

STATE OF NEW MEXICO
BEFORE THE SECRETARY OF ENVIRONMENT

IN THE MATTER OF THE APPLICATION
OF NEW MEXICO COPPER CORPORATION FOR
A GROUNDWATER DISCHARGE PERMIT FOR
THE COPPER FLAT MINE, DP-1840

No. GWB-18-06 (P)



SECOND NOTICE OF SUPPLEMENTATION OF ADMINISTRATIVE RECORD

Pursuant to Section 20.1.4 NMAC, and the Scheduling Order entered in this matter on June 15, 2018, the Ground Water Quality Bureau ("Bureau") hereby provides this second supplement to the administrative record for draft discharge permit DP-1840. The Second Supplement consists of 64 pages containing the latest version of the permit, as well as communications transmitted and received by the Bureau in the time since the first supplement to the record was filed. Electronic copies of the Supplement have been transmitted to all parties, along with an updated index. The record now contains 18,797 pages in 447 documents.

NEW MEXICO ENVIRONMENT DEPT.

A handwritten signature in black ink, appearing to read 'Andrew P. Knight', is written over a horizontal line.

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CERTIFICATE OF SERVICE

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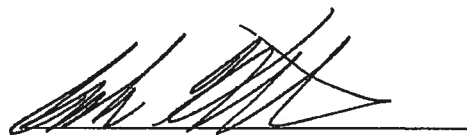
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GROUND WATER QUALITY BUREAU (GWQB)
DISCHARGE PERMIT
NEW COPPER MINE FACILITY
Issued under 20.6.2 and 20.6.7 NMAC

Return Receipt Requested

Certified Mail Receipt Number: 7005 1820 0001 5766 0796

Mine Facility Name:	Copper Flat Mine
GWQB Discharge Permit Number:	DP-1840
GWQB TEMPO AI Number:	1535
Permittee Name/Responsible Party:	New Mexico Copper Corporation
Mailing Address:	4253 Montgomery Blvd. NE, Suite 130 Albuquerque, NM 87109
Mine Facility Contact:	Jeff Smith; (505) 382-5770
Mine Facility Location:	85 Copper Rock Road Hillsboro, NM 88042
County:	Sierra County
Permitting Action:	New
Effective Date:	XXXX XX, 2018
Expiration Date:	XXXX XX, 2018
NMED Permit Contact:	Brad Reid; (505) 827-2963
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Bruce Yurdin
Division Director
Water Protection Division

Date

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Part A GENERAL INFORMATION

A100 Introduction

- A. The New Mexico Environment Department (NMED) issues this Ground Water Discharge Permit, DP-1840 (Discharge Permit) to the New Mexico Copper Corporation (permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978, §§ 74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 and 20.6.7 NMAC. NMED is issuing this Discharge Permit to control the discharge of water contaminants from the Copper Flat Mine facility for the protection of ground water and those segments of surface water gaining from ground water inflow, for present and potential future use as domestic and agricultural water supply and other uses, and to protect public health.
- B. Pursuant to this Discharge Permit, the permittee is authorized to discharge a maximum of 25,264,000 gallons per day (gpd) of tailings slurry which includes mine tailings, process water, impacted stormwater, and domestic wastewater to a lined tailing impoundment. In addition, this Discharge Permit regulates discharges from other mine units including waste rock stockpiles, ore stockpiles, mineral processing units, process water impoundments, an open pit, sumps, tanks, pipelines, and other areas within the permit area. The discharge may move directly or indirectly into ground water of the State of New Mexico which has an existing concentration of 10,000 milligrams per liter (mg/L) or less of total dissolved solids (TDS) within the meaning of Section 20.6.2.3104 and Subsection A of 20.6.2.3101 NMAC. The discharge may contain water contaminants or toxic pollutants elevated above the standards of Section 20.6.2.3103 NMAC.
- C. The permittee is authorized to discharge water contaminants pursuant to this Discharge Permit which contains conditions authorized or specified by Part 20.6.7 NMAC (Copper Mine Rule) on condition that the permittee complies with the Copper Mine Rule and this Discharge Permit, which are enforceable by NMED.

A101 Applicable Regulations

- A. The permittee is discharging from a facility that meets the definition of a “new copper mine facility” as defined in Paragraph (39) of Section 20.6.7.7.B NMAC. Sections 20.6.2.3000 through 20.6.2.3114 NMAC and Part 20.6.7 NMAC apply to discharges specific to copper mine facilities and their operations.
- B. The discharges from the mine units regulated pursuant to this Discharge Permit are not subject to any of the exemptions of Section 20.6.2.3105 NMAC except as provided for in Subsection F of 20.6.2.3105 NMAC.

- C. Ground water quality as observed in monitoring wells required by C111.G and C114.C of this Discharge Permit is subject to the criteria of Sections 20.6.2.3101 and 20.6.2.3103 NMAC except as excluded pursuant to Subsection D of 20.6.7.24 NMAC.

A102 Permit Duration

- A. Pursuant to the WQA 74-6-5(I) and Subsection H of 20.6.2.3109 NMAC, the term of this Discharge Permit is seven years from the effective date (effective DATE) or five years from the date the discharge commences. In no event shall the term of DP-1840 exceed seven years from the effective date.
- B. If the permittee submits an application for renewal in accordance with Subsection F of 20.6.2.3106 NMAC, then the existing discharge permit shall not expire until the application for renewal has been approved or disapproved.

A103 Terms of Permit Issuance

- A. **Permit Fees** - The permittee shall remit an annual permit fee payment equal to the applicable permit fee, based on mine size as listed in Subsection A of 20.6.7.9 NMAC. The permit fee is due on August 1 of each year until termination of all discharge permits related to the Copper Flat Mine facility. [20.6.7.9.A NMAC]
- B. **Transfer of Discharge Permit** - Prior to the transfer of any ownership, control, or possession of this permitted facility or any portion thereof, the permittee shall notify the proposed transferee in writing of the existence of this Discharge Permit and include a copy of this Discharge Permit with the notice. The permittee shall deliver or send by certified mail to NMED a copy of the notification and proof that such notification has been received by the proposed transferee. [20.6.7.38 NMAC and 20.6.2.3111 NMAC]
- C. **Permit Renewal** - To renew this Discharge Permit, the permittee shall submit an application and associated fees for renewal at least 270 days prior to the expiration date of this Discharge Permit (by DATE) in accordance with Sections 20.6.7.9, 20.6.7.10, and 20.6.7.11 NMAC.
- D. **Additional Conditions** - In addition to the requirements of 20.6.7 NMAC, the permittee shall comply with the following additional conditions as authorized by Subsection I of 20.6.7.10 NMAC pursuant to WQA 74-6-5: Condition C100.A, Condition C100.B, Condition C101.B, Condition C101.C, Condition C103.F, Condition C108.A, Condition C111.B, Condition C111.E, Condition C112.E, Condition C113.G, Condition C113.H, Condition C114.B, Condition C114.C, Condition C114.D, Condition D105.A, Condition D105.B, Condition D106.A, Condition D106.B, Condition D107.D.

Part B FACILITY SPECIFIC INFORMATION

B100 History and Facility Description

- A. The Copper Flat Mine is an open pit copper mine facility owned by the New Mexico Copper Corporation situated within a mine permit area boundary of approximately 2,190 acres. The Copper Flat Mine will consist of an open pit, waste rock stockpiles, stormwater impoundments and collection systems, a Process Facility Area consisting of a concentrator and associated mineral processing units, a lined tailing impoundment, and associated infrastructure. The mine project will disturb approximately 1,290 acres of which approximately 910 acres were previously disturbed from historic mining operations at the site. The mine is regulated pursuant to this Discharge Permit and an abatement plan.
- B. The historic Copper Flat Mine operation included several waste rock stockpiles, an open pit, a tailings storage facility, mineral processing facilities, impoundments, and associated infrastructure. The mine was operated for commercial production in 1982 for approximately three and a half months. Approximately three million tons of overburden (i.e., open pit pre-stripping) and 1.2 million tons of ore were mined resulting in an open pit encompassing eighty acres of disturbance including a five-acre water body. The bottom level of the pit currently sits at 5,400 feet above mean sea level (amsl). No mining has occurred at the site since 1982.
- C. New Mexico Copper Corporation will construct and operate the Copper Flat Mine and concentrator using conventional copper and molybdenum sulfide flotation circuits and a gravity gold recovery circuit with a maximum throughput of 38,000 dry tons per day of ore, generating up to 25,264,000 gpd of tailings slurry. Over an estimated eleven-year operational period, the permittee intends to mine the copper-rich ore body and process approximately 125 million tons of ore at the Process Facility Area, and place 33 million tons of waste rock on three delineated waste rock stockpiles peripheral to the open pit.
- D. Ore mined from the Copper Flat Open Pit will be crushed, milled, and concentrated using conventional milling and concentration processes. The copper and molybdenum concentrates produced at the Process Facility Area will be packaged for off-site transport and additional processing. The tailings, a by-product from the flotation process, will be conveyed via a tailing pipeline to a cyclone classification plant (Cyclone Plant) and then discharged at the Tailings Storage Facility (TSF).
- E. A synthetically lined TSF will be constructed in the same location as the historic facility. Tailings slurry (i.e., process water and flotation tailings) containing, on average, approximately 29% solids by weight will be gravity conveyed from the Concentrator through a pipeline into the Cyclone Plant to separate the tailings into coarse and fine fractions. The coarse fraction tailings sand cyclone underflow will be deposited to construct the tailing dam and the fine fraction tailings slime cyclone overflow will be discharged to the interior of the TSF. The TSF will extend approximately 1,000 feet to the east of the former starter dam (the tailings expansion

area). A centerline construction method using the cyclone-processed tailings sand for tailings dam construction will be utilized. A starter dam will be constructed using borrow material to provide initial storage capacity and to provide a location for initial discharge of tailings.

- F. Water collected inside the projected Open Pit Surface Drainage Area (OPSDA; as defined in Section 20.6.7.7 NMAC and displayed on Figure 2 attached to this Discharge Permit) at the open pit sump will be utilized for dust suppression during operations on haul roads, working areas, and waste rock stockpiles within the projected OPSDA. Water sources that do not exceed ground water quality standards set forth in Section 20.6.2.3103 NMAC will be used for dust suppression outside the projected OPSDA.
- G. The pit area will be dewatered to facilitate mining below the water table. The existing diversion structure will be maintained during operations to convey non-impacted stormwater flows generated in Grayback Arroyo and its tributaries around the perimeter of the open pit. Pit water will primarily be used for dust suppression or re-used in the process water circuit.
- H. After the cessation of mining, the pit will be rapidly re-filled with fresh water to the modeled static water table, forming a pit water body. Waste rock stockpiles, the TSF, and other impacted areas will be reclaimed and revegetated in accordance with the approved Closure/Closeout Plan, including placement of an engineered soil cover system where required.

B101 Permitting History

- A. The Discharge Plan for DP-1840 includes application materials submitted by the permittee to NMED dated December 11, 2015, Revision 1 of the Discharge Permit Application dated August 2017 ("Revised Application"), and materials contained in the DP-1840 administrative record prior to issuance of this Discharge Permit.

B102 Facility Location, Ground Water and Process Water Characteristics

- A. Copper Flat Mine is located at 85 Copper Rock Road approximately 5 miles NE of Hillsboro, in Sections 30 and 31, T15S, R6W, Sections 25, 26, 35, and 36, T15S, R7W, and Section 6, T16S, R6W, Sierra County.
- B. Ground water beneath the mine units regulated pursuant to DP-1840 is at a depth ranging from approximately 7 to 156 feet with a pre-discharge TDS concentration ranging from approximately 317 to 868 milligrams per liter.
- C. The Copper Flat Open Pit walls, the waste rock stockpiles, the TSF and other disturbed areas at the mine facility may contain sulfide minerals which, when oxidized, generate acidic solutions. These acidic solutions react with in situ minerals to produce acid rock drainage (ARD) that typically contains TDS, sulfate, and certain metals in concentrations that may exceed the water quality standards of Section 20.6.2.3103 NMAC.

- D. Process water and impacted stormwater discharges regulated pursuant to DP-1840, including ARD, are typically outside the acceptable range for pH and contain TDS, sulfate, and certain metals in concentrations that exceed the water quality standards of Section 20.6.2.3103 NMAC.

B103 Authorized Mine Units

The permittee is authorized to manage the discharge of water contaminants through operation of the following mine units pursuant to this Discharge Permit. This Discharge Permit contains requirements associated with the following mine units as identified in the Revised Application and the administrative record as of the effective date of this Discharge Permit. Mine units listed below meet the definition of “new” mine units pursuant to the Copper Mine Rule, unless otherwise noted, and will meet applicable Copper Mine Rule design and construction requirements.

A. Open Pit

1. The permitted open pit operational area will encompass approximately 161 acres at full build out and will reach an approximate base elevation of 4,650 amsl. The diameter of the open pit will be approximately 2,800 feet, and the open pit depth will reach approximately 850 to 900 feet below the original pre-mining surface. The existing diversion of Grayback Arroyo will route stormwater around the open pit during operations and at closure. Approximately thirty-nine acre-feet per year (24 gallons per minute, gpm) of groundwater seepage and sixty-eight acre-feet per year (42 gpm) of stormwater entering the pit will be returned to the process water circuit or used for dust suppression using one or more pit dewatering sumps during operations.

B. Waste Rock Stockpiles

1. Waste Rock Stockpile 1 (WRSP-1) - WRSP-1 will be located inside the projected OPSDA northeast of the open pit and will have an estimated footprint of approximately 40 acres upon build out. Approximately 3.16 million tons of material will be stockpiled within the permitted footprint during the operational phase of the mine. Berms and drain ditches will be constructed around the waste rock stockpile to prevent run-on and to control run-off.
2. Waste Rock Stockpile 2 (WRSP-2) - WRSP-2 will be located outside the projected OPSDA east of the open pit and Animas Peak and will have an estimated footprint of approximately 49 acres upon build out. Approximately 8.64 million tons of material will be stockpiled within the permitted footprint during the operational phase of the mine. Berms and drain ditches will be constructed around the waste rock stockpile to prevent run-on and to control run-off.
3. Waste Rock Stockpile 3 (WRSP-3) - WRSP-3 will be located outside the projected OPSDA east of the open pit and Animas Peak and will have an estimated footprint of approximately 122 acres upon build out. Approximately 32.89 million tons of material will be stockpiled

within the permitted footprint during the operational phase of the mine. Berms and drain ditches will be constructed around the waste rock stockpile to prevent run-on and to control run-off. An open channel stormwater conveyance structure will be cut into the underlying bedrock at the toe of the stockpile to collect seepage and impacted stormwater generated from WRSP-3.

4. Existing Waste Rock Stockpile 1 (EWRSP-1) - EWRSP-1, located inside the projected OPSDA, is an historic waste rock stockpile located at the western edge of the mine facility boundary and contains approximately 486,000 tons of waste rock. The current footprint of the stockpile is approximately 16 acres. This stockpile will be reclaimed during the mine start-up phase.
5. Existing Waste Rock Stockpile 2A (EWRSP-2A) - EWRSP-2A is an historic waste rock stockpile located at the north side of the open pit. A portion of EWRSP-2A is located outside the projected OPSDA. This portion will be relocated onto the portion of EWRSP-2A that is inside the projected OPSDA during the mine start-up phase and prior to construction of WRSP-1. EWSRP-2A will be sequentially covered during the operational phase of the mine from construction of WRSP-1 (i.e., EWRSP-2A will become part of WRSP-1).
6. Existing Waste Rock Stockpile 2B - EWRSP-2B, located inside the projected OPSDA, is an historic waste rock stockpile located at the north side of the open pit immediately west of the toe of EWRSP-2A. EWRSP-2B will be reclaimed during the mine start-up phase. The current combined footprint of EWRSP-2A and EWRSP-2B covers a footprint of 21 acres and contains approximately 760,050 tons of waste rock.
7. Existing Waste Rock Stockpile 3 (EWRSP-3) - EWRSP-3, located outside the projected OPSDA, is an historic waste rock stockpile located north of the Concentrator in the ore processing area. It contains approximately 333,300 tons of waste rock and ore. The current footprint of the stockpile is approximately 20 acres. Ore from this stockpile will be processed during the start-up phase of the concentrator. In addition, EWRSP-3 will be used during mine operations to temporarily store ore during upset conditions (i.e., when the Primary Crusher is not working).
8. Existing Waste Rock Stockpile 4 (EWRSP-4) - EWRSP-4, located inside the projected OPSDA, is an historic waste rock stockpile located southeast of the pit containing approximately 1,000,050 tons of waste rock. The current footprint of the stockpile is approximately 23 acres. The southern slopes of the stockpile facing Grayback Arroyo will be reclaimed during the mine start-up phase, and the top surface will be filled and graded to a 1% slope and used for an equipment laydown yard during operations. Stormwater generated from the top surface will discharge to the open pit.

C. Conditionally Exempt Facilities

1. Growth Media Stockpiles - Three growth media stockpiles will be constructed at the mine facility to store reclamation cover material. Growth Media Stockpile 1 will be constructed southwest of the TSF and will have an estimated footprint of approximately 30 acres upon build out. Growth Media Stockpile 2 will be constructed northeast of the TSF and will have an estimated footprint of approximately 32 acres upon build out. Growth Media Stockpile 3 will be constructed southeast of WRSP-3 and will have an estimated footprint of approximately 14 acres upon build out. These stockpiles are authorized for storage of reclamation cover material only, and the conditionally exempt status is premised on the permittee placing material that does not generate water contaminants on the Growth Media Stockpile.
2. Mill Site Claims and Electrical Substation - Nine total existing and/or proposed mill site claims and one electrical substation located off-site will contribute to the project. Each mill site claim is five acres in size and the electrical substation will be located on a thirty-acre parcel of land. The mill site claims will be utilized for other water-related infrastructure uses such as staging and storage areas for booster tanks, pumps and electrical equipment, maintenance, and monitoring. The mill site claims and electrical substation are authorized for use on condition that the permittee adheres to the approved material characterization and handling plan to ensure the conditionally exempt status as areas that do not generate water contaminants.

D. Copper Crushing, Milling, Concentrator, and Tailings Storage Facility

1. Process Facility Area - The Process Facility Area, located outside the projected OPSDA southeast of the open pit, is where crushing and grinding, milling, flotation, concentrating, drying and packaging of ore will occur. In addition, administration, parking and other ancillary support facilities (e.g., Assay Laboratory) will be located here. Impacted stormwater generated in the Process Facility Area will be directed to open channel conveyances that convey to Impacted Stormwater Impoundment A.
 - a. Primary Crusher - Ore from the open pit will be fed to the Primary Crusher for the first stage of crushing. Run-of-the-mine ore rock will be crushed to a size of eight-inch diameter and less. The gyratory crusher will be located below ground level on reinforced concrete with concrete sumps. The sumps will pump water for re-use in the ore processing circuit.
 - b. Coarse Ore Stockpile - The Coarse Ore Stockpile will be located between the Primary Crusher and the Concentrator in the Process Facility area. Crushed ore rock from the Primary Crusher will be temporarily stored at the Coarse Ore Stockpile until it is fed into the Reclaim Tunnel beneath the stockpile and onto a conveyor system which will transport ore to the Semi-Autogenous Grinding (SAG) Mill and grinding circuit. The Coarse Ore Stockpile will have a capacity of 75,000 tons and will have a footprint of approximately 5 acres.

- c. Concentrator - The Concentrator is designed to process up to 38,000 tons per day. It will consist of several copper and molybdenum rougher/scavenger flotation cells, copper and molybdenum flotation and scavenger cells, concentrate tanks, thickeners, filters, a copper concentrate load-out area, a molybdenum packaging area, and associated infrastructure. The Concentrator is designed and will be constructed to prevent discharges from leaving the facility using concrete floors and numerous sumps, pumps, and concrete berms within the building.
 - d. Mill - The Mill is located inside the Concentrator building and will consist of one SAG Mill, one ball mill, a pebble crusher, and associated conveyance systems and separators.
 2. Tailings Storage Facility (TSF) - The lined TSF will be located outside the projected OPSDA and built progressively out in a five-phase process. It is designed to accommodate the volume of tailings generated during the life of the mine. The liner will consist of an 80-mil high-density polyethylene (HDPE) liner (or equivalent material) placed on a twelve-inch thick liner bedding fill sub base. In Phase 1, the liner bedding fill will consist of a minimum of 12 inches of historic tailings recovered from the north cell of the old starter dam. After Phase 1, liner bedding fill will consist of a twelve-inch layer of crushed and screened native material or selected local soil. TSF drainage will be collected using an underdrain collection system that incorporates two underdrains that will convey solutions to the TSF Underdrain Collection Pond. Drainage from the TSF impoundment interior will be collected in a continuous underdrain system (impoundment underdrain) constructed over the geomembrane liner. A separate blanket drain system will underlie the tailings dam (dam underdrain). The impoundment underdrain system will be equipped with a shutoff valve at its inlet during the initial years of operation to ensure two feet of freeboard is maintained in the Underdrain Collection Pond. When the valve is closed, the TSF supernatant pool will be used for storage until the TSF underdrain collection pond is pumped down. The TSF pool, located in the interior of the TSF, will be equipped with four floating-barge pumps with a maximum design capacity of 12,978 gpm. The pumps will convey TSF supernatant process water to the Process Water Reservoir through the 36-inch diameter HDPE water reclaim process water pipeline for re-use as process water. Tailing slurry, which is gravity conveyed from the Concentrator, will pass through the Cyclone Plant prior to discharge to the TSF. The Cyclone Plant will separate the tailing slurry into a coarse and fine fraction; the coarse fraction will be used to construct the tailing dam and the fine fraction will be conveyed into the TSF pool.

E. Domestic Wastewater Treatment Facility

1. A package treatment plant sized to treat up to 10,000 gallons of day of domestic wastewater will be constructed on a pre-existing slab located near the main gate and outside the projected OPSDA. The plant will be constructed and operated to treat wastewater to a secondary effluent quality. Treated effluent will be pumped via pipeline to the TSF facility

for re-use as process water.

F. Impoundments

1. Process Water Reservoir (PWR) - The Process Water Reservoir will be located east of the Concentrator in the Process Facility Area and outside the projected OPSDA. It will have a footprint of approximately 2 acres and a storage capacity of 5,433,472 gallons while maintaining two feet of freeboard. It is sized to retain twelve hours of inflow at 7,200 gpm and a 100-year return interval storm event while maintaining two feet of freeboard. The pond will be double-synthetically lined minimum 60-mil HDPE (or equivalent material) liners equipped with a leak detection/collection system. It is designed to meet the requirements of Paragraphs (1), (2), (3), (6), and (7) of 20.6.7.17.D NMAC. The PWR will receive process water from the Underdrain Collection Pond at the TSF, impacted stormwater pumped from the three impacted stormwater impoundments, and freshwater from the off-site well field for use as process water in the Concentrator. The PWR will pump process water to the Process Water Tank for use in the Process Facility Area. Pumps will be sized to deliver 24,300,000 gpd (16,875 gpm) of process water to the Concentrator. In the event of upset conditions, the PWR overflow weir conveys solutions directly into the lined tailings trench/pipeline corridor which discharges to the TSF.
2. TSF Underdrain Collection Pond (UCP) - The UCP will be located outside the projected OPSDA at the southeastern toe of the TSF. It will have a footprint of approximately 8 acres and storage capacity of 12,240,000 gallons while maintaining two feet of freeboard. It is sized to retain twenty-four hours of underdrain flow at a maximum flow rate, and runoff from the downstream face of the TSF during a 100-year return interval storm event. The pond will be double-synthetically lined (60-mil each or equivalent) using HDPE or equivalent material and equipped with a leak detection/collection system. It is designed to meet the requirements of Paragraphs (1), (2), (3), (6), and (7) of 20.6.7.17.D NMAC. The pond will receive approximately 448 gpm of tailing underflow, tailings dam face seepage, and impacted stormwater under standard operating conditions. Collected solutions will be returned to the process water re-use circuit via the 4,000 gpm pond reclaim pump system (one operating pump and one spare submersible turbine pump mounted in a concrete sump) and the underdrain collection process water pipeline. The underdrain collection process water pipeline will be placed along the upstream side (i.e., inside the TSF toe berm) of the toe berm and above the geomembrane liner during all buildout phases of the TSF. Perimeter collection trenches situated on the bermed upstream side of the TSF liner will capture and contain impacted stormwater from the face of the TSF and convey solutions to the Underdrain Collection Pond.
3. Surge Pond - The Surge Pond will be located outside the projected OPSDA at the northwest margin (i.e., upstream side) of the TSF and is associated with the Cyclone Plant. It will have a footprint of approximately 6.4 acres and storage capacity of 1,610,000 gallons while maintaining two feet of freeboard. The minimum 60-mil HDPE (or equivalent material)

lined impoundment is designed to meet the requirements of Paragraphs (1), (2), (4), (6), and (7) of 20.6.7.17.D NMAC. The purpose of the Surge Pond is to contain discharges (tailings, process, and reclaim water) from various processing locations under upset conditions, due to a pipe failure, or shutdown of the Cyclone Plant. Upset flows from the Cyclone Plant will discharge by gravity to the Surge Pond within a secondary containment ditch lined with a minimum 60-mil HDPE geomembrane liner placed over 6 inches of liner bedding fill. Dedicated pumps will convey solutions from the Surge Pond to the TSF. The surge pond will be empty under normal operating conditions.

4. Impacted Stormwater Impoundments - Three stormwater impoundments will be utilized to capture precipitation and stormwater runoff from areas impacted by mining activities including mining, hauling, waste rock stockpiling, mineral processing, and shipping and receiving of goods and products. The minimum 60-mil HDPE (or equivalent material) lined impoundments are designed to meet the requirements of Paragraphs (1), (2), (4), (6), and (7) of 20.6.7.17.D NMAC. Each stormwater impoundment is designed to receive the volume of stormwater generated from a 100-year return interval storm event while maintaining two feet of freeboard. The stormwater impoundments will typically be empty and will be pumped as low as practicable within 30 days of storm events pursuant to Paragraph (4) of 20.6.7.17.D NMAC. Collected solutions from Impacted Stormwater Impoundment B (SW-B) and Impacted Stormwater Impoundment C (SW-C) will be pumped to Impacted Stormwater Impoundment A (SW-A) via the SW-C and SW-A pipelines, and solutions from SW-A will be pumped to the PWR via the SW-A pipeline using temporary pumps. Sheet flow generated during storm events will be conveyed to the stormwater impoundments via open channel conveyances capable of handling a 100-year return interval storm event while maintaining six inches of freeboard.
 - a. Impacted Stormwater Impoundment A (SW-A) - As shown in Figure 11J-3 of the Revised Application, SW-A will be located outside the projected OPSDA east of the Process Water Reservoir and at the southwest toe of WRSP-3. It will have a footprint of approximately 2 acres and storage capacity of 7,306,971 gallons while maintaining two feet of freeboard. Impacted Stormwater Impoundment A will capture and manage impacted stormwater from the approximately 91.06-acre catchment area in Watershed A which includes the Process Facility Area.
 - b. Impacted Stormwater Impoundment B (SW-B) - As shown in Figure 11J-3 of the Revised Application, SW-B will be located inside the projected OPSDA at the southern toe of WRSP-1 and southwest corner of Watershed B. It will have a footprint of approximately 2 acres and storage capacity of 5,513,140 gallons while maintaining two feet of freeboard. Stormwater Impoundment B will capture and manage impacted stormwater generated from the approximately 98.52-acre catchment area in Watershed B, which includes WRSP-1. Overflow from the impoundment will discharge under a haul road via a culvert and then flow into the open pit.

