remained in reserve. The MGTI is regulated by the New Mexico Office of the State Engineer.

The physical and chemical properties of magnetite tailings materials have been characterized and documented in multiple reports [(SMI, 1999), (Telesto, 2005c), (Telesto, 2005d), (Telesto, 2008a), (Telesto, 2009b)]. Magnetite tailings have been characterized as fine-grained material with an iron oxide content ranging up to 70% by weight. The magnetite tailings are neither significantly acid generating nor strongly acid neutralizing.

Although sales of magnetite will continue, the area of disturbance and the defining features of the MGTI are not anticipated to substantially change between 2023 and 2027.

3.1.3 Continental Pit

Construction of the Continental Pit began in 1973 and was temporarily halted in the spring of 1999. The ore body was mined using a 20-foot high, multiple bench open-pit techniques and conventional drilling, blasting, excavating and hauling methods to move ore and waste from the active mining area. Currently, the open pit comprises an area of approximately 190 acres and is 500 feet deep. After dewatering of the Continental Underground Mine ceased in August of 2000, the underground working began to fill with groundwater. The water expressed itself in the bottom of the open pit in March 2012 and an open pit lake was visible by July 2012 and continues to expand. Aerial photos of the pit show a pit lake elevation of 6,428 feet in June 2020 (Telesto, 2021). Predictions in (Telesto, 2008a) and (Telesto, 2022) indicate that the open pit lake will be a hydrologic evaporite sink. Activities permitted under DP-181 allow expanding the Continental Pit to 262 acres. Per GR002RE, the Continental Pit has been granted a conditional waiver from achieving a self-sustaining ecosystem (SSE).

Today, the Continental Pit is approximately 675 feet deep, 0.62 miles in diameter on the north-south axis, 0.33 miles in diameter on the east-west axis and covers an area of approximately 147 acres (Figure 6 and Figure 7). The uppermost level of the pit rim is on the west side at an elevation of approximately 6,950 feet, and the lowest level in the pit is near the north-center of the pit at an elevation of approximately 6,275 feet.

3.1.4 Hanover Mountain Mine

In 2018, the construction of Hanover Mountain Mine started. The mining process began by removing the growth media and storing it in the North Overburden Stockpile (NOBS) situated northwest of the HMM. The ore body was then excavated using a 50-foot high, multi-bench open-pit technique, along with conventional drilling, blasting, excavating, and hauling methods to transport the ore and waste from the active mining area. The waste rock was transported over the CHR and disposed of in the South Waste Rock Disposal Facility (SWRDF). From 2021-2022, materials previously placed in the NOBS were subsequently removed and relocated to the SWRDF.

Previously, the NMED had allowed mining at Hanover Mountain Mine up to an elevation of 6,750 feet via Discharge Permit 181. The mine permit GR002RE restricted the mine's pit rim to 156 acres but had no depth limitations. Chino applied for permit modification through the NMED and a permit revision through MMD, supported by an aquifer evaluation report in 2022. The changes sought to expand the Hanover Mountain Mine up to an elevation of 6,150 feet and enlarge the pit rim to 276 acres.

As of May 2022, Hanover Mountain had been mined to an approximate pit elevation of 6,950 feet, with a pit rim area of 85 acres.

3.1.5 Waste Rock Facilities

The 436-acre permitted footprint of the South Waste Rock Disposal Facility encompasses the Pearson-Barnes Mine area, West WRF, Union Hill WRF, Buckhorn WRF, East WRF and South WRF. The current footprint is 270 acres. In 2017, Chino submitted an aquifer characterization plan and an update to the waste rock material handling plan for the SWRDF (Telesto, 2017). Chino has followed the waste rock material handling plan for waste rock from the Hanover Mountain Mine, which segregated potentially acid generating material and placed it in a separate area on the South WRF. As of this writing, Chino is developing an update to the waste rock material handling plan that incorporates a different approach to managing the potentially acid generating materials. Data collected from the waste rock indicates that less

than 20% of the waste rock generated and placed in the SWRDF is potentially acid generating.

The LG WRF consists of two adjacent stockpiles located along the eastern edge of the Continental Pit and has reached its permitted footprint of 15 acres. The LG WRF was initially developed between 1967 and 1970 and has changed in configuration throughout time.

3.1.6 Cobre Haul Road

The Cobre Haul Road is an approximately three and half-mile long road that connects the HMM to Chino Mines and a one and half mile road that connects the HMM to the SWRDF (Figure 3). The CHR is a 120-foot-wide road flanked by single or dual berms. Berms measure approximately 24-feet wide and 8-feet tall to accommodate the largest haul trucks. Blasted rock faces comprise some of the cut slopes along the haul road corridor. The CHR crosses isolated fragments of BLM land. Stormwater from ephemeral drainages is conveyed under the road through a network of culverts. Ore mined from Hanover Mountain Mine is hauled by truck to the Chino Mine for processing via the CHR.

3.1.7 Exploration Roads

Multiple exploration projects have occurred at the Continental Mine primarily centering on Hanover Mountain, Hermosa Mountain, and to the west of the MTI. Surface disturbances associated with this program include approximately 20 miles of 12-foot-wide exploration roads and drill pads. The exploration roads associated with Hanover Mountain Mine are anticipated to be mined out by EOY 2026, leaving approximately 15 miles of exploration roads to the west of the MTI and on Hermosa Mountain.

3.1.8 Stockpiles

Stockpiles at the Continental Mine include the (Figure 3):

- High Grade Ore Stockpile
- No. 3 Shaft Stockpile
- Overburden (OB) stockpiles 1 through 5

- Topsoil Stockpile

The High Grade Ore Stockpile was mostly graded over with the widening of the CHR in 2018. For the purposes of this 2023 CCP, the High Grade Ore Stockpile is now considered to be a part of the CHR.

No. 3 Shaft Stockpile was located southeast of Mill Building #1, near the No. 3 Shaft. The No. 3 Shaft Stockpile was composed of non-ore material produced from the construction of the Continental No. 3 Shaft. In 2018, the No. 3 Shaft stockpile was mostly incorporated into the CHR and the No. 3 Shaft was capped. For the purposes of this 2023 CCP, the No. 3 Shaft Stockpile is now considered to be a part of the CHR.

Overburden (OB) Stockpiles 1, 2, 3 and 5 are composed largely of Colorado Formation leach cap from Hermosa Mountain that was stockpiled for use as cover material. The origin of the materials in the Topsoil Stockpile and OB Stockpile 4 is from stripping operations at the start of the Continental Pit. The East OB Stockpile is located on top of the East WRF and is composed of carbonate material from the Continental Pit.

3.1.9 Surface Impoundments

The Continental Mine water management system utilizes surface water impoundments to control stormwater and collect seepage (Figure 5 through Figure 8). Collected stormwater and seepage are sent to Chino through the Bullfrog Pipeline for inclusion in the Chino water management system. A list of surface impoundments with their type and status at EOY 2026 can be found in Table 3.

3.1.10 Mine Shafts and Underground Workings

Historical underground workings adjacent to the Continental Pit include the Continental Underground Mine, Pearson-Barnes Mine and Union Hill Mine located to the north, southwest and east of the Continental Pit. The Continental Underground Mine was mined until 1998 and was dewatered until August 2000. Prior to 1964, historical dewatering occurred in several shafts. The No. 3 Shaft was constructed in 1964 and became the main dewatering shaft (SMI, 1997). The No. 2 Shaft was mined out as the Continental Pit

expanded and became the No. 2 Portal (north side of the Continental Pit). During operations, ore was removed from the underground workings through the No. 2 Portal and the No. 3 Shaft.

3.1.11 Other Ancillary Facilities, Buildings and Systems

Other smaller ancillary facilities requiring consideration at closure include pipelines, electrical distribution systems, and wells. Many former Cobre office area buildings were removed in 2017 during the construction of the CHR. Remaining buildings as well as their existing and EOY 2026 PMLU are shown on Figure 9 and in Table 4.

3.2 Past and Current Land Uses

As shown in Figure 2, Figure 3, and Figure 10 many historical mining shafts and adits surround the Continental Mine. Mining has been the primary land use and economic support for the area for over a century. Surrounding lands have a variety of uses including residential, grazing, timber, aggregate mining, and recreation.

3.3 Environmental Setting

The following sections present various aspects of the mine site, including its topography, geology, climate, hydrology, soils and vegetation and material characteristics.

3.3.1 Topography

The Continental Mine is bounded by the Pinos Altos Mountains to the north and by Hermosa and Humbolt mountains to the west. The undulating topography of the Santa Rita Hills forms the eastern boundary of the Continental Mine. These highlands delineate a watershed drained by Hanover Creek. South of the Continental Mine, this drainage network forms a relatively low-lying, north-south trending valley (Figure 10).

The mountainous area to the north and west rises to an elevation of approximately 8,000 feet above mean sea level. The elevation steadily decreases to the south, following the gradient of Hanover Creek, to an elevation of 6,200 feet downgradient of the crossing at Highway 152.

3.3.2 Regional Geology

The Continental Mine is located within the Santa Rita Quadrangle, which lies in a broad transitional zone between the Colorado Plateau and the Basin and Range Province (Jones, et al., 1967). To the south and southwest of the quadrangle, Paleozoic to Mesozoic sedimentary rocks and younger volcanic rocks are exposed in northwest-trending ranges. To the north, sedimentary formations thicken and form the broad highlands of the Colorado Plateau (Figure 11).

Within the Santa Rita Quadrangle, northwest-trending faults (the Mimbres and Silver City Faults) and northeast-trending faults (the Barringer, Nancy and Groundhog faults) define a broad area of uplift in the region called the Santa Rita Horst. The Santa Rita Horst has a surface area of approximately 40 square miles (Hillesland, et al., 1995).

3.3.3 Local Geology

Jones et al. (1967) provides a comprehensive chronology of structural and igneous events of the district. Locally, the features most relevant to the ore at the Continental Mine are the Barringer Fault and the Hanover-Fierro Stock.

Sedimentary

The stratigraphic section in the Continental Mine area includes approximately 2,400 feet of Paleozoic sedimentary rocks and 1,200 feet of Mesozoic sedimentary rocks located above Precambrian gneiss and schist. Lower Paleozoic formations are dominated by limestone and dolomite and include the Bliss Formation, the El Paso Limestone and the Montoya and Fusselman Dolomites. The Montoya and Fusselman Dolomites are indistinguishable in the Continental Mine area (Jones, et al., 1967). Upper Paleozoic units contain mostly limestone and include the Percha Shale, the Lake Valley Limestone, and the Oswaldo, Syrena and Abo Formations. The Syrena and Abo Formations are often indistinguishable in the area. Mesozoic formations, including the Beartooth Quartzite and the Colorado Formation, consist largely of fine- to medium-grained clastic units and are overlain by up to a few hundred feet of andesite breccia and tuff (Hillesland, et al., 1995).

The Continental Pit exposes mainly Paleozoic rocks, while Hanover Mountain contains mainly Mesozoic rocks (Cobre, 1997).

Igneous Rocks

More than 30 distinct varieties of intrusive rocks are found within the Santa Rita Quadrangle, with ages between the late Cretaceous period and the Miocene epoch. Intrusive rocks found in the area include the Hanover-Fierro Stock (granodiorite), mafic stock, and mafic dikes, syenodiorite and quartz diorite porphyries. Volcanic rocks include andesite breccia, among other tertiary units (Hillesland, et al., 1995).

Structure

The Barringer Fault, and associated extension fractures and conjugate shears, are the most important structural features at the Continental Mine as they contain economic mineralization and the faults act as barriers to groundwater flow. The Barringer Fault trends approximately N40°E across the entire Continental Mine site. Dips range from 55 to 75 degrees to the northwest. Vertical displacement along the Barringer Fault ranges from 1,200 to 1,600 feet (Jones, et al., 1967). In the Continental Pit, the fault zone is up to 200 feet wide and is associated with strong iron-oxide staining (Hillesland, et al., 1995). The Barringer Fault is stopped by northeast-trending lobes of the Hanover-Fierro Stock but does not offset the northwest contact of the Hanover-Fierro Stock, indicating that the Stock postdates most movement of the fault (Jones, et al., 1967).

3.3.4 Climate

The Continental Mine is in a semi-arid region of New Mexico. The regional climate is described by data obtained from the Fort Bayard weather station and Chino Mine located six miles southwest and four miles south of the site, respectively. Precipitation measurements from Fort Bayard show a distinct wet season during the months of July through September. Pan evaporation is greater than precipitation throughout the year, even during the cooler winter months.

Precipitation data compiled from 12 weather stations within and near the study area are presented in Table 5. Annual precipitation was compiled for each station and a mean annual precipitation of 17.49 in/year was calculated for 2008-2019.

3.3.5 Surface Water Hydrology

The Continental Mine is located within the Hanover Creek drainage area which ranges from approximately 6,000 feet where Hanover Creek enters Whitewater Creek, to 7,820 feet north of Hanover Mountain Mine in the Pinos Altos Range. Hanover Creek flows only in response to substantial precipitation events.

The total drainage area of Hanover Creek is 10.9 square miles, of which approximately 70 percent is located downstream of mining activities (Telesto, 2008c). Figure 3 shows the main ephemeral tributaries within or adjacent to the mine including Grape Gulch, Poison Spring Drainage, and Buckhorn Gulch.

3.3.6 Groundwater Hydrology

Local groundwater flow is controlled by the geology around the Continental Mine. Perched groundwater exists ephemerally along upper Buckhorn Gulch, lower Poison Spring Drainage, lower Grape Gulch and along Hanover Creek where alluvium or highly weathered bedrock (granodiorite) is present [(SMI, 1997), (Telesto, 2008c), (Telesto, 2011)]. Deeper groundwater exists in three flow systems:

1. North Paleozoic Aquifer
2. South Paleozoic Aquifer
3. Cretaceous Aquifer

Figure 12 through Figure 14 provide groundwater elevations projected in the third quarter of 2022 for each of the aquifers.

The Cretaceous Aquifer (shallow) and North Paleozoic Aquifer (deep) are both located north of the Barringer Fault, separated by low-permeability units of the Colorado, Beartooth and Abo formations (Telesto, 2008c). Groundwater in these systems is sourced through meteoric water recharge and either discharged through evaporation or captured by

the hydrologic evaporative sink associated with the Continental Mine Underground Workings and Continental Pit (Telesto, 2011). The South Paleozoic Aquifer is sourced from meteoric recharge south of the Barringer Fault, with a groundwater divide existing in the area (Figure 14). Groundwater in the northern South Paleozoic Aquifer discharges to the Continental Mine underground workings and groundwater in the southern South Paleozoic Aquifer likely discharges to the Sanat Rita Open Pit (Chino).

3.3.7 Soils and Vegetation

According to the Freeport-McMoRan Cobre Mining Company Mine Plan of Operations report (Freeport-McMoRan, 2015), the complex distribution of vegetation is influenced by soil and climate variations, disturbance histories (such as drought, floods, fire, and wildlife), and management practices. The 2014 mine expansion plan identified five vegetation cover types: Madrean Plateau Piñon Juniper Woodland, Rocky Mountain Ponderosa Pine Woodland, Madrean Juniper Savannah, Inter Mountain Basins Semi Desert Grassland, and Riparian. These areas are described in the Administrative Draft Cobre 9EA (BLM, 2014). No sensitive plant species were observed during special status plant surveys [(ENSR, 1995), (ENSR, 1996), (Metric Coporation, 1997)].

Twenty-four soils associations have been identified within the Mine Plan of Operations (Freeport-McMoRan Cobre Mining Company, 2015). Table 6 lists the soil types and Table 7 describes the soils characteristics. The identified soils in the area were derived from the USDA Natural Resources Conservation Service Web Soil Survey website (NRCS, 2011). Based on the soils report, the most prominent soil types within the mine are cobbly loam, cobbly loamy sand, gravelly sandy loam, and mixed alluvium and/or colluvium derived from igneous, metamorphic, and sedimentary rocks.

The Santa Fe-Rock outcrop complex makes up the majority of the disturbed area. Soil thickness is less than two feet throughout most of the project boundary and is found on steep slopes, which may limit the amount of suitable growth media for reclamation purposes.

3.3.8 Wildlife

Diverse habits surround the mine, supporting a variety of wildlife species. Mule deer are the principal big game species in the area, with limited populations found in the mine's immediate vicinity (Hayes, 1995). No designated seasonal ranges or important migration corridors are present nearby (BLM, 1993). Other mammals potentially occurring in the project area include: elk, white-tailed deer, black bears, coyotes, bobcats, javelinas, badgers, racoons, porcupines, and black-tailed jackrabbits [(CDM, 1994) (ENSR, 1995)]. Mountain lions are prevalent in the area and have been reported in the town of Fierro during periods of drought (Hayes, 1995). Resident bats are also found in the small-mammal community near the mine (ENSR, 1996).

Various bird species, including the red-tailed hawk, Cooper's hawk, great horned owl, long-eared owl, wild turkey, Montezuma quail, Western kingbird, Cassin's kingbird, band-tailed pigeon, plain titmouse, and chirping sparrow can be found in the area. However, no active raptor nests have been documented in the mine area or surrounding vicinity (CDM, 1994). Other bird species observed during a reconnaissance of the mine area on April 27, 1994, included the American robin, dark-eyed junco, mourning dove, scrub jay, turkey vulture, western bluebird and white-throated swift (CDM, 1994).

No fisheries are supported due to lack of perennial water, limited flows, and no connectivity with other bodies of water. Aquatic species observed near the mine included caddis fly larvae, mayfly larvae, damselfly and dragonfly adults and larvae, water striders, diving beetles, water boatman and canyon tree frogs.

4.0 DESCRIPTION OF COMPLETED AND PLANNED RECLAMATION PROJECTS

There are currently no ongoing or planned reclamation projects at the Continental Mine. However, several areas on the site have already been reclaimed, including the Hanover-Empire Zinc Mine Area, Pearson-Barnes Mine Area, Kearney, Pewabic/Republic, Grant County/Las Cruces, El Paso, and various historical mine shafts and related structures. The

previously reclaimed areas did not require additional capital expenditures, but operations and maintenance expenses were necessary if financial assurance had not been released.

Reclamation of the Hanover-Empire Zinc Mine Area was completed in 2007, with channel maintenance work completed in 2008. The site included over 55 historical mine shafts and related structures, seven open pits, and numerous waste stockpiles. Approximately 3,000 feet of stream bank and bottom was reconstructed to handle the peak flow induced by a 100-year, 24-hour storm (Telesto, 2007).

The Pearson-Barnes Mine Area began reclamation in 2005, which included addressing cover erosion and repairing or replacing damaged diversion channels. Chino is utilizing ongoing monitoring and yearly maintenance to ensure cover and channels stay intact. The SWRDF footprint is planned to cover the Pearson-Barnes Mine Area by EOY 2026.

Numerous other historical mine shafts and related structures were closed from 2004 through 2009. In a letter to Mr. Lawrence Shore and Mr. James Hollen, dated March 13, 2009 (Cobre, 2009), Chino notified NMED of the closure of approximately 83 historical mine shafts and related structures, and that Chino considered the closure work complete. To date, Chino has closed over 250 historical features.

5.0 EXPECTED FACILITIY CHARACTERISTICS AND RECLAMATION PERFORMANCE OBJECTIVES

This section presents the characteristics of the major facilities to be reclaimed and performance objectives for closure/closeout of Continental Mine facilities. The performance objective presented herein for closure of the facilities were developed based upon current requirements of Permit GR002RE, DP-1403, DP-181, and the Copper Mine Rule, with the intent of meeting rules and requirements associated with the NMWQA, NMWQCC Regulations, Copper Mine Rule, NMMA, and, for the mine areas located on federal public lands, applicable elements of 40 CFR Part 3809. This plan ensures that stormwater and sediment are managed appropriately during and following reclamation in accordance with 20.6.7.33E NMAC. Generally, BLM has accepted the existing CCP as

meeting the requirements of 40 CRF Part 3809, except for the specific FA requirements. The primary performance objectives for closure closeout of the Continental Mine include:

- The re-establishment of a self-sustaining ecosystem
- The stabilization of the reclaimed areas
- To control discharges of process waters

Descriptions of the facilities covered by the closure plans are included in Section 5.1 and the performance objectives and reclamation design criteria for closure/closeout of the facilities are included in Section 5.2. Performance objectives for the proposed water management and treatment systems are described in Section 5.3. The reclamation plan for closure/closeout of the Continental Mine is presented in Section 6.0.

5.1 Facility Characteristics and Classification

To standardize the development of the FA cost estimates associated with this 2023 CCP, facilities with common characteristics and mine function have been grouped together in this section. Thus, the stockpiles, waste rock facilities, tailings ponds, open pits, surface impoundments, disturbed areas, facilities to be demolished and industrial facilities are identified as the primary reclamation facility groups.

The characteristics of individual stockpiles, tailings ponds, open pits, surface impoundments and reservoirs, haul roads, and other disturbed areas are summarized on facility characteristics forms, Appendix D. Appendix E, Sheets 1-24, provide a visual description of these facility groups as anticipated at the EOY 2026. The general areas of disturbance and associated major facilities to be reclaimed at the Continental Mine are summarized in sections 5.1.1 through 5.1.7.

5.1.1 Stockpiles

Stockpiles expected to be remining at the EOY 2026 include the Overburden Stockpile 2, eastern portions of Overburden Stockpile 3, Overburden Stockpile 4, and Overburden Stockpile 5 (Sheet 3, Appendix E).

A total stockpile area of approximately 24.1 acres is targeted for reclamation in this 2023 CCP (Sheet 3, Appendix E). Stockpiles targeted for reclamation include the top surfaces and outslopes of all stockpiles located outside both the OPSDA and areas covered by the conditional waiver from achieving a post mining land use or self-sustaining ecosystem. Stockpiles within the OPSDA and the conditional waiver area that will not be regraded and covered under this 2023 CCP encompass approximately 4.2 acres.

5.1.2 Waste Rock Facilities

The Continental Mine is expected to have two waste rock facilities at EOY 2026: SWRDF, and LG WRF (Sheets 4 and 7 through 9, Appendix E). The SWRDF will continue to be expanded through 2027 with an expected footprint of 396 acres and a peak elevation of 6,955 feet by EOY 2026. The geometry of LG WRF will remain unchanged through 2027, and both the SWRDF and the LG WRF are targeted for reclamation in this 2023 CCP.

5.1.3 Tailings Ponds

Tailings ponds targeted for reclamation under this plan include the 177-acre Main Tailings Impoundment and the 23-acre Magnetite Tailings Impoundment (Sheets 5 through 6 and 10 through 11, Appendix E). Although the MGTI is being continuously mined, magnetite tailings are expected to remain at EOY 2026. The MTI is expected to remain virtually unchanged from its current configuration through 2027. Both the MTI and the MGTI are targeted for reclamation under this 2023 CCP.

5.1.4 Open Pits

Continental Pit

On February 23, 2005, MMD granted a conditional waiver from the requirements to achieve a post-mining land use for the Continental Pit (MMD, 2005). MMD's evaluation has focused on the economic infeasibility of reclaiming the open pit and some stockpile outslopes. The Chino proposal was verified by an MMD registered professional engineer. It was also determined that the environmental benefits of reclaiming the open pit and some stockpile outslopes located at the rim of the open pit are not significant in relation to the cost.

