



Armando Martinez
Environmental Manager

**Questa Mine
Chevron Environmental
Management Company –**
Mining and Specialty
Portfolios Business Unit
P.O. Box 469
Questa, NM 87556
Tel (575) 586-7639
amarti@chevron.com

July 21, 2015

Mr. Joe Vinson
Mining Act Reclamation Program
Mining and Minerals Division
Energy, Minerals and Natural Resources
Department
1220 St Francis Drive
Santa Fe, NM 87505

Ms. Anne Maurer
Environmental Compliance Section
Ground Water Quality Bureau
New Mexico Environment Department
P.O. Box 5469
Santa Fe, NM 87502-5469

**RE: Questa Tailing Facility – Phase 2 Building Demolition and Cleanup Plan
Addendum No. 1 – Soil Removal at the Old Maintenance Shop**

Dear Mr. Vinson and Ms. Maurer,

Please find enclosed an addendum to the Phase 2 building demolition and cleanup plan. The purpose of the addendum is to outline field activities, including soil sampling, laboratory analysis, limited soil removal, and backfilling near the Old Maintenance Shop (Shop) at the Chevron Mining Inc. Questa tailing facility.

Should you have any questions or require additional information please contact me at (575) 586-7639.

Regards,

A handwritten signature in blue ink, appearing to read "Armando Martinez".

Armando Martinez

cc: Holland Shepard, Program Manager, MMD
Kurt Vollbrecht, Program Manager, NMED
Gary Baumgarten, Project Manager, USEPA
Michael Coats, Chevron

Questa Decommissioning and Demolition Project
Building Demolition and Cleanup Plan
Phase 2 Activities – Tailing Facility Area

Addendum No. 1 – Soil Removal at the Old Maintenance Shop

This Addendum has been prepared for the Questa Decommissioning and Demolition Project Building Demolition and Cleanup Plan Phase 2 Activities – Tailing Facility Area (D&D Plan) (Tetra Tech, Inc. 2015). The purpose of this Addendum is to outline field activities, including soil sampling, laboratory analysis, limited soil removal, and backfilling near the Old Maintenance Shop (Shop) at the Chevron Mining Inc. Questa tailing facility. All activities conducted under this Addendum will follow Standard Operating Procedures outlined in the D&D Plan, or otherwise modified in this Addendum.

Previous Soil Sampling

Shallow soil sampling was performed as part of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Remedial Investigation at the tailing facility (URS 2009). One location, TSS11-4 – located near the Shop, was found to have elevated molybdenum concentrations in soil (Figure 1). In January 2015, the area around TSS11-4 was further characterized to determine the extent and depth of molybdenum in soil near the Shop (ARCADIS 2015). Results of the January 2015 sampling revealed three locations with molybdenum concentrations above the CERCLA soil preliminary remediation goal (PRG) of 41 milligrams per kilogram (mg/kg). Soil results from this sampling, combined with the TSS11-4 sample result, also show that molybdenum is constrained to the upper 6 inches of the ground surface. Subsurface samples were also collected from 0 to 24 inches and from 24 to 36 inches; subsurface samples were below the molybdenum PRG.

Proposed Soil Removal

Removal of affected soils will be completed near the Shop (Figure 1). The initial soil excavation area will consist of six 20-foot by 20-foot grid cells totaling approximately 2,400 square feet. Each grid cell will be excavated to 12 inches deep, resulting in a total removal volume of approximately 90 cubic yards.

To confirm that molybdenum content in soil is below the 41 mg/kg PRG, each 20-foot by 20-foot grid cell will be sampled after excavation using a field X-ray fluorescence (XRF) analyzer. The XRF will be used to confirm the extent of molybdenum in shallow soils and to provide confirmation that affected soils have been removed. Five in-situ measurements will be taken – one from the floor of each grid cell and one from each sidewall of the excavation; if the average value of measurements is below the PRG, then the grid cell will be considered suitable for backfilling with clean soil. If the average value of the measurements is above the PRG, an additional 6 inches of material will be removed. The XRF measurements and excavation will continue until soils are below the PRG.

Confirmation sampling of the final excavation will be performed. Five samples will be collected, one from each of the north, south, east, and west sidewalls, and one from the bottom. Soil samples will be placed in a clean polyethylene bag and submitted for laboratory analysis. The samples will also be re-analyzed

using the field XRF to provide a final soil concentration and for comparison to laboratory values. Soils will be removed using a small excavator and dump truck. Soils removed from the excavation area will be hauled by dump truck to a regulatory-approved disposal cell at the Dam No. 4 impoundment at the tailing facility; the same area where sediments from Eagle Rock Lake are currently being placed. Clean soils will be used to backfill the excavated area.

X-Ray Fluorescence Field Screening

An Olympus Innov-X[®] Delta field XRF instrument, or similar, will be used in the field to measure molybdenum concentrations. Prior to scanning, the XRF instrument calibration will be checked using a stainless-steel blank. In addition to a calibration check, three quality control samples will be run periodically during field scanning. One sample is a blank sample composed entirely of silica sand and known to have no metals. Two soil standards will be analyzed during scanning. The National Institute of Standards and Technology (NIST) certified two soil samples (2709 and 2710a) as representative soils with consistently known metals concentrations (NIST 2010). Analyzing NIST standard soils during soil scanning allows a quantification of XRF precision and accuracy.

Section 3 – Laboratory Analysis

Confirmation soil samples will be shipped to TestAmerica Laboratories in Pensacola, Florida for molybdenum analysis using method EPA 3050/6010C.

Reporting

Following collection and analysis of samples, results will be reviewed for quality assurance, as well as usability. A brief technical memorandum will be prepared to summarize the analytical results and XRF measurements.

References

ARCADIS. 2015. Change House Soil Sampling and XRF Scanning for Molybdenum, Chevron Mining Inc., Questa Mine, Questa, New Mexico. Revision 0, February.

National Institute of Standards and Technology. 2010. Certification of Three NIST Renewal Soil Standard Reference Materials for Element Content: SRM 2709a San Joaquin Soil, SRM 2710a Montana Soil I, and SRM 2711a Montana Soil II. Mackey et al. eds. NIST Special Publication 260-172. 39 p.

Tetra Tech, Inc. 2015. Questa Decommissioning and Demolition Project, Building Demolition and Cleanup Plan, Phase 2 Activities - Tailing Facility Area, Prepared for Chevron Mining Inc., April 2015.

URS. 2009. Chevron Mining Inc. Remediation Investigation Report. Revision 2, Prepared for Chevron Mining Inc., Questa Mine, Questa, New Mexico. July.

Figure

Figure 1 – Old Maintenance Shop Proposed Soil Removal



Legend

- January 2015 Sample Locations
- RI Sample Locations - October 2002
- ▨ 2015 Sampling Area
- ▭ Proposed Excavation Grid

State Plane Coordinate Datum:
 NAD83 State Plane NM Central Feet (ft)
 January 2015 results are laboratory
 confirmation results
 All results are milligrams per kilogram molybdenum
 (mg/kg)



CHEVRON MINING, INC QUESTA MINE
 QUESTA DEMOLITION AND CLEANUP PLAN
 PHASE 2 ACTIVITIES - TAILING FACILITY AREA
 ADDENDUM 1

**Old Maintenance Shop
 Proposed Soil Removal**



FIGURE
 1