Impacted Stormwater Impoundment C (SW-C) - As shown in Figure 11J-3 of the Revised Application, SW-C will be located outside the projected OPSDA at the eastern toe of WRSP-3 and eastern edge of Watershed C. SW-C will have a footprint of approximately 7 acres and storage capacity of 10,513,140 gallons while maintaining two feet of freeboard. Stormwater Impoundment C will capture and manage impacted stormwater from the approximately 198.66-acre catchment area in Watershed C which contains WRSP-2 and WRSP-3.

G. Sumps, Tanks, Pipelines and Other Containment Systems

1. Tanks - Forty-eight above ground tanks will be used at the mine site; most will be located outside the projected OPSDA at the Process Facility Area. Appendix C of the Revised Application describes all tanks, sumps, and designed containments for each. Tanks are designed and will be constructed in accordance with Subsections A and B of 20.6.7.23 NMAC, unless otherwise noted.
 - a. Concentrator Area - Thirty tanks will be located inside the Concentrator including (number of tanks in parenthesis): Grinding Area (1), Copper Flotation Area (1), Copper Re grind Area (1), Molybdenum Flotation Area (3), Copper-Molybdenum Thickening Area (4), Copper Thickening Area (6), Wheel Wash Area (1), Lime Reagent Area (2), Diesel Reagent Area (1), General Reagent Area (7), and Sodium Hydrosulfide Reagent Area (3).
 - b. Truck Shop Tank Farm - Seven tanks will be located in the Truck Shop Tank Farm area to store various oil and fluid to support the vehicle fleet.
 - c. Fuel Station Area - Five tanks will be located in the Fuel Station Area to be utilized for fueling needs.
 - d. Miscellaneous Locations - Three tanks will be incorporated into the domestic wastewater treatment facility, one tank will be used at the Assay Lab for chemical waste, and one 170,000-gallon tank will be used for Process Water Storage and delivery. The Process Water Storage Tank will be situated in a bermed area that will be underlain by a HDPE synthetic liner.
2. Sumps and Containment Areas - Twenty-two sumps and/or containment areas will be constructed to capture and contain process water, impacted stormwater, and other solutions in the event there is a release from the primary containment structures in the Process Facility Area.
3. Copper Flat Open Pit dewatering system - The Copper Flat Open Pit dewatering system will utilize one or more dewatering sumps and associated pipelines located in the pit to dewater the open pit. A portable booster tank(s) will be incorporated, as necessary, as the pit is deepened.

4. Pipelines - Pipelines serving the DP-1840 mine units consist of HDPE and range in size from 6 inches or less in diameter up to 36 inches in diameter. The pipelines are described in Table 11J-3, and Figures 11J-20A and 11J-20B of the Revised Application. All pipelines are designed and will be constructed in accordance with Subsections A and B of 20.6.7.23 NMAC. The Concentrator Whole Tailings Transport pipeline and UCP return pipeline will be placed within lined and bermed channels when located outside building areas.

H. Truck and Equipment Washing Units

1. A Truck and Equipment Washing Unit (Truck Wash) will be located outside the projected OPSDA along a haul road between the mine and the Truck Shop south of the Concentrator. It will consist of a concrete pad for vehicle and equipment washing. The pad will be sloped to drain into a 50,000-gallon concrete settling basin for separation of water, solids, oil and grease. Oil and grease will be skimmed and properly disposed of offsite. Solids removed from the bottom of the settling basin will be disposed of at the TSF or stored on a concrete pad next to the wash unit for eventual disposal at the TSF. All wash water will be reused at the Truck Wash. The Truck Wash is designed in accordance with Section 20.6.7.26 NMAC.
 2. A wheel wash tank and pump and associated concrete containment area will be located adjacent to the Concentrator. It will be used to remove and contain concentrate from truck wheels prior to the trucks travelling onto site roads. Solutions collected in the wheel wash sump will be returned to the Copper Thickener feed box via a dedicated pump equipped with automatic start/stop control.
- I. **Dust Suppression** - Dust suppression trucks will utilize water from the open pit sump and/or stand pipes located inside the projected OPSDA for dust suppression within the projected OPSDA. Stand pipes used to deliver water to trucks for dust suppression outside the projected OPSDA will utilize water sources that meet ground water quality standards set forth in Section 20.6.2.3103 NMAC.

J. Flow Measurement

1. The permittee will utilize flow meters to measure regulated discharge volumes pursuant to this discharge permit and as required by the Copper Mine Rule. Flow meter locations utilized by DP-1840 are shown in Figures 11J-20A and 11J-20B of the Revised Application. In addition, Figure 3 located on Page 36 of this Discharge Permit, shows a schematic diagram of flow meter locations used for discharge volume reporting pursuant to DP-1840.

K. Meteorological Station

1. The mine facility will utilize one Meteorological Station, located at the east central portion of the mine facility permit boundary, to measure meteorological data in accordance with the meteorological plan submitted with the Revised Application. The location is shown on Figure 11W-1 of the Revised Application.

B104 Authorized Discharges

The permittee is authorized to operate the following mine units in accordance with all applicable system design and operational constraints as described in this Discharge Permit, and the Discharge Plan. [20.6.2.3109 NMAC]

- A. The permittee is authorized to discharge a maximum of 25,264,000 gpd of tailing slurry from the Concentrator to the Cyclone Plant and then the TSF via gravity through the Concentrator Whole Tailings Transport pipeline.
- B. The permittee is authorized to pump a maximum of 21,236,000 gpd of process water from the TSF Water Reclaim System, which includes combined flows from the UCP and TSF supernatant pool, to the PWR.
- C. The permittee is authorized to discharge a maximum of 24,300,000 gpd of process water from the PWR to the Concentrator.
- D. The permittee is authorized to place waste rock from the Copper Flat Open Pit within the permitted footprints of WRSP-1, WRSP-2, and WRSP-3 and discharge water contaminants originating from placed materials.
- E. The permittee is authorized to dewater the Copper Flat Open Pit to accommodate mining of the Pit and to manage process water and impacted stormwater from the Copper Flat Open Pit.
- F. The permittee is authorized to store crushed ore at the Coarse Ore Stockpile.
- G. During upset conditions, the permittee is authorized to temporarily stage ore within the permitted footprint of EWRSP-3, and discharge water contaminants originating from placed materials.
- H. The permittee is authorized to operate SW-A, SW-B, and SW-C to collect impacted stormwater.
- I. The permittee is authorized the operate all sumps, tanks, pipelines and other containment systems described in B103.G.
- J. The permittee is authorized to operate the Truck and Equipment Wash units.
- K. The permittee is authorized to discharge a maximum of 10,000 gpd of treated effluent from the domestic wastewater treatment and disposal facility to the TSF.

- L. The permittee is authorized to discharge an annual average of approximately 96,000 gpd of process water from the Copper Flat Open Pit sump(s) and dewatering system for use as dust suppression water within the OPSDA or for reuse in the process water circuit.
- M. This Discharge Permit authorizes only those discharges specified herein. Any unauthorized discharges such as spills or leaks must be reported to NMED and remediated as required by Section 20.6.2.1203 NMAC, and any additional requirements listed in this Discharge Permit.
- N. The permittee shall provide written notice to NMED of the commencement, of operations in accordance with Subsection C of 20.6.7.18 NMAC.
- O. If the Copper Flat Mine is on standby pursuant to the Mining Act, the permittee shall provide written notice to the department indicating the planned date of recommencement of operations. Written notification shall be submitted to the department a minimum of 30 days prior to the date mining is to recommence.

Part C FACILITY SPECIFIC REQUIREMENTS

The permittee shall conduct the requirements set forth below in accordance with the WQCC Regulations of Subsection C of 20.6.2.3106 NMAC and Section 20.6.2.3107 NMAC to ensure compliance with 20.6.2 NMAC, and in accordance with applicable requirements of Part 20.6.7 NMAC.

C100 Practice of Engineering

- A. Within 120 days of completion of construction of any mine unit authorized for construction and discharge as listed in B103, the permittee shall submit complete as-built drawings and/or a construction certification report pursuant to Paragraph (2) of 20.6.7.18.B NMAC.
- B. Design, construction and location of all mine units shall be in accordance with applicable Copper Mine Rule requirements and the Discharge Plan.

C101 Construction Schedule and Progress Reports

- A. Pursuant to Subparagraph (a) of 20.6.7.18.C(1), the permittee shall provide NMED with written notice a minimum of 30 days before commencing construction of mine units covered by this Discharge Permit. A summary of construction activities completed shall be submitted in accordance with Subsection B of 20.6.7.29 NMAC.
- B. The permittee shall adhere to the sequencing schedule outlined in Table 2-1 of Revision 1 of the Updated Mine Operation Reclamation Plan (MORP) dated July 2017 and titled, "Copper Flat Development Sequence and Schedule," and as shown on Table 1 located on Page 31 of this

Discharge Permit. NMED shall be notified prior to any deviations from the sequencing schedule.

- C. All containment systems, seepage, and stormwater collection units shall be in place prior to operation of any discharging mine unit.

C102 Copper Flat Open Pit

- A. The Copper Flat Open Pit shall be operated in accordance with the applicable requirements of Section 20.6.7.24 NMAC.
- B. Pursuant to Subsection A of 20.6.7.24 NMAC, expansion of the Copper Flat Open Pit shall not exceed the area shown on Figure 1 located on Page 34 of this Discharge Permit. The permittee must obtain a permit modification or amendment prior to expanding the Copper Flat Open Pit beyond the area shown on Figure 1 of this Discharge Permit.
- C. Fluids generated within the open pit shall be managed according to the applicable requirements of 20.6.7.24.C NMAC, and the Sitewide Water Management Plan required pursuant to Condition C107.A.

C103 Waste Rock Stockpiles

- A. Waste rock shall be handled and characterized in accordance with applicable requirements of Subsection A of 20.6.7.21 NMAC, and the NMED-approved material characterization and handling plans summarized and referenced in the Revised Application.
- B. Design, construction and location of the waste rock stockpiles shall be in accordance with the Discharge Plan, and applicable requirements of Subsections B and C of 20.6.7.21 NMAC.
- C. The permittee shall comply with applicable operational requirements listed in Paragraphs (2) through (8) of 20.6.7.21.D NMAC including the requirement to place waste rock on waste rock stockpiles to plan for closure to the extent practicable and be in accordance with the operating plan required in C111.J (Sections 20.6.7.18, 20.6.7.21 and 20.6.7.33 NMAC).
- D. Pursuant to Paragraph (1) of 20.6.7.21.D NMAC and Paragraph (1) of 20.6.7.21.B NMAC, the waste rock stockpiles described in B103.B shall not exceed the footprint, configuration, and location shown in Figure 1 of this Discharge Permit. The permittee may only expand the permitted footprint for the purpose of facility closure, or through an NMED-approved permit amendment or modification to DP-1840.
- E. Pursuant to Paragraph (c) of 20.6.7.21.A(2) NMAC and as outlined in the material handling plan in the Revised Application, the permittee shall place a minimum of 10 feet of not potentially acid generating (NPAG) waste rock material above and below any areas where acid generating or potentially acid generating (PAG) waste rock will be placed.

- F. As outlined in the Revised Application, the portion of EWRSP-2A located outside the projected OPSDA shall be relocated onto the portion of EWRSP-2A that is located inside the projected OPSDA, during the mine start-up phase and prior to construction of WRSP-1.

C104 Impoundments

- A. Design, construction and location of all impoundments shall be in accordance with the Discharge Plan, and applicable requirements of Subsection D of 20.6.7.17 NMAC.
- B. Operation of all impoundments shall be in accordance with the applicable requirements of Subsection F of 20.6.7.18 NMAC.
- C. Pursuant to Subsection C of 20.6.7.17 NMAC, the permittee shall submit to NMED for approval a liner system construction quality assurance/construction quality control (CQA/CQC) plan a minimum of 90 days prior to construction of any impoundment that requires a liner system.
- D. Pursuant to Subsection B of 20.6.7.18 NMAC, the permittee shall submit a construction certification report within 120 days of construction completion of all impoundments that require a liner system.
- E. In accordance with Subparagraph (c) of 20.6.7.17.D(2) NMAC, water levels in the PWR and UCP shall be maintained to provide capacity to convey maximum design process flow plus stormwater runoff from the reservoir catchment area while maintaining two-feet of freeboard.
- F. In accordance with Subparagraph (e) of 20.6.7.17.D(2) NMAC, water levels in the SW-A, SW-B, and SW-C shall be maintained to provide capacity for a 100-year return interval storm event while preserving two-feet of freeboard under standard operating conditions and after storm events.

C105 Copper Crushing, Milling, Concentrator, and Tailings Storage Facility Units

- A. Design, construction, and location of all crushing, milling, concentrating, and tailings storage facility units shall be in accordance with the Discharge Plan, and applicable requirements of Subsections A and B of 20.6.7.22 NMAC.
- B. Operation of all crushing, milling, concentrating, and tailings storage facility units shall be in accordance with the Discharge Plan and applicable requirements of Subsection C of 20.6.7.22 NMAC.
- C. Tailings Storage Facility
 - 1. Deposition of tailings shall be in accordance with the operating plan required in C111.K.
 - 2. Prior to initiation of construction of any portion of the TSF and associated dam, the

- permittee shall submit to NMED documentation of compliance with the Dam Safety Bureau of the Office of the State Engineer permitting requirements pursuant to Section 72-5-32 NMSA 1978, and rules promulgated under that authority, unless exempt by law from such requirements.
3. Prior to discharging to the TSF, the permittee shall ensure that berms and/or the dam structure of the TSF will have the capacity for such discharges while maintaining appropriate safety measures in accordance with the regulations of the Dam Safety Bureau of the Office of the State Engineer and Paragraph (d) of 20.6.7.17.C(1) NMAC.
 4. Pursuant to Subparagraph (4) of 20.6.22.A NMAC and Subsection B of 20.6.7.18 NMAC, the permittee shall submit a construction certification report within 120 days of TSF liner system installation.
 5. Pursuant to Subparagraph (a) of 20.6.7.22.C(1) NMAC, the TSF shall not exceed the footprint (564 acres) or location and configuration as shown in Drawing 12 in Appendix J of the document titled *Feasibility Level Design, 30,000 TPD Tailings Storage Facility and Tailings Distribution and Water Reclaim Systems Copper Flat Project Sierra County, New Mexico Golder Associates Inc., Revised, November 2016* (i.e., Appendix A the Revised Application) and as shown on Figure 1 of this Discharge Permit. The permittee may only expand the permitted footprint for the purpose of facility closure, or through an NMED-approved permit amendment or modification to DP-1840.

C106 Sumps, Tanks, Pipelines and Other Containment Systems

- A. Design, construction and location of all pipelines, tanks, and sumps shall be in accordance with the Discharge Plan, and applicable requirements of Subsections A and B of 20.6.7.23 NMAC.
- B. Operation of all pipelines, tanks, and sumps shall be in accordance with the applicable requirements of Subsection C of 20.6.7.23 NMAC.
- C. Detailed and complete construction plans and specifications and supporting design calculations for any proposed or required tanks, pipelines, sumps, or other containment systems, including any replacements thereof, shall be submitted to NMED pursuant to Paragraph (2) of 20.6.7.17.C NMAC and Section 20.6.2.23 NMAC, and D107 of this Discharge Permit. This requirement does not apply to portable or temporary tanks, pipelines, sumps, or other containment systems that are subject to periodic relocation during mining operations.
- D. Pursuant to Subsection J of 20.6.7.33 NMAC, upon discontinuing the operation of, or before moving tanks, pipelines, sumps, or other containment systems, all liquids shall be released to a location specifically authorized in the discharge permit, an alternate location subject to NMED approval, or otherwise properly contained, transferred, or disposed of in a manner that does not result in discharge to non-authorized areas.

C107 Stormwater Management

- A. Stormwater shall be managed in accordance with the applicable requirements of Paragraph (4) of 20.6.7.17.C NMAC, and in accordance with the Stormwater Management Plan included in the Revised Application.
- B. To ensure compliance with Subparagraphs (e) and (f) of 20.6.7.17.D(2) NMAC, the permittee shall inspect all stormwater impoundments, conveyance channels and collection ponds on a monthly basis and after precipitation events that exceed one inch for evidence of stormwater accumulations that exceed design capacities. To properly manage stormwater, the permittee shall ensure that the pumping capacity is adequate to maintain storage capacity in all stormwater impoundments.
- C. Open channel conveyance structures, including those located at the base of WRSP-1, WRSP-2, and WRSP-3, shall be designed and operated to meet the requirements of Subparagraph (f) of 20.6.7.17.D(2).

C108 Sitewide Water Management Plan

- A. The Permittee shall submit to NMED for approval a Sitewide Water Management Plan no less than 60 days prior to discharge from the facility. The Sitewide Water Management Plan shall be a comprehensive plan that describes all water management systems at Copper Flat Mine and be designed, at a minimum, to meet the requirements of Paragraph (4) of 20.6.7.17.C NMAC (Stormwater Management Plan), Subsection C of 20.6.7.24 NMAC (Mine Operation Water Management Plan), and Subsection K of 20.6.7.30 NMAC (Interim Emergency Water Management Plan). Previously submitted documents in the Revised Application may be included as components of the Sitewide Water Management Plan including the Stormwater Management Plan and Mine Operation Management Plan. The Sitewide Water Management Plan shall be updated annually as specified in C113.

C109 Truck and Equipment Washing Units

- A. Design, construction and location of truck and equipment washing units shall be in accordance with the Discharge Plan, and applicable requirements of Subsections A and B of 20.6.7.26 NMAC.
- B. The permittee shall operate the truck and equipment washing units in accordance with the applicable requirements of Subsection C of 20.6.7.26 NMAC.

C110 Dust Suppression

- A. Dust suppression on areas outside the OPSDA shall be conducted using water sources that do not exceed ground water quality standards set forth in Section 20.6.2.3103 NMAC.

- B. If at some time in the future the permittee wishes to use an alternate source of dust suppression water or change the location in which discharges of water for dust suppression have been approved, the permittee shall notify NMED for approval in accordance with D107 prior to the proposed change.

C111 Domestic Wastewater Treatment Facility

- A. The permittee shall utilize operators, certified by the State of New Mexico at the appropriate level, to operate the wastewater collection, treatment, and disposal system. The operations and maintenance of all or any part of the wastewater system shall be performed by, or under the direct supervision of, a certified operator. [Subsection C of 20.6.2.3109 NMAC, 20.7.4 NMAC]

C112 Flow Measurement

- A. Pursuant to Paragraph (2) of 20.6.7.18.E NMAC, the permittee shall visually inspect all flow meters on a monthly basis for evidence of malfunction and repair or replace malfunctioning flow meters within 30 days of or as soon as practicable following discovery.

C113 Monitoring and Reporting

- A. Pursuant to applicable requirements in Sections 20.6.7.28 and 20.6.7.29 NMAC, the permittee shall collect, preserve, transport, and analyze all ground water, process water, tailings slurry, impacted stormwater, seep, spring, and surface water samples from the facility in accordance with Table 2 located on Page 32 of this Discharge Permit, and any additional requirements listed in this Discharge Permit. Table 2 of this Discharge Permit provides a summary the monitoring and reporting requirements. Figures 2 and 3, located on Pages 35-36 of this Discharge Permit, designate sampling locations.
- B. Samples of pit sump water, stormwater, PLS, seeps, and process water shall be analyzed for total concentrations for metal parameters (Suite C of Table 2) and dissolved concentrations for all parameters (including metal parameters) in accordance with Table 2 of this Discharge Permit. Samples of ground water and springs shall be analyzed for dissolved concentrations in accordance with Table 2 of this Discharge Permit.
- C. The permittee shall submit monitoring reports to NMED on a semi-annual basis that contain all quarterly monitoring data and information collected pursuant to the requirements of this Discharge Permit, and applicable requirements of Section 20.6.7.29 NMAC. Semi-annual reports are due by February 28 and August 31 of each year. Data required to be submitted annually shall be submitted in the monitoring report due by February 28 of each year.
- D. Pursuant to Subsection L of 20.6.7.28 NMAC, the permittee shall submit to NMED ground water elevation contour map(s) on a semi-annual basis and a map (or maps) showing the extent of the OPSDA and area of open pit hydrologic containment ("AOHPC") on an annual basis. The ground water elevation contour map(s) shall be of an appropriate scale to show ground

water elevation contours for the Copper Flat Mine; the contour maps shall include land surface topographic contours with appropriate contour intervals and shall include the monitoring wells that the ground water data is based on. The maps shall be submitted in the semi-annual monitoring reports in the format specified by Subsection C of 20.6.7.29 NMAC.

- E. Implementation of all monitoring and reporting requirements listed in this Discharge Permit shall commence 180 days before emplacement of ore, waste rock, or discharge of tailings at an individual waste rock stockpile or tailings impoundment to allow for sampling and reporting prior to discharge, except as required under abatement pursuant to C114.C and C114.D.
- F. The Permittee shall submit annually an updated Sitewide Water Management Plan that meets at a minimum the requirements of Paragraph (4) of 20.6.7.17.C NMAC (Stormwater Management Plan), Subsection C of 20.6.7.24 NMAC (Mine Operation Water Management Plan), and Subsection K of 20.6.7.30 NMAC (Interim Emergency Water Management Plan). The update shall be submitted to NMED as an attachment to the monitoring report due on February 28 of each year.
- G. Requests to change monitoring and reporting requirements may require an amendment or modification to this Discharge Permit as required by the secretary. [20.6.2.7 NMAC]

H. Ground Water

1. Pursuant to Subsection B of 20.6.7.28 NMAC the permittee "shall monitor ground water quality as close as practicable around the perimeter and downgradient of each open pit, waste rock stockpile, tailings impoundment, process water impoundment, and impacted stormwater impoundment."
2. Pursuant to Paragraph (1) of 20.6.7.28.B NMAC, the existing monitoring wells listed in Table 2 of this Discharge Permit, except GWQ-1 and GWQ-8 as discussed in C111.G.4 below, have been deemed appropriate by NMED for continued use as ground water monitoring wells under this Discharge Permit. These ground water monitoring wells, installed prior to the effective date of the Copper Mine Rule, have been identified to be constructed in accordance with the Copper Mine Rule.
3. Pursuant to Subsection G of 20.6.7.28 NMAC, the permittee shall sample and analyze ground water quarterly from all monitoring wells in accordance with Table 2 of this Discharge Permit, and applicable requirements of Subsection F of 20.6.7.28 NMAC. Analytical results shall be submitted in the semi-annual monitoring reports in the format specified by Subsection C of 20.6.7.29 NMAC.
4. Monitoring Wells GWQ-1 and GWQ-8 are not constructed in accordance with Section 20.6.7.28 NMAC; however, these wells are authorized for incorporation into the monitoring network to provide contextual ground water information for this Discharge Permit.

5. Pursuant to Paragraph (a) of 20.6.7.28(2) NMAC, the permittee shall install all proposed monitoring wells at least 180 days before emplacement of ore, waste rock, or discharge of tailings or other contaminants at an individual waste rock stockpile or tailings impoundment to allow sampling prior to discharge, except as required under abatement pursuant to C114.C and C114.D.
 - a. The permittee shall provide NMED with a definitive installation schedule as project approval dates become more certain.
 - b. All proposed monitoring wells shall be installed in accordance with Subsections B, C, D and E of 20.6.7.28 NMAC. Within 15 days of completion of each new monitoring well the permittee shall provide NMED with depth-to-water measurements and water quality field parameter data. Pending ground water conditions in the newly installed monitoring wells, additional requirements may be necessary. The permittee shall notify NMED in writing a minimum of one week prior to the start of installation of the monitoring wells. Upon completion of the installation of the monitoring wells, the permittee shall submit to NMED a monitoring well completion report for all newly-installed monitoring wells in accordance with the applicable requirements of Subsection K of 20.6.7.28 NMAC.
6. The permittee is authorized to plug and abandon Monitoring Wells GWQ-11, GWQ94-13, GWQ94-16, GWQ94-17, GWQ94-18, GWQ94-19, GWQ94-20, IW-1, IW-2, IW-3, NP-2, NP-3, NP-5, GWQ11-25A and GWQ11-25B, which will be buried during construction of the TSF and enlargement of the open pit (GWQ11-25A, and GWQ11-25B).
 - a. Monitoring wells shall be plugged and abandoned in accordance with the attachment titled, *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions*, Revision 1.1, March 2011, and all applicable local, state, and federal regulations, including 19.27.4 NMAC.
 - b. The permittee shall submit documentation describing the well abandonment procedures in accordance with the attachment titled, *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions*, Revision 1.1, March 2011. The well abandonment documentation shall be submitted to NMED with the next semi-annual monitoring report for this Discharge Permit upon completion of abandonment procedures.
 - c. Pursuant to Subsection B of 20.6.7.30 NMAC, NMED may require replacement monitoring wells.
7. The permittee shall include Monitoring Wells NP-1, NP-4, GWQ-10, GWQ94-21A, GWQ94-21B, GWQ94-14, GWQ94-15, GWQ11-25A, and GWQ11-25B in the monitoring plan until expansion of the TSF requires plugging and abandonment of these wells.
8. The permittee shall submit a request in accordance with D105 prior to plugging and abandonment of any monitoring well.

I. Additional Monitoring Wells

1. The permittee shall install two additional monitoring well (PWQ-23, PGW-24). PGQ-23 shall be located along the southwest toe of the TSF between GWQ-6 and GWQ-12, and the PGQ-24 shall be located along the northeast toe of the WRSP-3 between PGWQ-3 and PGWQ-4.
 2. Pursuant to Subsection A of 20.6.7.28 NMAC, the permittee shall submit a map identifying the proposed locations and provide construction details for the monitoring wells for NMED approval a minimum of 30 days prior to installation.
 3. Installation of the monitoring wells shall be in accordance with Subsections B, C, D and E of 20.6.7.28 NMAC.
- J. The permittee shall notify NMED in writing a minimum of one week prior to the start of installation of the monitoring well required in C114.C.3. Upon completion of the installation of the monitoring well, the permittee shall submit to NMED monitoring well completion report for the newly-installed monitoring well in accordance with the applicable requirements of Subsection K of 20.6.7.28 NMAC.

K. Surface Water

1. The permittee shall analyze surface water collected from five surface water auto-sampling ports (SWQ-1 through SWQ-5) located in Grayback Arroyo in accordance with the applicable requirements of the Revised Application and Subsection N of 20.6.7.28 NMAC. The surface water collection ports shall be checked after each precipitation event of 0.5 inch or greater at the Copper Flat Mine. If sufficient water is present, a sample shall be collected and analyzed. The permittee shall attempt to collect samples from the collection ports as soon as practicable after the precipitation event. No more than one surface water sample per port may be collected in a 24-hour period, and no more than two surface water samples per port are required to be collected per quarter. Samples shall be analyzed for total and dissolved concentrations of the analytes listed on Table 2 of this Discharge Permit. Analytical results shall be submitted in the semi-annual monitoring reports in the format specified by Subsection C of 20.6.7.29 NMAC.
2. The permittee shall sample and analyze surface water collected quarterly from any seeps or springs, if encountered, outside the OPSDA in accordance with the schedule listed in Table 2 of this Discharge Permit, and applicable requirements of Subsection N of 20.6.7.28 NMAC. Analytical results shall be submitted in the semi-annual monitoring reports in the format specified by Subsection C of 20.6.7.29 NMAC.

L. Copper Flat Open Pit

1. Pursuant to Subsection C of 20.6.7.24 NMAC, the permittee shall submit on an annual basis a mine operation water management report summarizing the pit dewatering activities for the Copper Flat Open Pit for the previous year, including reporting on volumes of water

pumped to dewater the pit and location of pumping. . The report shall also discuss changes and planned activities for dewatering the Copper Flat Open Pit for the coming year. The planned future dewatering activities shall be incorporated into the annual Sitewide Water Management Plan update required pursuant to C113.F.