The Continental Pit is a passive hydrologic evaporative sink in which evaporation exceeds the water inflow and the underlying ground water is hydrologically contained. The entire open pit lies within the OPSDA. During and after closure, water within the OPSDA will flow to the open pit where it will be captured. Those sections of the mine where stormwater can be feasibly diverted by gravity outside the pit perimeter will be reclaimed in accordance with 20.6.7.2.33 NMAC. This updated 2023 CCP does not provide for regrading, covering, or backfilling of the open pit highwalls.

The projected EOY 2026 Continental Pit OPSDA is shown on Sheet 4, Appendix E.

Hanover Mountain Mine

The Hanover Mountain Mine at EOY 2026 is expected to encompass approximately 145 acres and have a pit bottom elevation of 6,600 feet. The pit will consist of 50-foot-high benches with wide and relatively flat interbenches (Sheets 12 and 13, Appendix E). Note, the Hanover Mountain Mine pit bottom elevation of 6,600 feet as shown in Figure 12, Appendix E is deeper than the currently approved pit bottom elevation of 6,750 feet. The 2026 EOY mine plan assumes that the current DP-181 application for pit expansion is approved.

The pit bottom is expected to be above the ground water table and therefore no pit lake is expected to be present. The pit bottom will be below the elevation of the surrounding topography and will therefore act as a surface-water sink. The projected EOY 2026 Hanover Mountain Mine OPSDA is shown on Figure 12, Appendix E.

5.1.5 Surface Impoundments

Table 3 in this plan presents a summary of the existing and planned surface impoundments that will be in place at EOY 2026. For the purposes of this plan, surface impoundments include:

- Storage tanks for
  - Process waters
  - Seepage collection waters

  - Extracted ground water/pit water
- Stormwater catchments
- Dams; reservoirs
- Surface impoundments
- Seepage collection systems including the concrete amended earthen Poison Spring interceptor system

It is expected that there will be 24 surface impoundments present at the Continental Mine at the EOY 2026 (Sheets 2 through 13, Appendix E). A list of the surface impoundments to be utilized throughout the post-closure period are presented in Table 3. The surface impoundments to remain during post-closure will be used to intercept surface water, seeps, or perched water and direct flows to permanent impoundments or treatment facilities. All other existing surface impoundments will be closed and reclaimed under this 2023 CCP.

5.1.6 Haul Roads

The closure plan refers to the Cobre Haul Road, which includes a 4.3-mile-long stretch from the Chino Mines/Continental Mine permit boundary to the Hanover Mountain Mine, as well as the road from the Hanover Mountain Mine to the SWRDF. Approximately 98.9 acres of haul road are targeted for reclamation under this 2023 CCP (Sheets 14 through 22, Appendix E). The CHR was constructed in 2017 and is not expected to change in geometry through 2027.

5.1.7 Disturbed Areas

A miscellaneous group of existing disturbed areas are present at the Continental Mine. These miscellaneous areas include operational roads, exploration roads, historical borrow areas, and pipeline corridors (Sheets 2 through 3, Appendix E). A total estimated miscellaneous disturbance area of 4.2 acres has been included in the reclamation plan for allowance of this miscellaneous group of disturbed areas. In addition, 5.4 acres of disturbed areas have been included to account for existing surface impoundments that will not be utilized for post-mine land use, and 2.3 acres have been included for building demolition such as Mill Building #1 and Mill Building #2. In addition to these existing areas, Chino proposes including financial assurance for an additional 50 acres of disturbance to facilitate minor changes that may occur over the next five years. This would

ensure that the financial assurance is in place without the need to modify the permit every time a small change is required to sustain mine operations.

5.1.8 Facilities to be Demolished

Those facilities not designated for industrial PMLU will be demolished, removed, and/or buried or otherwise closed in accordance with an approved Construction Design Quality Assurance Plan. A total of approximately 27 buildings/tanks/structures covering approximately 98,740 square feet will be demolished and removed under this 2023 CCP. The list of facilities that are scheduled to be removed is provided in Table 8.

5.1.9 Industrial Facilities

The infrastructure (shops, buildings, roads and utilities) associated with the Industrial PMLU areas will be adapted for non-mining industrial applications. Under DP-1403 and GR002RE, Chino is required to abate contaminated soils that could potentially contaminate ground and surface water. This will be completed in accordance with NMAC Sections 20.6.2.1203, 20.6.2.3109.E.1, and 20.6.2.4103. The abatement process will be conducted in and around all facilities and structures that MMD approves for an Industrial PMLU. Chino will maintain erosion controls, structures, equipment, and utilities within the Industrial PMLU areas until they are occupied by tenants. Chino proposes to reclaim areas located within the Industrial PMLU with the potential to impact ground water with 36-inches of RCM and revegetate the areas in accordance with MMD Permit GR002RE and applicable modifications.

5.2 Closure Performance Objectives

The following sections present the closure performance objectives for the major facilities at the mine.

5.2.1 Stockpiles, Tailings Impoundments, and Disturbed Areas

Primary closure performance objectives for the stockpiles, tailings impoundments and associated mining disturbed areas include:

- Re-establishment of a self-sustaining ecosystem and/or post-mining land use
- Stabilize reclaimed areas
- Control discharges of process waters

5.2.2 Open Pits

Both the Continental Pit and Hanover Mountain Mine (at EOY 2026) are considered to be hydrologic evaporative sinks. The primary closure performance objectives for the Continental Pit and Hanover Mountain Mine are to:

- Provide a hydraulic sink for capture and removal of process waters
- Control runon and public access
- Maintain operational access for water treatment work
- Minimize adverse impacts to waterfowl and other wildlife resulting from ponding or water impounded in the pit areas

5.2.3 Surface Impoundments

The closure performance objectives for surface impoundments are to retain, evaporate or convey process waters, seepage collection waters, extracted groundwater and pit water, and surface water. Surface impoundment facilities identified for closure are planned to be the last features to be closed following the establishment of vegetation and site stabilization on the reclaimed facilities. Impoundments that serve PMLU functions or are associated with the stockpile toe perimeter and groundwater control systems are planned to be permanent parts of the reclamation system and will be maintained throughout the post-closure period.

5.3 Water Management and Treatment Performance Objectives

The primary performance objective of the water management and treatment system is to control discharges of water contaminants specific to copper mine facilities. During and after reclamation, groundwater and surface water will be monitored using an approved monitoring well network system. Post-closure water quality and water level monitoring will be conducted in accordance with applicable DP's and Section 20.6.7.35.B NMAC. Process water is managed and contained using several methods such as large-scale reclamation cover systems, impoundments, the Poison Spring Cut-Off Wall, and the natural hydrologic evaporative open pit sink. Process water will be collected and treated

to meet the applicable standards for discharge. To meet the performance objectives the following water reduction and treatment strategy will be utilized:

- Process water will be sent to Chino for treatment via the Bullfrog Pipeline
- Stormwater runoff will be managed through surface reclamation to avoid contact with uncovered stockpiles and tailings, which reduces the need for treatment
- Direct non-impacted water away to approved discharge area, no treatment needed

6.0 RECLAMATION PLAN AND DESIGN CRITERIA

This section presents the reclamation plan and design criteria used for the conceptual closure of the facilities described in Sections 3.0 and 5.0 for the expected mine configuration at EOY 2026. The reclamation plans presented herein were developed based upon current requirements of Permit GR002RE, DP-1403, DP-181, and the Copper Mine Rule, with the intent of meeting rules and requirements associated with the NMWQA, NMWQCC Regulations, Copper Mine Rule, NMMA, and, for the mine areas located on federal public lands, applicable elements of 40 CFR Part 3809. This plan ensures that stormwater and sediment are managed appropriately during and following reclamation in accordance with 20.6.7.33E NMAC. Generally, BLM has accepted the existing CCP as meeting the requirements of 40 CRF Part 3809, except for the specific FA requirements.

6.1 Planned Closure/Closeout Activities

Sections 6.1.1 through 6.1.11 detail the proposed conceptual closure plans for each facility described in Sections 3.0 and 5.0 and as shown in Sheets 3 through 36, Appendix E.

6.1.1 Main Tailings Impoundment

Deposition of tailings to the MTI ceased in 1999, and Chino does not have plans to resume deposition during the period covered by this plan.

Reclamation Performance Objectives

Performance objectives for closure of the Main Tailings Impoundment (MTI) top surface and dam embankments include:

1. Establish an SSE
2. Control fugitive dust
3. Control runoff and erosion
4. Prevent overtopping of dam embankments
5. Reduce ponding and infiltration

Planned Closure/Closeout Activities

Planned closure/closeout activities for the MTI include (Sheets 5 and 6, Appendix E):

- Regrading of the main dam to an interbench slope of 3:1
- Installing bench stormwater collection drains and a single down drain discharging to the Continental Pit
- Backfilling of the Reclaim Pond to prevent storage of stormwater in the former pond area
- Construction of the Reclaim Pond outlet channel to pass stormwater from the Reclaim Pond to the Grape Gulch drainage
- Regrading of the filter dike to allow for surface drainage from the MTI surface to the backfilled Reclaim Pond
- Construction of an MTI surface drainage swale to facilitate positive drainage of the MTI surface to the backfilled Reclaim Pond
- Covering and revegetation of the MTI main dam, surface, and backfilled Reclaim Pond

Note, the copper tailing, local soil and rock mixed with minor amounts of magnetite that have been placed on the top surface of the MTI and covered with a dust cover of local borrow material do not require any other special activities for closeout and are treated the same as the rest of the tailing dam in this closeout plan.

Stability and Grading Plan

Dam Embankments

The MTI is a jurisdictional dam registered with the OSE and is currently generally performing as within expectations (AECOM, 2023). The MTI dam embankments that run along the east and south sides of the impoundment are composed of large rocks with naturally occurring vegetation in areas of finer grained soils. Buttresses were added to the south and east side of the MTI embankments in 2007 (URS, 2005) to improve toe stability at a slope of 2.5H:1V.

Upon closure, the main dam embankments around the south and east sides of the MTI will be graded to the reclamation slopes as shown on Sheets 5 and 6, Appendix E and in Table 9.

The buttresses were constructed for geotechnical stability purposes and as such Chino believes that they should be left unmodified upon closure. The buttresses are revegetated and are already providing adequate wildlife habitat. The buttresses are consistent with a wildlife habitat PMLU (See section 8.1), and thus, it is proposed that they be left in their existing stable configuration (see Table 9 for reclamation slope angles) at closure/post closure.

Top Surface

The top surface of the MTI drops in elevation from south to north at a slope of approximately one percent. However, the Filter Dike located between the MTI surface and the Reclaim Pond currently prevents MTI surface runoff from directly entering the Reclaim Pond. To facilitate drainage from the top of the MTI to the backfilled Reclaim Pond, the Filter Dike will be removed to the approximate surface grade of the MTI and sloped towards the Reclaim Pond, and a surface drainage swale will be added (Sheets 5 and 6, Appendix E). Since the MTI surface already generally slopes towards the Reclaim Pond at a slope of approximately one percent, general regrading of the MTI surface has not been included in this closure plan. However, upon closure, small areas will be regraded where necessary to prevent pooling and to promote positive drainage towards the surface drainage swale or across the regraded filter dike.

Erosion and Drainage Control

MTI embankment drainage and erosion control will be achieved by providing stable-slope configurations, embankment outslope stormwater conveyance bench channels and downdrains, cover, and revegetation.

Surface drainage and erosion control will be achieved by facilitating drainage from the surface to the Reclaim Pond through the installation of the surface drainage swale. This

swale will extend from the southeast corner of the tailings surface, northwest through the regraded Filter Dike, terminating in the regraded Reclaim Pond.

The Reclaim Pond will be filled to the inlet elevation of the proposed Reclaim Pond outlet channel (Sheets 5 and 6, Appendix E). Filling of the Reclaim Pond will prevent permanent storage of runoff from the tailings surface and upgradient watershed and will minimize infiltration of waters into the MTI.

The Reclaim Pond outlet channel will direct stormwater runoff which has accumulated in the backfilled Reclaim Pond to the Grape Gulch drainage. The Reclaim Pond outlet channel was designed to release water from the regraded Reclaim Pond at a rate less than that of the incoming Reclaim Pond watershed to prevent overwhelming the Grape Gulch drainage (Appendix F).

Cover and Revegetation

Condition C113.C. of DP-1403 (NMED, 2019) allows for placement of 24-inches of cover material on the MTI. The upper 12 inches of tailing is included as part of the cover system for a total of 36-inches. Cover material for the MTI will be derived from the sources described in Section 6.2.

Existing Components That Will Be Used for Post-Closure Purposes

The existing dam embankment buttresses will be retained in their current form without regrading, cover, and revegetation.

6.1.2 Magnetite Tailings Impoundment

Reclamation Performance Objectives

The performance objectives for closure of the MGTI top surface and dam embankment include:

1. Establish an SSE
2. Control fugitive dust
3. Control runoff and erosion

4. Prevent overtopping
5. Reduce ponding and infiltration

Planned Closure/Closeout Activities

Planned closure/closeout activities for the MGTI include (Sheets 10 and 11, Appendix E):

- Regrading of the dam embankment to a slope of 3:1
- Installing a single down drain
- Covering and revegetation of the MGTI surface

Although there is ongoing sale and shipping of magnetite material, the predicted 2026 MGTI surface, based on 2020 topography, is still valid. Therefore, the updated MGTI reclamation cost used here is based on 2020 topography.

Grading Plan and Stability

The slopes on the top surface of the MGTI will be regraded to a 3H:1V maximum slope with maximum slope lengths no greater than 200 feet. These slopes drain to the center of the MGTI, which will be sloped at 1% to the dam crest. The dam crest will be demolished and the slope south of the dam crest will be regraded to a 3H:1V slope.

Erosion and Drainage Control

The top surface of the MGTI will connect to a downdrain, with appropriate armoring, on the southern slope.

Cover and Revegetation

Cover placement is described in Section 6.2. The entire disturbed area will be revegetated.

Existing Components That Will Be Used for Post-Closure Purposes

There are no existing structures within the boundaries of the MGTI that will be used for facility closure purposes.

6.1.3 Continental Pit

Reclamation Performance Objectives

The performance objectives for closure of the Continental Pit include:

1. Provide safety for humans and wildlife
2. Maintain maintenance access
3. Provide groundwater control (maintain a stable AOPHC)
4. Prevent stormwater runon

Planned Closure/Closeout Activities

Planned closure/closeout activities for the Continental Pit include (Figure 4, Appendix E):

- Chain link fences and berms will be constructed around the circumference of the pit
- Signs will be posted on the fencing at 500-foot intervals and at all access points warning of potential hazards

As described in Section 3.1.3, the Continental Pit has filled with water after pumping ceased and dewatering operations were halted in 2000. The open pit will be a hydrologic evaporite sink with respect to groundwater. Predictions were updated in the Hydrogeologic Setting and Prediction for Hanover Mountain Mine Expansion (Telesto, 2022) with additional information to enhance the prediction and make it more reliable. Consequently, the ground water quality standards of 20.6.2.3103 NMAC will not apply to water within the "area of open pit hydrologic containment" in accordance with 20.6.7.33.D NMAC. Chino does not plan to pump water from the Continental Pit in this 2023 CCP update.

Stability and Grading Plan

The Continental Pit will be left in its current topographic configuration upon closure. Therefore, no closure grading is proposed for this facility.

Erosion and Drainage Control

Highwalls will be sufficiently stable due to the absence of fractures and faults. If materials are eroded from the highwalls, it will be deposited at the toes of the highwall and contained on the benches due to the shallow slope of the benches.

Berms will also be placed to prevent stormwater runon to the open pit. The proposed berm will be 5 feet high, with 2H:1V sideslopes and a 10-foot top width.

Cover Revegetation

Revegetation is included for an approximately 25-foot-wide disturbance area used to construct the chain link fencing, and approximately 100-foot-wide disturbance area used to construct the safety berms. Otherwise, no cover placement or revegetation activities will be conducted within the bermed and fenced perimeter of the Continental Pit.

Existing Components That Will Be Used for Post-Closure Purposes

There are no existing structures within the boundaries of the Continental Pit that will be used for facility closure purposes.

6.1.4 Hanover Mountain Mine

Reclamation Performance Objectives

The performance objectives for closure of the Hanover Mountain Mine include:

1. Provide safety for humans and wildlife
2. Establish an SSE
3. Prevent stormwater runon
4. Maintain maintenance access
5. Provide groundwater control (maintain stable AOPHC)

Planned Closure/Closeout Activities

Planned closure/closeout activities for the Hanover Mountain Mine include (Sheets 12 and 13, Appendix E):

- Chain link fences and berms will be constructed around the circumference of the pit

- Signs will be posted on the fencing at 500-foot intervals and at all access points warning of potential hazards
- Accessible and safe to access flat areas will be covered and revegetated

Stability and Grading Plan

The Hanover Mountain Mine will be left in its current topographic configuration upon closure. Therefore, no closure grading is proposed for this facility.

Erosion and Drainage Control

Highwalls will be sufficiently stable due to the absence of fractures and faults. If materials are eroded from the highwalls, it will be deposited at the toes of the highwall and contained on the benches due to the shallow slope of the benches.

Berms will also be placed to prevent stormwater runon to the open pit. The proposed berm will be 5 feet high, with 2H:1V sideslopes and a 10-foot top width.

Cover and Revegetation

Accessible bench surfaces will be reclaimed. Accessible bench surfaces are defined as areas that can be accessed safely. This includes haul road driving surfaces and flat areas 50 feet or greater from a highwall for the purposes of the 2023 CCP update. Accessible bench surfaces that are acid generating and safely accessible will be covered, ripped, and seeded. Other accessible bench surfaces will be ripped and seeded. Where the benched surface is compacted, it will be ripped prior to cover placement to provide a roughened surface that will enhance seeding operations. Cover material for the accessible areas of the remaining benches will come from the cover sources described in Section 6.2.

Existing Components That Will Be Used for Post-Closure Purposes

It is expected that there will be no structures within the boundaries of the Hanover Mountain Mine at EOY 2026 that will be used for facility closure purposes.

6.1.5 South Waste Rock Disposal Facility

Reclamation Performance Objectives

The performance objectives for closure of the SWRDF include:

1. Establish an SSE
2. Reduce infiltration
3. Contain seeps and minimize sediment loading
4. Maintain mass stability
5. Control runon, runoff and discharge

Planned Closure/Closeout Activities

Planned closure/closeout activities for the SWRDF include (Sheets 7 through 9, Appendix E):

- Redistribution of the "Rita Stockpile"
- Regrading top surfaces and outslopes
- Completing surface water channels to route stormwater
- Hauling and grading cover material
- Ripping and revegetating covered areas

Stability and Grading Plan

At closure, surfaces will be regraded to a stable configuration that minimizes ponding and promotes the conveyance of surface water off the facility. Top surfaces will be constructed to a minimum final grade of 1%. Due to the proximity of Fierro Road, the eastern slope of the SWRDF will be regraded to an interbench slope no steeper than 2.5:1 and the maximum uninterrupted slope lengths will be no greater than 175 feet on this outslope. Other outslopes will be graded to an interbench slope no steeper than 3H:1V with maximum uninterrupted slope lengths no greater than 200 feet. The slope angles and slope lengths proposed for the SWRDF are outlined in Table 9.

Erosion and Drainage Control

SWRDF drainage and erosion control will be achieved by providing stable-slope configurations, embankment outslope stormwater conveyance bench channels and downdrains, cover, and revegetation.

Cover Revegetation

Cover placement is described in Section 6.2. All disturbed areas will be revegetated.

Existing Components That Will Be Used for Post Closure Purposes

There are no existing structures within the boundaries of the SWRDF that will be used for facility closure purposes.

6.1.6 Cobre Haul Road

Reclamation Performance Objectives

The performance objectives for closure of the Cobre Haul Road include:

1. Establish an SSE
2. Provide for wildlife habitat
3. Control erosion

Planned Closure/Closeout Activities

Planned closure/closeout activities for the CHR include (Sheets 14 through 34, Appendix E):

- Remove fill areas to the east of Hanover Creek to the pre-construction surface level and used for cover material as described in section 6.2
- Regrade fill areas to the west of Hanover Creek to achieve stable slopes
- Demolish forest access roads
- Remove culverts in excavated fill areas
- Modify fencing to incorporate wildlife friendly features
- Rip surface of CHR to a depth of 18-24 inches and seed

Stability and Grading Plan

Fill areas to the east of Hanover Creek will be removed for use as cover material at the Continental Mine. Remaining road surfaces will be ripped to a depth of 18 to 24 inches. Fill areas to the west of Hanover Creek will be regarded to 3H:1V (where possible) and 2.5H:1 where necessary. All berms will be removed, and all flat areas will be graded to promote drainage.

Erosion and Drainage Control

The CHR will be closed in a manner that directs surface water from flat areas to downgradient slopes via gentle grades, preventing surface water from following the road leading to excess erosion. Further erosion control will be achieved through the installation of cover and revegetation.

Cover Revegetation

Cover will be placed on regraded outslopes to the west of Hanover Creek. The entire disturbed area will be revegetated.

Existing Components That Will Be Used for Post Closure Purposes

The Hanover Creek crossing will be left in place to allow for maintenance access of closed areas to the southeast of the crossing.

6.1.7 Exploration Roads

Reclamation Performance Objectives

The performance objectives for closure of exploration roads include:

1. Establish an SSE
2. Provide for wildlife habitat
3. Control erosion

Planned Closure/Closeout Activities

Exploration roads outside of PMLU area not needed for post closure access will be reclaimed. Closure/closeout activities include: ripping, grading, and revegetating.

Stability and Grading Plan

No stability-related grading will be performed on exploration roads during closure.

Erosion and Drainage Control

Exploration roads will be closed in a manner that prevents surface water runoff from following the roads leading to erosion. This will be accomplished through grading which directs stormwater across the roads and not along them, and the periodic installation of water bars.

Cover Revegetation

Cover placement is described in Section 6.2. The entire disturbed area will be revegetated.

Existing Components That Will Be Used for Post Closure Purposes

Exploration roads inside of the PMLU area that are needed for post closure access will not be reclaimed.

6.1.8 Stockpiles

Reclamation Performance Objectives

The performance objectives for closure of the stockpiles include:

1. Establish an SSE
2. Reduce infiltration
3. Contain seeps and minimize sediment loading
4. Maintain mass stability
5. Control runon, runoff and discharge

Planned Closure/Closeout Activities

These stockpiles will no longer be used as cover sources for FA purposes. At closure, the remnants of the High-Grade Ore Stockpile will either be trucked to the Chino Mine, or regraded and covered in place with the closure of the CHR. Overburden stockpiles 2 and 5 are within the Continental Pit OPSDA and will not be reclaimed. The remaining stockpiles which have not yet been incorporated into the SWRDF by EOY 2026 (Overburden Stockpile 4, and remnants of Overburden Stockpile 3) will be closed in place. Closure/closeout activities for the remaining stockpiles include:

- Regrading top surfaces and outslope benches

- Ripping and revegetating covered areas

Stability and Grading Plan

At closure, stockpiles surfaces will be regraded to a stable configuration that minimizes ponding and promotes the conveyance of surface water off the facility. Top surfaces will be constructed to a minimum final grade of 1%. Where possible, the outslopes will be constructed to an interbench slope no steeper than 3H:1V and the maximum uninterrupted slope lengths will be no greater than 200 feet. Specific grading criteria are provided in Table 9.

Erosion and Drainage Control

SWRDF drainage and erosion control will be achieved by:

- providing stable-slope configurations
- constructing embankment outslope stormwater conveyance bench channels, and downdrains
- covering
- revegetation

Cover Revegetation

Cover placement is described in Section 6.2. The entire disturbed area will be revegetated.

