

Questa Decommissioning and Demolition Project

Building Demolition and Cleanup Plan Phase 3 Activities – Mill and Mine Areas; Balance of Facilities



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LIST OF ACRONYMS

ACM	Asbestos-containing materials
BTEX	Benzene, toluene, ethylbenzene, xylene
BMP	Best management practices
C&D	Construction and demolition
CERCLA CID	Comprehensive Environmental Response, Compensation, and Liability Act
	Construction Industries Division of the New Mexico Regulation and Licensing Department
CFC	chlorofluorocarbons
CFR	Code of Federal Regulations
CGP	Construction General Permit
CMI	Chevron Mining Inc.
EMNRD	New Mexico Energy, Minerals and Natural Resources Department
EPA	U.S. Environmental Protection Agency
HF	halogenated fluorocarbons
kg	kilogram
LOTOTO	lock-out/tag-out/test-out
mg	milligram
MMD	Mining and Minerals Division of EMNRD
MSDS	Material Safety Data Sheet
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
PCB	polychlorinated biphenyl
PCS	Petroleum-contaminated soils
PMLU	Post-mine land use
ppm	Parts per million
ROD	Record of Decision
SDS	Safety Data Sheet
SPCC	Spill Prevention Control and Countermeasures
SVOC	Semi-volatile organic compound
SWPPP	Stormwater Pollution Prevention Plan
TCLP	Toxicity Characteristic Leaching Procedure
TPH	Total petroleum hydrocarbons
TSCA	Toxic Substances Control Act
VOC	Volatile organic compound

1.0 INTRODUCTION

The Questa Mine is a former underground and open pit molybdenum mine and milling operation owned by Chevron Mining Inc. (CMI). The mine and mill facilities are located approximately 7 miles east of the Village of Questa, New Mexico (Questa), in Taos County along New Mexico Highway 38 and the adjacent Red River. The Questa Mine's Tailing Facility is located approximately 9 miles west of the mine, near Questa, NM. Conventional underground mining operations began in 1920 and continued until 1958. Underground mining resumed in 1982 and continued through approximately 2012. Open pit mining was conducted between 1965 and 1983. The locations of the major facility areas are shown on Figure 1. CMI announced the cessation of operations at the mine on June 2, 2014 and has initiated closure activities. Some of those activities are described in the Phase 1 Building Demolition and Cleanup Plan (BDCP), submitted on August 28, 2014, and approved on August 29, 2014 and the Phase 2 BDCP, submitted on January 21, 2015, and conditionally approved on February 6, 2015. Phase 1 activities will occur in the southern portion of the Mill Area to allow for necessary Mill Site modifications to support construction of water treatment facilities and storm water management, and to prepare the remainder of the Mill Area for decommissioning. Phase 2 activities include decommissioning and demolition of selected surface facilities at the Tailing Facility Area.

This Phase 3 Building Demolition and Cleanup Plan (Phase 3 Plan) describes decommissioning and demolition for the surface facilities at Mill and Mine areas that were not previously included in earlier demolition phases (Phases 1 or 2) or are expected to remain as part of a post-mine land use. The Phase 3 Plan is consistent with the 'Building Demolition and Cleanup Plan' requirements of CMI's Permit Revision 96-2 (2002) of Mining Act Permit (TA001RE) issued by the Mining and Minerals Division (MMD) of the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) (EMNRD 2002). DP-1055, the Discharge Permit for the Questa Mine issued by the New Mexico Environment Department (NMED, 2008), does not include specific closure requirements for surface facilities. This Phase 3 Plan is not intended to replace or supersede the Closeout Plan requirements, nor is it intended to address final site reclamation.

Section 1.1 below presents the scope for facilities to be removed as part of Phase 3. The remaining sections of this Phase 3 Plan, listed below, address each of these elements only to the extent that there are requirements, procedures or elements specific to Phase 3, different than or not previously addressed in the Phase 1 or Phase 2 BDCP, as requested by the agencies at a meeting on February 4, 2015.

- Section 2.0 Regulatory Requirements
- Section 3.0 Facility Characterization
- Section 4.0 Waste Management
- Section 5.0 Soil Remediation
- Section 6.0 Stormwater Management
- Section 7.0 Project Schedule

1.1 Project Scope

1.1.1 Phase 3 Activities

The Phase 3 scope of demolition and decommissioning efforts, and the focus of this Phase 3 Plan, is the removal of facilities within the Mill Area and Mine Area, not previously addressed under the Phase 1 BDCP, and that are not identified as being necessary to support ongoing site activities or having a post-mine use (**Figures 2** and **3**). As indicated on **Figure 2**, two structures are planned to remain in the Mill Area to support future operation of the Water Treatment Plant: the Substation and the Fresh Water Tank. Additionally, the following structures are planned to remain in the Mine Area (**Figure 3**) to support ongoing site activities: Transfer Pump House and 5,000-gallon Water Tank, 600,000-gallon Water Tank and Sumphouse, #2 Shaft Hoist House, Substation, Administration Building, Core Shed, Guard Shack, Maintenance and Electrical Shop, #1 Shaft Hoist House Electrical Room, and Wastewater Package Plant.