M. Waste Rock Stockpiles

1. Pursuant to Paragraph (7) of 20.6.7.21.D NMAC, the permittee shall submit on an annual basis an operating plan that describes the sequencing of waste rock deposition on the waste rock stockpiles, including the volume and location of NPAG waste rock material placed in the past year and a proposal for material placement for the next year, and describes the operation of any applicable systems utilized to contain or transport process water or impacted stormwater from the waste rock stockpiles. The operating plan shall be submitted with the monitoring report due by February 28 of each year.

N. Copper Crushing, Milling, Concentrator, and Tailings Storage Facility Units

1. Pursuant to Subparagraph (j) of 20.6.7.22.C(1) NMAC, the permittee shall submit on an annual basis an operating plan that describes the sequencing of tailings deposition on the TSF and describes the operation of any applicable systems utilized to contain or transport process water and measures taken to manage the surface impoundment area to maintain adequate freeboard.

O. Discharge Volumes

1. The permittee shall measure and report discharge volumes for process water, liner solution collection systems, tailings and impacted stormwater discharges in accordance with Subsections B, E, and F of 20.6.7.29 NMAC and the flow metering plan submitted with the Revised Application. Flow meter locations used for monitoring and reporting are schematically displayed on Figure 3 of this Discharge Permit. Discharge volume reporting shall be submitted in the semi-annual monitoring reports in the format specified by Subsection C of 20.6.7.29 NMAC. In addition to applicable discharge volume reporting required by Subsections B, E, and F of 20.6.7.29 NMAC, additional discharge volume reporting for the following shall be measured and reported:
 - a. The daily volume and source of water used for dust suppression.

P. Flow Measurement Report

1. Pursuant to Subparagraph (a) of 20.6.7.18.E.2 NMAC, the permittee shall submit a report of repaired or replaced flow meters in the semi-annual monitoring reports that include a description of any flow meter malfunctions with a statement verifying the repair and description of calibration of the flow meter pursuant to Paragraph (3) of 20.6.7.18.E NMAC.

Q. Impoundment Leak Detection/Collection System Report

1. Pursuant to Subparagraph (b) of 20.6.7.18.F.2 NMAC, the permittee shall submit a report of repaired or replaced leak detection/collection system components in the semi-annual monitoring reports.

R. Meteorological Data

1. Meteorological data shall be measured and reported as stipulated in the Meteorological Plan submitted with the Revised Application. Pursuant to Subsection G of 20.6.7.29 NMAC, tabulated data shall be submitted to NMED in the monitoring report due by February 28 of each year.

C114 Contingency Plan

- A. The permittee shall comply with all applicable contingency requirements and submit to NMED all applicable information or documentation specified in Subsections A through J of 20.6.7.30 NMAC.
- B. Pursuant to Subsection G of 20.6.7.30 NMAC, discharges of process water, impacted stormwater, or seepage that exceed the standards of Section 20.6.2.3103 NMAC to unauthorized areas must be reported under Section 20.6.2.1203 NMAC.
- C. Pursuant to Subsection K of 20.6.7.30 NMAC, the permittee shall submit to NMED for approval an Interim Emergency Water Management Plan no less than 60 days prior to discharge at the mine facility. The Interim Emergency Water Management shall be a component of the Sitewide Water Management Plan required in C108.A.
- D. Pursuant to Subsection I of 20.6.7.30 NMAC, the permittee shall notify NMED of any significant erosion or condition that may compromise conveyance structures utilized in DP-1840.
- E. If NMED or the permittee identifies any other failures of the discharge plan or system not specifically noted in this permit, NMED may require the permittee to develop and submit contingency plans and schedules for NMED approval to address such failures. [20.6.2.3107.A.10 NMAC]

C115 Closure Plan

- A. Closure of all mine units associated with this Discharge Permit shall be performed in accordance with the requirements of Sections 20.6.7.33 and 20.6.7.34 NMAC, the Closure/Closeout Plan contained in the Revised Application, this Discharge Permit as applicable, and the final Closure/Closeout Plan approved by the New Mexico Mining and Minerals Division pursuant to the New Mexico Mining Act.

- B. Pursuant to Paragraph (4) of 20.6.7.33.F NMAC and Subsection F of 20.6.7.34 NMAC, the permittee shall submit for NMED approval at least sixty days prior to construction, a Construction Quality Assurance/Construction Quality Control (CQA/CQC) plan for any mine units regulated pursuant to DP-1840 where cover is applied under an approved Closure/Closeout Plan.
- C. For each mine unit closed, the closure period shall cease, and the post-closure period shall commence following NMED approval of a final CQA/CQC report that is in accordance with Subsection G of 20.6.7.34 NMAC.
- D. The permittee shall provide a workplan and an implementation schedule, as a component of the Test Plot Program, for NMED approval within 90 days of the effective date of this permit (by DATE) to perform soil water characteristic curve laboratory analysis on the proposed reclamation cover material (RCM). The workplan shall be designed to verify Copper Mine Rule water holding capacity requirements pursuant to Subsection F of 20.6.7.33 NMAC. Based on the results of developed soil water characteristic curves, the permittee will be required to implement an appropriate material handling plan at closure to ensure the emplaced cover material textural characteristics achieves the water holding capacity required pursuant to Section 20.6.7.33 NMAC. Final RCM approval is subject to a demonstration that Copper Mine Rule requirements will be met, and concurrence from the New Mexico Mining and Minerals Division that requirements of the Mining Act will be met.
- E. To demonstrate that the proposed RCM material will be capable of sustaining plant growth without continuous augmentation and have erosion resistant capabilities as required pursuant to Subsection F of 20.6.7.33 NMAC, the permittee shall conduct a RCM Test Plot Program. The RCM Test Plot Program shall be conducted in accordance with all approved work plans, and applicable New Mexico Mining and Minerals Division requirements.
- F. In accordance with Subsection H of 20.6.7.33 NMAC, the permittee shall manage all process water at closure pursuant to the water management plan described in the Revised Application.
- G. Surface water quality standards will not apply to the pit lake water body that will exist at closure so long as the pit lake remains a hydrologic evaporative sink and the pit lake water body remains wholly on private land (20.6.4.7(S)(5) NMAC).
- H. Closure of EWRSP-1 and EWRSP-2B shall be completed during the preproduction period of its mining operation in accordance with the requirements of Sections 20.6.7.33 and 20.6.7.34 NMAC, the Revised Application and this Discharge Permit, as applicable. Closure of EWRSP-1 and EWRSP-2B shall be completed no later than three years from the effective date of this Discharge Permit.
- I. The southern slopes of EWRSP-4 facing Grayback Arroyo shall be reclaimed during the preproduction period of its mining operation, and the top surface shall be filled and graded to a

1% slope in accordance with the requirements of Sections 20.6.7.33 and 20.6.7.34 NMAC, the Revised Application and this Discharge Permit, as applicable.

J. Post-Closure Conditions

1. Post-closure requirements shall be performed in accordance with the applicable requirements of Section 20.6.7.35 NMAC, and in accordance with the Closure/Closeout Plan and associated materials submitted as part of this Discharge Permit. Pursuant to Subsection D of 20.6.7.35 NMAC, the permittee shall submit to NMED semi-annual reports pursuant to the schedule in Subsection A of 20.6.7.29 NMAC that include, but are not limited to, a description and the results of post-closure monitoring, any work completed during the preceding semi-annual period, any maintenance and repair work conducted for any closure unit, status of post-closure activities, and semi-annual potentiometric maps.
2. Pursuant to Subsection E of 20.6.7.35 NMAC, the contingency requirements of Section 20.6.7.30 NMAC apply to any deficiencies discovered during post-closure monitoring and inspections, including, but not limited to, the requirements for possible corrective action plans, abatement plans, monitoring well replacement, reporting and correction of unauthorized discharges, and significant erosion of, or ponding of water on, a cover system.

C116 Abatement Plan

- A. The permittee has been required to submit to NMED for approval a proposed abatement plan for the Copper Flat Mine. All abatement plans and activities shall be performed in accordance with Sections 20.6.2.4000 through 4115 NMAC and Paragraphs (3) and (4) of 20.6.7.30.A NMAC.
- B. Within 180 days of the date of this Discharge Permit (by DATE), the permittee shall submit a workplan to evaluate any potential ongoing sources of surface or ground water impacts to Grayback Arroyo and connected aquifers. The workplan shall include a schedule and any corrective action measures, if necessary, to address any currently known source areas of impacts to Grayback Arroyo and connected aquifers pursuant to Sections 20.6.2.4000 NMAC through 4115 NMAC.

C. Additional Monitoring Wells

4. In addition to the monitoring wells already proposed in the Revised Application, the permittee shall install two additional monitoring wells to evaluate current ground water conditions proximal to the open pit and historic waste rock stockpiles. One monitoring well shall be located to the northeast side of the open pit at the intersection of ground water contour interval 5450 feet and the OPSDA (PGWQ-21) as shown on Figure 2 of this Discharge Permit, and a second monitoring well shall be located southwest of the open pit near the intersection of ground water contour interval 5480 feet and the OPSDA between GWQ-11-24B and GWQ11-26 (PGWQ-22).

5. Pursuant to Subsection A of 20.6.7.28 NMAC, the permittee shall submit a map identifying the proposed locations and provide construction details for the monitoring wells for NMED approval a minimum of 30 days prior to installation. The proposal shall consider the necessity of a nested pair monitoring well(s) to evaluate ground water conditions in different water bearing units or to account for ground water decline due to pit dewatering.
6. Within 180 days of the date of this Discharge Permit (by DATE), the permittee shall install monitoring wells PGWQ-1, PGWQ-5, PGWQ-13, PGWQ-20, PGWQ-21, and PGWQ-22 to provide additional information regarding the horizontal and vertical extent and magnitude of ground water contamination as required pursuant to Sections 20.6.2.4000 NMAC through 20.6.2.4115 NMAC.
7. Installation of the monitoring wells shall be in accordance with Subsections B, C, D and E of 20.6.7.28 NMAC.
8. The permittee shall notify NMED in writing a minimum of one week prior to the start of installation of the monitoring wells required in C114.C.3. Upon completion of the installation of the monitoring wells, the permittee shall submit to NMED monitoring well completion reports for the newly-installed monitoring wells in accordance with the applicable requirements of Subsection K of 20.6.7.28 NMAC.

D. Additional Stage 1 Abatement Plan Ground and Surface Water Quality Information

1. The permittee shall collect an additional four quarters of ground and surface water data from the monitoring wells required in C114.C.3, and the previously approved Stage 1 Abatement Plan sampling locations shown in Table 2 of the document entitled, "Results from First Year of Stage 1 Abatement Investigation at the Copper Flat Mine Site Near Hillsboro, New Mexico," dated May 2014.
2. The initial abatement sampling event shall commence following completion of installation of monitoring wells required in C114.C.3. Analytical results shall be submitted semi-annually in the format specified by Subsection C of 20.6.7.29 NMAC.

C117 Financial Assurance

- A. The permittee shall maintain joint financial assurance with NMED and the Mining and Minerals Division of the New Mexico Energy, Minerals and Natural Resources Department to cover costs associated with closure and post-closure activities approved under this Discharge Permit. [20.6.2.3107 NMAC]

Part D GENERAL CONDITIONS

NMED has reviewed the Discharge Plan for the proposed discharge permit and has determined that the provisions of the Copper Mine Rule and applicable ground water quality standards will be

met in accordance with this Discharge Permit. General conditions pursuant to 20.6.2 NMAC and 20.6.7 NMAC are listed below.

D100 Enforcement

- A. Any violation of the requirements and conditions of this Discharge Permit, including any failure to allow NMED staff to enter and inspect records or facilities, or any refusal or failure to provide NMED with records or information, may subject the permittee to a civil enforcement action pursuant to the NMSA 1978, Section 74-6-10(A) and (B). Such action may include a compliance order requiring compliance immediately or in a specified time, assessing a civil penalty, modifying or terminating the discharge permit, or any combination of the foregoing; or an action in district court seeking injunctive relief, civil penalties, or both. Pursuant to the NMSA 1978, Section 74-6-10(C) and 74-6-10.1, civil penalties of up to \$15,000 per day of noncompliance may be assessed for each violation of the NMSA 1978, Section 74-6-5, the WQCC Regulations, or this Discharge Permit, and civil penalties of up to \$10,000 per day of noncompliance may be assessed for each violation of any other provision of the WQA, or any regulation, standard, or order adopted pursuant to such other provision. In any action to enforce this Discharge Permit, the permittee waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. The permittee does not waive any argument as to the weight such evidence should be given. [74-6-10 WQA, 74-6-10.1 WQA]
- B. Pursuant to the NMSA 1978, Section 74-6-10.2(A-F), criminal penalties may be assessed for any person who knowingly violates or knowingly causes or allows another person to:
1. Make any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or required to be maintained under the WQA;
 2. Falsify, tamper with or render inaccurate any monitoring device, method or record required to be maintained under the WQA; or
 3. Fail to monitor, sample or report as required by a permit issued pursuant to a state or federal law or regulation.

D101 General Inspection and Entry Requirements

- A. Nothing in this Discharge Permit shall be construed as limiting in any way the inspection and entry authority of NMED under the WQA, the WQCC Regulations, or any other applicable law or regulation. [20.6.2.3107 NMAC, 74-6-9(B) & (E) WQA]
- B. The permittee shall allow the Secretary or an authorized representative, upon the presentation of credentials, to [20.6.2.3107.D NMAC, 74-6-9(B) & (E) WQA]:
1. Enter at regular business hours or at other reasonable times upon the permittee's premises or other location where records must be kept under the conditions of this Discharge Permit,

or under any federal or WQCC regulation.

2. Inspect and copy, during regular business hours or at other reasonable times, any records required to be kept under the conditions of this Discharge Permit, or under any federal or WQCC regulation.
3. Inspect, at regular business hours or at other reasonable times, any facility, equipment (including monitoring and control equipment or treatment works), practices or operations regulated or required under this Discharge Permit, or under any federal or WQCC regulation.
4. Sample or monitor, at reasonable times for the purpose of assuring compliance with this Discharge Permit or as otherwise authorized by the WQA, any effluent, water contaminant, or receiving water at any location before or after discharge.

D102 General Engineering, Operational and Setback Requirements

- A. Mine units shall be designed in accordance with the applicable requirements of Section 20.6.7.17 NMAC.
- B. Mine units shall be operated in accordance with the applicable requirements of Section 20.6.7.18 NMAC.
- C. The permittee shall meet all applicable setback requirements pursuant to Section 20.6.7.19 NMAC.

D103 General Record Keeping and Reporting Requirements

- A. The permittee shall retain written records at the copper mine facility as required pursuant to Section 20.6.7.37 NMAC.
- B. The permittee shall furnish to NMED, within a reasonable time, any documents or other information which it may request to determine whether cause exists for modifying, terminating and/or renewing this Discharge Permit or to determine compliance with this Discharge Permit. The permittee shall also furnish to NMED, upon request, copies of documents required to be kept by this Discharge Permit. [20.6.2.3107.D NMAC, 74-6-9 (B) & (E) WQA]

D104 General Sampling and Analytical Methods

- A. Unless otherwise approved in writing by NMED, the permittee shall conduct sampling and analysis in accordance with the most recent edition of the following documents [Subsection B of 20.6.2.3107 NMAC]:
 1. American Public Health Association, Standard Methods for the Examination of Water and Wastewater (18th, 19th, or current)

2. U.S. Environmental Protection Agency, Methods for Chemical Analysis of Water and Waste
3. U.S. Geological Survey, Techniques for Water Resources Investigations of the U.S. Geological Survey
4. American Society for Testing and Materials, Annual Book of ASTM Standards, Part 31. Water
5. U.S. Geological Survey, et al., National Handbook of Recommended Methods for Water Data Acquisition
6. Federal Register, latest methods published for monitoring pursuant to Resource Conservation and Recovery Act regulations
7. Methods of Soil Analysis: Part 1. Physical and Mineralogical Methods; Part 2. Microbiological and Biochemical Properties; Part 3. Chemical Methods, American Society of Agronomy

D105 Monitoring Well Abandonment

- A. The permittee shall submit a written request for NMED approval to amend or modify this Discharge Permit at least 30 days prior to the anticipated destruction or removal of any monitoring wells required under this Discharge Permit. Monitoring well plugging and abandonment shall be completed in accordance with the *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions*, Revision 1.1, March 2011, or according to regulations issued by the Office of the State Engineer in 19.27.7 NMAC, unless an alternate method is approved by NMED. [20.6.2.3107 NMAC]
- B. The request required in D105.A shall include the following information:
 1. A scaled map showing the location of the monitoring well(s) and the mine units it is intended to monitor;
 2. The purpose for plugging and abandoning the monitoring well(s);
 3. Details, if available, on the monitoring well(s) including depth-to-water elevation, top-of-casing elevation, construction and lithologic logs;
 4. Ground water analytical results from a minimum of the most recent eight sampling events from the monitoring well(s);
 5. Proposed replacement well(s), if applicable, and;
 6. Same details, as applicable, as provided in D105.B.1, D105.B.3, and D105.B.4 are required for the proposed replacement monitoring well(s). New replacement wells require monitoring well completion reports pursuant to Subsection K of 20.6.7.28 NMAC.

D106 Reporting Requirements for Unauthorized Discharges

- A. In the event of a spill or release that is not authorized under this Discharge Permit, the permittee shall initiate the notifications and corrective actions as required in 20.6.2.1203 NMAC. The permittee shall take immediate corrective action to contain and remove or mitigate any damage caused by the discharge. Within 24 hours after discovery of the discharge, the permittee shall verbally notify NMED and provide the information required by Paragraph (1) of 20.6.2.1203.A NMAC, and to determine applicable monitoring and reporting requirements pursuant to Paragraphs (2) and (3) of 20.6.7.29.B NMAC. Within 7 days of discovering of a discharge reportable under 20.6.2.1203 NMAC, the permittee shall submit a written report to NMED verifying the oral notification and providing any additional information or changes. The permittee shall submit a corrective action report within 15 days after discovery of the discharge. [20.6.2.1203 NMAC]
- B. As part of the 24-hour spill notification requirements, the permittee shall submit a figure to NMED that clearly displays the location (or locations) of the spill and identifies nearby mine units and/or location information in latitude/longitude coordinates in decimal degrees (XX.XXXXXX and -XXX.XXXXXX, respectively), using a specified datum of WGS 84. Submittal of location information in Universal Transverse Mercator (UTM) format is also acceptable.

D107 Modifications and Amendments

- A. In the event the permittee proposes a change to the facility or the facility's discharge that would result in a change in the volume discharged; the location of the discharge; or the amount or character of water contaminants received, treated, or discharged by the facility, the permittee shall notify and obtain approval from NMED prior to implementing such changes. Such changes may require modification or amendment of this Discharge Permit, including payment of applicable fees as specified in Section 20.6.7.9 NMAC. [20.6.2.3107.C NMAC, 20.6.2.3109.E NMAC, 20.6.7.7.B(19) NMAC, 20.6.7.14 NMAC]
- B. For any proposed change that would meet the definition of a discharge permit modification as specified in Paragraph P of 20.6.2.7 NMAC, the permittee shall submit for NMED approval an application for modification of this Discharge Permit pursuant to Sections 20.6.7.10 and 20.6.7.11 NMAC. Plans and specifications shall be included in the application, as applicable, pursuant to Section 20.6.7.17 NMAC.
- C. For any proposed change that meets the definition of a discharge permit amendment as specified in Paragraph 19 of 20.6.7.7.B NMAC, the permittee shall submit to NMED a request for an amendment to this Discharge Permit pursuant to Section 20.6.7.14 NMAC. Plans and specifications shall be included in the request, as applicable, pursuant to Section 20.6.7.17 NMAC.

- D. Pursuant to Section 20.6.2.3109 NMAC, NMED reserves the right to require a discharge permit modification in the event NMED determines that the requirements of 20.6.2 NMAC are being or may be violated, or the standards of Section 20.6.2.3103 NMAC are being or may be violated. This may include a determination that structural controls and/or management practices approved under this Discharge Permit are not protective of groundwater quality, and that more stringent requirements are needed to protect groundwater quality. The permittee may be required to abate water pollution.

D108 Compliance with Other Laws

- A. Nothing in this Discharge Permit shall be construed in any way as relieving the permittee of the obligation to comply with all applicable federal, state, and local laws, regulations, permits or orders. [20.6.2 NMAC, 20.6.7.8(D) NMAC]

Table 1 – Copper Flat Development Sequence and Schedule

Project Build Out Sequence					Project Reclamation Sequence	
Year	Project Activity	Disturbed Acres		19.10.1602.D(15)(c) Reference	Year	Reclamation Activity
		Facility	Cumulative			
	Mobilize Construction	0.00	0.00	Other Facility or Structures (c)xlii		
	Plant Site Grading	84.41	84.41	Other Facility or Structures (c)xlii		
	TSF Phase 1	451.50	535.91	Tailings Storage Facility (c)vii		
	Top Dressing Stockpile 1	29.33	565.24	Topsoll & Topdressing Stockpiles (c)xi		
	Construct Mill	8.51	573.75	Mills (c)viii		
	Construct Ancillary Facilities	8.89	582.64	Other Facility or Structures (c)xlii		
	Storage Areas	3.22	585.86	Storage Areas (c)x		
1	EWRSP 1	15.34	601.20	Waste Rock Stockpiles (c)xii	1	
	EWRSP 2A	8.33	609.53	Waste Rock Stockpiles (c)xii		
	EWRSP 2B	12.73	622.26	Waste Rock Stockpiles (c)xii		
	EWRSP 3	19.54	641.80	Waste Rock Stockpiles (c)xii		
	EWRSP 4	18.10	659.90	Waste Rock Stockpiles (c)xii		
	Mine Haul Roads	5.97	665.87	Waste Rock Stockpiles (c)xii		
	Impoundments : TSF; Proc; SW A	12.92	678.79	Impoundments (c)ii		
	Collection Ditches: SW A	1.38	680.17	Impoundments (c)ii		
	Top Dressing Stockpile 2	31.55	711.72	Topsoll & Topdressing Stockpiles (c)xi		
	Top Dressing Stockpile 3	3.53	715.25	Topsoll & Topdressing Stockpiles (c)xi		
	Construct Ancillary Facilities	21.10	736.35	Other Facility or Structures (c)xlii		
	Open Pit	82.66	819.01	Open Pit (c)vi		
	WRSP 1	3.97	822.98	Waste Rock Stockpiles (c)xii	2	Reclaim EWRSP 1
	WRSP 2	2.44	825.42	Waste Rock Stockpiles (c)xii		Reclaim EWRSP 2A
	WRSP 3	6.07	831.49	Waste Rock Stockpiles (c)xii		Reclaim EWRSP 2B
	Mine Haul Roads	11.03	842.52	Waste Rock Stockpiles (c)xii		
	EWRSP 4	4.52	847.04	Waste Rock Stockpiles (c)xii		
	Ore Stockpile	2.07	849.11	Ore Stockpiles (c)i		
	Impoundments : Surge; SW B; SW C	8.99	858.10	Impoundments (c)ii		
	Collection Ditches: SW B; SW C	4.42	862.52	Impoundments (c)ii		
	Top Dressing Stockpile 3	10.58	873.10	Topsoll & Topdressing Stockpiles (c)xi		
	Open Pit	66.13	939.23	Open Pit (c)vi		
	WRSP 1	27.80	967.03	Waste Rock Stockpiles (c)xii	3	
	WRSP 2	4.88	971.91	Waste Rock Stockpiles (c)xii		
	WRSP 3	18.20	990.11	Waste Rock Stockpiles (c)xii		
	TSF Phase 2	28.22	1,018.33	Tailings Storage Facility (c)vii		
	WRSP 1	7.94	1,026.27	Waste Rock Stockpiles (c)xii		
	WRSP 2	19.51	1,045.78	Waste Rock Stockpiles (c)xii	4	
	WRSP 3	18.20	1,063.98	Waste Rock Stockpiles (c)xii		
	TSF Phase 3	28.22	1,092.20	Tailings Storage Facility (c)vii		
	Open Pit	8.27	1,100.47	Open Pit (c)vi		
	WRSP 2	14.63	1,115.10	Waste Rock Stockpiles (c)xii	5	
	WRSP 3	18.20	1,133.30	Waste Rock Stockpiles (c)xii		
	TSF Phase 4	28.22	1,161.52	Tailings Storage Facility (c)vii		
	Open Pit (buildout complete)	8.27	1,169.79	Open Pit (c)vi		
	WRSP 1	0.00	1,169.79	Waste Rock Stockpiles (c)xii	6	
	WRSP 2	4.88	1,174.67	Waste Rock Stockpiles (c)xii		
	WRSP 3	18.20	1,192.87	Waste Rock Stockpiles (c)xii		
	WRSP 2, 3	2.44	1,195.31	Waste Rock Stockpiles (c)xii		
	WRSP 3	18.20	1,213.51	Waste Rock Stockpiles (c)xii	7	
	TSF Phase 5 (buildout complete)	28.22	1,241.73	Tailings Storage Facility (c)vii		
8	WRSP 3	18.20	1,259.93	Waste Rock Stockpiles (c)xii	8	
9 - 11	WRSP 3 (buildout complete)	6.07	1,266.00	Waste Rock Stockpiles (c)xii	10 - 11	WRSP 3 Contour
12					12	WRSP 3 Contour, TSF Drawdown - Active Evaporation
13					13	Pit Rapid Fill, WRSP 2-Upper Lift Contour, WRSP 1-Contour, TSF Drawdown - Active Evaporation
14	Mining and Processing Ends				14	Rapid Fill, WRSP-2 Upper Lift Contour, WRSP 1 - Contour, Fill & Contour, WRSP 3, 2, 1, EWRSP 4 Cover & Seed, TSF Drawdown - Active Evaporation
15					15	Process Area Demo, Fill & Contour, WRSP 3, 2, 1, EWRSP 3 & 4 Contour, Cover & Seed, Pit Area Contour, TSF Contour, Drawdown - Active Evaporation
16					16	Process Area Fill & Contour, WRSP 3, 2, 1, EWRSP 3 & 4 Contour, Cover, Seed, TSF Contour, Drawdown - Active Evaporation
17					17	TSF Contour, Drawdown - Active Evaporation
18	Evaporation Pond Construction (Project Buildout Complete)	24.05	1,290.05	Impoundments (c)ii	18	TSF Contour & Cover, Drawdown - Active Evaporation, Passive Evaporation
19					19	TSF Contour, Cover, Drawdown - Passive Evaporation
20 - 21					20 - 21	TSF Contour, Cover, Seed, Drawdown - Passive Evaporation
22 - 38					22 - 38	TSF Drawdown - Passive Evaporation
39					39	TSF Evaporation Pond Fill, Cover & Seed