Existing Components That Will Be Used for Post Closure Purposes

There are no existing structures within the boundaries of the remaining that will be used for facility closure purposes.

6.1.9 Surface Impoundments

Table 3 presents an updated list of the existing and planned surface impoundments that will be in place by EOY 2026. As previously mentioned, for the purposes of this plan, surface impoundments include: storage tanks for process water, seepage collection waters, and extracted ground water/pit water: storm water catchments, dams, reservoirs, and surface impoundments.

Planned Closure/Closeout Activities

The surface impoundment facilities that contain process waters are planned to be the last features closed following the establishment of vegetation and site stabilization on the other facilities. Impoundments that serve PMLU functions will be permanent parts of the reclamation system and will be maintained throughout the post-closure period.

All surface impoundments that will not be used for post-closure purposes will be closed in accordance with Section 20.6.7.33.I NMAC and MMD Permit GR002RE. Tanks will be removed and disposed of in an approved manner.

Cover Revegetation

For impoundments located outside the OPSDA or the waiver area, liners will be removed or ripped, and completely covered with 36-inches of suitable RCM in accordance with 20.6.7.33.F NMAC. For impoundments located within the OPSDA or the waiver area, the impoundments will be graded to drain.

Existing Components That Will Be Used for Post Closure Purposes

A summary of the surface impoundments to be utilized throughout the post-closure period are presented in Table 3.

6.1.10 Mine Shafts and Underground Workings

See Section 8.4 for descriptions of mine shaft closures. No underground workings will be closed as a part of this 2023 CCP.

6.1.11 Other Ancillary Facilities, Buildings and Systems

Table 4 presents an updated list of the existing and planned ancillary facilities, buildings, and systems that will be in place by EOY 2026.

Planned Closure/Closeout Activities

Ancillary facilities, buildings, and systems that are no longer required for the PMLU will be reclaimed. This will be accomplished by removing or burying utility and structure foundations, power lines, and buildings and providing erosion and drainage control and revegetation. Pipeline corridors located outside the regraded footprint of stockpiles and outside the OPSDA will be inspected and characterized for evidence of past spills. Impacted soils will be removed or covered. Where process water pipelines are removed or buried, the pipeline corridor will be ripped and seeded.

The necessity for removing utility structures will be determined on a site specific basis. Footings, slabs, walls, pavement, manholes, vaults, storm water controls and other foundations located outside the OPSDA that are not included in the industrial PMLU, and are located on non-acid generating materials will be abandoned in place and covered with topdressing.

Erosion and Drainage Control

Temporary erosion and drainage control practices may be constructed during reclamation including but not limited to rough grading and installation of water bars, minor diversions, sediment containment structures, mulching, straw bales, and site fences. The need for these practices will be evaluated on a site-specific basis at closure.

Cover Revegetation

Surfaces will be seeded according to approved methods and seed mixes.

Existing Components That Will Be Used for Post Closure Purposes

A summary of the ancillary facilities, buildings and systems to be utilized throughout the post-closure period are presented in Table 8.

6.2 Cover Design and Materials

A cover placement plan is provided in Permit GR002RE 01-1, Section 9 and DP-1403. Cover conditions include a minimum cover thickness of 36 inches for stockpiles and tailings impoundments and provide for inclusion of in-place material. Cover material will consist of non-acid generating material, capable of supporting plant growth, have erosion resistant characteristics, and limit net percolation. The cover will comply with Copper Rules (20.6.7.33 NMAC) and shall be a store and release cover system.

DP-1403, C109, required Chino to provide a workplan and implementation schedule as a component of the Hanover Mountain Test Plot Program for NMED. Due to the limited quantities of cover material developed from Hanover Mountain Mine, the Agencies and Chino embarked on a test plot program that considers sourcing cover materials from the carbonate tailings and waste rock at the Continental Mine. Until the test plot program is successful, the Agencies require that closure planning include cover sources from Chino and the Cobre Haul Road (CHR).

The Upper South Stockpile (USS) at the Chino Mine and CHR provide 2/3 of the required reclamation cover, constituting 2 feet of off-site sources. Based on the 2018 Chino CCP, the USS contains sufficient cover material to reclaim both the Chino Mine and Continental Mine. However, the USS is used in this CCP and RCE as a placeholder for any approved cover stockpile at Chino that could be utilized. The CHR is estimated to contain 1.77 million cubic yards of suitable material. This volume is based on pre- and post-construction topography. Sheets 14 through 22, Appendix E show the CHR fill areas to be removed and used for cover.

The East Waste Rock Facility (WRF) of the SWRDF at the Continental Mine provides the remaining 1/3 of the material volume. The East WRF is estimated to contain almost 10 million cubic yards of suitable material. The remainder of the East WRF will be incorporated into the SWRDF closure plan.

NMED and MMD approved the USS as cover material in the past Chino Mine Closure Closeout Plans (CCPs) and RCEs. Golder documented its ability to meet the water holding capacity and viability as a growth medium in the Chino Mine test plot program. Chino has provided several lines of evidence to show that CHR materials are a viable cover source (Freeport-McMoRan , 2021).

The major facilities that require cover material at EOY 2026 are the MTI, MGTI, SWRDF, benches in the Hanover Mountain Mine, and the LG WRF.

6.3 Water Management and Treatment Plan

Reclamation plans are intended to meet applicable WQCC standards for groundwater and surface water at post-closure. The reclamation plan will meet the performance objectives by minimizing runon and by managing water collected within the disturbed area that do not meet applicable standards for discharge as required by DP-1403 and the GWA process. Waters that meet appliable standards for discharge will be released to the watershed.

Tanks, small dams and surface impoundments are described in Table 3 including their status at EOY 2026 and are shown in Figure 5 through Figure 8. Surface impoundment maintenance is included in Appendix D and surface impoundment reclamation in Appendix B.

6.3.1 Water Management and Treatment Considerations

Water management includes the following:

- Hanover Mountain Mine
  - Diversion of runon where feasible
  - Capture of runoff within open pit
- MTI and Reclaim Pond
  - Diversion of runon from the Upper Poison Spring Drainage into Grape Gulch
  - Conveyance of runoff from the reclaimed surface
  - Seepage and drainage are sent to Chino through the Bullfrog Pipeline (anticipated to cease flowing after reclamation; detail located in Appendix G)

- Magnetite Tailings Impoundment
  - Conveyance of runoff from the reclaimed surface
  - Capture and conveyance of seepage to Chino through the Bullfrog Pipeline (anticipated to cease flowing after reclamation; details located in Appendix G)
- Waste Rock Facilities
  - Diversion of runon from upgradient drainages
  - Conveyance of runoff from the reclaimed surface
  - Capture and conveyance of seepage to Chino through the Bullfrog Pipeline (anticipated to cease flowing after reclamation; details located in Appendix G
- Pearson-Barnes Mine Area and LG WRF
  - Diversion of runon from upgradient drainages
  - Maintain existing channels
- Continental Pit
  - Diversion of runon away from the open pit around the perimeter where feasible

6.3.2 Management and Treatment Processes

Figure 15 portrays the relationship between components of the water management system. The water management collection systems and sediment controls built during mine operation will continue to be used for water management after closure and any additional required systems will be constructed during the reclamation period. The collection systems will remain in place as long as required to collect and contain water that does not meet applicable standards for discharge from disturbed areas as provided by DP-1403. Once water meets applicable standards for discharge from disturbed areas, the associated systems will be removed, and areas reclaimed.

The MTI seeps are expected to cease flowing after reclamation at approximately reclamation year 58 (See Appendix G). Calculations show that the MTI toe drainage will continue for approximately 53 years post closure and the Poison Spring Cut-Off Wall will function to capture this water and send it to Chino via the Bullfrog Pipeline. Seeps associated with waste rock facilities are currently sent to Chino through the Bullfrog Pipeline. Waste rock facility seeps are expected to decrease quickly and cease flowing

after facility reclamation as predicted in Condition 83 (Golder, 2009). Seep collection systems locations are shown in Figure 5 through Figure 8.

Stormwater runoff will be sent to detention basins for sediment control and then released. The anticipated flow rates for pre-reclamation are provided in Appendix B, Table B.2. Seepage is expected to cease flowing in reclamation year 5 for most of the site and approximately in reclamation year 58 for the MTI (See Appendix G).

7.0 CLOSURE AND POST CLOSURE MONITORING, REPORTING, AND CONTINGENCY PLANS

All closure and post-closure ground water, surface water, seep, spring, and piezometer monitoring data will be reported under the appropriate DP. Additionally, as specified under approved modifications to Condition 59 of DP-1403, Continental submits semi-annual potentiometric maps based on monitoring well data to NMED. Continental also submits seepage measurements taken at facility seeps to NMED. The annual test plot study reports are submitted to NMED and MMD in accordance with DP-1403 and Permit GR002RE, respectively. MMD guidelines require monitoring of revegetation during the 12-year post-closure vegetation monitoring period to evaluate revegetation success, and WQCC Regulation 3107.A.11 requires the development of post-closure monitoring and contingency plans that are consistent with the terms and condition of the applicable DP. Additional closure and closeout monitoring and reporting associated with public health and safety, vegetation, wildlife, meteorology, erosion and construction quality assurance (CQA)/construction quality control (CQC) plans are specific in permit GR002RE and DP-1403. Closure and post-closure monitoring and reporting specified in the Copper Mine Rules include: CQA/CQC plans, seepage interceptor system inspections and reporting; water quality monitoring and reporting and reclamation monitoring and reporting.

Post-closure inspection will continue until lands have been released under the NMMA. This section summarizes the general approach that will be used to meet these conditions.

7.1 Erosion and Drainage Control Structures

Chino will perform inspections when one or more inches of rain is received in a 24-hour period, as recorded by the Continental Mine weather stations, as well as monthly inspections for the first year, and quarterly inspections until vegetation is established. Chino will monitor for erosion, including substantial rill, gully or sheet erosion on the reclaimed facility surfaces. These areas will be inspected in accordance with nationally recognized standards of the U.S. Natural Resource Conservation Service or alternative, equivalent best management practices, per the permit conditions. As conditioned, Chino will provide the MMD and NMED a report that describes substantial erosion features identified. A corrective action plan will be developed for substantial erosion features within 30 days of identification of the problem and the plan will be implemented as soon as practicable following approval.

7.2 Ground Water and Surface Water Control Facilities

Chino will conduct water quality monitoring according to Permit GR002RE and DP-1403, with cessation of specific monitoring requirements under the conditions specified in the permits. Samples will be collected at established intervals at all monitoring locations required in the NMED discharge permits. Chino reserves the right to request amendments to the sampling frequency outlined in the permits based on water quality trends observed.

Contingency and emergency response plans have also been prepared that contain details for addressing potential failures of individual components in Chino water management system (Telesto, 2014). If an unapproved discharge occurs, Chino will perform appropriate mitigation in accordance with Section 20.6.1203. A.9 NMAC or in accordance with DP-1403 if required by NMED.

7.3 Revegetation Success Monitoring

Chino will conduct post-reclamation vegetation monitoring according to Permit GR002RE 01-1.O.2. Areas where vegetation has not been successfully established will be reseeded or inter-seeded. Revegetation monitoring will include canopy cover, vegetation diversity,

and woody stem density. The canopy cover survey and woody stem density survey will be conducted using the survey techniques approved by MMD. The revegetation monitoring will be conducted in the third and sixth year after seeding and for two consecutive years prior to bond release. Chino will submit a vegetation monitoring plan, for MMD approval, at least 90 days before vegetation monitoring is conducted. Results of the vegetation sampling will be provided to MMD.

7.4 Wildlife Monitoring

Pursuant to permit GR002RE, Chino will document wildlife use of reclaimed areas through monitoring, which include deer pellet group counts and bird diversity surveys. The results of the wildlife surveys will not be a condition of or given consideration with regard to FA release.

7.5 Public Health and Safety

Pursuant to Section G.2 of the MMD Permit, Chino will submit written details and maps showing the locations of berms and fences that will be placed around the open pit to restrict access by unauthorized personnel and provide for public safety within 180 days of cessation of operations. Quarterly visual inspections will be conducted to monitor stability of the open pit walls to identify potential failure areas, which may adversely impact the environmental and public health or safety. If such potential failure areas are identified through monitoring, Chino will propose measures to mitigate the hazard within 30 days of identification for MMD approval.

7.6 Construction Quality Assurance Plan

Pursuant to Permit GR002RE, Chino will submit a CQA Report to be submitted to the MMD for approval no less than 180 days prior to regrading of a facility and placement of any cover material for final closure. The CQA Plan will be supplemented with a CQA Report to be submitted to the MMD within 180 days after completion of construction.

7.7 Alternative Abatement Standards

The current closure plan does not consider alternative abatement standards for groundwater exceeding statutory limits. However, this does not waive Chino's right to do so in the future, eliminating the need for post-closure capture of groundwater.

8.0 POST-MINING LAND USE DESIGNATION

The approved Post-Mining Land Use (PMLU) for the permit area includes wildlife habitat and industrial use. The Continental Pit was granted a conditional waiver from achieving an SSE. The following section describes the PMLU for the Continental Mine.

8.1 Wildlife Habitat Post-Mining Land Use

Chino proposed the wildlife PMLU as a practical target use for the reclaimed lands at the site, and the MMD has approved. Certain shop and processing structures, not designated for industrial PMLU, will be demolished and/or removed. Footings, slabs, walls, pavement, manholes, vaults, stormwater controls, and other foundations will be covered with a minimum of 36-inches of cover material, graded for stormwater control and revegetated.

Achieving a wildlife PMLU involves the establishment of SSEs (e.g., native vegetation and habitat types compatible with the surrounding life zone and geo-hydrologic structures). The reclamation seed mixes from Permit GR002RE and proposed plant diversity standards are provided in Table 10 and Table 11. The seed mix was selected to initiate achievement of plant density and provide diversity, and includes cool and warm season grasses, perennial shrubs, and forbs. Additionally, the seed mixes include several valuable, nutritious forage and browse species. Seed mix and rates are subject to change based on future investigations and availability. Alternate or substitute species lists are available in Permit GR002RE.

8.2 Industrial Post-Mining Land Use

The EOY 2026 buildings and their PMLU are listed in Table 4 and Table 8; the MMD conditions for Industrial PMLU can be found in Permit GR002RE 01-J.1. Structures listed

in Permit GR002RE-01-1, Appendix D, which have since be removed are not listed in Table 4 or Table 8. Several buildings located within the haul road footprints or within the vicinity of the Hanover Mountain Mine, are expected to be removed by EOY 2026. Industrial PMLU areas have the infrastructure necessary to support a variety of future industrial uses. The buildings are in use, well maintained, and have electrical power. Many buildings also have shop and warehouse storage capacity with highway and railroad access.

8.3 Continental Pit Waiver

In a letter from MMD dated February 23, 2005, the Continental Pit was granted a conditional waiver from achieving an SSE, subject to Permit GR002RE-01-1 (Section G). Studies and information collected since the conditional wavier was issued in 2005 support the assumptions and circumstances upon which the condition wavier approval was granted. As described in this 2023 CCP, Chino has included the closeout measures required by conditions of the Conditional Wavier Approval.

8.4 Other Ancillary Facilities, Structures and Systems

Pipelines, electrical distribution systems, wells, exploration holes, and underground mine access points exist at the Continental Mine. A majority of the water management pipelines will be removed at closure. The tailing pipelines will be flushed and buried. The Bullfrog Pipeline, which is currently used to transfer water from the Continental Mine to Chino, will be used for Industrial PMLU. Electrical distribution systems providing power to the Industrial PMLU area will be left in place. Electrical distribution systems providing power to pumps that are part of the water management system will be closed along with the pumps once they are no longer needed for water management. Water management is discussed in Section 6.3. Chino currently maintains and monitors several monitoring wells, seven of which will be used for post-closure monitoring. All exploration holes have been closed in accordance with the OSE conditions apart from some located on Hanover Mountain, which will be mined out by EOY 2026.

The Continental Mine has several underground mine access points including the No. 2 Portal, the No. 3 Shaft, the No.4 Shaft and ventilation shafts. Entrances to the underground

workings, including the No. 2 Portal and ventilation shafts will be closed at the termination of mining activities. The No. 4 Shaft will be mined out during the mining of the Hanover Mountain Mine. The No. 2 Portal and several ventilation shafts will be reclaimed in conjunction with building demolition using appropriate closure methods. The No. 3 Shaft will remain accessible for water supply use. All infrastructure not used will be removed and disposed of in an approved manner or stabilized prior to closing the access points. Chino will safeguard all shafts, adits and other underground mine openings within the Permit area as appropriate according to GR002RE 01-1 J.7 and previously established practices (Cobre, 2009).

8.5 Site-Specific Revegetation Success Guidelines

Areas designated as wildlife habitat PMLU (with exceptions noted below), will be revegetated in accordance with the revegetation standards presented in Permit GR002RE 01-1, Appendix C. Table 10 and Table 11 provide proposed seed mixes and plant diversity guidelines (respectively) as outlined in Permit GR002RE 01-1, Appendix C.

There are two primary areas approved as wildlife habitat PMLU that cannot be revegetated as described previously; however, these areas provide a valuable component in the wildlife habitat landscape. The highwalls of the Hanover Mountain Mine and areas near highwalls where safe access is not possible, as well as the minor portion of rocky MTI embankment (to be left in its current configuration), provide valuable wildlife habitat. The highwalls, rocky areas adjacent to highwalls, and the unmodified portion of the MTI embankments mimic natural talus slopes and bluffed terrain common to the surrounding region. These areas may have sparse vegetation and will not meet revegetation success standards described above; however, these areas provide a critical component of the overall SSE and provide valuable wildlife habitat diversity.

9.0 BASIS FOR CAPITAL AND OPERATION AND MAINTENEANCE COST ESTIMATES

This section provides a description of the RCE that is used in determining the value of the FA. The net present value calculation will be provided upon the agency's approval of the scope and costs.

The costs associated with each facility are presented in Appendix A. In general, the RCE was broken down into two categories: earthwork, and water management. A detailed description of the cost estimate, assumptions, development and basis can be found in the earthwork RCE in Appendix H and water management cost estimate in Appendix B, with an electronic copy of the cost estimate itself in Appendix I.

The sheets contained in Appendix E depict the proposed closure plan based on the anticipated EOY 2026 mine plan. The EOY 2026 closure plan was used to develop reclamation quantities used in the RCE. All costs are 2023 current dollar costs based upon the most up to date unit rates.

9.1 Basis for Capital Cost Estimates

9.1.1 Basis for Earthworks Capital Cost Estimates

Earthwork capital costs are summarized in Table 12 and are based upon the reclamation design criteria in Table 9.

9.1.2 Basis for Water Treatment Capital Cost Estimates

Water Management costs are summarized in Table 13. The water management cost estimate is a time-series accounting of costs associated with the long-term maintenance of the water management system. The estimate includes costs related to ponds, pumps, pipelines, electrical systems, and water quality sampling. Nearly all water management infrastructure required is currently in place or will be in place by EOY 2026 as a result of past and current operations. Capital water management costs include replacement or removal of infrastructure.

9.2 Basis for Operation and Maintenance Cost Estimates

9.2.1 Basis for Earthworks Operation and Maintenance Cost Estimates

Operations and Maintenance (O&M) costs include erosion control, road maintenance and revegetation maintenance (Table 14). O&M costs are assumed to diminish with time:

- Erosion Control
  - Reclamation years 0-12: 12 days/year
  - Reclamation years 13-39: 4 days/year
  - Reclamation years 40-99: 1 day/year
- Road Maintenance
  - Reclamation years 0-19: 4 months/year at 24 hours/month
  - Reclamation years 20-39: 2 months/year at 24 hours/month
  - Reclamation years 40-99: 1 month/year at 24 hours/month
- Water Quality Monitoring and Reporting
  - Reclamation years 0–19: 4 days/year
  - Reclamation years 20–39: 2 days/year
  - Reclamation years 40–99: 1 day/year
- Revegetation Maintenance
  - Reclamation years 0-11: Based on observations of previously reclaimed areas, the annual vegetation failure is conservatively estimated to be 2% failure every year for a total of 12 years, starting the year reclamation is completed.

9.2.2 Basis for Water Treatment Operation and Maintenance Cost Estimates

The water management O&M costs account for the long-term operation of the water management infrastructure including routine maintenance, electricity, fuel, and sampling.

10.0 CLOSURE SCHEDULE

The anticipated duration for reclamation activities is shown in Table 15. The schedule is based on the estimated amount of labor, equipment and other resources that would be necessary to complete reclamation, sequential closure of the facilities, and the acreage to be reclaimed in the unlikely condition of forfeiture based on anticipated EOY 2026 configuration. The reclamation durations presented in Table 15 include reclamation

through seeding. The estimated duration for reclamation of each facility does not include regulatory design review and approval processes.

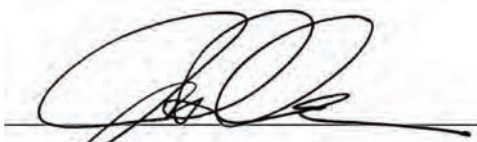
11.0 USE OF THIS REPORT

Telesto has compiled this 2023 CCP update to present Continental Mine's 5-year update of the CCP to the NMED and the MMD of the New Mexico Energy, Minerals and Natural Resources Department. The Continental Mine 2023 CCP has been updated to fulfill the requirements of the following permits:

- Discharge Permit DP-1403, Continental Mine issued by the NMED on February 6, 2019 (NMED, 2019)
- Discharge Permit DP-181, Continental Mine issued by the NMED on April 17, 2018 (NMED, 2018)
- Applicable conditions of the Copper Mine Rule, 20.6.7 NMAC adopted by the New Mexico Water Quality Control Commission on December 1, 2013 (New Mexico Water Quality Control Commission, 2010)
- Permit GR002RE, issued by the Director of the MMD of the New Mexico Energy, Minerals and Natural Resources Department on February 23, 2005 (MMD, 2005)

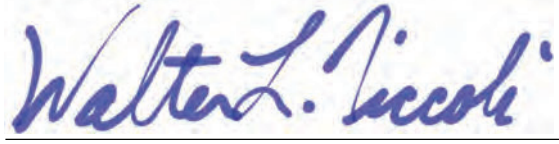
Continental Mine has completed numerous other studies required by DP-1403 and GR002RE. Information from these various studies has also been considered in preparing this 2023 CCP update.