The primary facilities planned for decommissioning and demolition during Phase 3 are identified on **Figures 2** and **3** and are listed in **Table 1-1** below. Facility numbering included in the table below correspond with the numbering of facilities identified on **Figures 2** and **3**. Smaller ancillary structures or facilities, not specifically named in the lists below, may also be removed.

Mill Area	Mine Area
006 Mill Well #1A	036 #1 Shaft
005 River Water Pump and Existing 005 Catchment Pumps	037 #1 Shaft Hoist House with the exception of the Electrical Room
011A Lead Leach Facility	038 Annex Building
011B Drying & Packaging Building	040 Underground Dry/Change House
012 Reagent Building	041 Abandoned Guard Shack
013 No.2 Thickener	042 Warehouse and Electrical Shop
014 No. 3 Thickener	043 Used Oil Storage Shed and Canopy
015 Pump Building	044 Electrical Storage Building
016 Transfer Tower 1	047 Gas Fuel Station near Guard Shack
018 Shaft Portal Decline Building	056 Waste Treatment Ponds
019 Decline Compressor Room	057 Batch Plant and associated facilities
020 Existing Retention Pond	059 Compressor Room
023 Fine Ore Bins	060 44 Shop
024 Reclaim Water Tank	
026 Transfer Tower 2	
027 Secondary Crusher	
028 Coarse Ore Bins	

Table 1–1. Phase 3 Affected Facilities

Mill Area	Mine Area
029 Transfer Tower 3	
030A Tailings Pump Room	
030B Sump 5000	
030C Regrind Area	
030D Flotation Area	
031 Primary Crusher	
032 Primary Crusher Water Tank	
054 New Stockpile Shop	
055 Stockpile Diesel Storage Tank	
056 Old Stockpile Shops	
Overhead Decline Conveyor	
Overhead Conveyance #1	

In addition to the facilities listed, various septic tanks, leach fields, concrete foundations, and conex boxes will be removed as part of Phase 3 work.

As part of the planning and design phase for facility decommissioning, preliminary inspections and asset inventories were performed to assess the condition of the existing facilities and to identify equipment and other assets for potential salvage and resale. The preliminary building inventory information for Phase 3 facilities is presented in a table included as **Appendix A**. If necessary, more detailed facility inspections will be conducted to identify wastes and materials requiring special handling, characterization, and if necessary abatement or remediation prior to demolition. The information will be used to identify abatement actions and disposal needs for individual facilities, such as the potential presence and management of hazardous materials, including asbestos, polychlorinated biphenyls (PCBs), reagents, explosives or fuels, chemicals, and universal wastes. Information regarding facility characterization, waste management, and soil remediation, specific to Phase 3 activities, are discussed in Sections 3.0, 4.0, and 5.0, respectively.

Equipment determined to be salvageable assets will be removed for resale after completion of necessary waste removal or abatement activities. The subsequent step will be identification of utilities servicing buildings and implementation of lock-out/tag-out/try-out (LOTOTO) procedures to de-energize active utilities in the vicinity of these structures.

Decommissioning will be followed by demolition of the targeted surface facilities and minor site grading. To the extent possible, metal building cladding, structural steel, tankage, metal piping, and other metal scrap will be salvaged and recycled as scrap metal. Inert demolition debris consisting of masonry, lumber, and miscellaneous building materials will be hauled off site to the Taos Municipal Landfill for disposal. Facilities will be demolished or dismantled down to the foundation or building surface slab. Minor site regrading will be conducted to restore surface drainage to pre-demolition conditions.

For this phase of demolition, it is anticipated that most building foundations will remain in place. Building foundations which conflict with the future construction of the proposed Enhanced 005 Catchment will be removed, including the Lead Leach Plant, Drying & Packaging Building, Conveyor Transfer Tower #1 and Mill Well #1A. After the removal or trimming of reinforcing steel, which will be recycled, concrete rubble will be transported to and placed in the open pit, or used as backfill material.