Table 2 – Monitoring and Reporting Summary for DP-1840

Monitoring Report Schedule of Submittal (Subsection A of 20.6.7.29 NMAC)								
1	January 1 - June 30 (Q1 and Q2 sampling quarters) – Semi-annual report due by August 31 of each year							
2	July 1 - December 31 (Q3 and Q4 sampling quarters) – Semi-annual report due by February 28 of each year							
3	Annual reports due by February 28 of each year							
Reporting Summary								
Annual Reporting Frequency	Number of Sites	Description						
2	Not Applicable	Monitoring reports – All applicable requirements of Subsections A through H of 20.6.7.29 NMAC, and C113.						
2	Not Applicable	Additional Discharge Volume reporting listed in C111.L						
2	1	Mine facility ground water elevation contour map						
1	1	OPSDA and AOPHC Map(s)						
Monitoring Schedule								
Area	Identification Number	Sampling					Notes	
		type	Q1	Q2	Q3	Q4		
Open Pit	GWQ96-22A	mw	A-F,W	A-D,W	A-D,W	A-D,W		
	GWQ96-22B	mw	A-F,W	A-D,W	A-D,W	A-D,W		
	GWQ11-26	mw	A-F,W	A-D,W	A-D,W	A-D,W		
	GWQ96-23A	mw	A-F,W	A-D,W	A-D,W	A-D,W		
	GWQ96-23B	mw	A-F,W	A-D,W	A-D,W	A-D,W		
	GWQ11-24A	mw	A-F,W	A-D,W	A-D,W	A-D,W		
	GWQ11-24A	mw	A-F,W	A-D,W	A-D,W	A-D,W		
	PGWQ-1	Pmw	A-F,W	A-D,W	A-D,W	A-D,W		
	PGWQ-2	Pmw	A-F,W	A-D,W	A-D,W	A-D,W		
	PGWQ-21	Pmw	A-F,W	A-D,W	A-D,W	A-D,W		
	PGWQ-22	Pmw	A-F,W	A-D,W	A-D,W	A-D,W		
	TSF	GWQ-1	mw & p	A-F,W	A-D,W	A-D,W	A-D,W	
		GWQ-8	mw & p	A-F,W	A-D,W	A-D,W	A-D,W	
GWQ-10		mw	A-F,W	A-D,W	A-D,W	A-D,W		
GWQ-12		mw	A-F,W	A-D,W	A-D,W	A-D,W		
NP-1		mw	A-F,W	A-D,W	A-D,W	A-D,W		
NP-4		mw	A-F,W	A-D,W	A-D,W	A-D,W		
GWQ94-14		mw	A-F,W	A-D,W	A-D,W	A-D,W		
GWQ94-15		mw	A-F,W	A-D,W	A-D,W	A-D,W		
GWQ94-21A		mw	A-F,W	A-D,W	A-D,W	A-D,W		
GWQ94-21B		mw	A-F,W	A-D,W	A-D,W	A-D,W		
GWQ13-28		mw	A-F,W	A-D,W	A-D,W	A-D,W		
PGWQ-14		Pmw	A-F,W	A-D,W	A-D,W	A-D,W		
PGWQ-15		Pmw	A-F,W	A-D,W	A-D,W	A-D,W		
PGWQ-16	Pmw	A-F,W	A-D,W	A-D,W	A-D,W			
PGWQ-18	Pmw	A-F,W	A-D,W	A-D,W	A-D,W			
PGWQ-19	Pmw	A-F,W	A-D,W	A-D,W	A-D,W			
PGWQ-23	Pmw	A-F,W	A-D,W	A-D,W	A-D,W			
TSF/UCP	PGWQ-17	Pmw	A-F,W	A-D,W	A-D,W	A-D,W		
TSF/WRSP-2 &-3	PGWQ-13	Pmw	A-F,W	A-D,W	A-D,W	A-D,W		
Surge Pond	GWQ-5R	mw	A-F,W	A-D,W	A-D,W	A-D,W		
	PGWQ-9	Pmw	A-F,W	A-D,W	A-D,W	A-D,W		
WRSP-2 &-3	PGWQ-3	Pmw	A-F,W	A-D,W	A-D,W	A-D,W		
	PGWQ-4	Pmw	A-F,W	A-D,W	A-D,W	A-D,W		
	PGWQ-5	Pmw	A-F,W	A-D,W	A-D,W	A-D,W		

	PGWQ-8	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-20	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-24	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
SW-C/ WRSP-2 & WRSP-3	PGWQ-6	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
	PGWQ-7	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
SW-A	PGWQ-10	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
PWR	PGWQ-11	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
SW-A/PWR	PGWQ-12	Pmw	A-F,W	A-D,W	A-D,W	A-D,W	
Grayback Arroyo^	SWQ-1	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	SWQ-2	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	SWQ-3	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	SWQ-4	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	SWQ-5	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
Impoundments	SW-A(M/S-9)	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	SW-B (M/S-10)	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	SW-C (M/S-11)	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	PWR (M/S-8)	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	Surge Pond (M/S-14)	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	UCP (M/S-6)	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
	TSF (M/S-4)	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
Mine Pit Water	Dewatering Sump	sw	A-F,W	A-D,W	A-D,W	A-D,W	Suite C Tot.
Seeps/Springs	Outside OPSDA only	spg/sp	A-F,W	A-D,W	A-D,W	A-D,W	If encountered
Flow Meters/Discharge Volume Reporting	M/S-1 through M/S-17		C.111.L &M	C.111.L &M	C.111.L &M	C.111.L &M	See Figure 3

Sampling Analytical Suites (dissolved concentrations in mg/L, unless otherwise noted):

A = **Field Parameters:** Temperature (°C), pH, specific conductance (µS/cm),

B = **General Chemistry and Inorganic Parameters:** alkalinity-bicarbonate (alk-HCO₃), alkalinity-carbonate (alk-CO₃), alkalinity-total (alk-Tot), calcium (Ca), chloride (Cl), cyanide (CN), fluoride (F), magnesium (Mg), potassium (K), sodium (Na), sulfate (SO₄), and total dissolved solids (TDS)

C = **Metal Parameters:** aluminum (Al), arsenic (As), barium (Ba), beryllium (Be), boron (B), cadmium (Cd), chromium (Cr), cobalt (Co), copper (Cu), iron (Fe), lead (Pb), manganese (Mn), molybdenum (Mo), nickel (Ni), selenium (Se), silver (Ag), total mercury (Hg), uranium (U), and zinc (Zn).

D = **Nutrients:** Total Kjeldahl nitrogen (TKN), and Nitrate-Nitrogen (NO₃-N)

E = **Radioactivity:** Combined Radium-226 and Radium-228 (pCi/L)

F = **Organic Parameters:** Total Petroleum Hydrocarbons (TPH), benzene, polychlorinated biphenyls (PCBs), toluene, carbon tetrachloride, 1,2-dichloroethane (EDC), 1,1-dichloroethylene (1,1-DCE), 1,1,2,2-tetrachloroethylene (PCE), 1,1,2-trichloroethylene (TCE), ethylbenzene, total xylenes, methylene chloride, chloroform, 1,1-dichloroethane, ethylene dibromide (EDB), 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2,2-tetrachloroethane, vinyl chloride, PAHs: total naphthalene plus monomethylnaphthalenes, benzo-a-pyrene

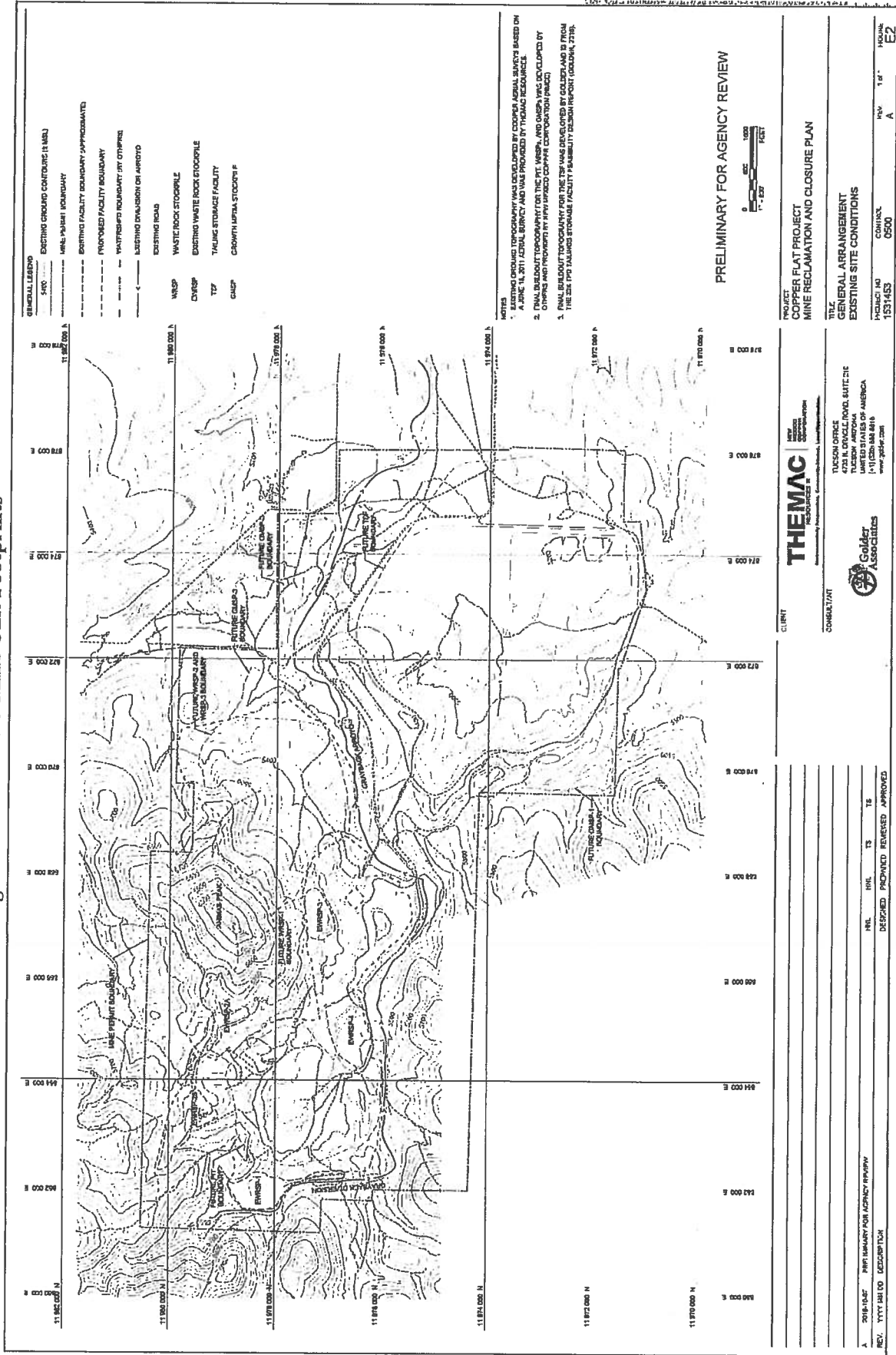
Measurements

W = Depth-to-water measurement to the nearest 0.01 foot

^ = See C111.H

Explanation to Abbreviations and Symbols		
mw = monitoring well	WRP = Waste Rock Stockpile	<u>Sampling Quarter:</u>
Pmw = proposed monitoring well	PWR = Process Water Reservoir	Q1 = Jan-Mar
sw = surface water	UCP = Underdrain Collection Pond	Q2 = Apr-Jun
p = production well	SW = Impacted Stormwater Impoundment	Q3 = Jul-Sep
spg = spring	Suite C Tot. = Total Concentrations for Suite C	Q4 = Oct-Dec
sp = seep	M/S-# = Measuring/Sampling Point	
Tnk = tank	OPSDA = Open Pit Surface Drainage Area	
	AOPHC = Area of Open Pit Hydrologic Containment	

Figure 1 – Authorized Mine Unit Footprints



NOTES

- EXISTING GROUND TOPOGRAPHY WAS DEVELOPED BY GEOPRA AERIAL SURVEYS BASED ON A JUNE 14, 2011 AERIAL SURVEY AND WERE PROVIDED BY THOMAS RESOURCE.
- FINAL BUILDOUT TOPOGRAPHY FOR THE TSP, WASTE, AND DMSHA WERE DEVELOPED BY CHRYSLER AND PROVIDED BY THE NEW MEXICO COPPER CORPORATION PROJECT.
- FINAL BUILDOUT TOPOGRAPHY FOR THE TSP WAS DEVELOPED BY GOLDEN AND IS FROM THE 2011 TSP DATED STORAGE FACILITY FEASIBILITY DESIGN REPORT (2010/06, 2318).

PRELIMINARY FOR AGENCY REVIEW

<p>THEMAC MINERAL RESOURCES CORPORATION</p>		<p>CLIENT</p>	
<p>PROJECT COPPER FLAT PROJECT MINE RECLAMATION AND CLOSURE PLAN</p>		<p>COMMITTEE G500</p>	
<p>TITLE GENERAL ARRANGEMENT EXISTING SITE CONDITIONS</p>		<p>REVISION REV. 1 OF 1</p>	
<p>CONTRACT TUCSON OFFICE 4724 N. ORACLE ROAD, SUITE 212 TUCSON, ARIZONA (520) 884-8416 www.themac.com</p>		<p>DATE 11/15/2018</p>	
<p>APPROVED</p>		<p>DESIGNED</p>	
<p>DATE</p>		<p>REVIEWED</p>	
<p>DESCRIPTION</p>		<p>APPROVED</p>	

Figure 2 – Ground and Surface Water Sampling Locations

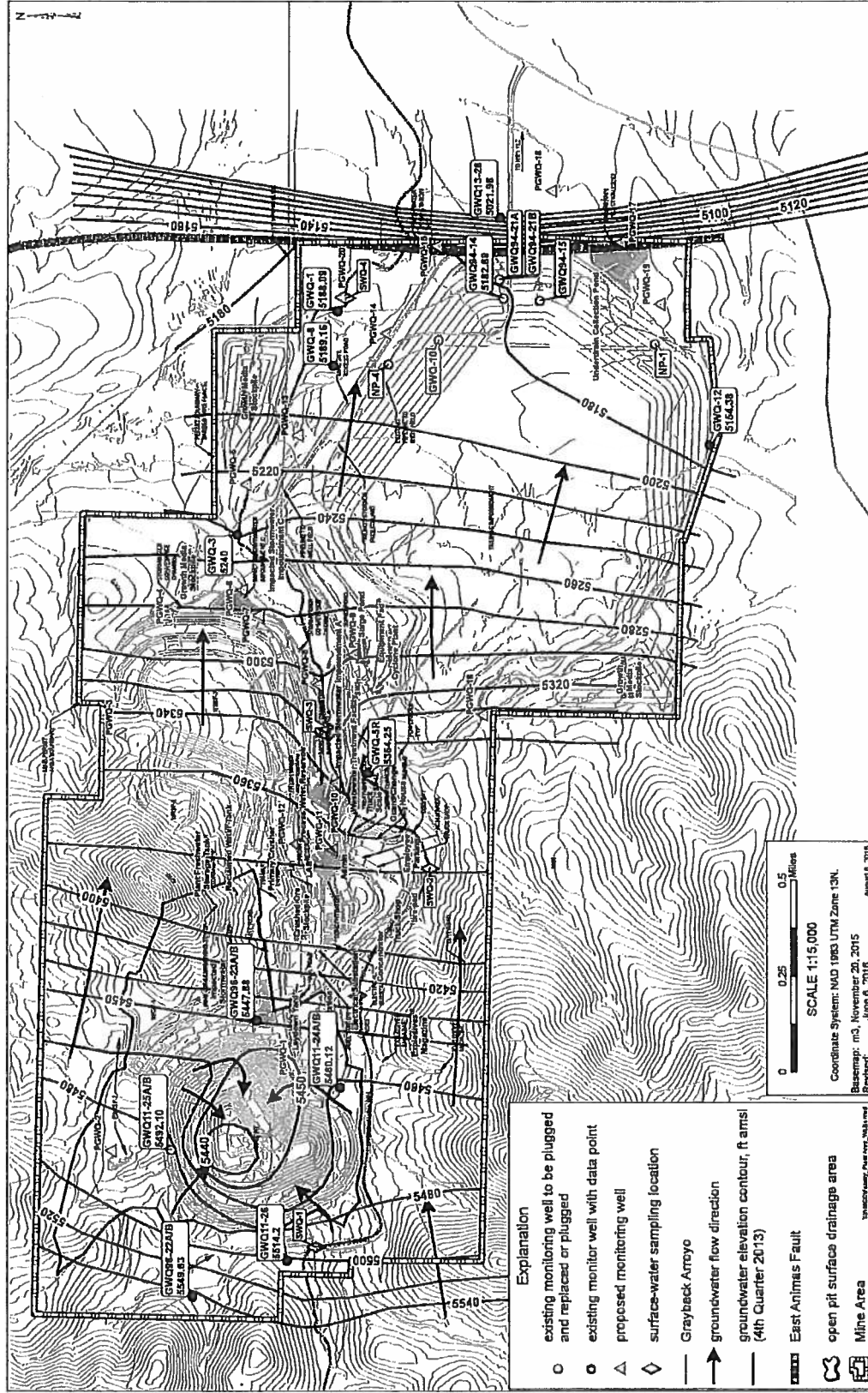
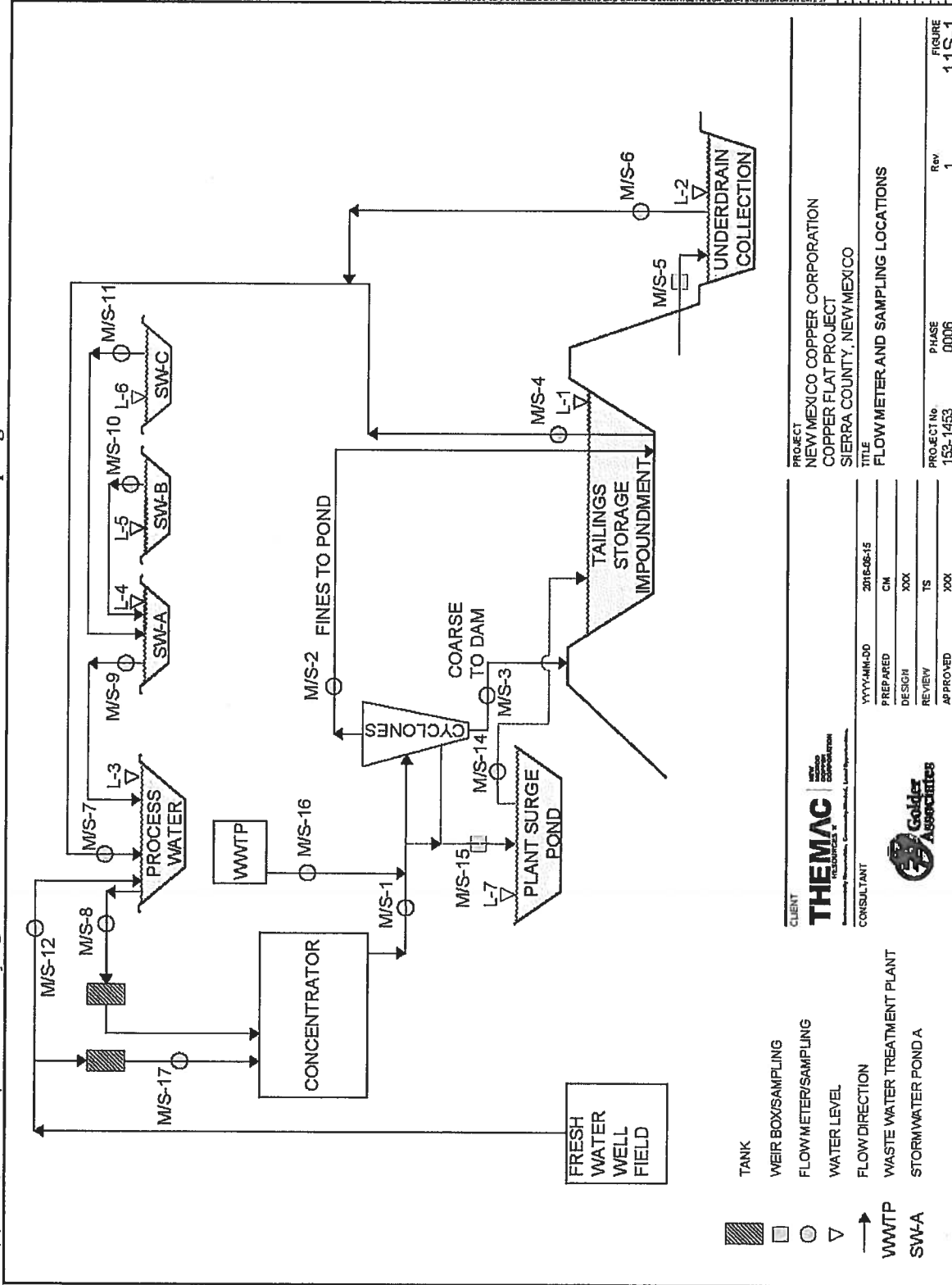


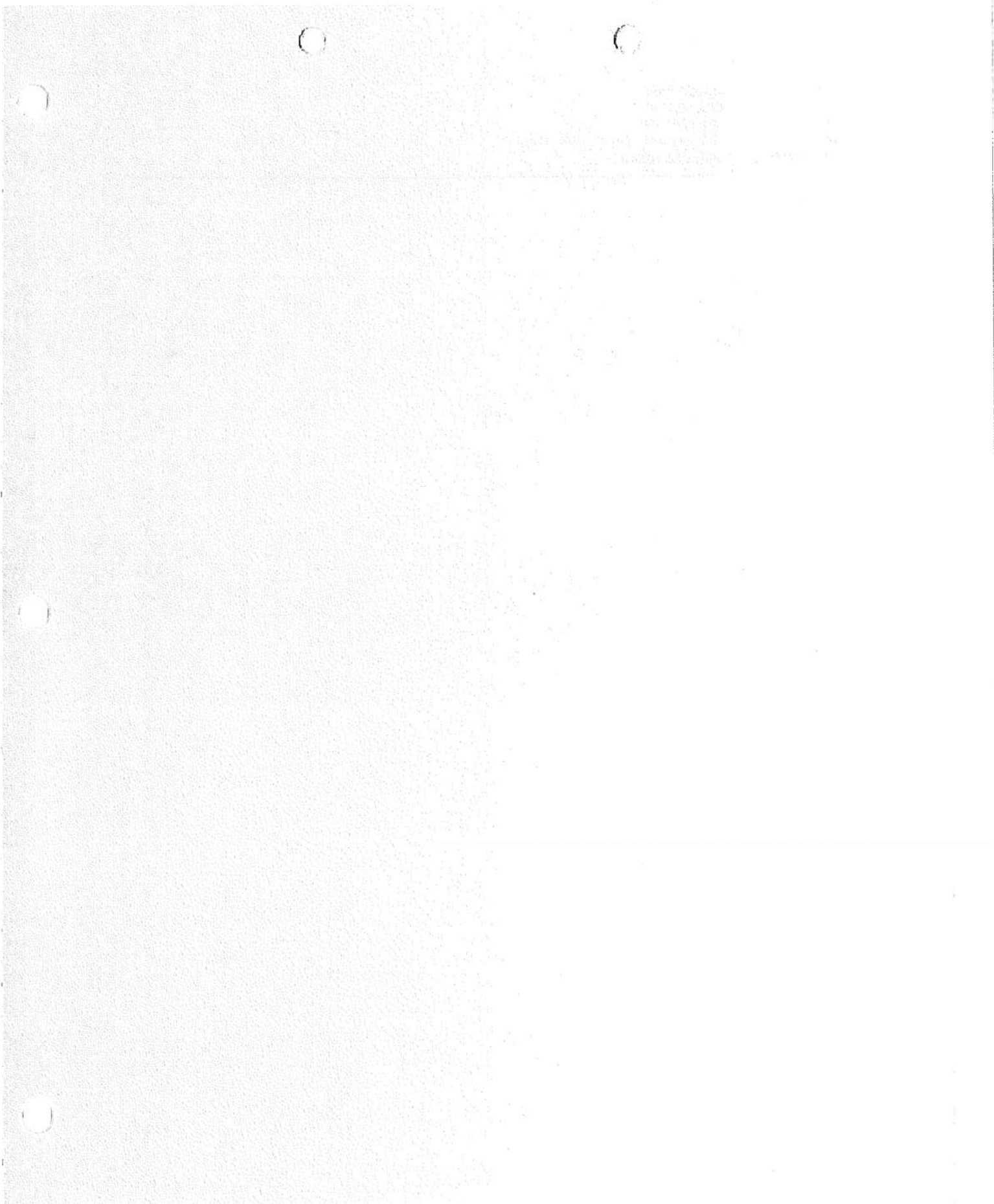
Figure 3 – Flow Meter and Process Water Sampling Locations



PROJECT	NEW MEXICO COPPER CORPORATION COPPER FLAT PROJECT SIERRA COUNTY, NEW MEXICO
TITLE	FLOW METER AND SAMPLING LOCATIONS
PROJECT No	153-1453
PHASE	0006
Rev	1
FIGURE	11S-1

CLIENT	THEMAC INCORPORATED CONSULTANT
PREPARED	2016-08-15 CM
DESIGN	XXX
REVIEW	TS
APPROVED	XXX

CLIENT	THEMAC INCORPORATED CONSULTANT
PREPARED	2016-08-15 CM
DESIGN	XXX
REVIEW	TS
APPROVED	XXX



From: [Deborah Brandt](#)
To: [Reid, Brad, NMENV](#)
Subject: Copper Flat Mine
Date: Thursday, September 13, 2018 2:10:21 PM
Attachments: [copper flat mine.docx](#)

September 13, 2018

Deborah Brandt

502 W. Hadley Ave

Las Cruces, NM 88005

Dear Brad Reid,

I have property in Kingston, NM and regularly stay there.

The draft proposal for the Copper Flat Mine should be denied for a number of reasons. There is inadequate characterization of the bedrock. Mine pollutants would probably not be adequately contained to prevent groundwater pollution.

Water quality standards are not relevantly addressed, and the proposed groundwater monitoring wells are inadequate.

The discharge permit, authorizing up to 25.3 million gallons per day of potentially polluted wastewater is wholly unacceptable. The impact on streams, humans, wildlife and endangered species could be seriously affected by contamination; even the potential risk is unacceptable.

The amount of water needed for the mines use is staggering to even consider in our arid climate. Pumping our precious water resources would adversely drain and damage our ecosystem, local streams, and the Rio Grande. Not acceptable.

NMCC is not a trustworthy steward. They have been cited for numerous violations.

There is no guarantee that the mine would meet the Water Quality Act, and in this time of loosening environmental regulations, I do not trust that any serious enforcement would occur if NMCC failed to comply.

I do not want transport trucks on highway 152. The highway was not built for that kind of traffic.

All things considered as a resident and taxpayer in Sierra County I strongly oppose a permit for Copper Flat Mine.

Thank you,

Deborah Brandt

From: Fiona Van Reisen
To: Reid, Brad, NMENV
Subject: New Mexico Copper Flat Mining -horrid idea
Date: Sunday, September 16, 2018 3:34:10 PM

Mr Reid,

Please do not go to your grave knowingly allowing this wrong to the environment. It's a lose lose and there's no coming back.

Got a conscience? It will hurt many people as well as ruining the landscape.

Please consider yourself as able to stop a wrong.

Fiona van Reisen



From: [Max Yeh](#)
To: [Baca, John, NMENV](#)
Cc: [Reid, Brad, NMENV](#)
Subject: NMED Hearing on Discharge Permlt 1840
Date: Monday, September 17, 2018 11:06:28 AM
Attachments: [BEFORE THE NEW MEXICO SECRETARY OF ENVIRONMENT.pdf](#)

Dear Mr. Baca,

Being unable to attend the hearings on Discharge Permit 1840 on the week of September 24th in Truth or Consequences, I am hereby submitting by attachment my comment to be entered into the record of the hearing.

Thank you.