The reclamation designs included herein were developed at a level consistent with preliminary designs for agency review. Development of this 2023 CCP and associated preliminary reclamation designs was conducted under the oversight of the following Telesto staff:



7/27/2023

Jonathan Cullor, P.E. – Senior Engineer — Date



7/27/23

Walter Niccoli, P.E. - Principal — Date

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Tables

Table 1 Summary f Closure/Closeout Relate Permits

Environmental Media/Regulatory Framework	Permit Number	Permit Name	Issuing Agency	Status as of 2026
Air Quality*	298M6R4 P066R1	New Source Review (NSR) State Title V	NMED Air Quality Bureau/EPA	Current
Drinking Water Federal SDWA	WSS 800-09	Non-Community, Non-Transient Public Water Supply	NMED	Current
Groundwater New Mexico Administrative Code 20 Chapter 6, Water Quality	DP-181	Groundwater Discharge Permit for the Continental Mine, Concentrator, Tailings, and Waste Rock Facilities	NMED	Current, Application Under Review
	DP-1056	Groundwater Discharge Permit for Hanover Mine, Fierro/Humbolt Leach Pads, SX/EW Plant, #3 Shaft Stockpile and North Overburden Stockpile	NMED	Current, Application Under Review
	DP-1403	Supplemental Discharge Permit for Closure	NMED	Current, Application Under Review
Hazardous Materials Transporter	051013 550 049VW	Hazardous Material Certificate of Registration	U.S. Dot	Current
Hazardous Waste Generator	NMD980507958	Notification of Status as Generator of Hazardous Waste	New Mexico Department of Public Safety/EPA	Current
New Mexico Mining Act	GR002RE	Closeout Plan and Financial Assurance	MMD	Current
Operations on Land Administered by BLM (43CFR 3809)		1993 Approved Plan of Operations and 5 subsequent amendments	BLM	Current
Surface Water Quality Federal Clean Water Act	NMR05GB66	Stormwater/NPDES MSGP Authorization	EPA	Current
Water Rights	M-2559, M-4124, M-2575, M-2576, M-2502, M-5092, M-2515		New Mexico Office of State Engineer	Current

* Continental Mine and Chino Mine are combined under both permits

Table 2 Summary of NMED Discharge Plans

Discharge Plan	Area Description	Primary Facilities/Discharges Permitted
1403	Continental Mine	Leachate from the waste rock stockpiles, tailing impoundments, and other Continental Mine areas at closure
181	Continental Mine	Discharge of 12,000 GPD of tailing slurry to the Main Tailings Impoundment, and impacted stormwater and leachate from the waste rock stockpiles and other areas at the Continental Mine

Table 3 Surface Impoundment Information

Impoundment Designation	Surface Area (acres)	Mine Use	Liner	Status at EOY 2026	Reclamation Plan
Collection Containment and Pumping Systems					
Blackman's Seep	1.00E-02	Seep	HDPE	Existing	Removed
Cement Pond and Cement Interceptor Trench	NA	Seep	Concrete Dam Unlined	Existing	Removed
Decant Pond #4	6.20E-01	Seep and Stormwater	HDPE	Existing	Removed
Grape Gulch Pond #3	3.80E-01	Stormwater	HDPE	Existing	Removed
North Tailings Decant Pond	0.46	Stormwater	Concrete Dam Unlined	Existing	Removed
Magnetite Seepage Pond	0.2	Seep and Stormwater	HDPE	Existing	Removed
Reclaim Pond	16		Concrete Dam Unlined	Existing	Removed
Surge Tank	0.18	Emergency Water Management, Seep and Stormwater	Steel	Existing	Industrial PMLU
SWRF Dam 1 (181-2003-Dam 1)	0.52	Stormwater	Concrete Dam Unlined	Existing	Removed
SWRF Dam 2 (181-2003-Dam 2)	0.34	Stormwater	Concrete Dam Unlined	Existing	Removed
SWRF Dam 3 (181-2003-Dam 3)	0.84	Stormwater	Concrete Dam Unlined	Existing	Removed
Upper Creek Containment Pond 1	1.34	Seep and Stormwater	HDPE	Existing	Removed
Seeps Routed to Upper Creek Containment Pond 1*					
Borehole Seep and Borehole Access Road (Vent Seep)	NA	Seep	Unlined	Existing	Removed
East Haul Road & Rock Dam Seep	NA	Seep	Unlined	Existing	Removed
Unnamed Seep	NA	Seep	Unlined	Existing	Removed
Cottonwood Seep	NA	Seep	Unlined	Existing	Removed
Seeps Routed to Decant Pond #4					
Dam Toe Seep	NA	Seep	Unlined	Existing	Removed
East WRF Containment	NA	Seep and Stormwater	HDPE	Existing	Removed
Estrada Seep	NA	Seep	Unlined	Existing	Removed
Magnetite Interceptor Trench	NA	Seep	Unlined	Existing	Removed
Peach Tree Spring Seep	NA	Seep	Unlined	Existing	Removed
Poison Spring Cut-Off Wall	NA	Groundwater Capture	Concrete Amended Earth	Existing	Industrial PMLU
Union Hill Adit Seep	NA	Seep	Unlined	Existing	Removed
Weber Pond	NA	Seep	Unlined	Existing	Removed

Table 4 EOY 2026 Buildings/Tanks/Structures

Description	Dimensions			
	L	W	H	Diameter
Concentrate Storage Tank			50	30
Diesel Tank	10	20		
Fueling Station	20	50		
Gate House	15	40		
Magnetic Separator	15	20	14	
Mill Building #1 and Concentrator	160	140	70	
Mill Building #2	197	140	70	
Mobile Substation	30	50	50	
No. 2 Mill Secondary Crusher Building	36	38	50	
No. 2 Mill Stacker	820	20	15	
Ore Bin (large)			90	30
Ore Bin (large)			90	30
Ore Bin (small)			70	30
Pioneer Crusher	35	25	40	
Primary Crusher	70	50	60	
Pump House	20	20		
Pump House and Shed for Thickener	10	10	14	
Scale House (Guard Shack)	10	10	10	
Small Truck Shop	105	40	20	
Stacker Hoist	28	23	18	
Substation	100	120		
Substation No. 2	66	50	30	
Thickener MCC	18	18	12	
Thickener MCC	12	22	15	
Thickener Tank (100-ft diam.)			14	100
Thickener Tank (60-ft diam.)			20	60
Water Tank (X2)[1]			20	15
Water Tank (near stacker and stacker hoist)			120	40

[1]To be removed during expansion of the Hanover Mountain Mine pit

Table 5 Preci itation Data

Station	X	Y	Z (ft)	Annual Precipitation (in/yr)											
				2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Buckhorn Gulch	-108.093861	32.82808	6659.28	NA	NA	NA	NA	NA	23.93	17.56	NA	NA	NA	NA	NA
SWRF Dam 2	-108.089919	32.83163	6667.59	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pewabic Drainage	-108.074907	32.81941	6728.56	NA	NA	NA	NA	NA	20.58	NA	17.53	18.99	15.88	18.94	NA
Hanover	-108.096553	32.81759	6749.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Upper Creek Contamination Pond	-108.085263	32.85352	6785.56	NA	NA	NA	NA	NA	NA	NA	NA	22.82	17.53	17.20	NA
East WRF	-108.085491	32.83922	6823.72	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NE Hanover Mountain	-108.073897	32.8657	6923.67	NA	NA	NA	NA	NA	NA	NA	21.96	25.11	14.23	17.67	NA
Tailings	-108.08866	32.85392	6926.63	33.26	11.68	25.70	20.14	7.86	NA	NA	NA	NA	NA	NA	NA
Surge Tank	-108.085611	32.85233	6952.92	NA	NA	NA	NA	NA	NA	NA	17.91	NA	NA	19.76	NA
Reclaim Pond	-108.092594	32.85949	7023.95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22.70
Pearson Barnes/Cobre Stockpile	-108.096433	32.84078	7033.22	1.09	13.54	16.66	NA	NA	NA	15.96	13.41	14.76	11.81	NA	NA
Reclaim Area	-108.099951	32.86153	7190.24	NA	NA	NA	NA	NA	NA	NA	18.04	8.11	NA	NA	NA
Mean Annual Precipitation				17.18	12.61	21.18	20.14	7.86	22.26	16.76	17.77	17.96	14.86	18.39	22.70

* Coordinate System GCS North American 1983

Table 6 S I Types and Areas within Proposed Mine Plan of Operation

Mine Feature	Soil Type **	% of Facility Area	Area (acres)
Connecting Haul Road	Santa Fe-Rock outcrop complex	31	32.2
	Oro Grande-Rock outcrop complex	0.6	0.6
	Gaddes-Santa Fe-Rock outcrop complex	43	43.6
	Encierro-Rock outcrop complex	18	19.7
	Sampson-Dagflat complex	4	4.5
	Santana-Rock outcrop complex	3.1	3.4
	TOTAL		104
Hanover Mountain	Pits-Dumps association	11	15.5
	Santa Fe-Rock outcrop complex	66	93.1
	Oro Grande-Rock outcrop complex	23	32.4
	Gaddes-Santa Fe-Rock outcrop complex	0.21	0.3
	TOTAL		141
North Burden Stockpile	Santa Fe-Rock outcrop complex	3.4	0.6
	Oro Grande-Rock outcrop complex	97	18.5
	TOTAL		19
SWRDF Expansion	Pits-Dumps association	0.06	0.02
	Santa Fe-Rock outcrop complex	87	28.8
	Oro Grande-Rock outcrop complex	11	3.6
	Gaddes-Santa Fe-Rock outcrop complex	1.9	0.6
	TOTAL		33
SWRDF Dam 2	Santa Fe-Rock outcrop complex	100	0.76
Utility Corridor	Santa Fe-Rock outcrop complex	51	6.86
	Oro Grande-Rock outcrop complex	8	1.1
	Gaddes-Santa Fe-Rock outcrop complex	41	5.4
	TOTAL		13

*Table includes all areas of facility including already disturbed areas

**Obtained from Natural Resources Conservation Service Soil map

Table 7 Soil Characteristics*

Soil Type	Terrain	Characteristics	Texture	Average Soil Depth (inches)
Pit-Dumps association extremely steep	Hills and flats	n/a	n/a	n/a
Santa Fe-Rock outcrop complex 20-45% slopes	Hill, mountains, ridges	well drained; shallow and rock outcrop	gravelly sandy loan; barren bedrock	16
Oro Grande-Rock outcrop complex 25-75% slopes	Hills and mountains	well drained; shallow and rock outcrop	cobbly loam; barren bedrock	12
Gaddes-Santa Fe-Rock outcrop complex 15-45% slopes	Ridges and hills	well drained; moderately deep	gravelly sandy loan; gravelly loam; gravelly clay loam; barren bedrock	18
Encierro-Rock complex 15-35% slopes	Hills and ridges	well drained; shallow and rock outcrop	gravelly loam; barren bedrock	9
Sampson-Dagflat complex 3-12% slopes	Bottom and side of intraridge valleys	well drained; deep	loamy sand; loam	45
Santana-Rock outcrop complex 1-25% slopes	Hills and ridges	well drained; shallow and rock outcrop	loam; gravelly loam	12

*Obtained from SCS (1983)

Table 8 Building/Tank/Structure Closure Plan

Structure	EOY 2026 Closure Plan
Concentrate Storage Tank	Removed Prior to 2026
Diesel Tank	Removed at Closure
Fueling Station	Removed at Closure
Gate House	Removed at Closure
Magnetic Separator	Removed at Closure
Mill Building #1 and Concentrator	Removed Prior to 2026
Mill Building #2	Removed at Closure
Mobile Substation	Removed at Closure
No. 2 Mill Secondary Crusher Building	Removed at Closure
No. 2 Mill Stacker	Removed at Closure
Ore Bin (large)	Removed Prior to 2026
Ore Bin (large)	Removed Prior to 2026
Ore Bin (small)	Removed Prior to 2026
Pioneer Crusher	Removed at Closure
Primary Crusher	Removed at Closure
Pump House	Removed at Closure
Pump House and Shed for Thickener	Removed at Closure
Scale House (Guard Shack)	Removed at Closure
Small Truck Shop	Removed and Replaced Industrial PMLU
Stacker Hoist	Removed at Closure
Substation	Industrial PMLU
Substation No. 2	Removed and Replaced Industrial PMLU
Thickener MCC	Removed at Closure
Thickener MCC	Removed at Closure
Thickener Tank (100-ft diam.)	Removed Prior to 2026
Thickener Tank (60-ft diam.)	Removed Prior to 2026
Water Tank (X2)	Removed at Closure
Water Tank (near stacker and stacker hoist)	Industrial PMLU

[1]To be removed during expansion of the Hanover Mountain Mine pit

Table 9 Summary of Ke Reclamation Design Criteria

Area Covered	Reclamation Activities	Criteria			
		Regrading	Top Surface Channels/Downdrains/Outslope Channels	Cover/Ripping/Revegetation	Miscellaneous
Main Tailings Impoundment	• Regrading top surface and southeast rock embankment • Completing surface water channels to route stormwater • Hauling and grading cover material • Ripping and revegetating covered areas	•Minimum 0.5% top surface slope •Buttress, constructed along the east and south portions of the embankments in 2005, are present at 3H:1V overall slope •The existing test plots are preserved •Maximum 3H:1V interbench slopes •Southwest rock embankment and Weber Pond area left in existing configuration	•Top surface channels: convey runoff from the impoundment top surface and surrounding tributary and surrounding tributary area or to the embankment toe •Construct downdrains •Outslope channels: 20-foot wide, 5.0% maximum cross-bench slope, 2.0% longitudinal bench slope (max 5%)	• 36-inch top cover consisting of 24 inches of hauled in cover (accounting for existing cover materials already placed) and the upper 12 inches of tailing (GR002RED.2.b and DP-1403, Condition 77) •36-inch outslope cover •Rip and revegetate covered surfaces	•Tailing Pipelines: flushed, capped and buried in place with 36-inches cover •Benches: 30-foot bench width (maximum cross-bench slope, 2.0% longitudinal bench slope and 3-feet of cover
Magnetite Tailings Impoundment	•Regrading top and outslope •Completing a draindown channel •Hauling and grading cover material •Ripping and revegetating covered areas	•Maximum 3H:1V interbench slopes •Minimum 0.5% top surface slope	•Construct downdrain to drain the top surface and discharge on the west side of the embankment	•36-inch top and outslope cover •Rip and revegetate covered surfaces	NA
SWRDF	•Regrading top surfaces and outslope benches •Hauling and grading cover material •Completing surface water channels to route stormwater •Ripping and revegetating covered areas	•200-foot maximum interbench slope length •Maximum 3H:1V interbench slopes •1% minimum top surface slope •East side 175-foot maximum interbench slope length, maximum 2.5H:1V interbench slope to preserve the road located at the toe of the stockpile	•Top surface channels: convey runoff to downdrains •Construct downdrains •Outslope channels: 20-foot wide, 5.0% maximum cross-bench slope, 2.0% longitudinal bench slope (max 5%)	•36-inch top and outslope cover, the upper 24 inches of waste rock are approved as part of the cover (DP-1403, Condition 77) on the east side of the East, Union Hill WRFs that remain unburied by the expansion •Rip and revegetate covered surfaces	•Benches: 30-foot bench width (maximum 50-feet), 0.5% maximum cross-bench slope, 2.0% longitudinal bench slope
Low Grade WRF	•Surface grading •Hauling and grading cover material •Completing surface water channels •Ripping and revegetating covered areas	•Maximum 3H:1V interbench slopes	NA	•36-inch top and outslope cover, the upper 24 inches of waste rock are approved as part of the cover (DP-1403, Condition 77) •Rip and revegetate covered surfaces	NA
Hanover Mountain Deposit	•Hauling and grading cover material in accessible areas •Ripping and revegetating covered areas •Fencing and berms	NA	NA	•36-inch cover in accessible areas •Rip and revegetate covered surfaces	•Fencing: a combination of 6-foot chain link fencing and berms •Rip and revegetate disturbance area used to construct the chain link fencing and berm
Continental Pit	•In GR002RE 01-1 the Continental Pit was granted a conditional waiver from achieving a self-sustaining ecosystem. The Continental Pit is unchanged by EOY 2026 •Fencing and berms	NA	NA	NA	•Fencing: a combination of 6-foot chain link fencing and berms •Rip and revegetate disturbance area used to construct the chain link fencing and berm

Area Covered	Reclamation Activities	Criteria			
		Regrading	Top Surface Channels/Downdrains/Outslope Channels	Cover/Ripping/Revegetation	Miscellaneous
Surface Impoundments	•Ripping liners and burying in place •Grading to drain •Hauling and grading cover material •Ripping and revegetating covered areas	NA	NA	•36-inch cover •Rip and revegetate	NA
Pearson-Barnes Mine Area	•Hauling and grading cover material •Ripping and revegetating covered areas	NA	NA	•36-inch cover, tapering down to leaving existing channels •Existing channels will remain in their current configuration •Rip and revegetate covered surfaces	NA
Haul Roads	•Grading to drain •Hauling and grading cover material •Ripping and revegetating covered areas	NA	NA	•Roads are ripped to a depth of 18 to 24 inches •36-inch cover •Rip and revegetate	NA
Cobre Haul Road	•Grading to drain and incorporate berm material into the road •A smaller (approximately 12-14 feet in width) will remain on the CHR for post closure maintenance •Road crossing at forest access road and Hanover Creek will be removed and demolished •Ripping and revegetating of CHR surfaces	NA	NA	•Rip to a depth of 18 to 24 inches, grade and revegetate	NA
Borrow Areas	•Ripping and revegetating	NA	NA	•Borrow areas left in a condition such that they can be directly ripped and revegetated	NA
Building/Structural Demolition (non-industrial PMLU Areas)	•All equipment and above-grade structures are demolished and removed from the area or buried •Debris is placed either into the stockpiles or other designated area •Any new buildings constructed prior to reclamation have an Industrial PMLU •Hauling and grading cover material for demolition areas and/or debris •Ripping and revegetating disturbed areas	NA	NA	•Demolition and demolition debris areas: 36-inch cover, ripped and revegetated	NA

Area Covered	Reclamation Activities	Criteria			
		Regrading	Top Surface Channels/Downdrains/Outslope Channels	Cover/Ripping/Revegetation	Miscellaneous
Operations and Maintenance	•Erosion control •Road maintenance •Revegetation maintenance	NA	NA	•Based on observations of previously reclaimed areas, the annual vegetation failure is conservatively estimated to be 2% failure every year for a total of 12 years, starting the year reclamation is completed	NA
Water Management	•Ponds, tanks, pipelines, pumps and electrical infrastructure maintenance, replacement and removal •Water monitoring	NA	NA	NA	NA

Table 10 Proposed Interim Seed Mix and Rates

Species1	Life-Form	Duration	Seasonality	Rate*
Blu gramma (*Boutelouagracilis)*	Grass	Perennial	Warm	0.25
Side-oats grama (*Boutelouacurtipendula)*	Grass	Perennial	Warm	1.25
Green sprangletop (*Leptochloadubia)*	Grass	Perennial	Warm	0.15
Plains lovegrass (*Eragrostis intermedia)*	Grass	Perennial	Intermediate	0.06
Bottlebrush Squirreltail (*Sitanionhystrix*)	Grass	Perennial	Cool	1.25
New Mexico feathergrass (*Stipa neomexicana)*	Grass	Perennial	Cool	1.75
Streambank wheatgrass (*Elymuslanceolatus)*	Grass	Perennial	Cool	1.5
Apache plume (*Fallugiaparadoxa)*	Shrub	Perennial	NA	0.09
Mountain mahogany (*Cercocarpusmontaus)*	Shrub	Perennial	NA	1
Winterfat (*Eurotialanata)*	Shrub	Perennial	NA	0.6
White prairie clover (*Dalea candidia)*	Forb	Perennial	NA	0.15
Globe mallow (*Sphaeralcea sp.)*	Forb	Perennial	NA	0.1
Blue flax (*Linumlewisii)*	Forb	Perennial	NA	0.15
Total Pure Live Seed (lbs/ac)				8.3

* Seed mix and rates subject to change based on future investigations and availability. Alternate or substitute species lists are available in the MMD Permit GR002RE. Rate is in pounds of pure live seed per acre; Substitutions may change seeding rates

NA- not applicable

Table 11 Pr posed Plant Diversity Guidelines

Class	Seasonality	Number	Minimum Occurrence (% cover)
Perennial Grass	Warm	3	1
Perennial Grass	Cool	2	0.5
Perennial Grass	NA	2	1
Perennial Grass	NA	2	0.1

Table 12 Earthwork Capital Costs

Item Facility	Direct Cost	Indirect Cost 30% of Direct	Total Estimated Cost
South Waste Rock Disposal Faci	$7,242,774	$2,172,832	$9,415,606
East Waste Rock Facility	$2,560,600	$2,172,832	$4,733,432
North OB Stockpile	$32,071	$9,621	$41,693
Low Grade Ore Waste Rock Faci	$605,532	$181,660	$787,192
Stockpile Subtotal	***$10,440,977***	***$4,536,945***	***$14,977,923***
Magnetite Tailings	$345,554	$103,666	$449,220
Main Tailings Impoundment	$1,912,801	$573,840	$2,486,641
Tailings Subtotal	***$2,258,355***	***$677,506***	***$2,935,861***
Hanover Mountain Pit	$1,065,422	$319,627	$1,385,049
Continental Pit	$335,025	$100,508	$435,533
Pits Subtotal	***$1,400,448***	***$420,134***	***$1,820,582***
Containments	$54,868	$16,460	$71,328
All Misc	$944,376	$283,313	$1,227,688
Cobre Haul Road	$830,945	$249,283	$1,080,228
Miscellaneous Subtotal	**$1,830,188**	**$549,056**	***$2,379,244***
Demo	$2,336,216	$700,865	$3,037,081
Closure Costs Total	**$18,266,184**	**$5,479,855**	**$23,746,039**
O&M		**17.5% of Direct**	
Full Site O&M Costs Total	**$2,790,254**	**$488,294**	**$3,278,549**
Total Cost (Closure + O&M)	**$21,056,438**	**$5,968,150**	**$27,024,588**

Table 13 Water Management Costs

Item	Subtotal, Direct Costs	Subtotal, Indirect Costs	Total Estimated Cost
Capital and Replacement			
Ponds and Tanks	$267,814	$80,344	$348,158
Pumps	$0	$0	$0
Pipelines	$0	$0	$0
Electrical	$0	$0	$0
Subtotal	$267,814	$80,344	$348,158
Removal*			
Pumps	$0	$0	$0
Pipelines	$157,916	$47,375	$205,291
Electrical	$42,399	$12,720	$55,119
Subtotal	$200,315	$60,095	$260,410
Operations and Maintenance			
Ponds and Tanks	$227,987	$39,898	$267,885
Pumps	$823,731	$144,153	$967,884
Pipelines	$111,763	$19,559	$131,322
Electrical Infrastructure	$105,547	$18,471	$124,018
Electricity and Fuel	$57,732	$10,103	$67,835
Environmental Sampling	$450,912	$78,910	$529,822
Subtotal	$1,777,672	$311,094	$2,088,766
Total Estimated Cost	**$2,246,000**	**$452,000**	**$2,697,000**

* Removal costs for ponds and tanks are included in the earthwork portion of the cost estimate

Table 14 Earthwork O&M Costs

Total Earthwork O&M Costs*					
Period (years)	Erosion Control	Road Maintenance	Revegetation Maintenance	GW Monitoring	Total (Current Year $)
0 to 19	$ 34,289	$ 355,600	$ 133,135	$ 558,433	$ 1,081,457
20 to 39	$ -	$ 325,966	$ -	$ 444,458	$ 770,424
40 to 99	$ -	$ -	$ -	$ 546,140	$ 546,140
Totals			$ 133,135	$ 1,549,031	$ 2,398,021