There are several buildings at the Mine and Mill Areas with subgrade levels that will remain following the demolition of above ground structures. These buildings include the Underground Dry/Change House near the #1 Shaft, Utility Levels at the Shaft #1 Collar, the Primary Crusher facility, and the Mill building. In areas where subgrade levels remain, broken concrete may be used to fill these areas to ground level. To minimize the potential for subsidence, concrete rubble used as backfill will be crushed or broken to achieve a maximum particle size of approximately 12 inches, and will be placed in lifts in combination with finer grain gravel or soil backfill to fill interstitial voids.

Limited grading and fill placement (some potentially over building foundations) may be performed in the Mill Area on an interim basis to provide drainage to the existing or proposed Enhanced 005 Catchment. The final disposition of the remaining foundations will be determined at a later date following the development of final grading plans for the areas. Condition 9.M of Mining Act Permit TA001RE; Revision 96-2 requires that foundations and concrete building slabs not removed are to be covered with a minimum of 36 inches of topdressing, and that a minimum of 24 inches of topdressing will be placed over broken foundations or slabs left in place. Placement of topdressing and other final site reclamation requirements will be determined at a later stage and is beyond the scope of this Plan.

2.0 REGULATORY REQUIREMENTS

Regulatory authorizations for the Questa Mine include the Mining Act permit issued by MMD (TA001RE) and groundwater discharge permits issued by NMED. In addition, the U.S. Environmental Protection Agency (EPA) issued a Record of Decision (ROD) for cleanup of contamination at the mine, under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) on December 20, 2010 (EPA 2010). Phase 3 specific requirements of applicable mine compliance documents are discussed below. Other federal, state, and local requirements discussed in the Phase 1 and Phase 2 BDCP remain the same.

2.1 Existing Mine Compliance Documents

2.1.1 Mining Act Permit

Closeout of the Questa Mine is regulated under Mining Act Permit TA001RE, issued by MMD. Permit Revision 96-2 (EMNRD 2002), incorporates the closeout plan for the mine and mill facilities. Condition 6.C of Permit Revision 96-2, requires that structures not designated for future use be removed from the mill and mine sites to facilitate returning the areas to their proposed Post Mining Land Use (EMNRD 2002). Specific conditions for closeout are specified in Revision 96-2, Condition 9, which requires development of this Building Demolition and Cleanup Plan at Condition 9.M (EMNRD 2002).

2.1.2 Discharge Permit DP-132

Discharge Permit DP-132 specifies closure measures for certain wastewater facilities at the Questa Mine, including septic tanks and storage tanks. Decommissioning and demolition activities will be conducted in compliance with DP-132, Section III.35. Wastewater lines will be removed or plugged so that a discharge can no longer occur. The septic tanks will be pumped and the material removed will be disposed of in accordance with applicable regulatory requirements. The tanks will then be backfilled with clean fill or sand, or removed from the site. The area will be regraded to blend with surface topography and to prevent ponding. Notification of closure or removals will be reported to NMED in quarterly monitoring reports submitted in accordance with the requirements of DP-132.

3.0 FACILITY CHARACTERIZATION

Facility characterization activities for Phase 3 will be performed following the same general approach as outlined in the Phase 1 and Phase 2 BDCPs, and are not repeated in this Phase 3 Plan. Each facility will be adequately inspected and materials characterized as necessary for proper disposal prior to decommissioning and demolition. The decontamination approach for process related equipment specific to Phase 3 activities is addressed below in Section 3.1. Also addressed in this section is the handling of ore that may be found in ore storage bins.

3.1 Decontamination Approach

In general, decontamination will be conducted for process-related equipment and piping found primarily within the Mill structures scheduled for demolition. Decontamination procedures will be applied to remove or segregate waste materials from recyclable scrap metal and other demolition debris.

Tanks and piping systems containing reagents, fuel, heating fluids or other related chemicals will be fully drained prior to demolition. These materials will be segregated as necessary, and profiled for recycling or disposal based on product information and known product properties. Where insufficient information is available to properly characterize the waste, sampling will be performed in consultation with an approved disposal facility. Final disposition of the material will be in accordance with procedures as described in Section 4.0, below. Oil-filled equipment such as gear cases (not identified as a salvageable asset) will be drained prior to demolition. Drained fluids will be containerized and managed as used oil.

Residual material remaining in thickeners and other process-related equipment such as flotation cells, launders, and vessels within the Mill Area will be removed and transported to the tailing placement area in the open pit. Gross accumulations of residual material from process equipment and piping will be physically dislodged prior to or during demolition using heavy equipment to the extent practicable and will be accumulated for transport to the tailing placement area in the open pit. The use of water to flush or rinse these systems will be minimized. Where pressure washing occurs, wash water will be collected and sampled for metals and oil and grease. The wash water fluids will be containerized and shipped offsite for disposal, if necessary, based on sampling results.