Max Yeh



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BEFORE THE NEW MEXICO SECRETARY OF ENVIRONMENT

IN THE MATTER OF THE HEARING
ON THE APPLICATION FOR
DISCHARGE PERMIT 1840 BY NEW
MEXICO COPPER CORPORATION
TO DISCHARGE MINING TAILINGS
AND OTHER WASTE WATERS AT
COPPER FLAT MINE

DOCKET NO. 8WB-18-06 (P)

Max Yeh's Comment in Opposition to DP 1840

I am a 30-year resident of Hillsboro, New Mexico, where Copper Flat Mine is located, and I am opposed to the granting of Discharge Permit 1840 authorizing New Mexico Copper Corporation to discharge "25,264,000 gallons per day" of mining wastewater, which "may contain water contaminants or toxic pollutants elevated above the standards of Section 20.6.2.3103 NMAC," and which "may move directly or indirectly into ground water of the State of New Mexico" at the Copper Flat Mine site. [GWQB, Draft Discharge Permit 1840.]

I ask the Secretary not to grant the Permit for the following reasons:

The Discharge Permit DP 1840 should not be granted because the application for a Discharge Permit is frivolous.

A. It is frivolous because the applicant, New Mexico Copper Corporation [fully owned subsidiary of THEMAC Resources Group Ltd.], does not have the financial means to construct and operate Copper Flat Mine.

1. In its June 2017 audited financial statement, NMCC's parent company Themac Resources, shows a cash balance of \$128,471 (cad), a liability of \$83,807,040 (cad), no visible signs of income, and the auditor, Davidson and Co., LLP, opined without qualification:

a. "Without qualifying our opinion, we draw attention to Note 1 in the consolidated financial statements which describes conditions and matters that indicate the existence of a material uncertainty that may cast significant doubt about THEMAC Resources Group Limited's ability to continue as a going concern."

2. Not having the financial means to develop the mine, none of the conditions of the permit can be fulfilled.

B. The application is frivolous because the applicant, NMCC, does not have sufficient water rights to operate the mine according to its MORP or to reclaim the mine upon closure since the reclamation of the pit depends on more water than it can access.

1. The Expedited *Inter Se* suit within the Lower Rio Grande Adjudication adjudicating the water rights claims of NMCC and Harris Gray and William Frost, owners at the time of the water rights NMCC intends to use for mining Copper Flat Mine, granted a total of 861.84 afy for mining operations. See the Subfile Orders and Judgments for Subfiles LRO-28-008-9009 and LRO-28-008-9010 in the Lower Rio Grande Adjudication, 2/28/18. As of August 1, 2018, NMCC is full owner of those rights.

2. NMCC claims to need over 6,000 afy to operate. It has sufficient water rights to operate less than 2 months every year.

3. Reclaiming the pitlake requires 2,200 to 2,800 af of water. It will take 2.5 to 3 years to backfill the pitlake, making it a slow and not rapid refill. Since this type of reclamation of the pit allows NMCC to avoid contouring the steep pit walls to a reclaimable slope angle, the speed with which the pit is filled is crucial to avoiding pit wall deterioration. The advantages of a water reclamation are lost and may not be beneficial to the environment. Without an idea of how much water might be available, there is no way to estimate the benefits of a water filled pit as compared to some other reclamation of the pit.

C. The application is frivolous because Copper Flat Mine is a marginal mine which can operate profitably only under extremely rare conditions, so that NMCC's 11-year plan of operation has no merit at all.

1. Copper Flat ore is very low quality ore, containing roughly half as much copper as the ore at Chino near Silver City and about 1/5 the quality of average copper ores around the world. Therefore, mining Copper Flat is comparatively expensive and extremely vulnerable to copper prices and other fluctuating economic conditions. NMCC's feasibility studies show a need for \$3.00/lb copper prices to operate profitably. But average copper prices in the last 118 years is \$2.50/lb and no 11-year period in history has ever seen copper prices, corrected for inflation, continuously above NMCC's needed \$3.00/lb. Therefore, it is extremely unlikely Copper Flat Mine will be in operation for any sustained period of time.

2. If 11 operative years cannot translate into 11 continuous years of mining, then all the calculations for reclamation are mistaken. Projections of pitlake water quality are erroneous. TSF reclamation calculated to be complete in the 39th year will be wrong. All calculations need to be done for an extended and intermittent period of mining.

The Secretary should not grant permits to frivolous applications because doing so harms the public welfare.

A. The corporate and financial organization of NMCC ensures that NMED will be working on this permit endlessly because NMCC seems to be part of a system created to lose money for tax benefits. It is returning 9% tax benefit to its Australian owner for money expended to permit Copper Flat Mine. Meanwhile, this frivolous application is a sinkhole for taxpayer money and the energies of NMED.

1. NMCC is a wholly owned subsidiary of Themac Resources, a Canadian registered company owned by Kevin Maloney, one of the richest people in Australia. Themac Resources has

no income. It and NMCC spend money on loan from Kevin Maloney's Tulla Resources. The loan carries a contractual interest of 20%, a usurious rate in some states. Themac Resources cannot pay the interest on the loan, so 20% of the loan every year can be deductible from Mr. Maloney's taxes as an unmitigated loss. See Themac Resources's website for verification. The highest tax bracket in Australia is 45%. Therefore, the deduction is worth a 9% savings on taxes in that bracket. This is a fine permanent investment for which the real costs are paid by New Mexico tax payers and the work of all the federal and state agencies involved.

a. The unpaid 20% interest is carried on Themac Resources's financial statements as an accumulating increase of debt, from \$34 million (cad) in 2013 to over \$84 million (cad) at the present, a debt not taken into account in the 2013 Definitive Feasibility Study and thus making that study rather unreliable. But even that optimistic but now obsolete study (see Section 22.11 and Table 22.7) shows the operating mine's Net Present Value, a balance of costs and income, dropping to 0 when the copper price drops to \$2.24 per pound as demonstrated by Professor Lloyd Barr in his comment to the BLM on the Draft EIS. Considering the ongoing 20% interest simply pushes that value higher, making economic feasibility less likely.

B. While granting the permit seems to cause no harm if no mining occurs, it makes the Copper Flat Mine marketable, and it is not the function of NMED to expend its time, resources, and energy, not to mention taxpayer money, increasing the value of private property. The state's Constitution forbids the state from selectively enriching private individuals, and the Water Quality Act, NMSA 74-6, does not authorize NMED to issue a discharge permit to increase the worth of a defunct copper mine.

1. Since NMCC filed the application for a Discharge Permit knowing it did not have either the financial means or the water rights to operate a mine, the application's intent is questionable. Since Themac Resources has been actively trying to sell the mine for some years [see Themac's press release on its website announcing the Letter of Intent to sell the mine to a Chinese company in 2016], the knowingly frivolous application must be considered a means of marketing the mine. Granting the Permit, therefore, turns the Permit into itself a commodity, setting a pernicious precedent.

C. Granting the Permit without actual operation also continues indefinitely the delay in mitigating the groundwater contamination which has been unabated for decades as a result of the previous mine operation.

D. Even though New Mexico law does not have a "can and will" rule, it is recognized that applicants for permits from governmental agencies need to apply in good faith. Colorado expresses its understanding that frivolous applications are a public harm by requiring applications for water rights to make a proper showing of the intent and ability to carry out a water project, and that the project "will be completed with diligence and within a reasonable time." [15 C.R.S. 1990 §37-92-305 (9)(b)] Nothing prevents the Secretary from applying a similar criterion for preventing waste and favoring efficiency.

1. Statements in the application which claim the mine will operate 11 years or that the mine will fast-fill the pit at reclamation are deliberate misrepresentations of reasonable expectations. The application can be denied on that basis by law. And given the company's financial situation, at the least, the Secretary should require a Disclosure Statement according to NMSA 74-6-5.1A.

The Permit should be denied because of internal flaws.

A. NMCC's fast-fill method of reclaiming the pitlake violates the New Mexico Constitution, wherein (XVI, 3) the right to use water is **limited** to beneficial use. To use approximately 2,800 af of water to avoid having to reclaim the steep pit walls or to properly reclaim the pit by earthen refill or to avoid regulatory standards of pollution is not beneficial use of water. To create a large, chemically polluted body of water is not a beneficial use of water. To waste this much water – when the 2018 Draft New Mexico State Water Plan cites insufficiency of water supply as the major water problem the state faces and the 2016 Regional Water Plan for Socorro and Sierra Counties documents this insufficiency in coming years for Sierra County where the mine's located – will irrevocably harm the people's welfare and violate the public's interest, the water being permanently lost through evaporation. If the water were used to dilute polluted water so that it could be used beneficially, the filling of the pitlake might be allowed, but here the dilution is temporary, and eventually the pitlake will be polluted, as is the present pitlake.

1. Justifying this wasteful use of water as part of the beneficial use of mining has no lawful merit. First, the use is post-closure, after productive mining has ceased. Second, and more important, the usage is peripheral to actual productive use, a distinction defined in numerous court cases. In *State ex rel. Martinez v. McDermott*, 120 N.M. 327, § 13, the New Mexico Court of Appeals distinguishes productive agricultural use – meaning to grow crops – from peripheral uses such as using water to soften land to prepare it for plowing. The same distinction is made in *Hennings v. Water Resources Dep't.*, 622 P. 2d 333 (Or. 1981). In *Blaine County Inv. Co. v. Mays*, 291 P. 1055 (Idaho 1930), the court decided that to preserve soil moisture by using water during the winter to form an ice cap over the soil was not a beneficial use of water but a waste. In *Joslin v. Marin Mun. Water Distr.*, 429 P. 2d 889 (Cal. 1967), the Supreme Court of California sitting in bank declared the use of water at a mine to transport gravel and sand was an unreasonable and unlawful form of beneficial use of water. The denial of peripheral uses of water as beneficial use has a solid base recognizable in New Mexico. See *United States v. Alpine Land and Reservoir Co.*, 697 F. 2d 851, 854 (9th Circ. 1983) (“We do not deny or overlook the differences in water law among various western states. However on the point of what is beneficial use the law is ‘general and without significant dissent.’”) (citing 1 Waters and Water Rights § 19.2 (R. Clark ed., 1967).

2. Before proceeding to permit, the NMED should seek an opinion from the legal branch of the OSE as to the legality of wasting water in New Mexico.

B. NMCC had originally planned to divert impacted storm water into the tailing pond, but now the impacted storm water is to be kept in three impoundments (SW-A, B, C) and the water used in processing (see Draft Permit, fig. 3). NMCC does not have any rights to use surface water. This aspect of the Permit violates NM water law.

C. Because HDPE is considered only resistant and not proof against water penetration, all normal use of HDPE liners includes an under-drain system and a detection system underneath the primary liner. However, the design of the tailings pond (TSF) moves the drainage system above the HDPE liner. The change violates NMAC 20.6.7.22A(4)(d)(v) requiring a “tailings seepage collection system.” The above liner system is simply to recover water for reuse and does not protect against contaminant penetration into groundwater. It is not an “under drain.”

1. Using a gravel bed for the liner in the TSF instead of a compacted clay bed allows leakage (expected) to leach into the ground. The Copper Rule, then, requires the use of a surround of wells and pumps to pump contaminated groundwater back to the tailings pond. NMAC 20.6.7.22A(4)(c) on interceptor system.

a) Since the TSF area is already contaminated, the Copper Rule mandates the use of an interceptor system from the inception of the use of the TSF.

b) NMED needs to see the design of that system, the number, depth, and location of wells, the studies that show that the wells will recover all the contaminated water moving, and most importantly, proof that NMCC has the water rights to pump the groundwater in sufficient quantity to make the interceptor system work.

D. Monitoring wells for the TSF are insufficient on the south side, where between GWQ-12 and PGWQ-19 is a gap of 1/3 mile.

E. The center-line construction method for the TSF dam is a compromise and not the Best Management Practice. As with the upstream construction method, the upstream side of the dam has no solid base but rests on old tailings, and neither the stability analysis nor the subsidence study covers that weakness.

F. The avoidance of NMAC 20.6.2.3101 pollution standards and federal pollution standards in the future pitlake by building a ledge of BLM property so that the water is kept entirely on private land is mere trickery and should be responded to as trickery.

1. The ledge of BLM property will be 3 feet above the equilibrium level of the future pitlake. But a 100 year storm event of 3.73 inches in 24 hours will raise the pitlake level over 3 feet (using a run-off area of 306 acres) and a storm event 3 times that (the safety factor used for the TSF) of 26 inches in 72 hours, will raise the lake level by 31 feet and not evaporate off for 6 months or more. The larger numbers are justified by the fact that the pitlake will be there ad infinitum, and thus experience many 100 year storms and more. The pitlake, therefore, cannot be permanently exempt from either federal or state pollution standards. See NMSA Water Quality Act 74-6-12C. And, even when there is not an exceptional storm event the effects of 22 acres of polluted water are not confined to private property because of the effects on wildlife, so that the state's exemption does not apply.

G. The pitlake is also allowed exemption from NMAC 20.6.2.3101 pollution standards because it will be a "hydrologic evaporative sink" by 20.6.7.33D(1). But this is not necessarily so. The present pitlake has been there for 35 years, and with a calculated evaporation of 34.45 afy, it should be dry by now if evaporation were greater than inflow (the legal definition). Obviously the water has reached an equilibrium level at which inflow equals evaporation. It is by legal definition (which is not necessarily a hydrological definition) not to be considered a hydrological evaporative sink since evaporation is not greater than inflow. Since the future pitlake is conceived to also be at an equilibrium level, it also will not fit the legal definition of an evaporative sink, and further, whenever the humidity is high and evaporation low or whenever it rains, that evaporation will be less than inflow. That is to say, equilibrium level for the future pitlake is based on annual averages of

precipitation and evaporation rates. Actual levels vary from day to day, and similarly, whether evaporation is greater than inflow varies also.

1. Reclamation of a mining pit by backfilling with water is not a normal procedure in mining. Treating the pitlake as an evaporative sink has been tried in West Australia, but not in the way planned by NMCC. The pit is first earth filled to a level below the equilibrium level of the evaporative sink, and then the water is introduced to the equilibrium level. In West Australia, as in New Mexico, water is too precious to use for a complete backfill of the pitlake. NMCC's plan is wasteful of water. See Exhibit I, Clinton Mccullaugh, Genevieve Marchant, Jorg Unseld, Michael Robinson, Benjamin O'Grady, "Pit Lakes as Evaporative 'Terminal' Sinks: An Approach to Best Available Practice Mine Closure," Edith Cowan University, ECU, 2012 (online) (originally published in Proceedings of International Mine Water Association (IMWA) Symposium 2012, pp 167-174). In the United States, backfilling the pit with earth to the original contours is required of all coal mines regulated by the federal rules. All hardrock mines in California are required to backfill pits with earth at reclamation. Many contemporary mines backfill the pit with earth at closure. Proper reclamation of the pit should be backfilling with earth rather than water.

H. The Existing Waste Rock Stockpile-1, at the west side of the pit, is to be removed and water from that area channeled to Greyback Arroyo, but this rock pile has been leaching contaminants for over 35 years. After removal of the pile, the contaminants will be drained into a naturally intermittent stream. This contamination of surface water is not permissible.

I. The Permit cannot be approved without an adequate Reclamation Plan. The submitted Reclamation Plan does not address the following issues:

1. Since the TSP area is already contaminated from mining 36 years ago, the Copper Rule mandates an interceptor system from initiation of mining. How will this system operate after closure? Will monitoring at the monitoring wells below the TSP be continued at the same frequency?
2. If an interceptor system is not in place at closure, who will construct one if the monitoring detects contamination below the TSP dam during active evaporation?
3. Once the HDPE liner is ripped, will monitoring continue below the TSP. How will contamination plumes thereafter be mitigated? Who will do the work and who will pay for it?
4. While application projects no contaminants in the pitlake, there is some doubt about this, especially since the pitlake is left as a permanent feature of the landscape. Should it become contaminated (and twice the present pitlake has become naturally acidic, due probably to rainfall), what will be the mitigation? In 100 years? Is this left to the NMED to handle?
5. Proposed sureties do not seem to imagine or to cover expenses for any possible complexities. Who will pay for them, since fines for groundwater contamination are limited to \$10,000 per day, hardly sufficient for a major cleanup.

Max Yeh
P.O. Box 156
Hillsboro, NM 88042
September 16, 2018

EXHIBIT I

**Edith Cowan University
Research Online**

ECU Publications 2012

2012

Pit lakes as evaporative 'terminal' sinks: an approach to best available practice mine closure

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This article was originally published as: Mccullough, C. D., Marchant, G., Unseld, J., Robinson, M., & O'Grady, B. (2012) Pit lakes as evaporative 'terminal' sinks: an approach to best available practice mine closure. *Proceedings of International Mine Water Association (IMWA) Symposium 2012*. (pp. 167-174). Bunbury, Australia. International Mine Water Association. Original article available here
This Conference Proceeding is posted at Research Online.
<http://ro.ecu.edu.au/ecuworks2012/167>

Pit lakes as evaporative 'terminal' sinks: an approach to best available practice mine closure

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Abstract

Pit lakes may form when open cut mining operations extend below groundwater level and then fill at cessation of mining and associated dewatering operations by ground and surface water influx. Pit lake hydrogeology may function as an evaporative "sink" when pit lake water evaporation rates exceed influx rates. Although not ideal closure, management of local surface and groundwaters contaminated by Acid and Metalliferous Drainage (AMD) through entrainment toward an evaporative terminal pit lake may provide a best-case scenario for protection of regional water resources required by typical mine closure time scales of hundreds to thousands of years.

We present two case studies from Western Australia; the first where closure of above ground landforms such as waste dumps by covers would arguably not be successful over long terms (1,000 years or more) and another where Potentially Acid Forming waste (PAF) management is limited by current waste rock dump location and suitable cover materials.

Pit lake water balance modelling indicates both case study pit lakes will function as hydraulic sinks if they are not backfilled above their equilibrium water levels. A best closure outcome for these pit lakes may be to be backfilled with PAF encapsulated with alkaline/neutral waste and then filled as rapidly as possible to minimise PAF oxidation and ensure an evaporative sink pit lake is formed.

Keywords: backfill, groundwater sink, closure, pit lake, AMD, through-flow, evaporative sink

Introduction

Due to operational and regulatory practicalities, pit lakes will continue to be common legacies of mine lease relinquishments. Pit lake water quality is often degraded by Acid and Metalliferous Drainage (AMD) which may lead to acidic water with elevated metal concentrations (McCullough 2008). Degraded water quality reduces pit lake environmental values and may present risks to surrounding communities and environmental values (McCullough and Lund 2006). Mine closure guidelines and standards increasingly require chemical safety and low risk to surrounding ecosystems for long-terms for closure practices to be acceptable (ANZMEC/MCA 2000; ICMM 2008; DMP/EPA 2011).

Unplanned or inappropriate management of these novel geographical features can lead to both short- and long-term liability to mining companies, local communities, the government and the nearby environment during mining operations or after lease relinquishment (Doupé and Lymbery 2005).

Nevertheless, most developed jurisdictions are consistent in their requirement for mining companies to plan and/or rehabilitate to minimise or prevent entirely any potential deleterious effects of the pit lake water body on regional ground and surface resources (Jones and McCullough 2011). The focus of most general or *ad hoc* pit lake regulation is given to protecting human and ecological communities from effects of the pit lake. For example, in Australasia, closure guidelines are based on ANZECC/ARMCANZ (2000) criteria; generally for ecosystem protection requirements. Such guidelines generally emphasize either a demonstration of null-negative effects of the lake or require management to achieve the required level for compliance (Kuipers 2002). AMD treatment may be very costly and difficult to achieve in many remote mining regions. As a result, sustainable pit lake management aims to minimise short and long term pit lake liabilities and maximise short and long term pit lake opportunities (McCullough et al. 2009).

Pit lake water balance in an arid climate

Climate is the single most important factor on the hydrologic processes associated with a pit lake (Castendyk 2009). Changes in climate (e.g. temperature, rainfall, wind, precipitation amount and distribution) will affect the individual hydrologic components differently. In general, surface hydrologic processes (e.g. direct precipitation, evaporation, surface water runoff) are defined by regional climate. Groundwater inflows are generated from precipitation recharge and tend to buffer short-term climatic changes, but long-term climatic changes will be reflected in groundwater inflows over the long-term. Modelling of groundwater and climate processes is often used to predict final water balances in pit lakes (Vandenberg 2011).

Post-closure pit lakes in an arid environment are typically classified as either "through-flow" lakes or "evaporative sinks" (Niccoli 2009). Evaporative sinks may occur in arid climates where the evaporation potential is higher than average rainfall runoff. During groundwater cone-of-depression rebound and pit void filling, the pit lake water level rises to a level where inflows (rainfall, runoff and groundwater inflow) are in equilibrium with evaporation losses. Hence, pit lake water level does not rise to levels higher than adjacent groundwater levels and water is not released to the environment (Figure 1). The water quality of evaporative sink lakes is expected to show increases in acidity, metals and salt concentrations over time through accumulation of solutes introduced through groundwater inflows, surface catchment run-off and direct rainfall to the developing lake's surface.

Backfill is often recommended to avoid many issues associated with poor pit lake water quality developing from weathering of PAF material in the pit void and pit lake walls (Puhlovich and Coghill 2011). If backfill volumes and distributions are small enough to permit accumulation of water above the backfill, then this use of the pit void as a waste rock or otherwise dump will remove these waste materials

from the typically higher rates of weathering and transport encountered when placed above ground. However, the pit backfill volumes and/or placement will cause pit lake surface area reductions and alter the pit lake hydrological balance. Decreased net evaporation may then lead to the pit lake changing from a evaporative sink lake to a through-flow type. If the water quality in the pit lake is poor, this contaminated water may be released into the environment through seepage into the regional groundwater system.

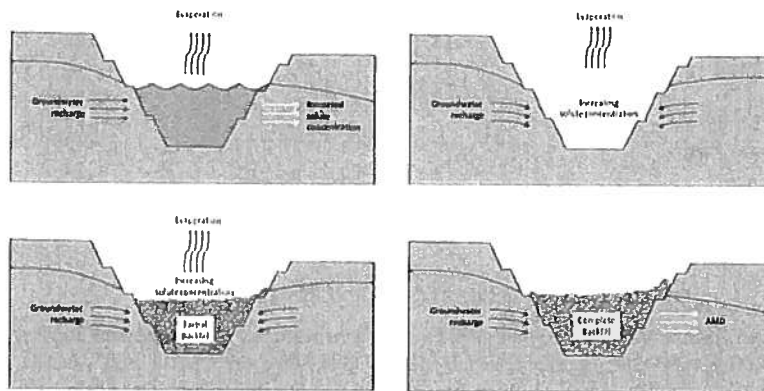


Figure 1 Generalised potential hydrogeological regimes for pit lakes in an arid region.

Case studies

Although there are many examples for successful dumping of mine waste under wet covers or at the bottom of pit lakes (Schultze et al. 2011), we present two case studies from semi-arid and arid Western Australia that will be relevant to many other arid/semi-arid parts of the mining world e.g., south-west US, South Africa, etc. (Figure 2). Both operations are currently working towards development of detailed mine closure plans but face difficulties with Potentially Acid Forming waste (PAF) management in above ground waste landforms where armouring and waterproof waste cover materials are lacking in their regional environments which instead primarily consist of highly dispersive clays and sand. Geochemical testing indicates both pit lakes are likely to develop AMD affected water quality over time.

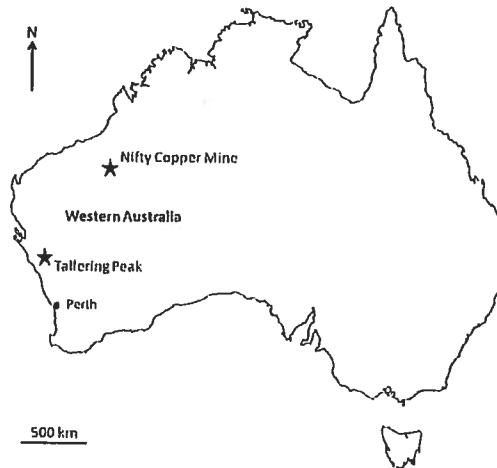


Figure 2 Location of case studies in arid Western Australia.

Both operations' pits are expected to fill with water naturally when pit dewatering ceases at closure due to the accumulation of groundwater inflow and rainfall, however, the equilibrium lake elevations depend on the hydrogeology setting and the long-term climatic characteristics in the region. Total inflows into the pit lakes are expected to gradually decrease as the open pits fill while total outflows are expected to increase due to increased evaporation from an increasing lake area. At some stage, total inflows would approximate total outflows and the water level in each open pit will reach equilibrium, albeit responding dynamically to changes seasonal precipitation and evaporation rates. Water level fluctuations are expected as a result of occasional cyclones.

If the steady-state pit lake elevation remained lower than the surrounding groundwater surface, the pit lakes will remain an evaporative sink within the confines of the open pit with no water release into the environment through groundwater decant. However if the final pit lake elevations reach the surrounding groundwater level, the pit lakes would turn into a through-flow system with water release to the environment through groundwater seepage which could then spread potential contaminant plumes to environmental receptors.

Modelling

A water balance model for each of the closure scenarios was then modelled using the GoldSim Monte Carlo simulation software package. Golder assessed three post-closure scenarios for both of the case-study open pits: pit not backfilled and a pit lake forming, pit partially backfilled to below pre-mining groundwater levels with consequently shallower pit lake forming; and, pit backfilled to above water table, no pit lake forming.

Pit lake hydrological inflows were defined as direct rainfall, groundwater inflow and run-off (catchment and pit walls). Outflows were defined as evaporation from

lake surface, groundwater seepage (if any), and overflow (if any) and climate change predictions were accounted for (Figure 3).

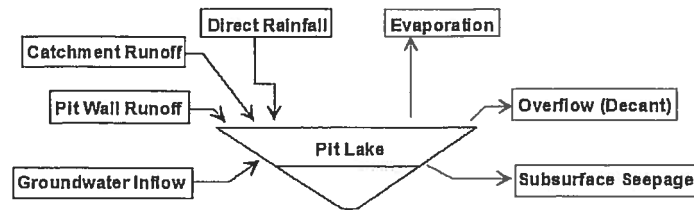


Figure 3 Conceptual pit lake process flow diagram.

Nifty Copper Operation, Aditya Birla

Nifty is located in the Pilbara region of Western Australia approximately 1,200 km nor-north-east of Perth (Figure 2). The Pilbara experiences an arid climate with two distinct rainfall patterns. In summer, rainfall occurs from either tropical cyclones or thunderstorms, while the winter rainfall is typically from low pressure trough systems. Average annual rainfall is low and varies in the region from 200 mm to 420 mm (Kumar et al. 2011; Kumar et al. 2012).

The open pit scenario with no backfill was identified as an evaporative sinks. The partially backfilled scenario shows that the equilibrium water level would be more than 10 m higher than the elevation of the backfill material which would then be submerged at pit lake water level equilibrium. The partially backfilled scenarios was identified as developing an evaporative sink. The fully backfilled scenario indicated that the pit would become a through-flow system with water contained in the pit will seep into the groundwater system. If the PAF material already contained in the pit leached chemicals harmful to the environment, this closure option may be present a significant risk at mine closure.

A partially backfilled option was based on the proposed volume of backfilled material provided by the mining company at the time which would reach an expected elevation. This model showed two main consequences to site AMD management at mine closure if the pit was backfilled above equilibrium groundwater level:

1. Reduction in evaporative losses from the absence of pit lake forming would likely lead to a through-flow scenario where groundwater quality would likely be strongly influenced by the geochemistry of pit backfilled material. As the proposed material was predominantly containing PAF, it is therefore likely that water quality would be impacted by AMD as it flows through the pit waste backfill. Due to the through-flow nature of the backfilled pit, the water would then be released to the environment through groundwater seepage, leading to increased risk of negative effects on local and possibly regional groundwaters.
2. If waste landforms are not provided with an effective cover system to reduce infiltration and if the pit lake did not form due to groundwater levels after cone rebound remaining below final pit void backfill surface levels, then this may

also affect the transport of contaminants arising from other above-ground waste landforms. In this scenario, AMD leachate from waste rock dumps containing PAF would enter the vadose zone (area of unsaturated ground above the water table) but would not be transported in the local groundwater plume toward the groundwater sink lake. Instead the AMD plume would be transported by the regional groundwater system and potentially surface water receptors such as groundwater dependant ecosystems of seasonal lakes, creeks and wetlands.