* Earthwork O&M costs include 17.5% indirect costs

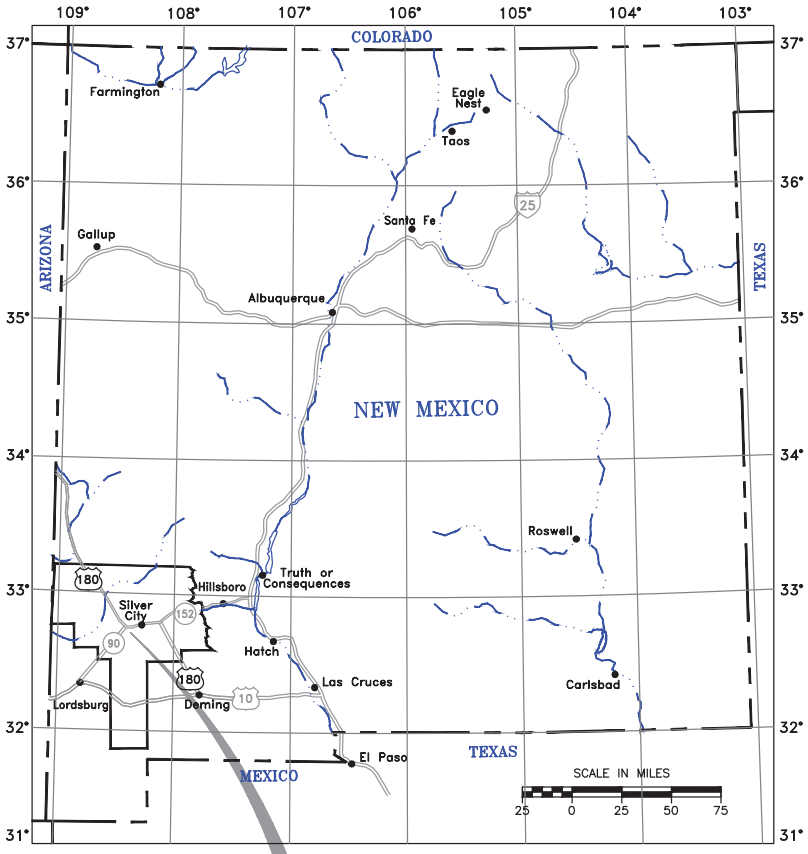
Table 15 Closure Schedule

Facility*	Anticipated Duration (Years)**
South Waste Rock Disposal Facility	2.5
Low Grade WRF and High Grade Ore Stockpile	2.5
Main Tailings Impoundment and Reclaim Pond	2
Magnetite Tailings Impoundment	1.5
Hanover Mountain Deposit	3.5
Surface Impoundments	0.5
Haul Roads	0.5
Exploration Roads	0.5
Pearson-Barnes Mine Area	0.5
Continental Pit	1.5
North Overburden Stockpile	2.5
South Overburden Stockpile	2.5
Overburden Stockpile 1, 2, 3, 4, 5	1.5
Top Soil Stockpile	1.5
Water Management	12
Building/Structural Demolition (non-Industrial PMLU Areas)	2.5

* Reclamation is not to exceed 200 acres/year

** Estimated duration for reclamation does not include regulatory design

Figures



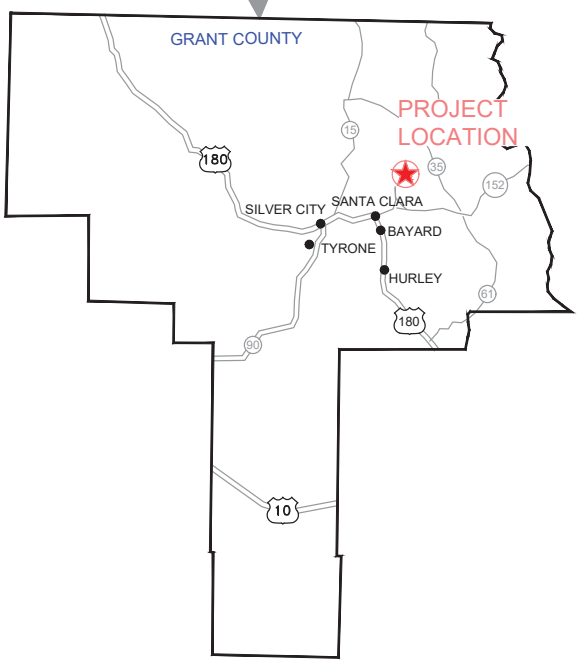


FIGURE 1
CONTINENTAL MINE LOCATION MAP

PROJECT:	TASK:	DATE:	DRWN BY:
200189H	001-03	7/12/2023	JC

PREPARED BY: TELESTO SOLUTIONS INCORPORATED

PREPARED FOR: FREEPORT-McMoRan

Date: 6/14/2023 1:32:23 PM R:\Cobre\CCP-RCE\2023\Calculations\AutoCad\CCPReport\20230530_LOCATION MAP.dwg Plotted By: Jon Cullor

LEGEND:

MMD PERMIT BOUNDARY

0 2000

SCALE IN FEET

N

NOTES:

AERIAL PHOTO TAKEN JULY 2022

COORDINATE SYSTEM
CHINO LOCAL MINE

PROJECT:	TASK:	DATE:	DRWN BY:
200189H	001-03	7/12/2023	JC

PREPARED BY: TELESTO SOLUTIONS INCORPORATED

FIGURE 2
MMD PERMIT BOUNDARY

PREPARED FOR: FREEPORT-McMoRan

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LEGEND:

— — — MMD PERMIT BOUNDARY

0 1000

SCALE IN FEET

N

NOTES:

AERIAL PHOTO TAKEN JULY 2022

COORDINATE SYSTEM
CHINO LOCAL MINE

PROJECT:	TASK:	DATE:	DRWN BY:
200189H	001-03	7/17/2023	JC

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FIGURE 3
EXISTING FACILITIES

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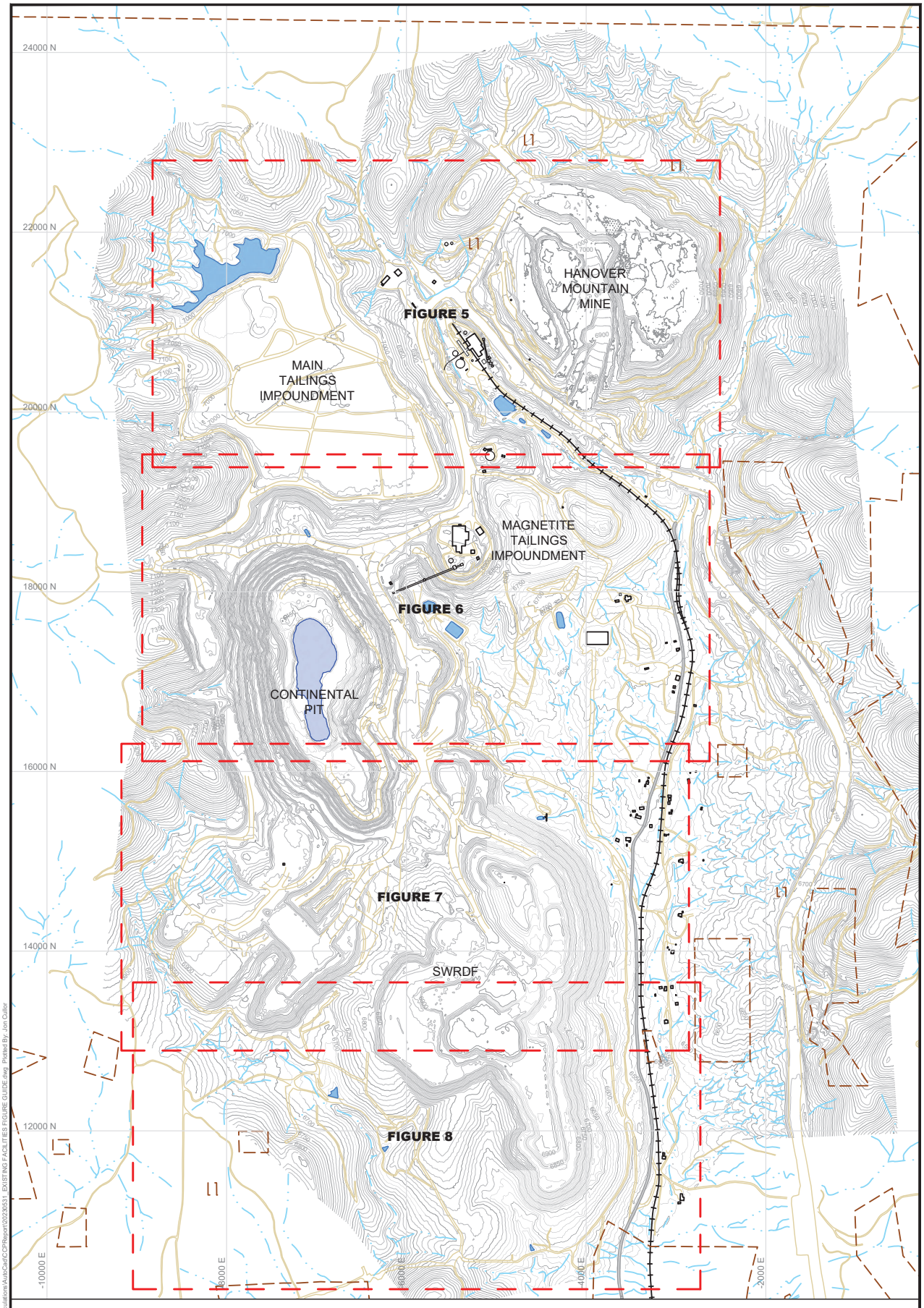
Date: 7/12/2023 10:33:50 AM R:\Cobre\CCP-RCE\2023\Calculations\AutoCad\CCPReport\20230531_EXISTING FACILITIES.dwg Plotted By: Jon Cutler



PROJECT:	TASK:	DATE:	DRWN BY:
200189H	001-03	7/12/2023	JC

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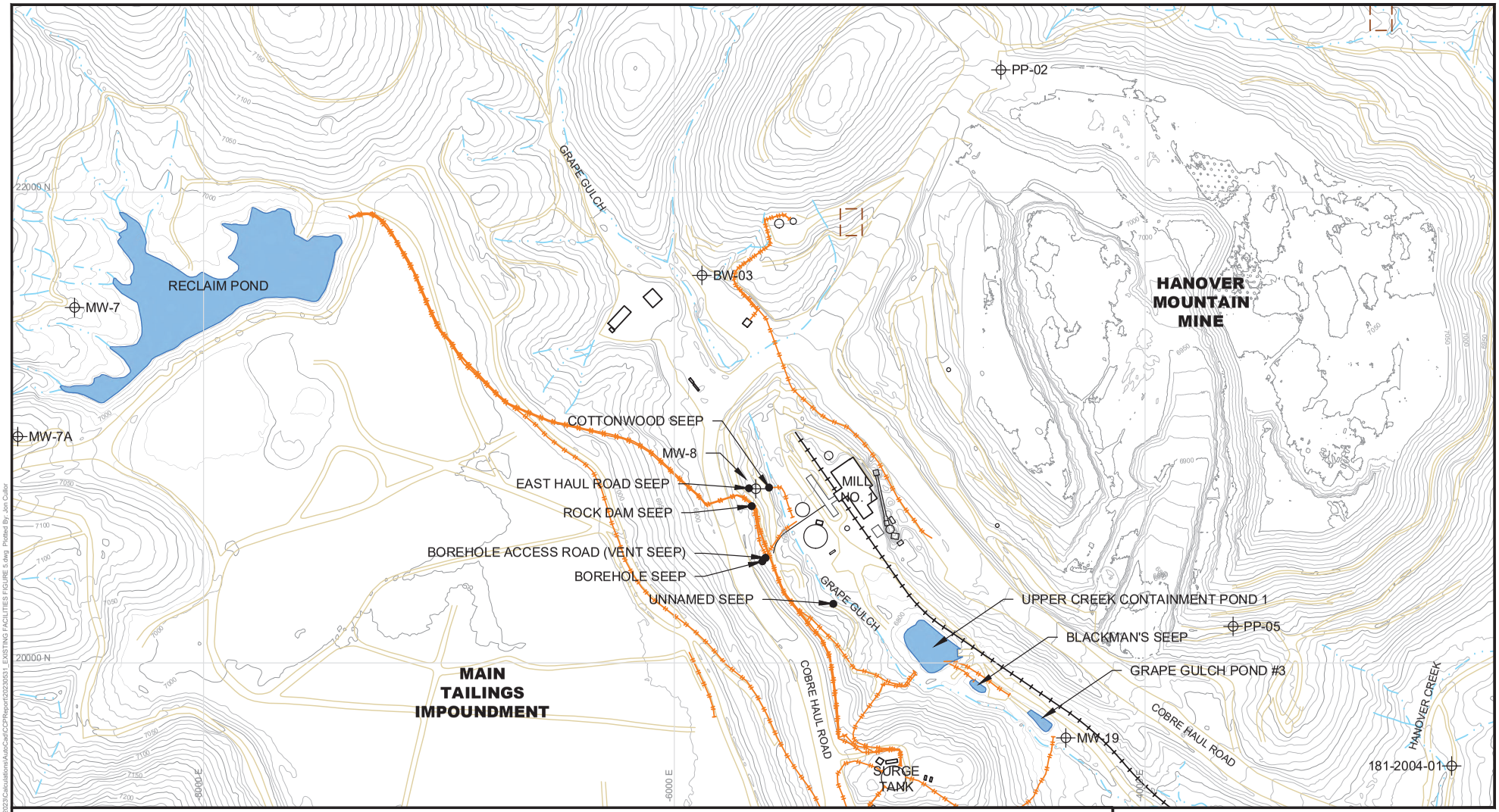
FIGURE 4
EXISTING FACILITIES FIGURE GUIDE

PREPARED FOR: FREEPORT-McMoRan

Date: 6/14/2023 1:48:47 PM R:\Cobre\COP-RCE\2023\Calculations\AutoCad\COPReport\20230531_EXISTING FACILITIES FIGURE GUIDE.dwg Plotted By: Jon Cullor



LEGEND:

- MMD PERMIT BOUNDARY
- SURFACE WATER DRAINAGE
- UNPAVED ROAD OR TRAIL
- PAVED ROAD
- RAILROAD
- PIPELINE
- WELL
- MAJOR CONTOUR (50 FT)
- MINOR CONTOUR (10 FT)
- SURFACE WATER CONTAINMENT
- STRUCTURE

NOTES:

1. TOPOGRAPHY REPRESENTS SITE CONDITIONS AS OF 6/13/2020 EXCLUDING HANOVER MOUNTAIN MINE WHICH REPRESENTS CONDITIONS AS OF 6/1/2022

0 400

SCALE IN FEET

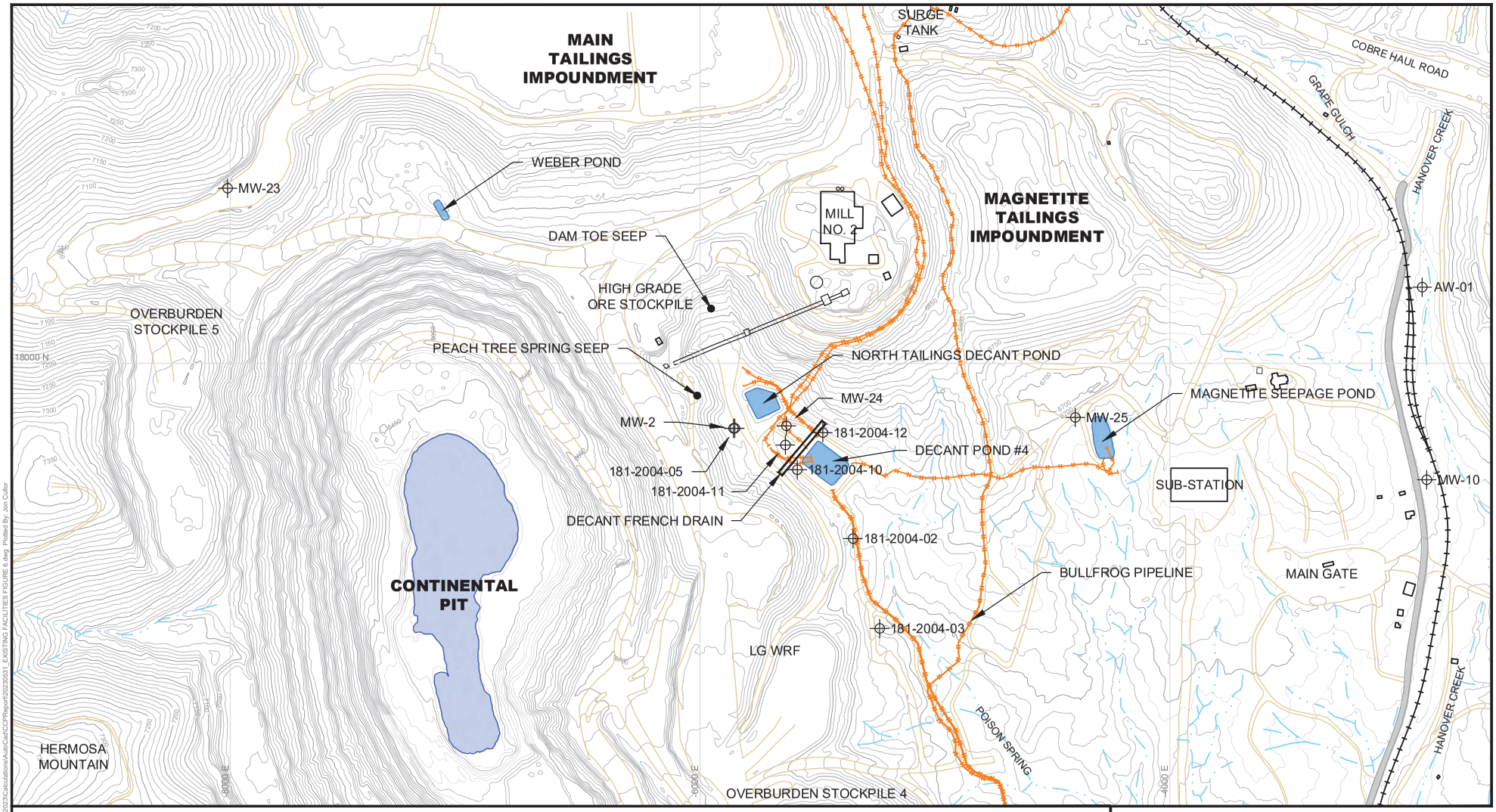
COORDINATE SYSTEM
CHINO LOCAL MINE

FIGURE 5
EXISTING FACILITIES UPPER GRAPE GULCH AND HANOVER CREEK AREA

PROJECT:	TASK:	DATE:	DRWN BY:
200189h	001-03	7/11/2023	JC

PREPARED BY: TELESTO SOLUTIONS INCORPORATED

PREPARED FOR: FREEPORT-MCMORAN



LEGEND:

- MMD PERMIT BOUNDARY
- SURFACE WATER DRAINAGE
- UNPAVED ROAD OR TRAIL
- PAVED ROAD
- RAILROAD
- PIPELINE
- WELL
- MAJOR CONTOUR (50 FT)
- MINOR CONTOUR (10 FT)
- SURFACE WATER CONTAINMENT
- STRUCTURE

NOTES:

1. TOPOGRAPHY REPRESENTS SITE CONDITIONS AS OF 6/13/2020 EXCLUDING HANOVER MOUNTAIN MINE WHICH REPRESENTS CONDITIONS AS OF 6/1/2022
2. PIT LAKE EXTENT SHOWN AS OF 7/2022

0 400

SCALE IN FEET

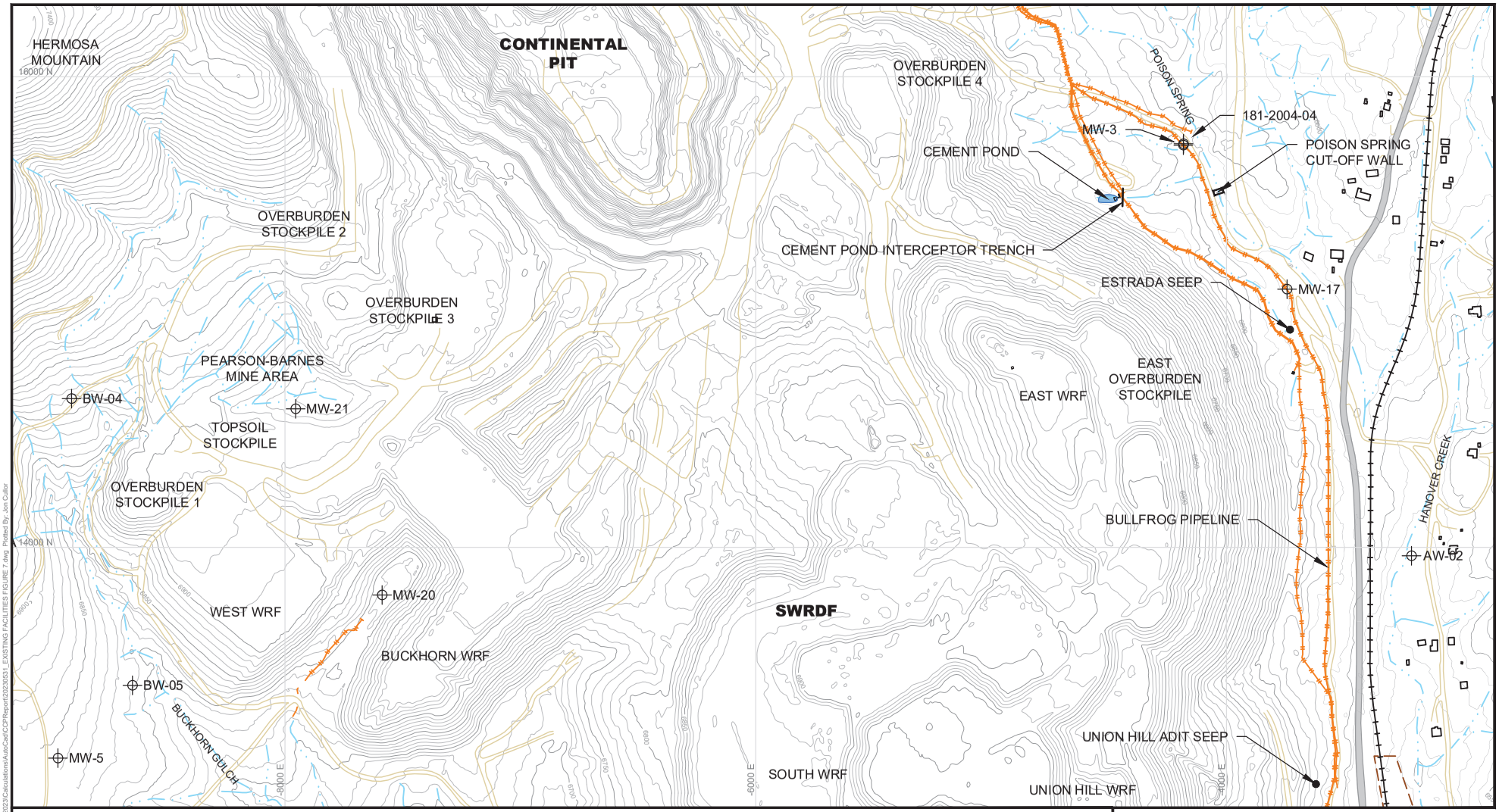
COORDINATE SYSTEM
CHINO LOCAL MINE

FIGURE 6
EXISTING FACILITIES LOWER POISON SPRING AND HANOVER CREEK AREA

PROJECT:	TASK:	DATE:	DRWN BY:
200189h	001-03	7/12/2023	JC

PREPARED BY: TELESTO SOLUTIONS INCORPORATED

PREPARED FOR: FREEPORT-MCMORAN



LEGEND:

- MMD PERMIT BOUNDARY
- SURFACE WATER DRAINAGE
- UNPAVED ROAD OR TRAIL
- PAVED ROAD
- RAILROAD
- PIPELINE
- WELL
- MAJOR CONTOUR (50 FT)
- MINOR CONTOUR (10 FT)
- SURFACE WATER CONTAINMENT
- STRUCTURE

NOTES:

1. TOPOGRAPHY REPRESENTS SITE CONDITIONS AS OF 6/13/2020 EXCLUDING HANOVER MOUNTAIN MINE WHICH REPRESENTS CONDITIONS AS OF 6/1/2022

0 400

SCALE IN FEET

COORDINATE SYSTEM
CHINO LOCAL MINE

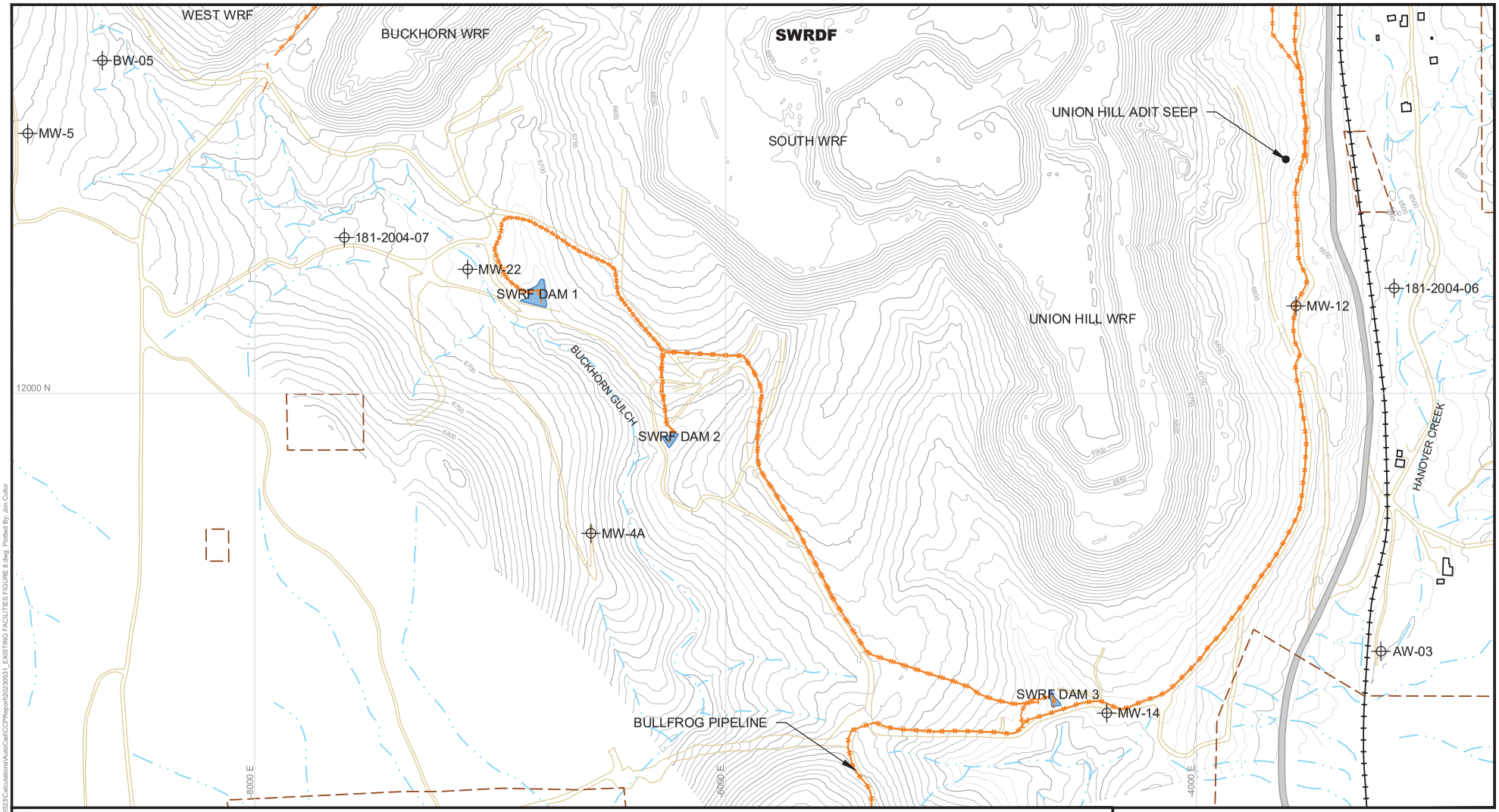
N

FIGURE 7
EXISTING FACILITIES BUCKHORN GULCH AND HANOVER CREEK AREA

PROJECT:	TASK:	DATE:	DRWN BY:
200189h	001-03	7/12/2023	JC

PREPARED BY: TELESTO SOLUTIONS INCORPORATED

PREPARED FOR: FREEPORT-MCMORAN



LEGEND:

- MMD PERMIT BOUNDARY
- SURFACE WATER DRAINAGE
- UNPAVED ROAD OR TRAIL
- PAVED ROAD
- RAILROAD
- PIPELINE
- WELL
- MAJOR CONTOUR (50 FT)
- MINOR CONTOUR (10 FT)
- SURFACE WATER CONTAINMENT
- STRUCTURE

NOTES:

1. TOPOGRAPHY REPRESENTS SITE CONDITIONS AS OF 6/13/2020 EXCLUDING HANOVER MOUNTAIN MINE WHICH REPRESENTS CONDITIONS AS OF 6/1/2022

0 400
SCALE IN FEET

COORDINATE SYSTEM
CHINO LOCAL MINE

N

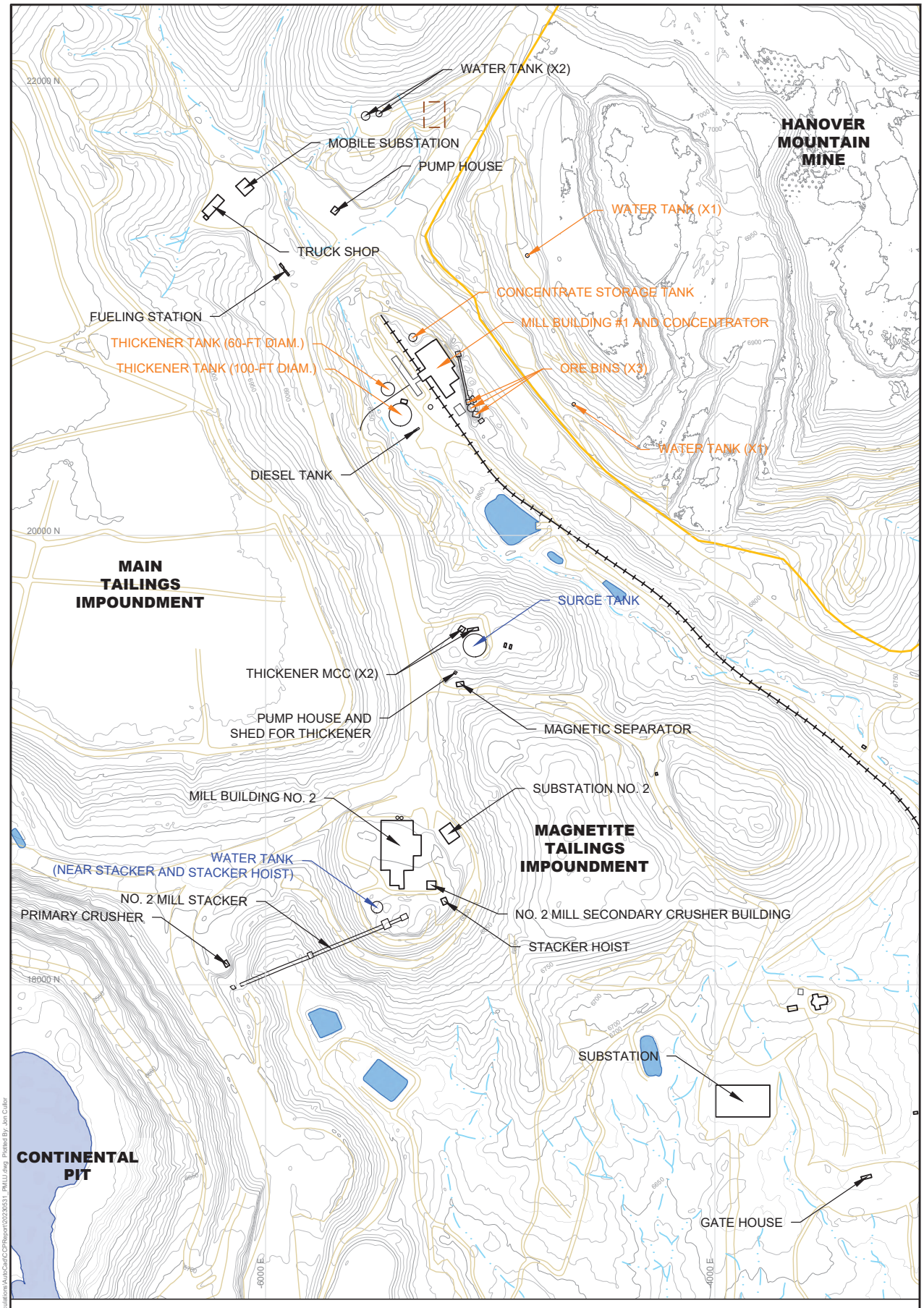
FIGURE 8
EXISTING FACILITIES BUCKHORN GULCH AND HANOVER CREEK AREA

PROJECT:	TASK:	DATE:	DRWN BY:
200189h	001-03	7/12/2023	JC

PREPARED BY: TELESTO SOLUTIONS INCORPORATED

PREPARED FOR: FREEPORT-MCMORAN

Date: 6/14/2023 1:43:30 PM R:\Cobre\CCP-RCE2023\Calculations\AutoCad\CCPReport\20230531_EXISTING FACILITIES FIGURE 8.dwg Plotted By: Jon Cullor



LEGEND:

- MMD PERMIT BOUNDARY
- SURFACE WATER DRAINAGE
- UNPAVED ROAD
- PAVED ROAD
- RAILROAD
- MAJOR CONTOUR
- MINOR CONTOUR
- SURFACE WATER CONTAINMENT
- STRUCTURE
- BUILDING NAME DEMOLISHED PRIOR TO 2026
- BUILDING NAME DEMOLISHED ON RECLAMATION
- BUILDING NAME RETAINED FOR PMLU

NOTES:

1. TOPOGRAPHY REPRESENTS SITE CONDITIONS AS OF 6/13/2020 EXCLUDING HANOVER MOUNTAIN MINE WHICH REPRESENTS CONDITIONS AS OF 6/1/2022
2. PIT LAKE EXTENT SHOWN AS OF 7/2022

0 400
SCALE IN FEET

COORDINATE SYSTEM
CHINO LOCAL MINE

PROJECT:	TASK:	DATE:	DRWN BY:
200189H	001-03	7/13/2023	JC

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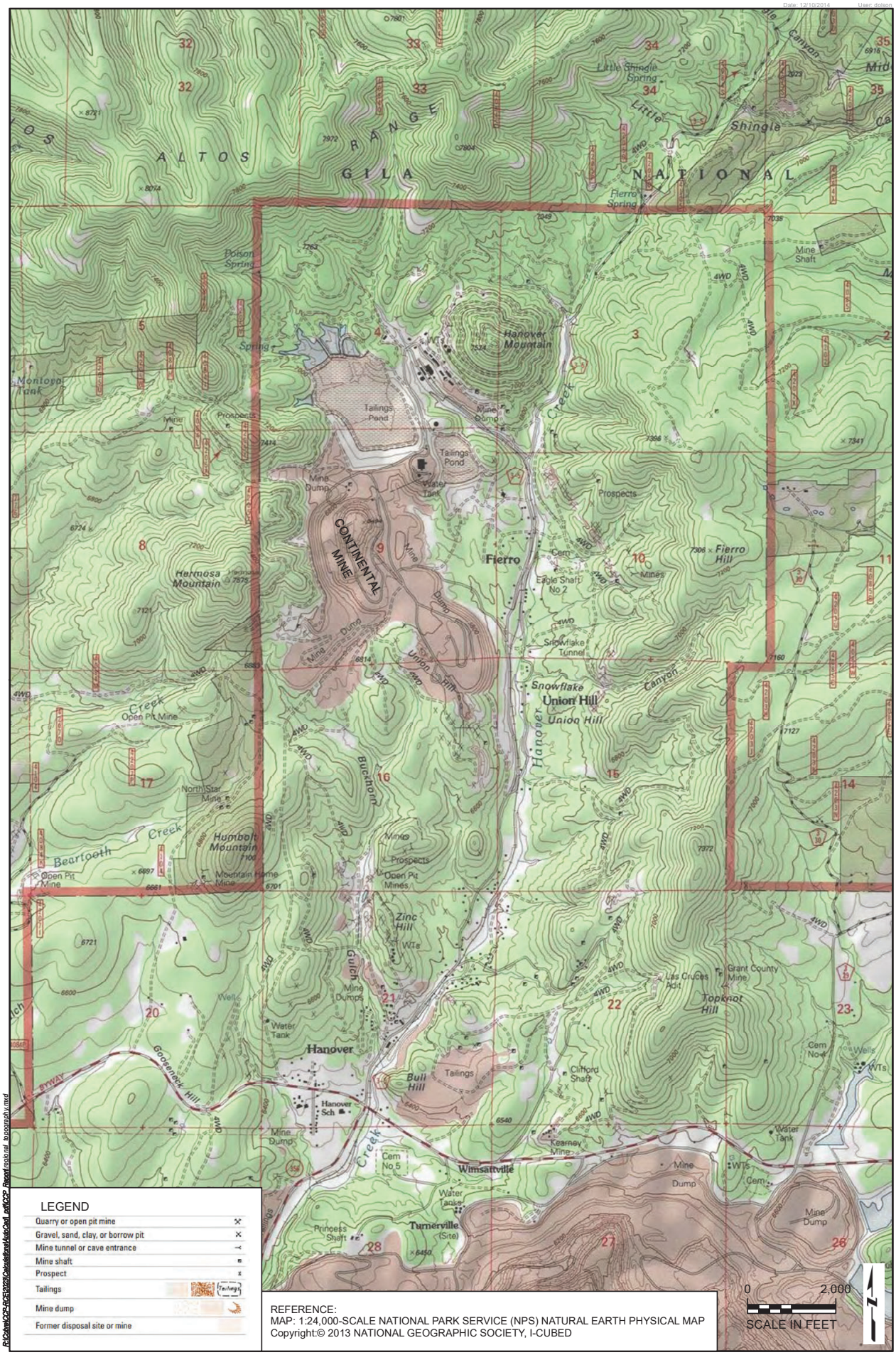
FIGURE 9
INDUSTRIAL POST-MINING LAND USE

PREPARED FOR: FREEPORT-MCMORAN

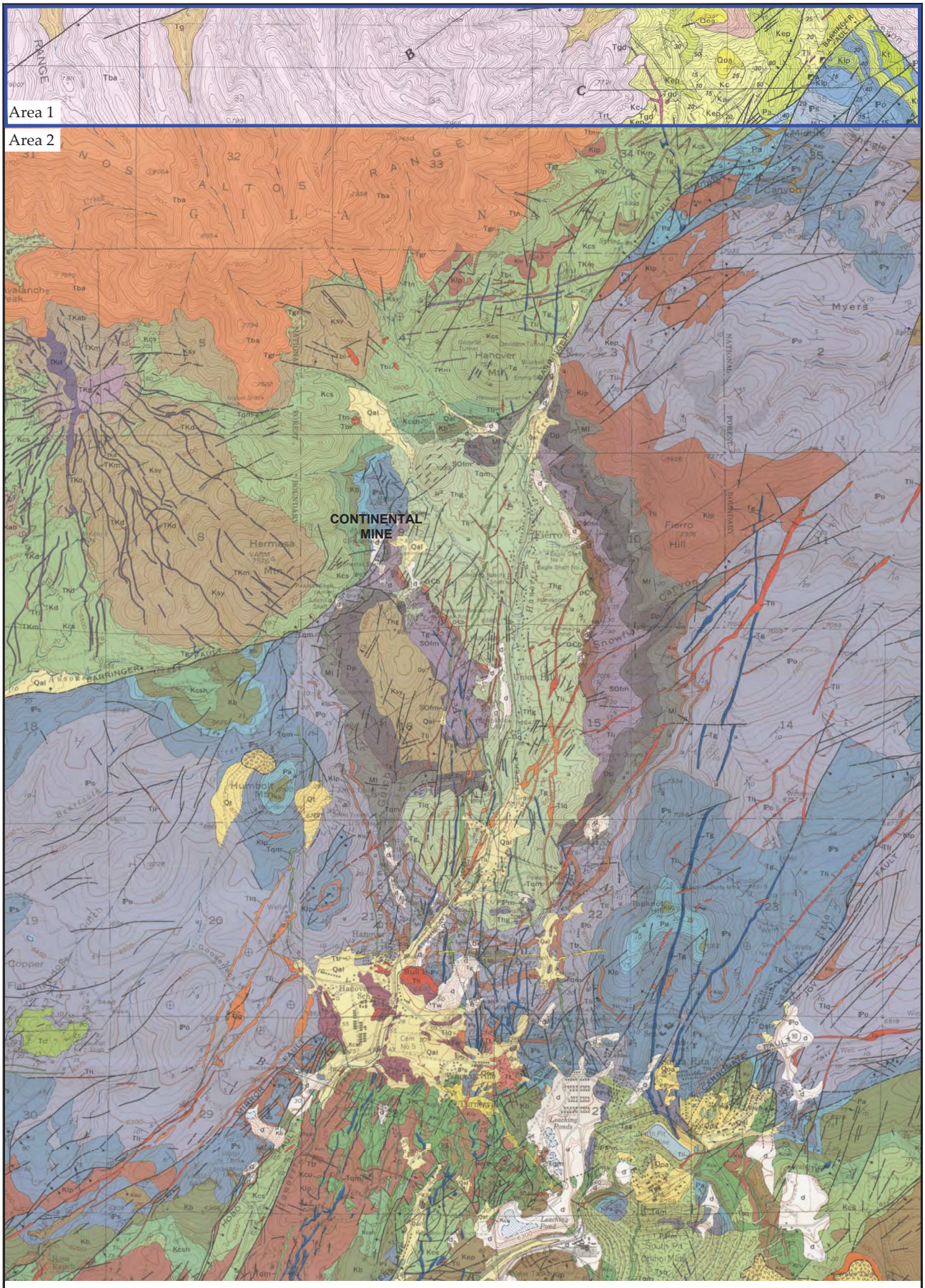
Date: 7/13/2023 8:42:41 AM R:\Cobre\COP-RC\2023\Calculations\AutoCad\CCPReport\20230531_PMLU.dwg Plotted By: Jon Cuffor



PREPARED BY:
TELESTO SOLUTIONS INCORPORATED
Loveland, Colorado (970) 484-7704
www.telesso-inc.com

FIGURE 10
GENERALIZED REGIONAL TOPOGRAPHIC MAP

PREPARED FOR:
FREEPORT-McMoRan



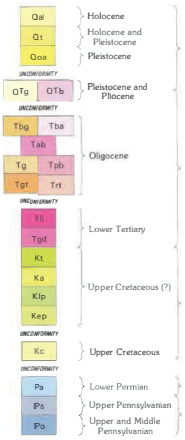
GEOLOGY LEGEND: See Figure 11-B For Area 1
See Figure 11-C For Area 2

FREEPORT-McMoRan

FIGURE 11-A
GENERALIZED GEOLOGY

Scale: As Noted	Date: 7-21-2014	Notes:	
Dept. Environmental Services			
Drawn By: SMG	Checked By: ANR		

CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

Qal **Alluvium (Holocene)**—Sand, silt, clay, and lenses of gravel in Sapillo Creek and Mimbres River valley; locally includes talus deposits as much as 50 ft thick

Qt **Talus deposits (Holocene and Pleistocene)**—Slope debris, cones, and sheets composed of boulders and large blocks of limestone, sandstone, conglomerate, basalt, and rhyolite tuff in a sand, gravel, and silt matrix

Qoa **Older alluvium deposits (Pleistocene)**—Unconsolidated fanglomerate of subrounded to angular boulders, cobbles, and pebbles of all older rock in the area in a pebble, sand, and silt matrix

QTg **Gila Conglomerate (Pleistocene and Pliocene)**—Coarse conglomerate and fanglomerate. Boulders, cobbles, and pebbles of andesite, quartz diorite porphyry, and quartz diorite with minor quartzite, limestone, and shale enclosed by angular to subangular sand and small pebbles cemented locally by argillaceous and calcareous matrix. Forms western margin of trough of coarse detritus deposited along Mimbres River valley and Sapillo Creek. Largest boulders as much as 3 ft in diameter; fragments average 3 to 6 in. in diameter.

Cliffs of consolidated fanglomerates in Allie Canyon grade from highly indurated rock, in contact with older rocks, to poorly consolidated rock east of the confluence of Allie Canyon and the Mimbres Valley. Interstices of indurated fanglomerates filled with fine-grained calcareous and argillaceous cement.