It is anticipated that crushed ore remains stored in the coarse ore and fine ore storage bins within the Mill Area. Smaller accumulations of ore may be present in conveyor galleries and within the crushing and grinding areas of the Mill. To the extent practicable this material will be removed during demolition and transported to the ore stockpile located to the north of the primary crusher facility. The final reclamation of the ore stockpile area is beyond the scope of this document. Coarse ore also may be used to backfill certain subgrade levels at the Primary Crusher and Reclaim Tunnel. The walls and floor of the subgrade concrete foundations will remain intact and concrete rubble, ore, and/or other finer grained earth backfill will be placed in a manner to minimize the creation of large interstitial voids. Following backfill earthen fill will be mounded over the backfilled structure to prevent ponding, minimize infiltration, and to direct surface flows away from the area.

4.0 WASTE MANAGEMENT

Waste management procedures identified in the Phase 1 and Phase 2 BDCP will also apply to Phase 3 activities. Table 4-1, identifying anticipated disposal locations for the identified waste streams is included in this Phase 3 Plan and represents the current waste management plan for all Phases of demolition and decommissioning activities.

4.1 Waste Disposal

Waste handling, separation, salvage, and disposal procedures for each waste stream are generally described in Table 4–1. Updates to this table presented in this Phase 3 Plan relative to the disposal location for asbestos-containing wastes (ACM) shall be applicable to all Phases of demolition. The placement location for the management of tailing material (from the mill area), thickener residual material, and concrete demolition debris have been updated per the DP-1055 discharge permit amendment issued February 23, 2015.

Waste Stream	Anticipated Disposal Location	Disposal Practices	
Scrap Metal	Rocky Mountain Recycling	Metal segregation for recycling will be performed at the demolition site.	
Fiberglass insulation	Taos Municipal Landfill	No special disposal practices are required.	
Interior furnishings	Taos Municipal Landfill	No special disposal practices are required.	
Wood	Taos Municipal Landfill	No special disposal practices are required.	
Concrete	Open Pit concrete rubble placement area or backfill for certain subgrade foundations	Concrete will be reduced to rubble-sized material with no extruding or free rebar. Extruding rebar will be trimmed and placed in metal recycling bins together with free rebar. Concrete will be hauled to the designated placement area in the Open Pit. Concrete also may be used as backfill in the Mill Area.	
Asbestos- containing wastes	Waste Management Colorado Springs Landfill (Colorado Springs, CO) or Midway Landfill (Fountain, CO)	Material will be segregated, double bagged in plastic, or containerized in drums, supersacks, or lined rolloffs. Material will be tarped in haul trucks for transport to the landfill to prevent migration of material. Transite material also will be transported off site according to appropriate procedures for non-friable asbestos.	
PCB-containing soils	To be managed in accordance w Action Work Plan, dated June 18	vith the previously approved Mill Area Removal 5, 2012.	
Radioactive waste	Clean Harbors (Deer Trail, Colorado), VEGA – ReSource Program (Cincinnati, Ohio)	Wastes will be segregated and profiled based on product information (i.e., smoke detectors, exit signs). Approval will be obtained for waste from Clean Harbors based on the profile. The Clean Harbors, facility is designated as a Low- level Radioactive Waste Facility for New Mexico.	

Table 4–1. Demolition-related Waste Streams

Waste Stream	Anticipated Disposal Location	Disposal Practices
Refrigerants (i.e., CFCs, HFs, halons)	Refrigerants will be removed by an EPA certified technician using certified recovery equipment	CFCs, HFs, or halons will be drained or removed for specialized disposal. Appliances with these refrigerants will have the refrigerant removed and then may be disposed of at the Taos Municipal Landfill.
Electronic Waste	Approved recycling center	In accordance with CMI waste stewardship program.
Tires	Approved recycler	Tires may need to be cut in half.
Paints	Clean Harbors	Wastes will be segregated and profiled based on product information. Approval will be obtained for the waste from Clean Harbors based on the profile.
Universal Wastes	Clean Harbors	Wastes will be segregated and profiled based on product information (i.e., batteries, mercury- containing equipment, lamps). Approval will be obtained for the waste from Clean Harbors based on the profile.
Unused or partially used reagents and chemicals, explosives, fuels	Return to manufacturer or Clean Harbors	Wastes will be segregated.
Sewage- contaminated soils	Waste Management Rio Rancho Landfill	Material will be transported and disposed of at the Landfill. Proper PPE and hygiene practices will be employed when handling sewage- contaminated soils.
Leach field piping	Taos Municipal Landfill	Leach field piping material can be transported and disposed of at the Taos Municipal Landfill. Proper PPE and hygiene practices will be employed when handling leach field piping.
Septic tank fluids and septic decontamination rinse water	AAA Pumping Service	Septic tank fluids will be pumped and removed from the tank. Following initial pumping of fluids, the tank will be rinsed to remove residual solids, leaving the concrete septic tank free of sewage solids. Fluids and residuals will be transported off site for proper disposal by an approved contractor. Proper PPE and hygiene practices will be employed when handling septic tank fluids, rinse water, and residual solids.
Polyethylene pipe	Taos Municipal Landfill	Polyethylene piping will be placed in dumpsters for disposal at the Taos Municipal Landfill. Piping that contains unidentified scale or other residuals will be set aside in a lined and covered area for characterization prior to determining waste disposal options.
Thickener Residuals	Open Pit tailing placement area	Thickener residuals will be removed and transported to the Open Pit.