Tallering Peak Iron Ore Mine, Mount Gibson Mining

Tallering Peak iron ore mine is located in the semi-arid Midwest mining region of Western Australia (Kumar et al. 2012), approximately 300 km north of Perth. The Tallering Peak Operation commenced production in 2004 and is predicted to continue operations until 2013.

A partially backfilled option for the T5 pit was based on a proposed volume of backfilled PAF material and assumed the backfill material would be placed in the bottom of the pit and not end dumping from the edge of the pit. After closure, the partially backfilled mine void is expected to fill mostly through groundwater inflows. The final pit lake would be above the backfill, covering the PAF material. Oxidation rates of the PAF material might then be significantly reduced because of the much lower oxygen diffusion rates through water. A final evaporative sink would also entrain AMD contaminated waters away from sensitive environmental receptors such as a nearby ephemeral creek which flows into the Greenough River.

Based on the results of the above analyses, the open pit with no backfill and the partially backfilled scenarios were identified as likely evaporative sinks. The fully backfilled scenario was predicted to be a through-flow system and would therefore be likely to introduce AMD into the groundwater system. While an evaporative sink is unlikely to introduce leachable compounds into local groundwater system, a through-flow system from up-gradient to down-gradient toward a seasonal creek line in the south-west is probably. Furthermore, there was only 5% chance after 35 years that the fully backfilled pit water level would rise high enough to decant to nearby surface waters.

Conclusions

Mine closure is increasingly recognised as a whole-landscape development exercise which must take into account all closure landform elements and how they will interact over time (McCullough and Van Etten 2011). Both of these case studies present strong arguments that completely backfilled pit may not be the best solution to risks presented by pit lakes at mine closure, when long-term effects of climate and above ground closure landforms risks are also considered.

The water quality of evaporative sink lakes is expected to deteriorate over time through evaporation and the consequent entrapment of solutes. Although not desirable in itself, this water quality deterioration indicates that the pit lake is functioning as it should as an evaporative 'terminal' sink and protecting the surrounding environment from AMD (acid and metalliferous drainage) contaminated waters resulting from waste rock dumps.

In the long term, increasing solute concentrations in the evaporative sink pit lake may result in increasing water density. This concentration change may cause density-driven flow into the surrounding groundwater under certain hydrogeological conditions and should be investigated as part of the risk assessment process for this closure strategy.

Stability of physical and chemical conditions inside the deposited waste and at its interface with the lake environment is the main prerequisite for successful long term storage of waste in a pit lake (Schultze et al. 2011). As such, climate change should be a key consideration in the use of pit lakes 'sacrificially' as evaporative sinks. For example, an increasingly wet climate may lead evaporative sink pit lakes to become through-flow or decant to the environment through other means such as over flow. Similarly, even though mean net precipitation may not change or even decrease in a predicted drying climate, an increase in intense rainfall events such as cyclone frequencies may lead to mobilisation of degraded pit lake waters to the surrounding regional groundwaters following such events.

In conclusion, although proposed as best practice by a number of regulatory and sustainability organisations, fully or partially backfilled pit may sometimes potentially lead to poorer closure outcomes than retaining a pit lake. This example demonstrates both the need for mine closure planning to be considered site-specific and on a case-by-case basis as well as for closure strategies to be founded on good empirical evidence of which water balance and geochemical modelling will be key considerations.

Acknowledgements

Thanks to Hugh Jones (Golder) and an anonymous reviewer for constructive advice.

References

- ANZECC/ARMCANZ (2000) Australian and New Zealand guidelines for fresh and marine water quality. National Water Quality Management Strategy Paper No 4. Canberra, Australian and New Zealand Environment and Conservation Council & Agriculture and Resource Management Council of Australia and New Zealand: p 1,500
- ANZMEC/MCA (2000) Strategic Framework for Mine Closure. Canberra, Australia, Australian and New Zealand Minerals and Energy Council/Minerals Council of Australia: p 27
- Castendyk D (2009) Conceptual models of pit lakes. In: Castendyk D, Eary T, (Eds), 2009 Mine Pit Lakes: Characteristics, Predictive Modeling, and Sustainability Colorado, USA, Society for Mining Engineering (SME), p 61-76
- DMP/EPA (2011) Guidelines for preparing mine closure plans. Perth, Australia, Western Australian Department of Mines and Petroleum (DMP), Environmental Protection Authority of Western Australia (EPA): p 78
- Doupe RG, Lymbery AJ (2005) Environmental risks associated with beneficial end uses of mine lakes in southwestern Australia. *Mine Water and the Environment* 24 (3): 134-138
- ICMM (2008) Planning for Integrated Mine Closure: Toolkit. London, UK, International Council on Mining and Metals p86
- Jones H, McCullough CD (2011) Regulator guidance and legislation relevant to pit lakes. In: McCullough CD, (Ed) 2011 Mine Pit lakes: Closure and Management, Perth, Australia, Australian Centre for Geomechanics, p 137-152
- Kuipers JR (2002) Water treatment as a mitigation. *Southwest Hydrology* September/October (18-19)

- Kumar NR, McCullough CD, Lund MA, Newport M (2011) Sourcing organic materials for pit lake remediation in remote mining regions. *Mine Water and the Environment* 30 (4): 296-301
- Kumar RN, McCullough CD, Lund MA (2012) Pit lakes in Australia. In: Geller W, Schultze M, (Eds), 2012 Acidic Pit Lakes - Legacies of surface mining on coal and metal ores, Berlin, Germany, Springer, p
- McCullough CD (2008) Approaches to remediation of acid mine drainage water in pit lakes. *International Journal of Mining, Reclamation and Environment* 22 (2): 105-119
- McCullough CD, Hunt D, Evans LH (2009) Sustainable development of open pit mines: creating beneficial end uses for pit lakes. In: Castendyk D, Eary T, (Eds), 2009 Mine Pit Lakes: Characteristics, Predictive Modeling, and Sustainability Colorado, USA, Society for Mining Engineering (SME), p 249-268
- McCullough CD, Lund MA (2006) Opportunities for sustainable mining pit lakes in Australia. *Mine Water and the Environment* 25 (4): 220-226
- McCullough CD, Van Etten EJB (2011) Ecological restoration of novel lake districts: new approaches for new landscapes *Mine Water and the Environment* 30 (3): 312-319
- Niccoli WL (2009) Hydrologic characteristics and classifications of pit lakes. In: Castendyk D, Eary T, (Eds), 2009 Mine Pit Lakes: Characteristics, Predictive Modeling, and Sustainability Colorado, USA, Society for Mining Engineering (SME), p 33-43
- Puhlovich AA, Coghil M (2011) Management of mine wastes using pit/underground void backfilling methods: current issues and approaches. In: McCullough CD, (Ed) 2011 Mine Pit lakes: Closure and Management, Perth, Australia, Australian Centre for Geomechanics, p 3-14
- Schultze M, Boehrer B, Friese K, Koschorreck M, Stasik S, Wendt-Potthoff K (2011) Disposal of waste materials at the bottom of pit lakes. In: Fourie AB, Tibbett M, Beersing A, (Eds), Year Mine Closure 2011: Proceedings of the Sixth International Conference on Mine Closure, Lake Louise, Canada, p 555-564
- Vandenberg J (2011) Use of water quality models for design and evaluation of pit lakes. In: McCullough CD, (Ed) 2011 Mine Pit Lakes: Closure and Management, Perth, Australia, Australian Centre for Geomechanics, p 63-80





DP-1840 INDEX TO ADMINISTRATIVE RECORD

NO.	TITLE/DESCRIPTION	DATE	PAGES	BATES #'s
1	Ground Water Inspection Report on Copper Flat Mine DP-1 w/images	6/16/2008	3	00002-00004
2	Handwritten notes from phone call w/ KMV re: Mr. Lotspeich	7/10/2008	1	00006-
3	Letter from William Olson (GWQB) to George Lotspeich re: abatement plan for DP-1	8/20/2008	2	00008-00009
4	Handwritten note from Greg Huey (GWQB) to George Lotspeich enclosing Abatement Plan Required letter	12/15/2008	3	00011-00013
5	Letter from Greg Huey (GWQB) to George Lotspeich (Mining Act Reclamation Program) re: Copper Flat Mine Site Information	3/18/2009	2	00015-00016
6	Letter from Greg huey to Holland Shepard re: Minimal Impact Exploration Project Permit	11/30/2009	3	00018-00020
7	Public Records Release Form for reviewer: Cindy Ardito (Intera)	5/5/2010	2	00022-00023
8	Sampling and Analysis Plan for Copper Flat Mine (SAP)	Sep-10	230	00025-00254
9	Letter from Greg Huey (GWQB) + David Menzie (SWQB) to Holland Shepard (Program Manager for Mining Act Reclamation Program) re: comments on Sampling and Analysis Plan	11/10/2010	4	00256-00259
10	Comments by MMD, OSE, SWQB, GWQB, Game & Fish, and Cultural Affairs on Sampling and Analysis Plan	1/10/2011	23	00261-00283
11	Comments by SWQB + GWQB on Copper Flat Exploration Minimal Impact Exploration 2 Project Permit Application	2/3/2011	3	00285-00287
12	Review by Las Cruces District Office (LCDO) of NM Copper Corp. Mine Plan of Operations (in letter sent by Edward Seum (LCDO) to Steve Raugust (NM Copper Corp.))	2/4/2011	4	00289-00292
13	Letter from William Olson (GWQB) to Steven Raugust (NM Copper Corp.) re: Stage 1 Abatement Plan Proposal and Discharge Permit Application	2/23/2011	1	00294-
14	Letter from William Olson (GWQB) to Bill Childress (Las Cruces District BLM) re: request for cooperating agency status + Env. Impact Statement	3/9/2011	2	00296-00297
15	Letter from Steven Raugust (NM Copper Corp.) to Greg Huey (GWQB) re: NM Copper Corp Application for Discharge Plan Modification for DP-001	3/31/2011	4	00299-00302
16	GWQB processing form and acknowledgement of receipt for NM Copper Corp. groundwater discharge permit application	3/31/2011	2	00304-00305
17	Application for Discharge Plan Modification for the Copper Flat Mine including Stage 1 Abatement Plan and Copper Flat mine Plan of Operations (First Draft)	3/31/2011	1403	00307-01709
18	Email + attachments from William Olson (GWQB) to Jens Deichmann re: public notice requirements	5/13/2011	4	01711-01714
19	Email from Jens Deichmann to Chris Eustice (EMNRD), Greg Huey (GWQB), and Mary Ann Menetrey (NMENV) re: setting up meeting	5/30/2011	1	01716-

20	Email from Greg Huey (GWQB) to Max Yeh (Hillsboro resident) re: Max Yeh's concerns about possible impacts to water quality and quantity	5/31/2011	2	01718-01719
21	NMED News Release re: stage 1 abatement plan	6/6/2011	1	01721-
22	Email exchange between Greg Huey (GWQB) and Max Yeh (Hillsboro resident) re: EZ-Mud and Benseal, including material safety data sheet for Benseal	6/17/2011	11	01723-01733
23	Letter from James Davis (Resource Protection Division) to Steven Raugust (NM Copper Corp.) re: request for additional information: Site-Wide Stage 1 Abatement Plan Proposal	6/23/2011	4	01735-01738
24	Copper Flat Mine Plan of Operations (PoO) for NM Copper Corp. (June 2011 Revision)	Jun-11	409	01740-02148
25	GWQB Public Records Release Form	6/28/2011	1	02150-
26	GWQB Acknowledgment of Receipt (poster fee)	6/29/2011	1	02152-
27	Affidavit of Public Notice Completion (signed by Jens Deichmann for Copper Flat Mine)	6/28/2011	3	02154-02156
28	Greg Huey (GWQB) re: Response to NMED June 23, 2011 Request for Additional Information: Site-Wide Stage 1 Abatement Plan Proposal	7/8/2011	902	01258-02159
29	Email Exchange between Katie Lee (Project Scientist for NM Copper Corp.) and Greg Huey (GWQB) re: request for extension to file Stage 1 Abatement Plan Amendment	7/13/2011	2	02161-02162
30	Email Exchange between Katie Lee (Project Scientist for NM Copper Corp.) and Greg Huey (GWQB) re: second request for extension to file Stage 1 Abatement Plan Amendment	9/1/2011	1	02164-
31	Memorandum of Understanding between Las Cruces BLM and NMED concerning relationship as a cooperating agency for Copper Flats Environmental Impact Statement (FIRST DRAFT)	9/9/2011	7	02166-02172
32	Letter from Greg Huey (GWQB) to Mike Smith (Las Cruces BLM) re: Memorandum of Understanding between Las Cruces BLM and NMED	9/13/2011	9	02173-02181
33	Memorandum of Understanding between BLM-Las Cruces office and EMNRD concerning relationship as a cooperating agency for Copper Flats Environmental Impact Statement (SECOND DRAFT)	10/4/2011	6	02183-02188
34	Letter from Katie Lee (Project Scientist for NM Copper Corp.) to Greg Huey (GWQB) re: submittal of Amendment to Stage 1 Abatement Plan for the Copper Flat Mine	10/14/2011	1	02190-
35	Amendment to Stage 1 Abatement Plan	10/14/2011	66	02192-02257
36	Email from Jens Deichmann to Chris Eustice (EMNRD), Greg Huey (GWQB), etc. re: scheduling and agenda for status meeting	10/19/2011	1	02259-
37	Draft comments on Plan of Operation w/ handwritten notes and project timeline	11/3/2011	3	02260-02262

38	Email Exchange between Douglas Haywood (BLM Project Manager) and Greg Huey (GWQB) re: due date for Copper Flat Mine proposal selection	11/8/2011	1	02264-
39	Email Exchange between Douglas Haywood (BLM Project Manager) and Chris Eustice (EMNRD) re: Copper Flat Mine proposal selection	11/8/2011	1	02266-
40	Find a Way! Newsletter: Copper Flat	11/15/2011	4	02268-02271
41	Outline for Agency NMCC Meeting	12/14/2011	1	02273-
42	Email exchange between Katie Lee (Copper Flat scientist) and Kurt Vollbrecht (NMED) re: Copper Flat's right of way application to discharge purge and pump test water and aquifer test.	12/9/2011	4	02275-02278
43	Email from Jens Deichmann (NM Copper Corp.) to Chris Eustice (EMNRD), Greg Huey (GWQB), etc. re: notice of intent to conduct EIS on Copper Flat + the notice as published in the Federal Register	1/10/2012	3	02280-02282
44	Email from Max Yeh (Hillsboro resident) to Greg Huey (GWQB) re: concerns about the mine pit being used as a well	1/17/2012	1	02284-
45	Agenda for Copper Flat Mine NEPA site visit and kickoff meeting	1/17/2012	3	02286-02288
46	Attendance sheet (name, organization, phone, email) for Copper Flat Kickoff Meeting	1/18/2012	1	02290-
47	Email from Zack Gorstein (Copper Flat Mine Analyst) with Copper Flat Mine News Release	1/31/2012	4	02292-02295
48	Letter from Bill Childress (Las Cruces BLM) re: inviting participation in the identification of issues for EIS	2/3/2012	3	02297-02299
49	Email from Erica Earhart re: retransmission of scoping letter for Copper Flat EIS	2/6/2012	3	02301-02303
50	Letter from Mary Menetrey (GWQB) to Steven Raugust (NM Copper Corp.) re: NMED review of Amendment fo Stage 1 Abatement Plan Proposal for the Copper Flat Mine	2/7/2012	2	02305-02306
51	Email from Zack Gorstein (Copper Flat Mine Analyst) with press release on THEMAC resources 2012 Exploration and Drilling Program	2/10/2012	4	02308-02311
52	Email from Erica Earhart with attached Bill Childress (Las Cruces BLM) letter re: inviting participation in the identification of issues for EIS	2/3/2012	3	02313-02315
53	Email from Zack Gorstein (Copper Flat Mine Analyst) with schedule for BLM scoping meetings (opportunity for community to comment)	2/17/2012	3	02317-02319
54	Letter from Steven Raugust (NM Copper Corp.) and Katie Emmer (THEMAC Scientist) to Chris Eustice (EMNRD) re: transmission of DRAFT Baseline Data Report	2/20/2012	1	02321-
55	Email from Chris Eustice (EMNRD) to Kurt Vollbrecht (NMED) re: review of applicatino for modification to Minimal Impact Exploration Permit No. S1025Em	3/9/2012	10	02323-02332

56	Letter from Jens Deichmann (NM Copper Corp.) to Doug Haywood (Las Cruces BLM) re: revised and more detailed scoping comments from NM Copper Corp. (Alternatives Development Outline)	3/16/2012	5	02334-02338
57	Copper Flat Mine EIS: Alternatives Development Outline	3/20/2012	14	02340-02353
58	Press Release by THEMAC: "THEMAC Resources Announces a Design Milling Rate Increase up to 25,000 TPD at Copper Flat"	3/20/2012	2	02355-02356
59	Email exchange between David Menzie (NMENV) to Kurt Vollbrecht (NMENV) re: whether the wetlands that exist in Grayback Arroyo on the mine site are jurisdictional	3/23/2012	1	02358-
60	BLM Las Cruces District Environmental Impact Statement (EIS) Scoping Report March 2012	Mar-12	29	02360-02388
61	Email exchange between Katie Emmer (THEMAC Scientist)/ Steven Raugust (NM Copper Corp.) and Kurt Vollbrecht (NMENV)/Kevin Myers (NM OSE) re: Hydrogeologic analysis of NMCC proposed pumping test	4/5/2012	3	02390-02392
62	Email exchange between Lawrence Shore (NMENV) and Kurt Vollbrecht (NMENV) re: filling of NMED Inspection of Public Records Request on behalf of Bruce Frederick	4/24/2012	3	02394-02396
63	Email exchange between Kurt Vollbrecht (NMENV) and Steve Raugust (NM Copper Corp. and David Ennis (EMNRD) re: Copper Flat - Auto-Sampling and Surface Water	5/14/2012	2	02398-02399
64	Email exchange between Richard Powell (NMENV) and Kurt Vollbrecht (NMENV) re: NM water quality standards for Copper Flat pit lake	5/31/2012	3	02402-02404
65	Letter from David Wallace (Las Cruces BLM) to "interested parties" re: proposal for pumping tests to establish aquifer baseline data	6/7/2012	4	02406-02409
66	Email from Kurt Vollbrecht (NMENV) to Chris Eustice (EMNRD) re: modification to the Copper Flat Minimal Impact Exploration project	6/19/2012	8	02411-02418
67	Email exchange between Kurt Vollbrecht (NMENV) and Lawrence Shore (NMENV) re: NM Copper Corp's "Notice of Intent;" Includes attached Notice of Intent and test results	6/21/2012	51	02420-02470
68	Email exchange between Katie Emmer and Anthony Hom (Las Cruces BLM) re: proposed two new wells	6/27/2012	2	02472-02473
69	Email exchange between Katie Emmer (THEMAC Scientist) and Anthony Hom (Las Cruces BLM), Douglas Haywood (Las Cruces BLM) re: meeting notes from 28 June 2012 Coop Agency	7/3/2012	9	02475-02483
70	Public Notice of Copper Mine Project (by NM Copper Corp.)	7/20/2012	2	02485-02486
71	Letter from Jerry Schoepfner (GWQB) to Jens Deichmann (NM Copper Corp.) re: temporary permission to discharge, copper flat production well field pump test	8/13/2012	2	02488-02489

72	Agenda and handwritten notes from Cooperating Agencies meeting	8/16/2012	2	02491-02492
73	Letter from Holland Shepherd (Program Manager for MARP) to Jens Deichmann (NM Copper Corp.) re: new mine permit application determined administratively complete	8/22/2012	1	02494-
74	Letter from Chris Eustice (EMNRD) to Kurt Vollbrecht (NMENV) re: request for review and comment on new mine permit	8/23/2012	1	02496-
75	NM Copper Corp. Permit Application Package (PAP) submission, including Baseline Data Characterization Report and Appendices	7/18/2012	2798	02498-05295
76	Email exchange between Kurt Vollbrecht (NMENV) and Jens Deichmann (NM Copper Corp.) re: cooperating agency meeting agenda	9/24/2012	3	05297-05299
77	Summary of Preliminary Federal and State ARARs and TBCs, Received from EPA and State of NM	4/3/2008	29	05301-05329
78	Letter from Sufi Mustafa (AQB) to Kurt Vollbrecht (NMENV) re: Request for Review and Comment, New Mexico Copper Corporation's New Mine Permit Application	10/22/2012	3	05331-05333
79	Letter from Keith Ehlert (NMED GWQB) to Holland Shepherd re: Comments on Permit Application Package	11/29/2012	6	05335-05340
80	Letter from Douglas Haywood (Las Cruces BLM) to Jens Deichmann (NM Copper Corp.) re: response to extension request for Right of Ways	Dec-12	1	05342-
81	Email exchange between Jens Deichmann (NM Copper Corp), Katie Emmer (THEMAC Scientist) and Douglas Haywood (Las Cruces BLM) re: aquifer test extension request	12/13/2012	3	05344-05346
82	Email exchange between Kurt Vollbrecht (NMENV) and Steve Raugust (NM Copper Corp.) re: Piezometer water quality sampling memo	12/12/2012	2	05348-05349
83	NMED GWQB Inspection Report with photos	12/18/2012	7	05351-05357
84	Email from Katie Emmer to Brad Reid re: Sampling at Copper Flat	1/9/2013	1	05359-
85	Inspection Report - Copper Flat Mine	1/10/2013	4	05361-05364
86	Memorandum from Andrew Feltman (THEMAC Project Geologist) to Katie Emmer (THEMAC scientist) re: Rehab of Wells GWQ-1 and GWQ-8	1/24/2013	3	05366-05368
87	Copper Flat Groundwater Permit Discussion Topics	1/29/2013	3	05370-05372
88	Email from Kaitie Emmer (THEMAC scientist) to Brad Reid (NMENV) and Kurt Vollbrecht (NMENV) re: Revised proposal for Copper Flat Stage I Abatement	2/8/2013	4	05374-05377
89	Letter/Table/Map from John Shomaker & Associates, Inc. (water consultants for NM Copper Corp.)	2/14/2013	3	05379-05381

90	Letter from Kaite Emmer to Douglas Haywood and Anthony Hom (Las Cruces BLM) re: Temporary Red-brown Coloration Observed at NMCC Outfall Location, Photos	2/8/2013	8	05383-05390
91	Email from Brad Reid to Steve Raugust, Katie Emmer re: Geochemical Characterization Report Comments	2/13/2013	1	05392-
92	Comments on Application from ENMRD, Game & Fish, and Cultural Affairs	2/18/2013	32	05394-05425
93	Email from Katie Emmer to Brad Reid re: boreholes	3/5/2013	1	05427-
94	Email from Katie Emmer to Brad Reid re: questions for DP Application	3/8/2013	1	05429-
95	Email from Katie Emmer to Edward Seum and Doug Heywood re: Amendment to NMNM125870	3/12/2013	6	05431-05436
96	Meeting Notes from Katie Emmer from March 18, 2013 Meeting re: MMD comments on the Copper Flat Permit Application Package	3/18/2013	6	05438-05443
97	Letter from Jens Deichmann re: Approval of Revised Groundwater Sampling Plan	3/18/2013	2	05445-05446
98	Inspection Report - Copper Flat Mine	3/20/2013	4	05448-05451
99	Email from Brad Reid attaching meeting notes from 3/18 Cooperating Agencies meeting	3/25/2013	7	05453-05459
100	Email from Kurt Vollbrecht (NMENV) to Doug Haywood (Las Cruces BLM) with attached Memorandum sent by NMED to the EPA regarding staining in Greyback Arroyo	4/4/2013	3	05461-05463
101	Email from Kurt Vollbrecht to Doug Haywood re: staining in Greyback Arroyo	4/4/2013	5	05465-05469
102	Proposed Monitoring Well Network for the Copper Flat Mine and email from Katie Emmer to Kurt Vollbrecht attaching the document	4/5/2013	15	05471-05485
103	Letter from Katie Emmer to Brad Reid re: Approval of Groundwater Sampling Plan	4/17/2013	3	05487-05489
104	Email from Katie Emmer (THEMAC Scientist) to Brad Reid (NMENV) re: impoundments at Copper Flat	5/2/2013	1	05491-
105	Letter from Raymond Irwin (NM Copper Corp.) to Chris Eustice (EMNRD) re: Copper Flat Exploration 2 (SI025EM) Modification 4	5/6/2013	12	05493-05504
106	Letter from Jens Deichmann to Chris Eustice (EMNRD) re: New Mexico Copper Corporation Geochemical Characterization Report Volume 1 - Text and Volume 2 - Appendices	6/13/2013	1	05506-
107	GWQB Inspection Report with photos	6/18/2013	11	05508-05518
108	from Brad Reid (GWQB) and David Menzie (SWQB) to Holland Shepherd (MMD) re: Comments on the Copper Flat Exploration 2 Project	6/25/2013	6	05520-05525
109	Transmittal Letter for "Status Report for Stage 1 Abatement" from Katie Jubb (John Shomaker & Associates Inc) to Brad Reid (GWQB)	6/28/2013	1	05527-

110	Geochemical Characterization Report (GCR) for the Copper Flat Project: Volume 1- Text (Prepared by THEMAC)	May-13	1911	05529-07439
111	Status Report for Stage 1 Abatement at the Copper Flat Mine	6/27/2013	141	07441-07581
112	Copper Flat Mine Basline Data Report Addendum	7/17/2013	210	07583-07792
113	Letter from Jens Deichmann (NM Copper Corp.) to Chris Eustice (NMENV) re: Baseline Data Report Amendment (comments and responses)	7/17/2013	7	07794-07800
114	Letter from Chris Eustice (EMNRD) to Keith Ehlert (GWQB) re: Baseline Data Report Addendum, Copper Flat Mine	7/22/2013	1	07802-
115	NM Copper Corp. Cooperating Agency Meeting Notes	7/30/2013	4	07804-07807
116	Email exchange between Chris Eustice (EMNRD), Kevin Myers (OSE), Katie Emmer (THEMAC Scientist), etc. re: Addendum to BDR print versus e-version	8/1/2013	1	07809-
117	Letter from Katie Emmer to Jan Walker (EPA) re: NM Copper Corp. NPDES Permit No. NM0031101 with attached Discharge Monitoring Reports (DMRs)	8/20/2013	100	07811-07910
118	Letter from Katie Emmer to Dorothy Brown (EPA) re: NM Copper Corp NPDES Permit No. NM0031101	8/26/2013	1	07912-
119	Memorandum re: Comments on Copper Flat Mine, Baseline Data Report Addendum Permit No. S1027RN	9/25/2013	5	07914-07918
120	Letter from Katie Emmer to Brad Reid + Kurt Vollbrecht re: THEMAC Resources Group, Predictive Geochemical Modeling of Pit Lake Water Quality	9/27/2013	1	07920-
121	Letter from Katie Emmer to Brad Reid + Kurt Vollbrecht re: Predictive geochemical Modeling	9/30/2013	1	07922-
122	Predictive Geochemical Modeling of Pit Lake Water Quality	Sep-13	117	07924-08040
123	Model of Groundwater Flow in the Animas Uplift and Palomas Basin	8/22/2013	403	08042-08444
124	NM Copper Corp. Cooperating Agency Meeting Notes	10/8/2013	4	08446-08449
125	Email exchange between Brad Reid (NMENV) and Katie Emmer re: MW-A at Copper Flat	10/10/2013	2	08451-08452
126	GWQB Inspection Report with photos	10/10/2013	3	08454-08456
127	Email exchange between Brad Reid (NMENV) and Katie Emmer (THEMAC Scientist) re: Copper Flat - Dry Wells	10/17/2013	2	08458-08459
128	Letter from Chris Eustice (EMNRD) to Kurt Vollbrecht (NMED) re: Baseline Data Report Addendum 2	11/1/2013	1	08461-
129	NM Copper Corp. Cooperating Agency Meeting Notes	11/12/2013	5	08463-08467
130	"THEMAC Resources Group Files Positive Feasibility Study for Copper Flat Project" (press release)	11/21/2013	11	08469-08479
131	Letter from Chris Eustice (EMNRD) to Ray Irwin (NM Copper Corp) re: Approval of Permit Modification 13-1 to, Permit No. SI025EM with attached modification	12/3/2013	16	08481-08496
132	Technical Memorandum re: JSAI's responses to N.M. Office of the State Engineer (OSE) comments on the report Model of groundwater flow in the Animas Uplift and Palomas Basin	12/5/2013	6	08498-08503