Lenses of bedded conglomeratic arkose, exposed southwest of G.O.S. ranch, 70–80 percent angular to subangular quartz and 20–30 percent feldspar and pumice fragments. Poorly defined lenticular layers of well-rounded cobbles and pebbles grade laterally and vertically within bedded arkose. Bedding of fanglomerate more distinct eastward; quantity and size of fragments decrease with concurrent increase in quantity of sand

QTb **Basalt flows (Pleistocene and Pliocene)**—Dark-greenish-gray basalt flows interbedded with Gila Conglomerate; made up of plagioclase, olivine, and pyroxene. Thin sections of two specimens show basalt to be about 60 percent labradorite microlites (0.2–0.8 mm in length) and about 40 percent olivine and pyroxene. Olivine is extensively altered to iddingsite; pyroxene partly altered to bastite. Plagioclase unaltered or only slightly altered to fine, flaky, unidentified clay mineral; magnetite granules sparsely disseminated throughout basalt

Tbg **Conglomerate unit (Oligocene)**—Subrounded pebbles, cobbles, and a few boulders of basalt and rhyolite in light-brownish-gray volcanic sand matrix; crudely bedded and crossbedded. Interbedded with basaltic-andesite flows (Tba) in western and central parts of quadrangle. Interlayered arkoses are thin bedded and consist of sand and silt-sized grains of dark-gray basalt and light-gray rhyolite and pumice. Unit deposited during period of repeated displacement of basaltic-andesite flows. South of Deadman Canyon fault, conglomerate has been repeatedly displaced to various levels and periodically eroded before deposition of basaltic-andesite flows. Unit ranges from 50 to as much as 300 ft thick. In most areas, fault blocks were not tilted by repeated fault movement; however, at head of Skates Canyon, faulted blocks of conglomerate are tilted as much as 30°

Tba **Basaltic-andesite flows (Oligocene)**—Medium-dark-gray to dark-brownish-black, porphyritic flows with a few conspicuous phenocrysts of green olivine, light-gray plagioclase, and light-green pyroxene in an aphanitic groundmass. Major constituents of the groundmass, in order of abundance: labradorite microlites from 0.1 to 0.4 mm in length, granular clusters of pyroxene from 0.1 to 0.3 mm across, fibrous iddingsite less than 0.1 mm in length, fine granules of magnetite. Texture of groundmass ranges from trachytic to intergranular. Hypocrystalline textures are associated with scoriaceous and vesicular horizons. Phenocrysts of olivine, pyroxene, and plagioclase make up 5–15 percent of rock. Most abundant phenocrysts are dark-green equant crystals of olivine that range from 0.2 to 2 mm across and make up 1–10 percent of the rock. Olivine is iron-rich fayalite with parallel extinction and a −2V of 80°, and it is mostly altered to iddingsite that occurs as veinlets in fracture planes of crystals, and as reaction rims around unaltered cores, and complete pseudomorphs. Thin selvages of magnetite and granular pyroxene coat a few olivine crystal faces. Clinopyroxene, or rarely twinned orthopyroxene makes up about 1–3 percent of the rocks, occurs as euhedral to subhedral prisms averaging about 0.5 mm across, are unaltered, except for mild chloritization. Clusters of pyroxene grains less than 0.1 mm across are disseminated throughout groundmass. Flows are interbedded with conglomerate, fanglomerate, and arkose. Tops of flows marked either by thin layers of flow breccia or vesicular and scoriaceous zones. The basaltic andesite rests unconformably on fanglomerate, conglomerate, and basalt in west and southwest parts of quadrangle and on an erosional surface cut on older sedimentary and intrusive rocks near southern boundary. Flows are as much as 800 ft in thickness

Tab **Augite basalt flows (Oligocene)**—Dark-gray, vesicular and amygdaloidal porphyro-aphanitic rock consisting of about 10 percent phenocrysts of augite, hypersthene, hornblende, and a few feldspar crystals in an aphanitic groundmass. Augite is unaltered, except a few grains show thin coatings of magnetite. Hypersthene is mostly altered to pseudomorphs of bastite. Alteration of hornblende ranges from slightly chloritized grains to pseudomorphs of leucoxene and iron oxide. Labradorite phenocrysts are unaltered, but are strongly corroded by the aphanitic groundmass. The groundmass ranges from hypocrystalline to glass and consists of microlites of labradorite mostly less than 0.3 mm in length. Granular magnetite is disseminated in groundmass and the vesicles are partly coated by cryptocrystalline quartz and clear chalcedony. Flows rest unconformably upon an erosion surface cut on older sedimentary and intrusive rocks, and are truncated by the present erosion surface

Tg **Conglomerate deposits (Oligocene)**—Conglomerate and arkosic sands interbedded with Tba, Tpb, Tgt, and Trt volcanic rocks. Exposed on steep slopes along north slopes of Allie Canyon and northward to Cottonwood Canyon, and along upper slopes at head of Bear, Deadman, Allie, and Skates Canyons. Lithology ranges from massive semiconsolidated conglomerate in eastern part of quadrangle, through coarse-grained conglomeratic arkose, to well-bedded arkosic sands in the western and southwestern parts of quadrangle. Conglomerates consist of cobbles, pebbles, and a few boulders of subangular to subrounded igneous rocks, with minor amounts of limestone, sandstone, siltstone, and shale in a sand- and silt-sized quartz, feldspar, and pumice matrix. Arkose consists mostly of moderately well sorted angular to subangular quartz, feldspar, pumice, and minor amounts of dark mafic and basalt grains. Deposits unconformably overlain by basaltic andesite flows and unconformably overlie rhyolite tuffs, older sedimentary, and igneous rocks

Tpb **Basalt porphyry flows (Oligocene)**—Medium dark gray on fresh break, weather dark gray, and are made up of about 50 percent phenocrysts of plagioclase and mafic minerals in a fine-grained to aphanitic groundmass. Plagioclase phenocrysts make up about 40 percent of the rock and are mostly euhedral prisms 2 to 4 mm in length. Some crystals are zoned and range from andesine to labradorite, but most are labradorite. Mafic phenocrysts are about 6 percent augite, 2 percent olivine, and 1 percent hypersthene. Augite is unaltered and occurs as twinned prisms 1 to 6 mm across. Olivine almost completely altered to iddingsite. Hypersthene, partly altered to fibrous bastite, occurs as elongate prisms that show a pale-green pleochroism and −2V of 50°. The groundmass is composed mostly of microlites of labradorite about 0.3 mm in length arranged in a poorly developed, felted texture. Iron oxide and granular olivine and augite are disseminated in the groundmass. In the west-central part of quadrangle, the basalt porphyry flows are interbedded with fanglomerates of Oligocene age; elsewhere they were deposited on an erosional surface cut on fanglomerates and rhyolite tuff. Unconformably overlain in turn by basaltic andesite flows and fanglomerate. Basalt flows apparently thin northward and thicken to southwest and west. Thickness of porphyritic basalt flows ranges from 0 to about 350 ft

Tgt **Gravel unit (Oligocene)**—Light-yellowish- and brownish-gray, poorly bedded and crossbedded conglomerate and interbeds of arkosic sandstone. Conglomerates composed of well-rounded cobbles and pebbles of basalt and rhyolite in a matrix of sand and silt-sized grains of basalt and rhyolite. Sandstones are well-bedded, poorly consolidated, medium-grained arkose consisting mostly of quartz, feldspar, pumice, and a few dark-gray mafic grains. Fluviatile sandstone and conglomerate interbedded with rhyolite tuff (Trt) occur within fault block in west-central part of quadrangle

Trt **Rhyolite tuff (Oligocene)**—Composed of two cooling units of welded tuff. Upper unit is a lavender, gray, and white crystal vitric tuff, and lower cooling unit is black, maroon, brown, and pink welded crystal vitric tuff. Tuff forms cliffs and steep slopes along upper reaches of the Allie Canyon and in central part of quadrangle where it was deposited on an early Tertiary erosion surface cut on sedimentary and igneous rocks. Tertiary terrain was dominated by north-south ridge extending from central part of map area southward into Santa Rita quadrangle. Lower unit more than 500 ft thick on lowlands to north, east, and west of this ridge; tuff thins toward rising topography of early Tertiary terrain with only thin coating of welded tuff deposited along upper slopes and crest of ridge. Surface of lower unit was then trenched during brief period of erosion, and tuffaceous conglomerate was locally deposited on eroded surface. Upper unit was deposited as an ash flow ranging in thickness from a few tens of feet along the higher topography to as much as 360 ft near the head of Allie Canyon.

The upper ash flows are light-lavender, light-gray, and white crystal-vitric tuff. The basal part of the unit consists of light-lavender, dense, partly devitrified, welded tuff; this unit grades upward through light-gray, granular, partially devitrified, lightly welded tuff into an upper white, earthy, intensely devitrified unwelded tuff. The basal lavender tuff is a vitric-crystal aggregate made up of about 15 percent crystals and crystal fragments of oligoclase, 2–5 percent sanidine, about 7 percent quartz, and 2 to 3 percent biotite in a partly devitrified matrix of randomly oriented fragments of pumice and shards. Oligoclase crystals are rimmed by potassic feldspar. The outer edges of the reaction rims are made up of serrated crystals grown at right angles to the fracture faces. These serrated potassic feldspar rims grade inward through a clear zone of potassic feldspar into a core of twinned oligoclase. The biotite crystals have rims of magnetite that grade into the cores of deep-reddish-brown biotite. The matrix consists of partially devitrified pumice and shards; the welded matrix of the basal layer grades upward into devitrified unwelded matrix composed of angular cusp-shaped, Y- and X-shaped shards, and pumice fragments. The glass fragments are devitrified to a fine crystalline mesh of quartz and potassic feldspar. Some of the angular fragments and thin threads of glass are devitrified to fine combs of quartz and potassic feldspar arranged at right angles to the boundaries of the fragments. Some of the shards and glass threads have central cavities that are lined with druses of tridymite.

The basal part of the lower cooling unit is an undevitrified black, maroon, reddish-brown, and pink, glassy, intensely welded tuff that grades upward through a 10- to 20-ft-thick zone of light-red partly devitrified tuff into a strongly devitrified light-pink welded tuff that contains a few scattered subangular to rounded fragments of andesite. The upper 3–4 ft of the lower unit contain about 20 to 30 percent rounded andesite fragments. This tuff is generally massive, showing only crudely developed horizontal layering, it weathers by exfoliation to massive subrounded or rounded surfaces.

Thin sections of the basal part of the lower tuff show it to be about 40 percent oligoclase (An_{28}), 5 percent sanidine, 3 percent quartz, and 1 percent biotite crystals in a compacted mass of pumice and shards. The oligoclase fragments range from 0.5 to 1.5 mm across; few are zoned; compositions range from sodic-oligoclase to sodic-andesine. Oligoclase in the overlying pink devitrified tuff is altered to bladed rims of potassic feldspar grown at right angles to the crystal and the fracture faces of the oligoclase. Quartz occurs as corroded grains ranging from 0.3 to 2 mm across; sanidine occurs as crystal fragments, either unaltered or only slightly corroded, from 0.5 to 2.0 mm across. In the devitrified areas of the upper part of the lower tuff, biotite occurs as conspicuous golden crystals with a metallic luster, with magnetite along the cleavage planes and as rims around cores of deep-reddish-brown biotite. The altered biotite crystals have brownish-red to orange pleochroism and −2V's ranging from 5° to as much as 40°. In the lower undevitrified layer of black, brown, and maroon tuff, biotite occurs as black vitreous crystals, in thin sections, deep-olive-green crystals with low 2V's ranging from about 2° to 5°. The matrix of the crystal-vitric tuff makes up about 35 to 50 percent of the rock and is composed of shards, pumice, and fine vitric dust, ranging from sizes below the resolution of the microscope to fragments as much as 4 mm across; most fragments are 1 to 2 mm across, and consist of a potassium-bearing glass that is partially devitrified to a very fine crystalline aggregate consisting mostly of quartz and some potassic feldspar. The degree of compaction and welding diminishes upward from the basal part of the lower tuff

Tli **Quartz latite and latite porphyry (lower Tertiary)**—Occurs as northeast-trending dikes and a pluton in southern part of quadrangle. Dikes range from 0 to about 50 ft in width and are traceable for as much as 1,500 ft along strike. The pluton is about 500 ft across; crops out on northeast slope of Shingle Canyon. Wall rocks are virtually unaltered by contact metamorphism.

The quartz latite porphyry is dark gray, made up of about 60 percent euhedral feldspar, hornblende, and biotite phenocrysts in medium-grained groundmass consisting mainly of plagioclase and hornblende and some quartz and potassic feldspar.

Plagioclase phenocrysts make up about 35 percent of the rock and are zoned euhedral crystals ranging from 2 to 6 mm in length. Crystals range from oligoclase to sodic andesine and have an average composition of calcic oligoclase. About 15 percent of the rock consists of euhedral prismatic phenocrysts of green hornblende ranging from 3 to 8 mm in length; some are slightly altered to penninite. Tabular crystals of unaltered biotite compose about 5–10 percent of rock and range from 3 to 5 mm across.

The groundmass makes up about 40 percent of rock and includes oligoclase, hornblende, and subordinate amounts of quartz and potassic feldspar. Plagioclase comprises about 60 percent of groundmass and is slightly altered to fine platy sericite and clay minerals. Hornblende makes up about 30 percent of matrix; occurs as elongate prisms ranging from 0.5 to 1.5 mm in length and is altered to penninite and calcite. Approximately equal volumes of anhedral quartz and potassic feldspar constitute remaining 10 percent of groundmass; quartz is interstitial and orthoclase occurs as subhedral to anhedral crystals 0.2–0.5 mm across and it is clouded by fine micaceous clay minerals. Accessory minerals are apatite and zircon.

Two dikes of relatively quartz-poor porphyritic latite exposed on divide between Bear and Shingle Canyons; dikes range from 0 to 30 ft across and are traceable for as much as 800 ft along strike. They show indistinct porphyritic textures with phenocrysts of medium-yellowish-brown biotite and inconspicuous very light gray plagioclase set in a medium-grained, very light gray to light-yellowish-brown, argillaceous matrix.

Plagioclase, hornblende, and biotite phenocrysts make up about 30–40 percent of rock. Plagioclase phenocrysts are the most abundant and are pervaded by microscopic flaky sericite and clay minerals that are in part stained by calcite. Biotite is completely altered to aggregates of clay minerals, sericite, chlorite, and calcite. Hornblende is altered to clots of limonite containing irregular areas of an unidentified opaque mineral. A few quartz phenocrysts are present as conspicuous frosted and corroded grains ranging from 1 to 3 mm across. Groundmass is made up principally of a mosaic of plagioclase mostly altered to calcite, clay, sericite, and minor amounts of quartz

Granodiorite porphyry (lower Tertiary)—A granodiorite porphyry dike crosscuts shales of the Colorado Formation in the southern part of quadrangle. Porphyry is medium gray to medium greenish gray with 3–15 mm phenocrysts of light-gray to white feldspar, dark-gray hornblende and biotite, and a few quartz grains in a medium-gray to medium-dark-gray, very fine to fine-grained groundmass. Phenocrysts make up from about 30 to 70 percent of rock; hornblende makes up from 1 to 10 percent, and feldspar makes up about 25–60 percent, and it is mostly altered to epidote, sericite, albite, and unidentified clay minerals. Green hornblende occurs both in the groundmass as fine laths and as euhedral phenocrysts and is partly to completely altered to epidote, calcite, chlorite, and aggregates of secondary biotite. Euhedral phenocrysts of biotite are altered to chlorite, epidote, and minor amounts of leucoxene, sphene, and magnetite. Accessory minerals are sphene, magnetite, and apatite. Dike ranges from 20 to 60 ft wide and is mapped from the southern boundary of the map northward for about 1,700 ft, where it passes under basaltic andesite flows

Kt **Hornblende trachyte porphyry (Upper Cretaceous?)**—Occurs as a dike 90 ft wide that can be traced for about 300 ft along strike, where it becomes a sill 50–200 ft thick in the Oswaldo Formation. Limestones above and below sill are virtually unaffected by contact metamorphism.

The hornblende trachyte porphyry is intensely altered to brownish-yellow to brownish-gray rocks with numerous elongate prismatic phenocrysts of hornblende and dull-white feldspar set in fine-grained granular groundmass. Hornblende phenocrysts, a few millimeters in width and from 1 to 25 cm in length, make up about 15 percent, and zoned plagioclase phenocrysts 2–3 mm long, with an average composition of oligoclase (An_{28}), make up about 10–15 percent of rock. Phenocrysts and matrix are propylitized and altered to epidote, sericite, chlorite, biotite, calcite, and minor amounts of clinozoisite. Hornblende is completely altered to pseudomorphs consisting of cores of epidote, chlorite, and calcite and reaction rims of yellowish-brown biotite. Phenocrysts of oligoclase are altered principally to minute flakes of sericite. The porphyry contains about 1–3 percent quartz as anhedral granular aggregates in groundmass. Groundmass makes up about 75 percent of rock and consists principally of potassic feldspar, plagioclase, and quartz. Potassic feldspar is altered to fine platy sericite, reddish-brown biotite, and fine granular calcite. Accessory minerals are zircon, apatite, and magnetite.

The chilled border zone of sill is 1–3 ft thick, and is gray aphanitic porphyry less intensely altered than the interior. Epidote and biotite are nearly absent, and hornblende phenocrysts are altered to pseudomorphs of penninite, leucoxene, and calcite

Ka **Augite-hornblende diorite porphyry (Upper Cretaceous?)**—A pluton of augite-hornblende diorite porphyry crops out at head of Shingle Canyon in southern part of quadrangle. Upper contact of pluton strikes northwest, dips southwest, and is mostly concordant with beds of the Colorado Formation. Pluton is cut off on northeast by Mimbres fault; lower limit is not exposed. Pluton apparently thickens southwestward and attains a maximum exposed thickness of about 400 ft at its termination on the Barringer fault. Borders of the pluton are chilled against overlying shale beds, which are altered to dark-gray banded silicate hornfels. A faulted northwestern extension of the pluton splits into a dike and a sill; dike trends north and is cut off by Mimbres fault, and sill continues northwestward and is covered by volcanic rocks.

The pluton is a brownish-gray porphyry containing prominent phenocrysts of green augite, milky-white feldspar, and elongated prisms of greenish-brown hornblende in a medium-grained groundmass. Rock is made up of about 15 percent augite, 15 percent plagioclase, and 5 percent hornblende phenocrysts embedded in a groundmass of andesine, microlite, quartz, and augite. Augite phenocrysts are twinned and range from about 0.2 to 3 mm in width. Most crystals are uralitized and altered to aggregates of epidote, penninite, and calcite. Some augite crystals are rimmed by uralite with cores of epidote, penninite, and calcite. Andesine phenocrysts range in size from 0.1 to about 2 mm in width and are partly altered to sericite or fine micaceous clay minerals. Brown hornblende phenocrysts are altered mostly to penninite and minor amounts of epidote and calcite. Groundmass consists of felted andesine microlites ranging from about 0.05 to 0.1 mm in length, granular augite, and anhedral quartz. Augite is strongly epidotized and andesine microlites are pervaded by fine micaceous sericite and clay minerals. Accessory minerals are sparsely disseminated through groundmass and include slender prisms of apatite, anhedral zircon, and iron oxide

Klp **Hornblende-quartz porphyry (Upper Cretaceous?)**—Hornblende-quartz diorite porphyry occurs as sills and laccoliths in the Abo, Syrena, and Oswaldo Formations. Principal outcrops are along north and south slopes of Allie Canyon in central part of quadrangle. Sills range from a few feet to at least 200 ft in thickness and can be traced for distances ranging from about 600 ft to 1 mi.

On fresh surfaces, hornblende-quartz diorite porphyries are light greenish gray, but weather to reddish gray. Thin sections show about 30–60 percent phenocrysts of plagioclase and hornblende in a fine-grained, crudely felted groundmass of plagioclase and quartz. Plagioclase phenocrysts make up about 35–40 percent of rock and range from 0.3 to 3.0 mm in length; a few zoned crystals range in composition from andesine to labradorite, but most are andesine (An_{45}). Plagioclase phenocrysts are slightly altered to epidote and sericite, and rarely to albite. Hornblende phenocrysts are mostly 1–2 mm in length, but a few crystals are as much as 35 mm long. Nearly all hornblende is moderately to strongly altered to epidote and chlorite, but some is altered to calcite and biotite.

Andesine microlites in groundmass are altered to epidote and minor amounts of an unidentified clay mineral. Quartz occurs as anhedral interstitial grains between andesine microlites. Accessory minerals are apatite, zircon, and sphene; apatite and zircon are unaltered; sphene is mostly altered to leucoxene

Kep **Quartz diorite porphyry (Upper Cretaceous?)**—Coarse-grained quartz diorite porphyry occurs in sills, laccoliths, and a few dikes in central and southern part of Allie Canyon quadrangle. Sills range in thickness from a few feet to as much as 900 ft.

The quartz diorite porphyry is coarse grained and greenish gray with fine- to medium-grained, porphyritic, chilled borders; consists of about 50–60 percent phenocrysts of plagioclase, hornblende, quartz, and biotite, and few orthoclase crystals as large as 75 mm across in medium- to coarse-grained matrix of plagioclase, quartz, and potassic feldspar. Chilled borders made up of 15–50 percent phenocrysts of hornblende, plagioclase, quartz, and biotite embedded in a fine- to medium-grained matrix consisting of plagioclase, potassic feldspar, and quartz. Accessory minerals include allanite, sphene, apatite, and zircon. Plagioclase phenocrysts are zoned andesine, ranging from An_{38} to An_{50}, but most crystals are andesine (An_{45}). Some andesine in coarse-grained rocks is slightly altered to epidote, chlorite, and minor amounts of calcite and sericite. Andesine in chilled borders is partly altered to penninite and sericite and minor amounts of calcite and epidote. Matrix is made up of andesine, hornblende, quartz, and some biotite and potassic feldspar, and the grain size of matrix ranges from about 0.1 to about 1.5 mm, the same size as the smaller phenocrysts

Kc **Colorado Formation, undivided (Upper Cretaceous)**—Gray, brown, and reddish-brown, thick-bedded sandstones interbedded with a few massive ledges of light-brownish-gray arkosic sandstone, with medium-gray shale partings. Exposed only in faulted blocks in southern part of quadrangle in Shingle Canyon. Basal contact not exposed and upper beds have been removed by pre-Oligocene erosion. As much as 1,000 ft thick in Shingle Canyon area

Pa **Abo Formation (Lower Permian)**—Interbedded mudstone, siltstone, limestone, and conglomerate, about 580 ft thick.

Upper sequence of siltstones intruded by a sill or laccolith of quartz diorite porphyry about 900 ft thick; siltstones above and below the porphyry are dense, reddish-orange rocks extensively silicified and contain balls and irregular replacement nodules of epidote.

Middle and lower parts of Formation consist of 460 ft of reddish-brown, purple, and red mudstones with lenses of limestone conglomerate. Lower mudstone sequence is displaced by a fault and intruded by a sill of quartz diorite porphyry about 315 ft above base of formation; the fault cuts out an estimated 200 ft of mudstone. The mudstones contain numerous laminae, lenses, nodules, and ovoids of limestone and silty limestone, and locally mudstones are cut by numerous calcite veinlets. Limestone conglomerate consists of well-rounded limestone pebbles and a few subangular to subrounded fragments of dark-gray chert and shale in calcareous siltstone matrix

Magdalena Group

Ps **Syrena Formation (Upper Pennsylvanian)**—Consists of an upper sequence of reddish-brown calcareous shale and a lower sequence of shale and limestone. Lower beds of sequence consist of two 15-ft-thick sets of calcareous shale beds separated by 7-ft-thick ledge-forming beds of mottled, light-gray and tan, silty limestone. Lower-most bed of formation is either a medium-dark-gray limestone bed or a limestone conglomerate bed. A quartz diorite sill intrudes upper part of formation about 45 ft above its base; sill is overlain by about 65 ft of interbedded light-gray limestone and silty, mottled, tan and light-gray silty limestone

Po **Oswaldo Formation (Upper and Middle Pennsylvanian)**—Consists of a lower medium- to thick-bedded limestone with shale partings, a middle thick-bedded cherty limestone, and an upper tan to light-gray silty limestone; locally, uppermost bed is a limestone conglomerate. The uppermost bed of the formation is a light-blue-gray, very fine grained limestone, from 2- to 5-ft-thick, overlain by either a limestone conglomerate bed or a medium-dark-gray limestone bed at the base of the Syrena Formation. Base of formation not exposed.

Oswaldo Formation in Santa Rita quadrangle to the south ranges from 405 to as much as 440 ft thick (Jones and others, 1967). In Allie Canyon quadrangle 270 to 300 ft is exposed

Contact—Dotted where concealed

75 Fault showing dip—Dashed where approximately located; dotted where concealed; bar and ball on downthrown side

10 Strike and dip of beds

Abandoned shaft

Inaccessible adit

Prospect pit

MINERAL DEPOSITS

Mineral deposits occur principally in the southern part of the quadrangle and include lead-zinc veins localized by northeast-trending faults in the hanging wall block of the Barringer fault, and as a few irregular replacement bodies of manganese oxide. The width and grade of the veins diminish northeastward and the veins are everywhere so narrow and low grade that only small quantities of lead-zinc ores have been commercially produced.