Waste Stream	Anticipated Disposal Location	Disposal Practices		
General C&D debris	On-site dumpsters located near each building	General C&D debris, including paper, cardboard, plastic, inert piping, and wood, will be placed in dumpsters located on site near each building. No waste of unknown character, hazardous waste, or universal waste (e.g., batteries, mercury- containing equipment or bulbs) will be placed in the dumpsters. Dumpsters will be covered to prevent blowing waste materials.		
Used Oils	Clean Harbors or Safety Kleen facilities as approved by Chevron	Oils from equipment will be drained, containerized, and labeled for disposal.		
Petroleum Contaminated Soil and Oily waste from spills or cleanup	Waste Management Rio Rancho Landfill or Clean Harbors	Hydraulic oil, motor oil, oil filter residues, paint thinners, solvents, etc., spilled onto the ground will be contained, cleaned up, and disposed of properly. Characterization of wastes will be required to determine if disposal as special waste (i.e., PCS) is required.		

5.0 SOIL CONTAMINATION REMEDIATION

The Mill and Mine Areas (as well as other areas) of the Questa Mine site have been the subject of numerous previous investigations focused on identifying the nature and extent of contamination in soil and groundwater. The results of these investigations are documented in published reports, including the Molycorp Remedial Investigation Report (URS 2009), which formed the basis for the development of the EPA's selected remedy (EPA 2010). The installation of a final soil cover following decommissioning and demolition activities, consistent with mine closeout requirements and the proposed CERCLA remedy for the Mill Area, will be the primary soil abatement method to address known surface soil contamination associated with mining activities. This method, or remedy, is protective of future uses under the proposed post-mining land uses (PMLUs) and will be protective of groundwater and surface water quality.

As part of the RI, hundreds of soil samples were collected from the Phase 3 areas. Random and biased samples, located near potential release areas such as building entrances, exits, loading areas, etc., were collected in areas relevant to Phase 3 activities. Samples collected were analyzed for a broad suite of constituents, including target analyte list (TAL) metals, boron, molybdenum, anions, general chemistry parameters, SVOCs in historic fueling areas, and PCBs in historic transformer areas. At all soil exposure areas, soil data were compared against human health screening level criteria (SLC) for arsenic, iron, lead, vanadium, molybdenum, PCBs, and PAHs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene). At select soil exposure areas (Soil Exposure Areas 3 and 4), soil data were compared against ecological evaluation contaminants of potential concern (COPC), including aluminum, antimony, arsenic, barium, boron, cadmium, chromium, cobalt, copper, lead, manganese, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, zinc, PCBs, 2,6-dinitrotoluene, and phenanthrene.

The RI compared data to SLC and to concentrations observed in reference areas. Soil Exposure Areas 1 (Administration Area) and 2 (Mill Area) encompass all of the areas where Mine and Mill related structures scheduled for demolition are located, with the exception of the primary crusher facilities at the Mill, which is be within Soil Exposure Area 3. In Soil Exposure Area 1 (Administration Area) COPCs that exceeded the human health SLC did not statistically exceed reference area concentrations. In Soil Exposure Area 2 (Mill Area), at least one sample of molybdenum and vanadium exceeded the human health SLC and statistically exceeded the reference area concentrations. Some samples of PCBs and PAHs also exceeded the SLC and reference area concentrations.

Previously unidentified or unknown soil contamination may exist beneath or adjacent to facilities proposed to be decommissioned and demolished. Sampling will be conducted and remediation will be performed where there is evidence of soil contamination, above threshold levels, exposed or encountered through removal of foundations or site grading and earth-moving activities. Within 60 days of the completion of each investigation, a summary report presenting sampling locations, test protocols and test results will be provided to the NMED and MMD.