133	NM Copper Corp. Cooperating Agency Meeting Notes	12/17/2013	4	08505-08508
134	Letter from Brad Reid (GWQB) to Holland Shepherd (Program Manager for Mining Act Reclamation Program) re: Comments on Copper Flat Mine, Baseline Data Report Addendum 2	12/31/2013	2	08510-08511
135	Email from Brad Reid re: Talking Points for upcoming conference call and Preliminary Comments on Geochemical Characterization and Geochemical Modeling	1/14/2014	4	08513-08516
136	Email from Katie Emmer re: Geochemistry Discussion	1/14/2014	2	08518-08519
137	NM Copper Corp. Cooperating Agency Meeting Notes	2/4/2014	3	08521-08523
138	Humidity Cell Termination Report (HCTR) (prepared by SRK)	Feb-14	571	08525-09095
139	Model of Groundwater Flow in the Animas Uplift and Palomas Basin (updated version)	2/21/2014	415	09097-09511
140	Transmittal Letter for "Model of Groundwater Flow in the Animas Uplift and Palomas Basin," from Katie Emmer to Brad Reid and Kurt Vollbrecht	2/25/2014	1	09513-
141	Transmittal Letter for Humidity Cell Termination Report and External Memo from SRK Consulting	2/25/2014	9	09515-09523
142	Letter from Chris Eustice (EMNRD) to Katie Emmer (THEMAC Scientist) re: Baseline Data Report for Proposed Copper Flat Mine	3/18/2014	1	09526-
143	Cooperating Agency Meeting Notes	3/18/2014	4	09529-09532
144	GWQB Inspection Report with photos	3/20/2014	12	09534-09545
145	Email from Patrick Longmire (NMENV) to Kurt Vollbrecht (NMED), Brad Reid (NMED) with attached plots of the Copper Flat pit lake	3/31/2014	3	09547-09549
146	Draft Comments on Predictive Geochemical Modeling of Pit Lake Water Quality (prepared by Patrick Longmire (NMED))	4/22/2014	12	09551-09562
147	Email exchange between Patrick Longmire (NMENV) and Mark Nelson (Geologist for CDM Smith) re: Review of Geochemical Modeling of Pit Lake at Copper Flat	4/22/2014	2	09564-09565
148	NM Copper Corp. Cooperating Agency Meeting Notes	4/22/2014	2	09567-09568
149	NM Copper Corp. Cooperating Agency Meeting Notes	6/3/2014	4	09570-09573
150	Screenshot of Tempo database showing file review by Brad Reid	6/13/2014	1	09575-
151	Transmittal Letter from Brad Reid (GWQB) to Kaite Jubb (John Shomaker & Associates) re: delivery of complete report: "Results From First Year of Stage 1 Abatement Investigation"	3/18/2014	1	09577-
152	Results From First Year of Stage 1 Abatement Investigation at the Copper Flat Mine (Stage 1 Abatement)	May-14	337	09579-09915
153	David Ennis (EMNRD) draft comments on various geochemical reports on S1025RN	4/8/2014	5	09917-09921
154	NM Copper Corp. Cooperating Agency Meeting Notes	7/8/2014	4	09923-09926
155	NM Copper Corp's Responses to the NMED and COM Smith April 2014 comments to the September 2013 Predictive Geochemical Modeling of the Copper Flat pit water quality	7/28/2014	27	09928-09954

156	Vollbrecht (NMENV) re: Transmittal of NMCC response to NMED comments to the September 2013 Copper Flat Pit Geochemical Modeling Report	7/29/2014	1	09956-
157	NM Copper Corp. Cooperating Agency Meeting Notes	8/19/2014	8	09958-09965
158	Letter from Katie Emmer (THEMAC) to Brad Reid (GWQB) + Kurt Vollbrecht (NMENV) re: Model of Groundwater Flow in the Animas Uplift and Palomas Basin	8/18/2014	1	09967-
159	Model of Groundwater Flow in the Animas Uplift and Palomas Basin, Copper Flat Project, Sierra County, New Mexico (prepared by John Shomaker & Associates)	8/15/2014	417	09969-10385
160	Proposed Copper Flate Open-Pit Mine Reclamation Plan for Discussion	8/19/2014	3	10387-10389
161	Email exchange between Bryan Dail (NMENV) and Kurt Vollbrecht (NMENV) re: Second Discussion for Copper Flat Pit Lake Model	9/19/2014	1	10391-
162	SWQB comments on New Mexico Copper Corp's Use Attainability Analysis Workplan (UAA), attached in email from Bryan Dail (NMENV) to Steve Finch + Kristine Pintado (NMENV)	9/19/2014	6	10393-10398
163	NM Copper Corp's Use Attainability Analysis Workplan (UAA), attached in email from Steve Finch (Shomaker & Assoc.) to Kristine Pintado (NMENV), Brad Reid (NMENV) + Kurt Vollbrecht (NMENV)	8/29/2014	8	10400-10407
164	Press Release by THEMAC: "THEMAC Announces Offers of Judgment from the New Mexico Office of the State Engineer for the Copper Flat Mine"	9/12/2014	1	10409-
165	Letter from Kurt Vollbrecht (NMENV) to Katie Emmer (THEMAC) re: Comments on the Geochemical Characterization Report and associated documents for the Copper Flat Project	9/19/2014	4	10411-10414
166	Draft Copper Flat Open-Pit Reclamation Plan for Discussion (handouts from 9/23/2014 meeting)	9/23/2014	14	10416-10429
167	NM Copper Corp. Cooperating Agency Meeting Notes	9/30/2014	6	10431-10436
168	Approved Jurisdictional Determination from Dept. of the Army Corps of Engineers	10/7/2014	11	10438-10448
169	(Revised UAA), attached in exchange between Katie Emmer (THEMAC) and Kristine Pintado (NMENV), Brad Reid (NMENV) + Kurt Vollbrecht (NMENV)	10/15/2014	8	10450-10457
170	NMED comments on REVISED UAA, attached in email from Bryan Dail (NMENV) to Steve Finch (Shomaker & Assoc.) and Email re: Copper Flat Open-Pit UAA workplan	10/20/2014	5	10459-10463
171	Internal Memorandum from Jeff Kendall (OGC) to Trais Kliphuis (Resource Protection Division) re: Request for legal representation, Copper Flat Mine	10/21/2014	1	10465-
172	Letter from Steve Raugust (THEMAC) to Katie Emmer (THEMAC) cc: Mark Nelso (BLM) + NMED re: Agenda for Oct. 29, 2014 Environmental Geochemistry Conference Call	10/29/2014	1	10467-

173	Memorandum "NMCC summary notes for September 22, 2014 pit geochemistry conference call and SRK response scope of work"	10/29/2014	5	10469-10473
174	Summary Log of Copper Flat Project Environmental Geochemistry Reports, Agency Comments, NMCC Responses as of Oct. 27, 2014	10/29/2014	3	10475-10477
175	Katie Emmer (THEMAC) Notes on Oct. 29, 2014 Geochemistry Conference Call	10/29/2014	6	10479-10484
176	NM Copper Corp. Cooperating Agency Meeting Notes	11/12/2014	5	10486-10490
177	Email exchange between Brad Reid (GWQB), David Ennis (EMNRD) and Steve Raugust (THEMAC) re: Comment 8 from Sept 19 NMED letter	11/13/2014	2	10492-10493
178	Screenshot from Tempo user Brad Reid re: compliance evaluation in preparation of drafting letter titled: "status update"	11/24/2014	1	10495-
179	Letter from Brad Reid (GWQB) to Katie Emmer (THEMAC) re: Status Update for Copper Flat Project DP-1	11/26/2014	3	10497-10499
180	NM Copper Corp's Response to NMED September 19, 2014 Comments to the Copper Flat Geochemical Characterization Reports with attachments	12/11/2014	29	10501-10529
181	Email from Steve Raugust (THEMAC) to Kurt Vollbrecht (NMENV), Brad Reid (GWQB), etc re: NMCC Geochemistry Characterization Responses 2 of 2	12/11/2014	1	10531-
182	Technical Memorandum: "Review of methods and assumptions for predicting open pit water quality" and Technical Memorandum: "Evaluation of Mercury as a COC for Copper Flat pit water," from Steven Finch (JSAI) to Steve Raugust + Katie Emmer (THEMAC)	12/19/2014	23	10533-10555
183	Email from Katie Emmer (THEMAC) to James Hogan (NMENV), Kristine Pintado (NMENV), Bryan Dail (NMENV), John Hall (NMENV), and Brad Reid (NMENV) re: Proposed meeting to discuss path to NMED secretary Determination	12/22/2014	1	10557-
184	Transcript from Dec. 29, 2014 Geochemistry Conference Call, from Steve Raugust (THEMAC) to Kristine Pintado (NMENV), Bryan Dail (NMENV), John Hall (NMENV), Brad Reid (NMENV), etc.	12/29/2014	12	10559-10570
185	NM Copper Corp. Cooperating Agency Meeting Notes	1/6/2015	4	10572-10575
186	NMED and NMCC Discussion of Path to NMED Secretary's Determination	1/22/2015	6	10577-10582
187	Screenshot from Tempo re: "Comment Resolution Response: Geochemical Characterization Report, Geochemical Modeling of the Pit Lake"	2/20/2015	1	10584-
188	Letter from Kurt Vollbrecht (NMENV) to Katie Emmer (THEMAC) re: Comment Resolution Response: Geochemical Characterization Report, Geochemical Modeling of the Pit Lake and associated documents	2/23/2015	4	10586-10589
189	NM Copper Corp. Cooperating Agency Meeting Notes	3/10/2015	5	10591-10595
190	NM Copper Corp. Cooperating Agency Meeting Notes	4/21/2015	3	10597-10599

191	NMED Inspection of Public Record Request Form from Juan Velasquez (NM Copper Corp/ THEMAC)	4/29/2015	1	10601-
192	NMED Inspection of Public Record Request Form from Jon Block (Hillsboro Mutual Domestic Water Consumers Assoc.)	4/30/2015	1	10603-
193	Memorandum: "Transmittal of Internal Draft EIS" from Dave Henney to Brad Reid (GWQB), etc.	5/4/2015	1	10605-
194	Draft Environmental Impact Statement (DEIS) (prepared by Las Cruces BLM)	May-15	685	10607-11291
195	Email from Kattie Emmer (THEMAC) to David Ennis (EMNRD) + Brad Reid (GWQB) re: EIS topic discussion	5/22/2015	1	11293-
196	NMED Comments on DEIS, sent to Solv	5/26/2015	1	11295-
197	NM Copper Corp. Cooperating Agency Meeting Notes	6/9/2015	4	11297-11300
198	Email from Katie Emmer to Brad Reid (GWQB) re: pit refill question discussion	5/28/2015	1	11302-
199	Letter from Steven Finch (Shomaker & Assoc.) to Katie Emmer (THEMAC) re: Response to questions regarding the rapid-fill scenario for posting mining reclamation of proposed Copper Flat open pit and Email from Max Yeh (Hillsboro resident) to Brad Reid (GWQB) re: Copper Flat	6/25/2015	4	11304-11307
200	NM Copper Corp. Cooperating Agency Meeting Notes	7/21/2015	3	11309-11311
201	Email exchange between Jaimie Park (NM Env. Law Center) and Melissa Mascarenas (NMENV)/ Ali Furmall (GWQB) re: IPRA request	7/22/2015	2	11313-11314
202	Memorandum of Meeting between Brad Reid (GWQB) and Max Yeh (Hillsboro resident) re: Max's 7/14/2015 email concerning several issues re: Copper Flat Mine	7/23/2015	1	11316-
203	Inspection of Public Record Request by Juan Velasquez (NM Copper Corp)	8/21/2015	2	11318-11319
204	Letter from Melissa Mascarenas (NMED) to Jaimie Park (NM Env. Law Center) re: request to inspect public records	8/21/2015	1	11321-
205	Inspection of Public Record Request by Max Yeh (Hillsboro resident)	8/26/2015	1	11323-
206	Inspection of Public Records Review Documentation, (Juan Velasquez (NM Copper Corp) reviewed documents for Copper Flat DP-01, inspected by Brad Reid (GWQB)	8/28/2015	2	11325-11326
207	NM Copper Corp. Cooperating Agency Meeting Notes	9/1/2015	2	11328-11329
208	Email exchange between Max Yeh (Hillsboro resident) and Brad Reid (GWQB) re: certified copy request	9/1/2015	3	11331-11333

209	Documents requested by Max Yeh through IPRA request: Letter (6/5/1986) from Paul Weyler (Mill Superintendent) re: water analyses of the monitor wells; Letter (10/21/1986) from Fred Knackstedt (resident manager) re: water analyses of the monitor wells; Letter (2/5/1987) from Milton Hood (consultant) re: Discharge Plan No. 1; and Letter (8/20/2008) from William Olso (GWQB) to George Lotspeich (Hydro Resources Corp) re: abatement plan required at Copper Flat Mine Site, DP-1	9/21/2015	8	11335-11342
210	Email exchange between Jaimie Park (NM Env. Law Center) and Andrew Knight (NMED) re: request to inspect public records	9/21/2015	3	11344-11346
211	Email from Omar El-Emawy (THEMAC) to Brad Reid (GWQB) re: Copper Flat Mine Project Status Update	9/29/2015	1	11348-
212	Inspection of Public Records Review Documentation by Jon Block (NM Env. Law Center) reviewed documents for Copper Flat DP-1840, C-7, C-8, C-9, C-10, inspected by Brad Reid (GWQB)	10/16/2015	2	11350-11351
213	Cooperating Agency Meeting Notes	10/20/2015	3	11354-11356
214	Email exchange between Jon Block (NM Env. Law Center) and Brad Reid (NMED) re: photos of Copper Flat site	10/29/2015	2	11358-11359
215	Press Release by THEMAC: "THEMAC Announces Release of Draft Environmental Impact Statement"	11/25/2015	2	11361-11362
216	"Jurisdictional Determination Letter for Copper Flat Open Pit Water Body and Associated 230 Acre Watershed" (Dept. of Army- Corps of Engineers)	12/8/2015	12	11364-11375
217	NM Copper Corp Cooperating Agency Meeting Notes	12/8/2015	1	
218	Letter from Jeff Smith (NM Copper Corp) to Kurt Vollbrecht (NMED) re: Application for Discharge Plan Modification and Renewal of DP-001 with attached acknowledgement of receipt	12/9/2015	2	11377-11378
219	Copper Flat Copper Mine Draft Environmental Impact Statement (DEIS) (prepared by Las Cruces BLM)	Nov-15	973	11380-12352
220	Copper Flat Mine Discharge Permit Application (DPA)	Nov-15	1194	12354-13547
221	Email from David mercer (NMENV) to Brad Reid (NMENV) re: Copper Flats BLM DEIS Hillsboro Meeting	12/7/2015	1	13549-
222	Email exchange between Candi Browne (concerned resident of T or C) and Brad Reid (NMENV) re: Copper Flat DEIS tailings pond Liner	1/9/2016	3	13551-13553
223	Exempt Records Review Form (No exempt materials identified) (reviewed by Brad Reid (NMENV))	1/15/2016	1	13555-
224	Email exchange between Jaimie Park (NM Env. Law Center) and Brad Reid (NMENV) re: delivering files from the 2015 DP Application for the Copper Flat Mine	1/15/2016	2	13557-13558
225	Letter from Michelle Hunter (GWQB) to Jeff Smith (NM Copper Corp.) re: ground water discharge application is complete, attaches forms to provide public notice	1/15/2016	6	13560-13565

226	Pulbic Notice 1 List of Permit Applications Submitted for Review	1/15/2016	3	13567-13569
227	Email Exchange Between Brad Reid and Jamie Park re: Quick Question	1/25/2016	2	13571-13572
228	Email from Katie Emmer (THEMAC scientist) to Doug Haywood (Las Cruces BLM) re: Copper Flat Discharge Permit Application Public Notice	1/29/2016	1	13574-
229	Memorandum: "Proposed Copper Flat Mine: Average Ore and Tailings Tons per Day" attached to email from Katie Emmer (THEMAC) to Jeff Smith (NM Copper Corp.)	1/29/2016	2	13576-13577
230	Email exchange between Brad Reid andMax Yeh re: status of DP application	2/3/2016	1	13579-
231	Email exchange between Jaimie Park (NM Env. Law Center) and Brad Reid (NMENV) re: Jaimie requested 2 documents	2/3/2016	1	13581-
232	Email from Katie Emmer (THEMAC) to Brad Reid (NMENV) re: public notice flyer in Hillsboro, NM with 2 photos	2/4/2016	3	13583-13585
233	Cooperating Agency Meeting Notes	2/9/2106	3	13587-13589
234	Max Yeh (Hillsboro resident) comments on DEIS for Copper Flat	2/29/2016	39	13591-13629
235	Letter from Katie Emmer (THEMAC) to Michelle Hunter (GWQB) re: Public Notice Completion Affidavit, photos, and return reciepts from mailing	3/10/2016	10	13631-13640
236	Screenshot from Tempo shows file review DP 1840 screen; Brad Reid (NMENV) comments: "File review in preparation of drafting a RFAI letter re: DP Application"	3/18/2016	1	13642-
237	Letter from Brad Reid (GWQB) to Jeff Smith (NM Copper Corp.) re: Request for Additional Information, Application for Discharge Permit 1840	3/21/2016	13	13644-13656
238	NM Copper Corp Cooperating Agencies Meeting Notes	3/22/2016	3	13658-13660
239	Comments by NMED on the Las Cruces BLM DEIS attached to email from Brad Reid (GWQB) to Doug Haywood (Las Cruces BLM)	4/4/2016	2	13662-13663
240	(NMENV) and Jeff Smith/Katie Emmer/Juan Velasquez (for NM Copper Corp) re: Discussion regarding NMED's Request for Additional Information	4/5/2016	1	13665-
241	Inspection of Public Record Request for additional information related to discharge permit-1840 from from Jaimie Park	4/18/2016	2	13667-13668
242	Meeting Notes from Surface Water Quality Bureau (SWQB) and NM Copper Corp	4/28/2016	6	13670-13675
243	NM Copper Corp. Cooperating Agency Meeting Notes	5/4/2016	4	13677-13680
244	Inspection of Public Record Request for discharge permit-001 and Alta Gold's application for modification to DP-001 (submitted in 1995) from Jaimie Park	5/11/2016	1	13682-

245	Letter from Jeff Smith (NM Copper Corp) to Brad Reid (GWQB) re: Request for Extension, NMCC Response to NMED Request for Additional Information	5/19/2016	1	13684-
246	Letter from Kurt Vollbrecht (NMENV) to Jeff Smith (NM Copper Corp) re: Approval of Extension of Time to Submit Additional Information	5/19/2016	2	13686-13687
247	Inspection of Public Records Request for discharge permit -001 and Alta Gold's application for modification to DP-001 (submitted in 1995) from Jamie Park (Duplicate)	5/11/2016	1	13689-
248	Request for Extension, NMCC Response to NMED Request for Additional Information, Application for Discharge Permit 1840 (Duplicate)	5/19/2016	1	13691-
249	Letter from Kurt Vollbrecht (NMENV) to Jeff Smith (NM Copper Corp) re: Approval of Extension of Time to Submit Additional Information, Application for Discharge Permit 1840 (Duplicate)	5/19/2016	2	13693-13694
250	Notes from Meeting of Surface Water Quality Bureau(SWQB) and NM Copper Corp (Duplicate)	5/23/2016	3	13696-13698
251	Letter from Rhonda Brittan (T or C concerned resident) to Brad Reid (GWQB) re: comment on potential negative effects of the Copper Flat Mine operation	5/25/2016	1	13700-
252	New Mexico Copper Corporation Response to NMED's March 21, 2016 Comments and Request for Additional Information, includes revised documents from the Discharge Permit Application (DPA)	6/21/2016	115	13702-13816
253	Email exchange between Brad Reid (GWQB) and Jaimie Park (NM Env. Law Center) re: status update for discharge permit application	7/5/2016	3	13818-13820
254	NM Copper Corp Cooperating Agencies Meeting Notes	7/6/2016	3	13822-13824
255	Email from Tomas Enos (concerned Santa Fe resident) to Brad Reid (GWQB) re: wants to be put on mailing list for information on the Copper Flat permit	7/25/2016	1	13826-
256	Inspection of Public Record Request for NMCC's submission in response to NMED's Request for Additional Information letter issued on March 21, 2016	7/15/2016	2	13828-13829
257	Various Internal Memoranda: Copper Flat, Minimal Impact Exploration Permit, MMD Permit No. SI025EM, Modification 16-1", "Request for Comments, Minimal Impact Exploration Permit, Modification 16-1", Letter from David Ennis to Jeff Lewellin re: Re-Application for Minimal Impact Exploration Permit, Letter from Katie Emmer to David Ennis re: Re-Application for Exploration Permit with attached maps, Letter from Raymond Erwin to Chris Eusctice re: relinquishment of drill sites.	8/4/2016	29	13831-13859
258	Email from Brad Reid re: Cooperating Agency Meeting	8/24/2016	2	13861-13862
259	Cooperating Agency Meeting Notes	8/24/2016	3	13864-13866

260	Letter from Brad Reid (GWQB) to Jeff Smith (NM Copper Corp) re: Request for Additional Information, Application for Discharge Permit 1840	9/19/2016	5	13868-13872
261	Email exchange between Jaimie Park (NM Env. Law Center) and Brad Reid (GWQB) re: questions about discharge permit application	9/19/2016	4	13874-13877
262	Email Exchange Between Brad Reid and Jamie Park re: fulfillment of IPRA Request	9/27/2016	3	13879-13881
263	NM Copper Corp Cooperating Agencies Meeting Notes	10/12/2016	3	13883-13885
264	Letter from Jeff Smith (NM Copper Corp) to Brad Reid (GWQB) re: Closure Plan Submittal DP 1840 Application and Letter from Jeff Smith (NM Copper Corp) to David Ennis (Permit Lead for MARP) re: Updated Mining Operation and Reclamation Plan	10/14/2016	3	13887-13889
265	Letter from Shelly Lemon (GWQB) to Jeff Smith (NM Copper Corp) re: Current and Proposed Pit Water Body	10/21/2016	2	13891-13892
266	Field Trip Report created by Mining Environmental Compliance Section (MECS), includes photos	10/28/2016	9	13894-13902
267	Discharge Permit-1840 and Letter from Jeff Smith (NM Copper Corp) to Brad Reid (GWQB) re: DP-1840 Application; Additions to NMCC June 21, 2016 RFI Responses; MORP Update & Mine Reclamation and Closure Plan	11/2/2016	6	13904-13909
268	Email from Jeff Smith (NM Copper Corp) to Brad Reid (GWQB) re: Discharge Permit-1840 and Letter from Jeff Smith (NM Copper Corp) to Brad Reid (GWQB) re: DP-1840 Application; Additions to NMCC June 21, 2016 RFI Responses; MORP Update & Mine Reclamation and Closure Plan (Duplicate)	11/2/2016	6	13911-13916
269	Letter from Jeff Smith re: Additional Information Requested	11/15/2016	22	13918-13939
270	NM Copper Corp Cooperating Agencies Meeting Notes	11/16/2016	4	13941-13944
271	Memorandum "Summary of Stage 1 & 2 abatement plan procedures required by NMED for Copper Flat Mine under a "no action" alternative"	12/6/2016	1	13946-
272	Email from Katie Emmer (THEMAC) to Brad Reid (NMENV) re: JSAI Response to questions regarding the rapid-fill scenario and Letter from Steven Finch (John Shomaker & Associates) to Katie Emmer (THEMAC) dated June 25, 2015 re: Response to questions regarding the rapid-fill scenario for posting mining reclamation of proposed Copper Flat open pit	12/14/2016	4	13949-13952
273	Email from Katie Emmer (THEMAC) to Brad Reid (GWQB) re: Conceptual Model of GW Flow 22 May 2012	12/14/2016	1	13954-
274	Mining Operation and Reclamation Plan (MORP) (UPDATED VERSION Oct. 2016) (prepared by Valasquez Env. Management Services)	Oct-16	1222	13956-15177

275	Conceptual Model of Groundwater Flow in the Animas Uplift and Palomas Basin (prepared by John Shomaker & Associates)	5/22/2012	44	15179-15222
276	Email from Melissa Mascarenas (NMED) to Jaimie Park re: Inspection of Public Record Request for Discharge Permit-1340 and Discharge Permit-1236	12/15/2016	2	15224-15225
277	Memorandum "NMED Comments, Updated Mining Operation and Reclamation Plan, MMD Permit No. S1027RN" and Memorandum "Request for Comments, Regular New Mine, Updated Mining Operation and Reclamation Plan" and Letter from David Ennis to Jeff Lewellin re: Request for Comments, Regular New Mine, Updated Mining Operation and Reclamation Plan, and NMED Internal Memorandum "Request for Comments, Regular New Mine, Updated Mining Operation and Reclamation Plan"	1/6/2017	7	15227-15233
278	NM Copper Corp Cooperating Agencies Meeting Notes	1/11/2017	1	15235-
279	Email from Melissa Mascarenas (NMED) to Jaimie Park (NM Env. Law Center) re: Inspection of Public Record Request by Jaimie Park	1/12/2017	2	15237-15238
280	Email exchange between Candi Browne (concerned resident of T or C) and Brad Reid (NMENV) re: NM Copper Corp Wastewater Discharge Permit, request for information	1/17/2017	9	15240-15248
281	Email exchange between Jaimie Park (NM Env. Law Center) and Brad Reid (GWQB) re: questions about MORPs from Dec. 2010 (revised in 2011) and MORP from July 2012	1/25/2016	2	15250-15251
282	Letter from Brad Reid (GWQB) to Jeff Smith (NM Copper Corp) re: Request for Additional Information	2/14/2017	4	15253-15256
283	Email from Melissa Mascarenas (NMED) to Jaimie Park (NM Env. Law Center) re: Inspection of Public Record Request by Jaimie Park	2/14/2017	2	15258-15259
284	NM Copper Corp Cooperating Agencies Meeting Notes	2/22/2017	1	15261-
285	Email from Brad Reid (GWQB) to Katie Emmer (THEMAC) re: Copper Flat surface water monitoring locations with attached map	2/27/2017	2	15263-15264
286	Cooperating Agency Meeting Notes	4/5/2017	2	15266-15267
287	Email from Melissa Mascarenas (NMED) to Katie Emmer (THEMAC) re: Request to Inspect Public Records	4/7/2017	2	15269-15270
288	Letter from Jeff Smith (NM Copper Corp) to Brad Reid (GWQB) re: NM Copper Corp Response to NMED comments re: Additional Information Requested on February 14, 2017	4/14/2017	90	15272-15361
289	Email from Melissa Mascarenas (NMED) to Jaimie Park (NM Env. Law Center) re: Inspection of Public Record Request by Jaimie Park (NM Env. Law Center)	4/18/2017	2	15363-15364