The lead-zinc veins range from 0 to 1 ft in width and are as much as 100 ft long. The veins are composed of about 90 percent quartz and about 10 percent sulfides that are made up of approximately equal volumes of galena, sphalerite, and pyrite. The quartz consists of clear gray to pink crystals ranging from a few millimeters to as much as 0.5 in. in length. Numerous vugs are lined with fine druses of quartz or quartz and sulfides. Galena and sphalerite commonly crystallize together, with subsidiary amounts of pyrite, and occur as crystal aggregates disseminated throughout the central parts of the quartz veins. Pyrite is sparsely disseminated across the vein, but concentrated mostly near the edges of the vein in discontinuous zones parallel to the wall of the vein. Limonite and manganese oxide (wad) are common in the oxidized parts of the veins.

The wall rocks of lead-zinc veins are shattered over widths ranging from a few inches to as much as 10 ft; pyritized and silicified, with minor sericite and clay minerals; and cut by stringers of quartz and pyrite that extend from a few inches to 2 ft laterally from the veins into the shattered walls.

Irregular bodies of manganiferous calcite are exposed in a series of open pits and a shaft in the northeast part of sec. 35, T. 16 S., R. 12 W., and occur in veins and irregular lenses that extend laterally up to 10 ft from the veins into the limestone wall rock, and are from a few feet to as much as 30 ft in length.

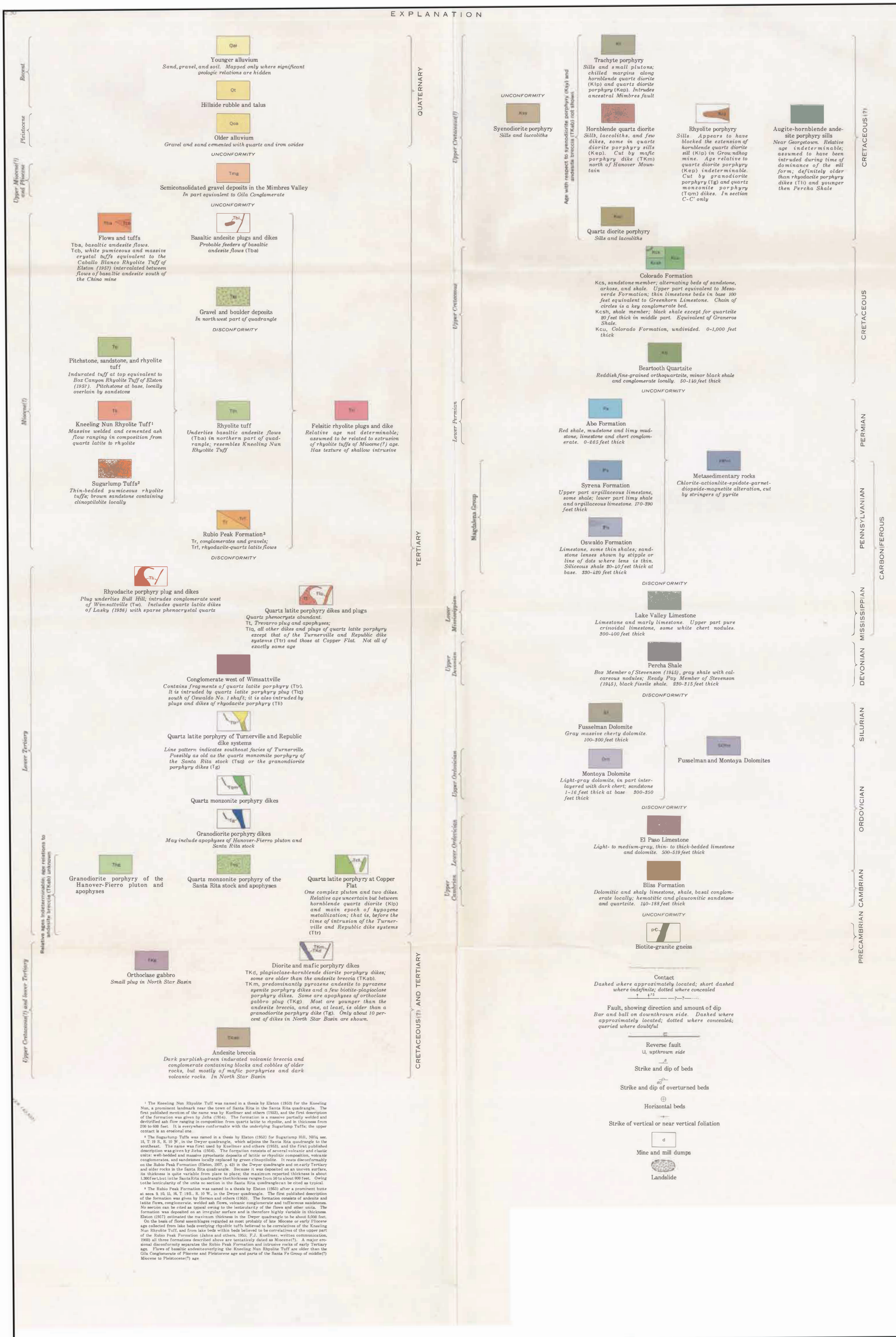
REFERENCE CITED

Jones, W. R., Hernon, R. M., and Moore, S. L., 1967, General geology of the Santa Rita quadrangle, Grant County, New Mexico: U.S. Geological Survey Professional Paper 555, 143 p.

FREEPORT-McMoRan

FIGURE 11–B
GENERALIZED GEOLOGY LEGEND

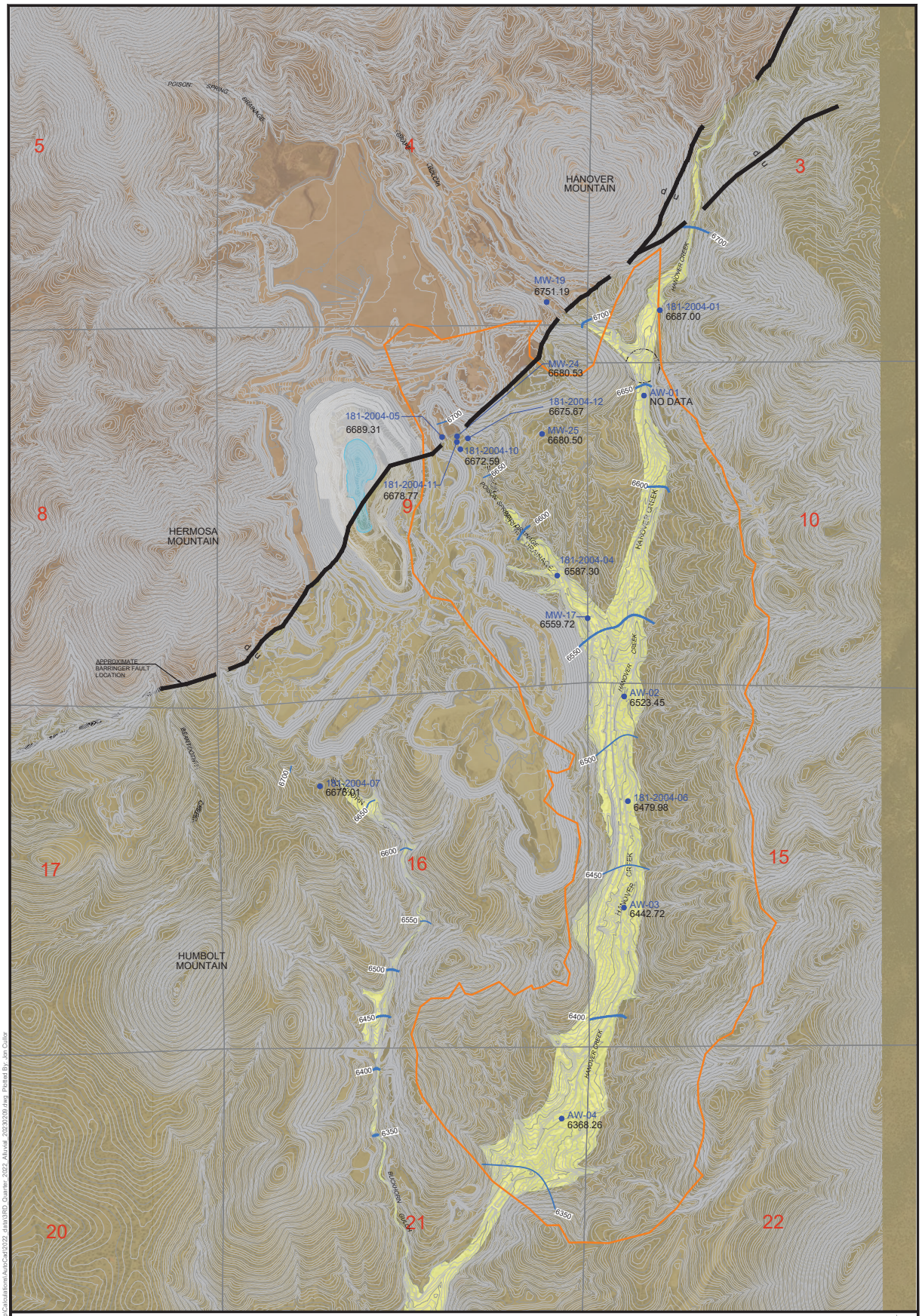
Scale: As Noted	Date: 8–27–2014	Notes:	
Dept. Environmental Services			
Drawn By: SMG	Checked By: ANR		



FREEPORT-McMoRAN

FIGURE 11-C
GENERALIZED GEOLOGY LEGEND

Scale: As Noted	Date: 8-27-2014	Notes:
Dept. Environmental Services		
Drawn By: SMG	Checked By: ANR	



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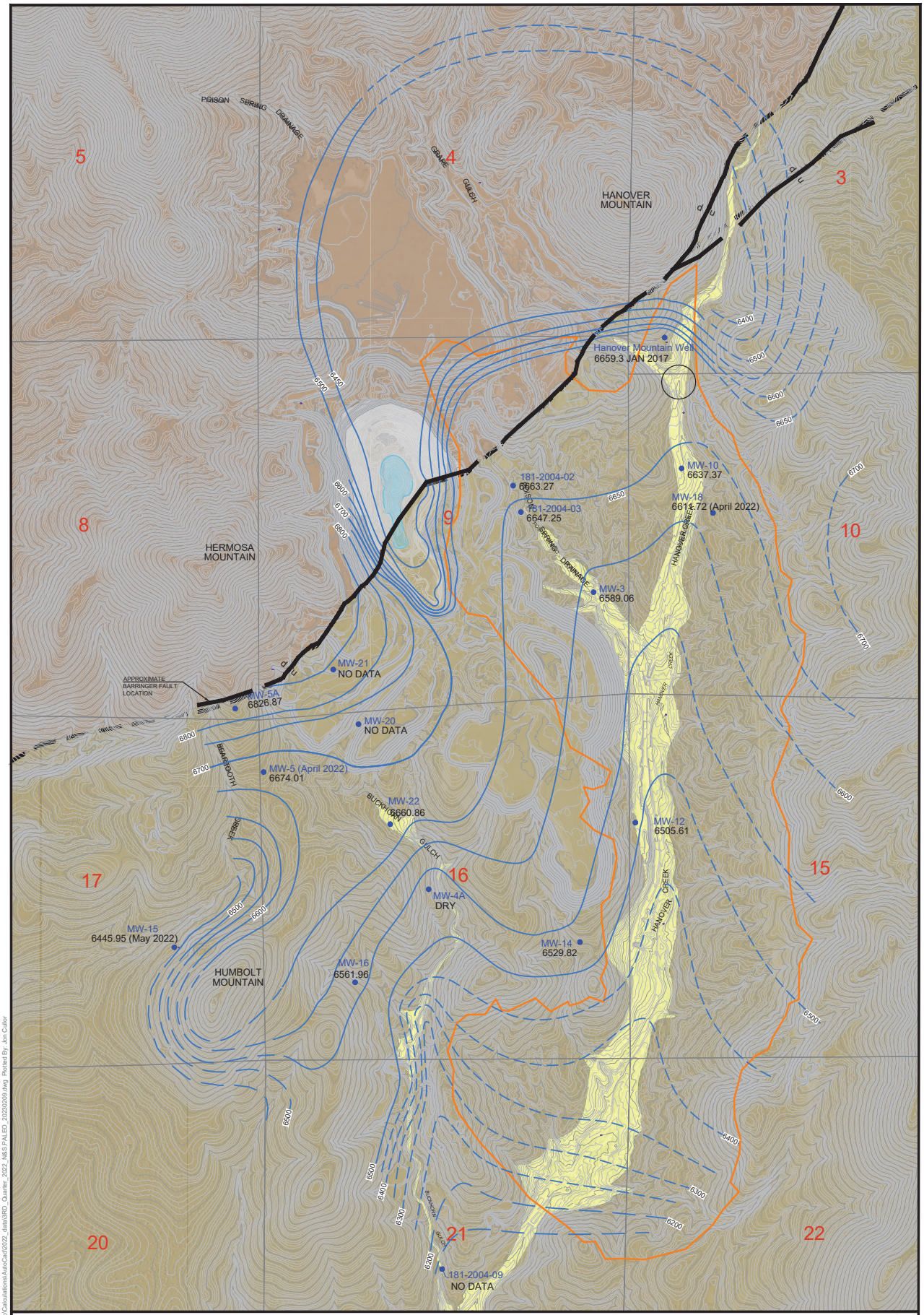
200430	001-01	07/11/2023	TG

PREPARED BY: TELESTO SOLUTIONS INCORPORATED

FIGURE 12
THIRD QUARTER 2022 GROUNDWATER POTENTIOMETRIC SURFACE STREAM ALLUVIUM AND UNDERLYING WEATHERED BEDROCK

PREPARED FOR: FREEPORT-MCMORAN



LEGEND

- ALLUVIUM
- NORTH PALEOZOIC FLOW SYSTEM
- SOUTH PALEOZOIC FLOW SYSTEM
- MW-2 6678.90 — MONITORING WELL IN BEDROCK GROUNDWATER ELEVATION (FEET)
- GROUNDWATER LEVEL CONTOUR (FEET ELEVATION)
- HANOVER-FIERRO STOCK BOUNDARY (APPROXIMATE)
- PIT LAKE SURFACE ELEVATION 6435 FT

IMAGERY SOURCE: USGS NAIP IMAGERY 2020-06-07

0 1300
SCALE IN FEET

COORDINATE SYSTEM
CHINO LOCAL MINE

PROJECT:	TASK:	DATE:	DRWN BY:
200430	001-01	07/11/2023	TG

PREPARED BY: TELESTO SOLUTIONS INCORPORATED

FIGURE 13
THIRD QUARTER 2022 GROUNDWATER POTENTIOMETRIC SURFACE
NORTH AND SOUTH PALEOZOIC FLOW SYSTEMS

PREPARED FOR: FREEPORT-MCMORAN

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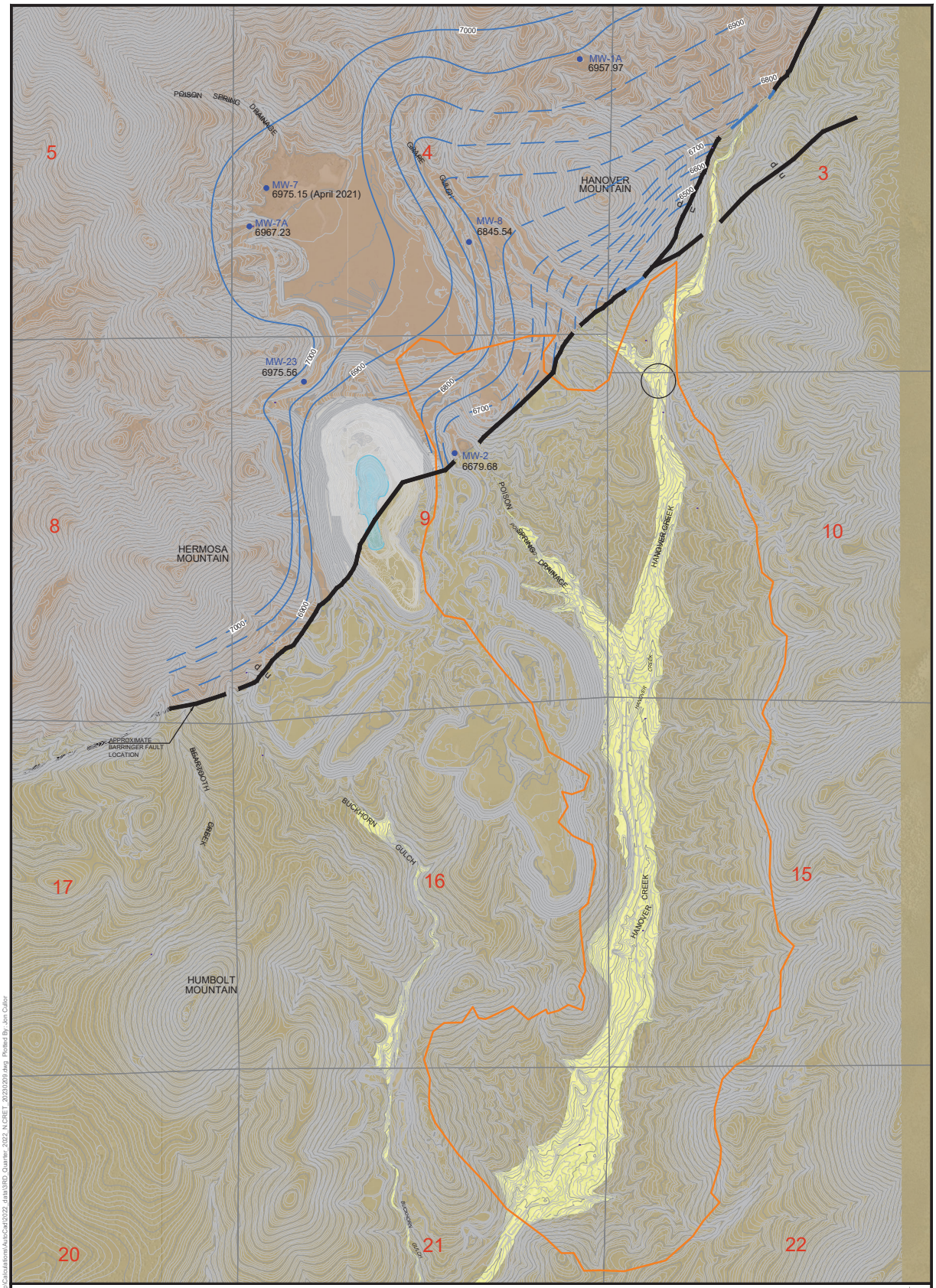

LEGEND

- ALLUVIUM
- NORTH CRETACEOUS FLOW SYSTEM
- NORTH PALEOZOIC FLOW SYSTEM
- SOUTH PALEOZOIC FLOW SYSTEM
- GROUNDWATER LEVEL CONTOUR (FEET ELEVATION)
- MW-7 6978.80 — MONITORING WELL IN BEDROCK GROUNDWATER ELEVATION (FEET)
- HANOVER-FIERRO STOCK BOUNDARY (APPROXIMATE)
- PIT LAKE SURFACE ELEVATION 6435 FT

0 1300
SCALE IN FEET

COORDINATE SYSTEM
CHINO LOCAL MINE

IMAGERY SOURCE: USGS NAIP IMAGERY 2020-06-07

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PROJECT:	TASK:	DATE:	DRWN BY:
200430	001-01	07/11/2023	TG

PREPARED BY: TELESTO SOLUTIONS INCORPORATED

FIGURE 14
THIRD QUARTER 2022 GROUNDWATER POTENTIOMETRIC SURFACE
NORTH CRETACEOUS FLOW SYSTEM

PREPARED FOR: FREEPORT-MCMORAN

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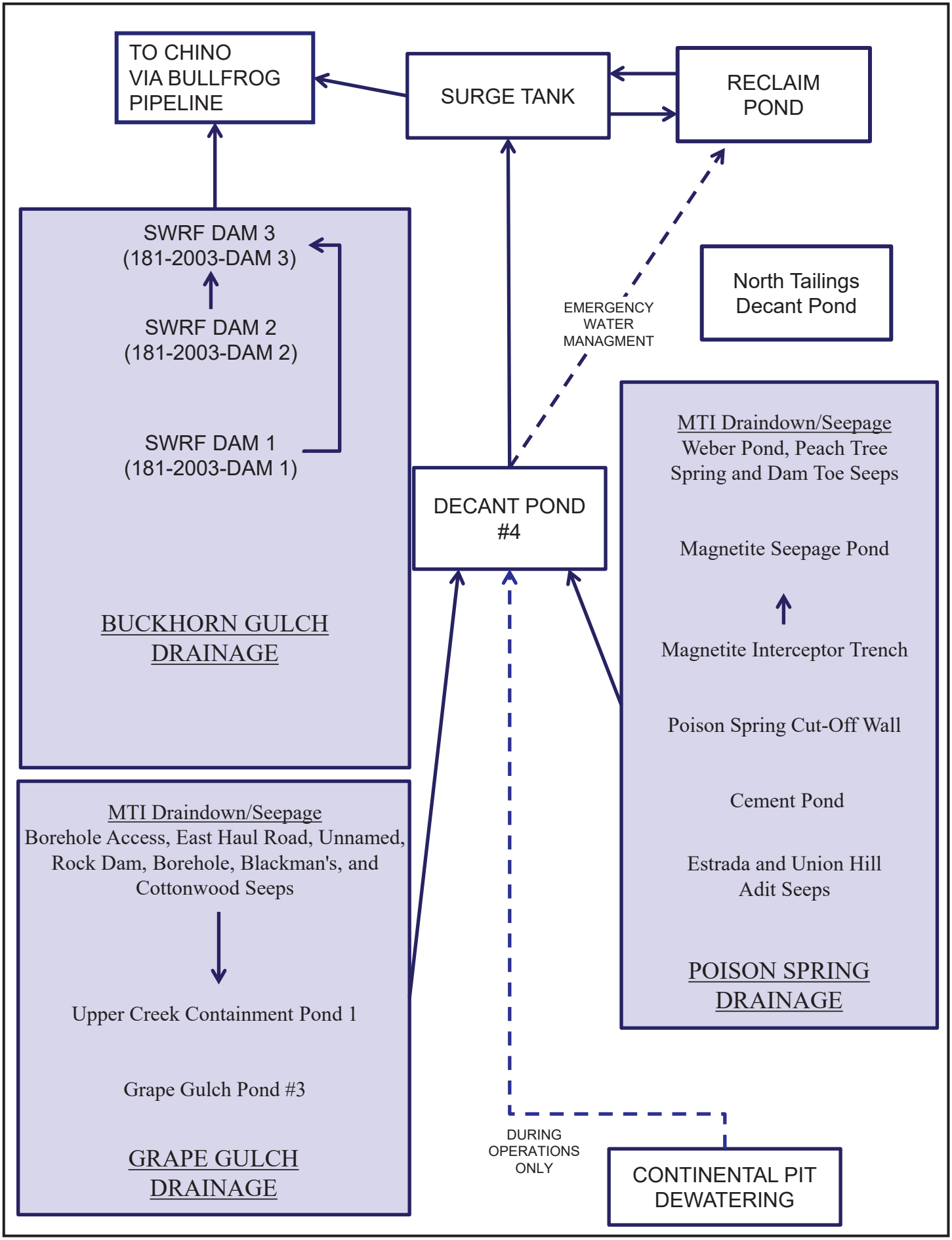

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PROJECT: 200189h	TASK: 01
PREPARED BY: TELESTO SOLUTIONS INCORPORATED	

FIGURE 15
WATER MANAGEMENT FLOW DIAGRAM

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