5.1 Soil Sampling and Analysis Plan

The general approach to the investigation and management of potential soil contamination during Phase 3 activities, will be the same as that for Phase 1, with the exception of the Historic Tailing Area Investigation, which has been completed. The previously approved Phase 1 Soil Sampling and Analysis Plan (Phase 1 SAP) will be followed for Phase 3 activities.

Because the site has been generally characterized during the RI, sampling associated with the removal of structures will be focused on areas not previously investigated, such as areas beneath the buildings and potentially contaminated soils discovered during subsequent earth-moving/site grading work. Standard operating procedures for soil sampling are discussed further in the Phase 1 SAP. Where sufficient information is known regarding the potential source of contamination, such as beneath a diesel fuel storage tank, the full suite of analyses included in the Phase 1 SAP may be reduced to those constituants necessary to characterize the material for disposal and provide regulatory closure.

5.1.1 PCBs

As described in the Mill Area Removal Action Completion Report (URS 2013), areas with residual PCB contamination above the 25 mg/kg cleanup threshold remain on site and are shown in **Appendix B**. Following demolition of above ground structures in these areas, removal of the impacted soil will be performed in advance of the foundation demolition. Removal and confirmation soil sampling will be conducted following the protocols established in the previously-approved Mill Area Removal Action Work Plan, dated June 15, 2012. Documentation of PCB contaminated soil removal efforts will be reported to the EPA in accordance with the Removal Actions Administrative Order on Consent (AOC).

6.0 STORMWATER MANAGEMENT

The Stormwater Management approach presented in the Phase 1 and Phase 2 BDCP will be followed for Phase 3 activities.

7.0 SCHEDULE

The proposed schedule for decommissioning and demolition activities addressed in this plan for Phase 3 activities is presented in Table 7–1.

Activity	Schedule
Building Demolition and Cleanup Plan submission	March 2015
Building Demolition and Cleanup Plan approval	April 2015
Phase 3 Facility Decommissioning & Demolition	July 2015 – June 2017

Table 7–1. Schedule

8.0 **REFERENCES**

- CMI 2013a. Supplemental Closeout Plan, Questa Tailing Disposal Facility and Stormwater Management and Water Treatment Project, Questa Mine Permit TA001RE, Chevron Mining Inc. October 17, 2013.
- EMNRD 2002. Permit Revision 96-2 to Permit No. TA001RE, Questa Mine Mine and Mill Site Existing Mining Operation. EMNRD, MMD. May 24, 2002.
- EPA 2010. Record of Decision, Molycorp, Inc., Questa, New Mexico. CERCLIS ID NO: NMD002899094. December 20, 2010.
- NMED 2011. Ground Water Discharge Permit Renewal and Modification. Chevron Mining Inc. Questa Mine. DP-132. August 16, 2011.

URS 2009. Molycorp Remedial Investigation Report, Revision No. 2. July 3, 2009.

URS 2013. Mill Area Removal Action Completion Report. Chevron Questa Mine Superfund Site. Prepared for Chevron Mining Inc. March 6, 2013.