290	Letter from David Ennis to Katie Emmer re: Technical Comments on Updated Mining Operation and Reclamation Plan (MORP), Email from Daniela Roth (EMNRD) to David Ennis re: Request for agency comments, Memorandum "NMED Comments, Updated Mining Operation and Reclamation Plan", Email from Doug Rappuhn (NM OSE) to David Ennis (EMNRD) re: NMOSE comments on Updated Mining Operation and Reclamation Plan, Letter from Chuck Hayes (Ecological and Environmental Planning Division) to David Ennis (EMNRD) re: NMCC Updated Mining Operation and Reclamation Plan, Letter from Bob Estes (Archaeologist for Dept. of Cultural Affairs) to David Ennis (EMNRD) re: Updated Mining Operation and Reclamation Plan	4/21/2017	18	15366-15383
291	NM Copper Corp Cooperating Agencies Meeting Notes	5/17/2017	1	15385-
292	Inspection of Public Record Request by Jaimie Park	6/1/2017	2	15387-15388
293	Inspection of Public Record Request by Jaimie Park	6/28/2017	3	15390-15392
294	NM Copper Corp Cooperating Agencies Meeting Notes	6/28/2017	1	15394-
295	Letter from NM Env. Law Center with exhibits A-C, to Shelly Lemon (SWQB) re: "Copper Flat Copper Mine Current and Proposed Future Pit Lake"	7/3/2017	23	15396-15418
296	Letter from Brad Reid (GWQB) to Jeff Smith (NM Copper Corp) re: Technical Completeness Status	7/17/2017	2	15420-15421
297	NM Copper Corp's Responses to MMD comments on MORP, attached to two letters from Jeff Smith (NM Copper Corp) to David Ennis (EMNRD) and Brad Reid (GWQB)	7/17/2017	34	15423-15456
298	Mining Operation and Reclamation Plan (MORP) (REVISED VERSION July 2017)	Jul-17	233	15458-15690
299	Inspection of Public Record Request by Jaimie Park	7/19/2017	2	15692-15693
300	Email from Melissa Mascarenas to Shelly Lemon (SWQB) + Michelle Hunter (GWQB) re: Jaimie Park request to inspect public records	9/6/2017	3	15695-15697
301	Letter from Jeff Smith (NM Copper Corp) to Shelly Lemon (SWQB) re: BLM Review and Concurrence with NMCC-Commissioned Surveys, with the following attachments: 1. Copper Flat Boundary Survey Plat, March 1, 2017; 2. BLM letter from Ida Viarreal, September 13, 2017; 3. BLM Map Township 15 South, Range 7 West	9/27/2017	7	15699-15705
302	Memorandum of Meeting between Brad Reid/ Kurt Vollbrecht (NMED) and Jeff Smith/ Juan Velasquez (NM Copper Corp) re: DP Application Status	10/3/2017	1	15707-
303	Letter from Jeff Smith to David Ennis re: Oct. 5, 2017 Request for Additional Information Updated MORP Rev.1, 2017 including the following attachments: Technical Memorandum from GeoSystems Analysis; Proposed Reclamation/ Revegetation Plan	10/13/2017	16	15709-15724

304	Letter from Jeff Smith to Brad Reid (GWQB) re: Supplemental Information regarding open pit hydrologic sink, with attached technical memorandum prepared by Shomaker & Assoc. (JSAI)	10/13/2017	35	15726-15760
305	Inspection of Public Record Request by Jaimie Park	10/23/2017	3	15762-15764
306	Inspection of Public Record Request by Jaimie Park	11/9/2017	3	15766-15768
307	Letter from Jeff Smith to David Ennis re: NMMC Response to MMD Additional Technical Comments On: Ground Water Quan Bureau; Updated Mining Operation and Reclamation Plan, Rev. I, July 2017; Response for Additional Information dated October 13, 2017	11/30/2017	4	15770-15773
308	Email exchange between Jaimie Park and Melissa Mascarenas / Shelly Lemon (SWQB)/ Bryan Dail (NMENV)/ Andrew Knight (NMED)/ Kurt Vollbrecht (NMENV)/ Brad Reid (GWQB) re: IPRA Request	12/1/2017	4	15775-15778
309	Email exchange between Kurt Vollbrecht (NMENV) and Andrew Knight (NMED) re: NMCC - BLM Acknowledgement of Validity of Surveys	12/4/2017	1	15780-
310	Letter from Jeff Smith (NM Copper Corp.) to David Ennis (EMNRD) re: Permit Tracking No. S1027RN, NM Copper Corp. Document Transmittal	12/13/2017	1	15782-
311	Letter from Jeff Smith (NM Copper Corp) to Kurt Vollbrecht (NMED)/ David Ennis (EMNRD) re: NMCC's OSE Application to Repair Existing Copper Flat Tailings Dam Reservoir and NM Copper Corp's "Application to OSE for Breach of the Splitter Dike behind the Copper Flat Tailings Dam"	12/13/2017	32	15784-15815
312	for Permit Tracking No. SI027RN: Probable Hydrologic Consequences, Dec. 2017; Predictive Geochemical Modeling of Pit Lake Water Quality, Dec. 2017"	12/15/2017	2	15817-15818
313	Email exchange between Brad Reid (NMED)/ Kurt Vollbrecht (NMENV) + Shelly Lemon (SWQB) re: Copper Flat Pit Geochem	12/19/2017	1	15820-
314	Email from Jaimie Park to Andrew Knight re: Copper Flat Inter Se Decision put out on December 28, 2017	1/2/2018	1	15822-
315	Email from David Ennis (EMNRD) to Jeffrey Lewellin (NMENV) re: Copper Flat Mine NMED Comments Request for Extension (approved)	1/8/2018	1	15824-
316	Newspaper Article: "Judge tosses out water rights mining company was banking on for Copper Flat" written by Laura Paskus for the NM Political Report	1/8/2018	4	15826-15829
317	Inspection of Public Record Request by Jaimie Park	1/22/2018	5	15831-15835
318	Email from Juan Velasquez (NM Copper Corp) to Brad Reid re: Compliance with 20.6.7.22(A)], with attachment: DP Andesite Plant Figures for Coarse Ore and Run-of- mine Stockpiles.pdf	1/29/2018	7	15837-15843

319	Revised version of Figure 2 for Appendix E Rev 1, Water-Quality Monitoring Plan	1/29/2018	2	15845-15846
320	Letter from Jeff Smith (NM Copper Corp) to Bryan Dail (SWQB) re: Private Land Status of Open Pit Lake, with attached maps and Email exchange between Stephen Beyerlain (BLM) and Jeffrey Smith (NM Copper Corp) with attached map	1/25/2018	6	15848-15853
321	Discharge Permit Application (DPA) for the Copper Flat Mine DP-1 (Revised August 2017) with attached application forms	Aug-17	1222	15855-17076
322	Predictive Geochemical Modeling of Pit Lake Water Quality at the Copper Flat Project (Revised Version Dec. 2017) (prepared by SRK Consulting)	Dec-17	203	17078-17280
323	Probable Hydrologic Consequences of the Copper Flat Project (prepared by Shomaker & Assoc.)	12/12/2017	77	17282-17358
324	Monitoring Well Construction and Abandonment Conditions, Revision 1.1, March 2011, attached to letter from Brad Reid (NMED) to Jeff Smith (NM Copper Corp)	2/2/2018	48	17360-17407
325	Email from Richard & Gloria Spellman (Hillsboro residents) re: public hearing on DP 1840 and Email from Stan Brodsky (Hillsboro resident) re: public hearing on DP 1840	2/3/2018	2	17409-17410
326	Email from Max Yeh (Hillsboro resident) to Brad Reid (NMED) re: public hearing on DP 1840	2/5/2018	1	17412-
327	Email exchange between Jeff Smith (NM Copper Corp) and Brad Reid (NMED) re: Draft Discharge Permit DP-1840	2/5/2018	2	17414-17415
328	Public Notice for Discharge Permits published in Sierra City Herald (1/31/2018) + Albuquerque Journal (2/2/2018)	1/31/2018	4	17417-17420
329	Email from David Ennis (EMNRD) to Jeffrey Lewellin (NMENV) re: Copper Flat Addendum Report Review -Request for Extension to Provide NMED Comments (approved)	2/6/2018	1	17422-
330	Email from Amanda Munro (Hillsboro resident) re: public hearing on DP 1840 and Email from Nichole Trushell (Kingston resident) re: public hearing on DP 1840	2/7/2018	2	17424-17425
331	Inspection of Public Record Request by Jaimie Park for: The entire Discharge Permit 1840 file	2/7/2018	2	17427-17428
332	Email from Jan Richmond (Hillsboro resident) to Brad Reid (NMED) re: Copper Flat Mine	2/10/2018	1	17430-
333	Turner Ranch Properties + Hillsboro Pitchfork Ranch request for an extension of the public comment period on DP-1840	2/12/2018	6	17432-17437
334	Letter from Rachel Conn (Amigos Bravos) to Brad Reid (NMED) re: request for extension of comment period for DP-1840	2/12/2018	3	17439-17441
335	Letter from Samantha Barncastle (Barncastle Law Firm) to Brad Reid (NMED) re: Request for 60 Day Extension of Public Comment Period for DP-1840	2/14/2018	2	17443-17444

336	Email exchange between Laura Paskus (NM Political Report) and Allison Majure/ Andrew Knight/ Brad Reid (NMED) re: Copper Flat discharge permit request for more information	2/14/2018	2	17446-17447
337	Letter from John McGarvie (Arrey resident) to the GWQB re: public hearing on DP-1840	2/14/2018	1	17449-
338	Emails from Brad Reid (NMED) to Rachel Conn, Samantha Barncastle, and Jaimie Park re: approval of requests to extend public comment period on DP-1840	2/15/2018	3	17451-17453
339	Email from Brad Reid (NMED) to Jeffrey Smith (NM Copper Corp) re: extension of draft comment period for DP-1840	2/15/2018	1	17455-
340	Inspection of Public Record Request from Samantha Barncastle	2/15/2018	3	17457-17459
341	Inspection of Public Record Request from Katie Emmer	2/16/2018	2	17461-17462
342	Email from Val Hildreth-Werker (Hillsboro resident) to Brad Reid (NMED) re: public hearing on DP-1840	2/19/2018	1	17464-
343	Email exchange between Tomas Enos (Santa Fe resident) and Brad Reid (NMED) re: comments on draft discharge permit 1840	2/21/2018	1	17466-
344	Email exchange between Robin Tuttle (Hillsboro resident) and Brad Reid (GWQB) re: request for public hearing on DP-1840	2/21/2018	2	17468-17469
345	Email exchange between Jaimie Park and Andrew Knight (NMED) re: IPRA request for Copper Flat Mine DP-1840 Entire File	2/21/2018	2	17471-17472
346	Request for Extension of Time to File Public Comments on Copper Flat Copper Mine Draft Discharge Permit 1840 by Allyson Siwik (Gila Resources Information Project)	2/22/2018	3	17474-17476
347	Exempt Records Review Form (No exempt materials identified) (reviewed by Brad Reid (NMENV)) and Inspection of Public Records Review Documentation, (Jaimie Park) reviewed entire DP-1840 File	2/21/2018	2	17478-17479
348	Email exchange between Jaimie Park and Andrew Knight (NMED), re: IPRA Request for Copper Flat Mine DP-1840 Entire File	2/22/2018	2	17481-17482
349	Email from Chuck Barrett (Hillsboro resident) to Brad Reid (GWQB), re: wastewater discharge permit to the Copper Flat Mine	2/22/2018	1	17484-
350	Email from Lochlin Farrell (NMED) to The Herald with attached Public Notice to be published on or before March 2/3, 2018	2/23/2018	6	17486-17491
351	Email from Melissa Mascatrenas (NMED) to Jaimie Park (NM Env. Law Center) re: Inspection of Public Record Request by Jaimie Park for letter/ communication to Gold Express Corporation in 1992 with attached request	2/26/2018	2	17493-17494
352	Inspection of Public Record Request Form from Jaimie Park	2/27/2018	3	17496-17498

353	Email exchange between Shelly Lemon (NMED), Kurt Vollbrecht (NMED), and Brad Reid (GWQB), re: IPRA Request DP-1840	2/27/2018	1	17500-
354	Email from Melody Sears (Hillsboro resident) to Brad Reid (GWQB), re: NMCC wastewater discharge permit	3/1/2018	1	17502-
355	Emails from Stan Brodsky (Hillsboro resident), Candace Brown (T or C resident), Harley Shaw (Hillsboro resident), Nolan Winkler (Hillsboro resident), James and Teresa Harthun, and John and Cindy Cornell (Hillsboro residents) to Brad Reid (GWQB), re: Copper Flat Mine public hearing	3/2/2018	6	17504-17509
356	Emails from Bob Barnes (Hillsboro resident) and LeRoy Henderson (Cuchillo resident) to Brad Reid (GWQB), re: Groundwater Discharge Permit Application Proposed for Approval	3/3/2018	2	17511-17512
357	Email exchange between Jeffery Lewellin (NMED) and David Ennis (EMNRD), re: Copper Flat Addendum Report Review- Request for Extension to Provide NMED Comments	3/9/2018	1	17514-
358	Email from Bill Lindenau and Veronique De Jaegher (residents) to Brad Reid (GWQB), re: Copper Flat Mine	3/18/2018	1	17516-
359	Email from DA Hayes (T or C resident) to Brad Reid (NMED), re: Permit DP1840	3/20/2018	1	17518-
360	Letter to Katie Emmer (THEMAC) from David Ennis (NMED) with attached agency comments, re: Technical Comments on Baseline Data Reports: Predictive Geochemical Modeling of Pit Lake Water Quality, December 2017 and Probable Hydrologic Consequences, December 12, 2017	3/22/2018	15	17520-17534
361	Email from Peter Van Metre (Hillsboro resident) to Brad Reid (GWQB), re: Request for a hearing on DP 1840	3/27/2018	1	17536-
362	Images of CDs/DVDs in DP-1840 file as of 3/28/2018	3/28/2018	16	17538-17553
363	Email from Brad Reid (GWQB) to Kurt Vollbrecht (NMED), re: DP-1840 Hearing Requests tally	3/29/2018	1	17555-
364	Memorandum from Kurt Vollbrecht (NMED) to Butch Tongate (NMED), re: Request for Hearing Determination for the Draft Discharge Permit, DP-1840	3/29/2018	2	17557-17558
365	Emails from Leighandra Keeven (BLM) to Brad Reid (GWQB), Bryan Dail (NMED), and Ronald Kellermueller (DGF), re: Copper Flat Administrative Final EIS for Review	4/4/2018	1	17560-
366	Memorandum of Meeting or Phone Conversation between Brad Reid (GWQB) and Maggie Karlin (interested party re: Copper Flat Mine), re: Returned Maggie's 3/23/18 call	4/5/2018	1	17562-
367	Email exchange between Kurt Vollbrecht (NMED) and Brad Reid (GWQB), re: Copper Flat TSF design report with attached 1.31.18 permit to alter or repair copper flat tailings dam	4/6/2018	9	17564-17572
368	Inspection of Public Record Request Form from Katie Emmer	4/6/2018	2	17574-17575

369	Email exchange between Brad Reid (GWQB) and Dail Bryan (NMED), re: BLM EIS	4/11/2018	1	17577-
370	Email from Jennifer Fullam (NMED), re: Comments to Copper Flat Administrative Final Environmental Impact Statement; Letter to BLM regarding comments to Copper Flat	4/17/2018	4	17579-17582
371	Email from Shelly Lemon (NMED), re: Comments to Copper Flats Administrative Final Environmental Impact Statement Letter to BLM, with attached clarifications to Copper Flat EIS comments	4/26/2018	3	17584-17586
372	Email from Pat Gordon (Rio Grande Compact Commissioner) to Brad Reid (GWQB), re: New Mexico Copper Corporation (NMCC)- Discharge Permit, with attached Tom Blaine- Application for Permit to Appropriate	4/26/2018	3	17588-17590
373	Email from Janet Correll to Brad Reid (GWQB), re: Request for Additional 60 Day Extension of Comment Period for DP-1840 (Copper Flat Mine), with attached 2nd Req. to NMED for 60 Day Ext. of Comment Period Re Copper Flat Mine	4/26/2018	2	17592-17593
374	Email from Katie Emmer (THEMAC) to Brad Reid (NMENV), re: NMCC 5 maps, with attachment	4/27/2018	6	17595-17600
375	Email from Joanne Ferrary (resident) to Brad Reid (NMENV), re: Copper Flat DP Flyer, with flyer attached	4/28/2018	2	17602-17603
376	Email from Jane Holland (T or C resident) to Reid Brad (NMENV), re: please deny the draft discharge permit for the Australian mining company	4/29/2018	1	17605-
377	Email from Stan Brodsky (Hillsboro resident) to Brad Reid (NMENV) re: Copper Flat Mine - Discharge Permit	4/29/2018	1	17607-
378	Email from Rebecca Speakes (Sierra County resident) to Brad Reid (NMENV), re: Deny the Draft Discharge Permit for the Mine	4/30/2018	1	17609-
379	Email from Janet Correll (on behalf of Samantha Barncastle (Barncastle Law Firm)) to Brad Reid (NMEVN), re: EBID Request for Additional 60 Day Extension of Comment Period for DP-1840	5/1/2018	2	17611-17612
380	Email from Deb Nicoli (Sierra County resident) to Brad Reid (NMENV), re: Deny Discharge Permit of Copper Flat Mine	5/2/2018	1	17614-
381	Email from Jaimie Park (NM Env. Law Center) to Andrew Knight (NMED) re: Issue with Copper Flat DP-1840 AR	5/2/2018	1	17616-
382	Email from Ann Bean (Hillsboro resident) to Brad Reid (NMENV), re: Copper Flats Mine Hillsboro, NM	5/2/2018		17618-
383	Email from Katie Emmer (THEMAC) to Melissa Mascarenas (NMENV), re: NMCC IPRA 3May2018, with attached Inspection of Public Record Request Form	5/3/2018	2	17620-17621
384	Email from Nolan Winkler (Hillsboro resident) to Brad Reid (NMENV), re: Copper Flat mine discharge permit	5/3/2018	1	17623-
385	Email from Linda Seebach (Hillsboro resident) to Brad Reid (NMENV), re: Copper Flats Draft Permit	5/3/2018	1	17625-

386	Email from Katie Emmer (THEMAC) to Brad Reid (NMENV), re: NMCC Comments on Draft DP-1840	5/3/2018	1	17627-
387	Email from Kristin Boren (Hillsboro resident) to Brad Reid (NMENV), re: Deny draft permit for Copper Flats Mine	5/3/2018	1	17629-
388	Email from Jaimie Park to Melissa Mascerenas (NMENV), re: IPRA Request Pertaining to DP-1840, with attached Inspection of Public Record Request Form	5/3/2018	3	17631-17633
389	Email from Jaimie Park to Andrew Knight (NMENV), re: Disc Received	5/3/2018	1	17635-
390	Email from Jaimie Park (NM Env. Law Center) to Melissa Mascerenas (NMENV), re: IPRA Request II, with attached Inspection of Public Record Request Form	5/3/2018	3	17637-17639
391	Email from Katie Emmer (THEMAC) to Brad Reid (NMENV), re: NMCC Comments on Draft DP-1840	5/3/2018	1	17641-
392	Email from Don Avery and Mary Cardyn (Hillsboro residents) to Brad Reid (NMENV), re: Copper Flat Mine draft discharge permit	5/3/2018	1	17643-
393	Email from Claudia Edwards (Hillsboro resident) to Brad Reid (NMENV), re: DENY draft permit for Copper Flat Mine, Hillsboro, Sierra Co., NM	5/3/2018	1	17645-
394	Email from Melody Sears (Hillsboro resident) to Brad Reid (GWQB), re: Addendum to previous comments	5/3/2018	1	17647-
395	Email from Robin Tuttle (Hillsboro resident) to Brad Reid (NMENV), re: Comments on DP-1840	5/3/2018	4	17649-17652
396	Email from Bill Bussmann (Caballo resident) to Brad Reid (NMENV), re: Copper Flat Mine Discharge Permit	5/3/2018	1	17654-
397	Email from Linda Glova (nearby resident) to Brad Reid (NMENV), re: Copper Flat Mine	5/3/2018	1	17656-
398	Email from David and Nancy Soules (Sierra County residents) to Brad Reid (NMENV), re: copper flats mine	5/3/2018	1	17658-
399	Email from Owen Jones (Hillsboro resident) to Brad Reid (NMENV), re: Draft discharge permit for Copper Flat Mine	5/3/2018	1	17660-
400	Email from Melissa Mascarenas to Jaimie Park, re: Request to Inspect Public Records	5/3/2018	3	17662-17664
401	Inspection of Public Record Request Form submitted by Katie Emmer	5/3/2018	1	17666-
402	Email from Steve Detloff (Hillsboro resident) to Brad Reid (NMENV), re: Mine Support from a Water Operator, with attached flyer	5/4/2018	2	17668-17669
403	Email exchange between Stan Brodsky (Hillsboro resident) and Brad Reid (NMENV), re: Copper Flat Mine	5/4/2018	2	17671-17672
404	Email exchange between Jaimie Park (NM Env. Law Center) and Andrew Knight (NMED), re: Need to Hand Deliver Copper Flat DP-1840 Comments Today	5/4/2018	1	17674-

405	Email from Richard Spellman (Hillsboro resident) to Brad Reid (NMENV), re: Hillsboro Resident	5/4/2018	1	17676-
406	Email from Mark Kashmar (Caballo resident) to Brad Reid (NMENV), re: Copper Flat Mine Draft Discharge Permit	5/4/2018	1	17678-
407	Email from Larry Brooks (Hillsboro resident) to Brad Reid (NMENV), re: Copper Flats Mine	5/4/2018	1	17680-
408	Prepared by the New Mexico Environmental Law Center on behalf of Turner Ranch Properties, L.P. and Hillsboro Pitchfork Ranch with attached exhibits	5/4/2018	469	17682-18150
409	Email from Catherine Berger (Caballo resident) to Brad Reid (NMENV), re: Copper Flat Mine Discharge Permit	5/4/2018	1	18152-
410	EBID Comments Regarding Copper Flat Mine, Application for DP-1840, from Samantha Barncastle	5/3/2018	16	18154-18169
411	Letter from Katie Emmer to Brad Reid, re: Transmittal of New Mexico Copper Corporation's Written Comments on Draft Discharge Permit 1840, for Copper Flat Mine	5/3/2018	58	18171-18228
412	Email from John Buchser (water issues chair of Rio Grande chapter of the Sierra Club) to Brad Reid (NMENV), re: DP-1840 Copper Flat Mine Discharge Permit, with attached comments	5/5/2018	5	18230-18234
413	Email from Denise Boman (T or C resident) to Brad Reid (NMENV), re: Copper Flat Mine - Hillsboro, NM	5/5/2018	2	18236-18237
414	Email from Allyson Siwik (ActionNetwork.org) to Brad Reid (NMENV), re: Brad Reid, New Mexico Environment Department, Deny discharge permit for Copper Flat Mine, with attached signatures	5/5/2018	15	18239-18253
415	Email from Allyson Siwik to Brad Reid, re: GRIP public comments on Copper Flat DP-1840	5/5/2018	3	18255-18257
416	Email from Katie Emmer to Melissa Mascarenas, re: NMCC 8 May 2018 IPRA, with attached request	5/8/2018	3	18259-18261
417	Letters from Robert Shipley (Sierra County resident) to Brad Reid (NMENV) and Kurt Volbrecht (NMENV), re: disapproval of discharge permit	5/9/2018	2	18263-18264
418	Email exchange between Katie Emmer (THEMAC), Brad Reid (NMENV), and Andrew Knight (NMENV), re: NMCC IPRA 3 May 2018	5/11/2018	1	18266-
419	Exempt Records Review Form (No exempt materials identified) (reviewed by Brad Reid (NMENV))	5/16/2018	1	18268-
420	Letter from Jeff Smith to David Ennis re: Response to Agency Comments including revised Probable Hydrologic Consequences and Predictive Geochemistry Reports	5/22/2018	359	18270-18628
421	Inspection of Public Records Review Documentation (DP 1840 file) (reviewed by Katie Emmer)	5/22/2018	1	18630-

422	Inspection of Public Records Review Documentation (DP 1840 file) (reviewed by Michael Jensen)	5/23/2018	1	18632-
423	Email from Jeffrey Lewellin (NMENV) to Brad Reid (NMENV) and Shelly Lemon (NMENV), re: MMD Request for Comments - Copper Flat Responses to NMED Related to Submitted Reports and NMED Comments	5/30/2018	3	18634-18636
424	Letter from Jeff Smith to Charles Thompson, Dam Safety Bureau Chief, OSE	5/31/2018	18	18638-18655
425	Inspection of Public Records Request from Juan Velasquez	6/1/2018	1	18657-
426	Email from Brad Reid (NMENV) to Max Yeh, re: DP-1840 Hearing Date	6/7/2018	1	18659-
427	Notice of Docketing and Appointment of Hearing Officer in the matter of Copper Mine Flat Discharge Permit DP-1840 from Butch Tongate	6/7/2018	2	18661-18662
428	Inspection of Public Records Request from Juan Velasquez	6/15/2018	2	18664-18665
429	Memo from Brad Reid et al to Holard Shepard re: Applicant response Related to Two Technical Reports	6/18/2018	4	18667-18670
430	Inspection of Public Records Request from Samantha Barncastle	6/28/2018	2	18672-18673
431	Letter from David Enis to Katie Emmer re: Approvable Permit Application Package	7/13/2018	1	18675-
432	Email from Candi Brown to Brad Reid re: Question on Tailings Pond Liner	7/26/2018	2	18677-18678
433	Email from Kurt Vollbrecht to list of concerned citizens re: Notification of Public Hearing	7/26/2018	1	18680-
434	Memorandum of Phone Conversation between Brad Reid and Candi Brown re: TSF Liner	7/30/2018	1	18682-
435	Email exchange between Brad Reid and Katie Emmer re: Posting of Hearing Notice and Fact Sheet	8/7/2018	12	18684-18695
436	Email exchange between Kurt Vollbrecht and Stan Brodsky re: Scheduling of Hearing	7/27/2018	3	18697-18699
437	Email from Kurt Vollbrecht to list of concerned citizens re: Notification of Public Hearing	8/8/2018	3	18701-18703
438	Email from Katie Emmer to Brad Reid re: Posting of Notices	8/10/2018	6	18705-18710
439	Email from Katie Emmer to Brad Reid re: Map of Wells	8/9/2018	2	18712-18713
440	Email from Cindy Haro to Lochlin Ferrell re: Publication of Legal Notice	8/11/2018	8	18715-18722
441	Notice from EMNRD of Cancelled and Rescheduled Hearing	8/8/2018	2	18724-18725
442	Email from Jeffrey Lewellin re: Financial Assurance Review	8/16/2018	2	18727-18728
443	Email exchange between Michael Jensen and Brad Reid re: Public Comment Period	9/4/2018	3	18730-18732
444	Revised Draft Permit	9/18/2018	42	18734-18775
445	Email from Deborah Brandt to Brad Reid re: Comment on Proposed Permit	9/13/2018	2	18777-18778
446	Email from Fiona Van Reisen to Brad Reid re: Comment on Permit	9/16/2018	1	18780-

447	Email from Max Yeh re: Comment on Proposed Permit	9/17/2018	16	18782-18797
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