FIGURES



THE CO

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FIGURE

TT DOCUMENT CONTROL

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APPENDIX A

PHASE 3 BUILDING INVENTORY

Questa Shutdown Projects

Phase 3 Building Inventory

Revision Date: March 12, 2015

	Approximate				
Puilding Name	Square	Puilding Lloos	Chamisals	Tanka	Other
	FOOLAge	Building Uses	Chemicais	Tanks	Other
011A Lead Leach Facility	6,300	Structure formerly used as lead leach facility. All equipment has been removed.	None indicated in preliminary inspection	None indicated in preliminary inspection	emergency lighting system
011B Dry & Packaging Building	NA	Building housing moly concentrate driers and packaging facilities.	Miscellaneous paints, cleaners, etc., in flammables cabinet	Fuel oil tanks; Silicone product used to circulate heat through driers	Potential chlorofluorocarbon (CFC) fire extinguishers
012 Reagent Building	6,505	Storage and mixing of reagents	Lime, pine oil, Orfom D8 depressant, Nokes, 501 oil, diesel	Lime tanks, pine oil tanks, Orfom D8 totes, Nokes tanks	Potential CFC fire extinguishers
013 No. 2 Thickener	4,650	Used for circulation and holding of intermediate moly concentrate	None indicated in preliminary inspection (other than thickener residuals)	Thickener residuals are present	Oil-filled gearboxes
014 No. 3 Thickener	2,040	Used for circulation and holding of intermediate moly concentrate	None indicated in preliminary inspection (other than thickener residuals)	Thickener residuals are present	Oil-filled gearboxes
015 Pump Building	820	Housed pumps for reclaim and fresh water	None indicated in preliminary inspection	None indicated in preliminary inspection	None indicated in preliminary inspection
016 Transfer Tower 1	3,020	Ore conveyor belt and transfer point	None indicated in preliminary inspection	None indicated in preliminary inspection	Oxygen and acetylene cylinders for welding
018 Shaft Portal Decline	4,875	Surface house for decline. Contains drive for decline conveyor, transformers, 15-ton overhead crane, and 3-ton hoist.	None indicated in preliminary inspection	None indicated in preliminary inspection	None indicated in preliminary inspection
019 Decline Compressor Room	960	Former location of compressor for the decline. The building has been abandoned and is empty.	None indicated in preliminary inspection	None indicated in preliminary inspection	None indicated in preliminary inspection
020 Existing Retention Pond	7,700	Concrete storm water retention pond	None indicated in preliminary inspection	None indicated in preliminary inspection	None indicated in preliminary inspection
023 Fine Ore Bins (4)	1,950	Bins used for storage of fine ore	None indicated in preliminary inspection	None indicated in preliminary inspection	Bins approximately 75% to full of fine ore
024 Reclaim Water Tank	2,835	Storage of reclaim water	None indicated in preliminary inspection	Reclaim water tank	Tank approximately 20% full of sediment/residuals from mill reclaim water
026 Transfer Tower 2	4,650	Transfer tower for ore conveyor	None indicated in preliminary inspection	None indicated in preliminary inspection	None indicated in preliminary inspection
027 Secondary Crusher	5,330	Crushing of coarse ore	None indicated in preliminary inspection	Oil tanks in Lube room, potable water tank	Transformers

	Approximate				
Building Name	Square Footage	Building Uses	Chemicals	Tanks	Other
028 Coarse Ore Bins (4)	1,850	Storage of coarse ore	None indicated in preliminary inspection	None indicated in preliminary inspection (other than coarse ore storage)	Bins approximately 75% full of coarse ore, auto lube system requires draining
029 Transfer Tower 3	5,055	Transfer tower for ore conveyor	None indicated in preliminary inspection	None indicated in preliminary inspection	None indicated in preliminary inspection
030A Tailings Pump Room	1,900	Area containing pumps to convey tailings from the Mill to tailings lines	None indicated in preliminary inspection	None indicated in preliminary inspection	None indicated in preliminary inspection
030B Sump 5000	3,315	Reclaim and freshwater collection/containment sump	None indicated in preliminary inspection	None indicated in preliminary inspection	None indicated in preliminary inspection
030C Regrind Area	8,165	Regrind of fine ore in ball mills prior to Thickener 2/flotation	None indicated in preliminary inspection (other than noted under tanks)	Reagent transfer tanks and day tanks for diesel, pine oil, nokes, F501 and D8 Orfom	Used oils/hydraulic oils associated with conveyor systems
030D Flotation Area	44,300	Flotation portion of the Mill, including cleaners, thickeners, recleaners, and dryers	In addition to reagents noted under tanks, preliminary inspection noted ferric chloride solution, aluminum sulfate pallets, epsom salt, hydrated lime, lube oil, and used oil	Reagent tanks (nokes, D8 Orfom, pine oil, diesel, F501), feed sumps containing moly product, flocculant tank (empty)	Oil-stained concrete, lube oil system, sumps, and potential CFC fire extinguishers
031 Primary Crusher	5,635	Crushing of coarse ore	None indicated in preliminary inspection	Potable water tank	Acetylene and oxygen tanks, and oil filled transformers
032 Primary Crusher Water Tank	500	Storage of fresh water for use in the primary crusher	None indicated in preliminary inspection	Crusher water tank (fresh water)	None indicated in preliminary inspection
054 New Stockpile Shop	3,000	Maintenance shop	55 gallon drums of hydraulic oil and antifreeze	55-gallon barrels of hydraulic oil and antifreeze	Oxygen and acetylene tanks
055 Stockpile Diesel Storage Tank	800	Approximately 10,000-gallon diesel tank	None indicated in preliminary inspection	Approximate 10,000-gallon diesel tank	None indicated in preliminary inspection
056 Old Stockpile Shops	1,000	Maintenance shop	None indicated in preliminary inspection	Two 500-gallon oil tanks	None indicated in preliminary inspection
Overhead Decline Conveyor Overhead Conveyance #1	No preliminary inspection available				

	Approximate				
Building Name	Square Footage	Building Uses	Chemicals	Tanks	Other
MINE AREA					
034 #2 Shaft Hoist House	3,980	Houses hoist for #2 Shaft	55 gallon drum of Romix (concrete dissolver), various used oils	None indicated in preliminary inspection	Petroleum-based materials associated with hoist, gearboxes, and cables
036 #1 Shaft	4,055	Shaft to access underground workings	None indicated in preliminary inspection	None indicated in preliminary inspection	None indicated in preliminary inspection
037 #1 Shaft Hoist House	13,450	Houses hoist cables and reels for #1 Shaft hoist	None indicated in preliminary inspection	None indicated in preliminary inspection	Petroleum-based materials associated with hoist, gearboxes, and cables
038 Annex Building	3,830	Miscellaneous storage	Preliminary inspection noted oil, grease, transmission fluid, lubricants, flammables, non-flammables, oxygen tanks, and acetylene tanks	None indicated in preliminary inspection	None indicated in preliminary inspection
039 Maintenance and Electrical Shop	21,215	Maintenance shop (including electrial equipment maintenance)	Preliminary inpsection noted used/hydraulic oils	None indicated in preliminary inspection	None indicated in preliminary inspection
040 Underground Dry/Change House	13,940	Change room for Mill personnel to shower and change	None indicated in preliminary inspection	Hot water and pressure tanks (containing water)	None indicated in preliminary inspection
041 Abandoned Guard Shack	260	Previously used as guard shack. Currently empty with no installed equipment.	None indicated in preliminary inspection	None indicated in preliminary inspection	None indicated in preliminary inspection
042 Warehouse & Electrical Shop	9,185	Warehouse for storage and shop for electrial equipment maintenance	None indicated in preliminary inspection	None indicated in preliminary inspection	Used oils and hydraulic oils
043 Used Oil Storage Shed and Canopy	1,980	Storage area for used oil, fuels, and waste	Preliminary inspection noted used diesel, grease, paint cans, and antifreeze	Diesel tank (10,000 gallons)	None other than items listed under chemicals and tanks
044 Electrical Storage Building	1,050	Storage for electrical components	Building was not accessible during pr	eliminary inspection, and no installe	d equipment list was available
057 Batch Plant and Associated Facilities	varies	Batch plant, batch plant garage	55-gallon drum of Romix (concrete dissolver) in garage. Batch plant was not accessible during preliminary inspection, and no installed equipment list was available.	Batch plant was not accessible during preliminary inspection, and no installed equipment list was available	Batch plant was not accessible during preliminary inspection, and no installed equipment list was available
059 Compressor Room	7,790	Compressor system and pump for mine HVAC	None indicated in preliminary inspection	None indicated in preliminary inspection	None indicated in preliminary inspection
060 44 Shop	1,205	Storage and maintenance shop	None indicated in preliminary inspection	None indicated in preliminary inspection	None indicated in preliminary inspection

APPENDIX B

PCB RESIDUAL CONTAMINATION AREAS



URS

F				
<u>SEND:</u>			TTDC	
2-FOOT BUFFER NEAR BUILDINGS AND				
			URS Center	
EXCEED I FOOT WITHIN THE BUFFER			8181 East Tufts Avenue Denver, Co. 80237-2637	
	1		303 694-2770 (phone)	
			303-034-3340 (lax)	
(PCBs ≥ 25 MG/KG)				
FINAL GRADING CONTOUR				
BASE OF EXCAVATION SAMPLE AND				
SURFACE (FEET) WHERE SAMPLE WAS				
COLLECTED.				
OCATION OF VISUAL MARKER				
INSTALLED IN AN AREA WHERE PCB				
LEVELS LESS THAN THE CLEANUP				
LEVEL (25 MG/KG) COULD NOT BE ATTAINED DUE TO THE PRESENCE OF				
STRUCTURES.				
	2			
			MILL ARFA	
<u>res:</u>			REMOVAL ACTION	
			CHEVRON QUESTA M	INE
EXTENTS OF EXCAVATION BASED ON			SUPERFUND SITE	
SURVEY DATA.				
	3			
		ISSI	UED FOR BIDDINGN/A	
			DATE	BT
				N/A
		เรรเ	DED FOR CONSTRUCTION	BY
			REVISIONS	
		NO.	DESCRIPTION	DATE
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		URS	WN BY	ZZ42831
		DES	SIGNED BY:	JSP
		CHE	ECKED BY:	EPB
		DAT	E CREATED: 1	1/16/12
		PLO	T DATE:	-
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	5		EAGAVATION PLA	IN
FINAL RECORD DRAWING			\sim 1	
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F			SHEET 3 OF 5	
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