

QUESTA TAILINGS PIPELINE REMOVAL STAGE 2 WORK PLAN CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY QUESTA MINE

August 14, 2017

Project #: 476-027-001

SUBMITTED BY: Trihydro Corporation

707 West 1st Street, Casper, WY 82601

Table of Contents

1.0	INTRODUCTION	1-1
2.0	AGENCY PERMITS AND NOTIFICATIONS	2-1
3.0	STAGE 2 AREAS	3-1
4.0	REMOVAL ACTIVITIES	4-1
5.0	RECLAMATION	5-1
6.0	STAKEHOLDER ENGAGEMENT	6-1
7.0	SCHEDULE	7-1
8.0	HEALTH AND SAFETY	8-1
9.0	CONTRACTORS KEY PERSONNEL	9-1
10 0	REFERENCES	10-1

List of Tables

- 1-0. Pipeline Segement Prioritization and Phase Identification
- 3-0. Areas Included In Stage 2 Pipeline Removal Plan
- 4-0. Quantities of Demolition Materials
- 5-0. August 31, 2015 Proposed Questa Mine Seed Mixture for Non-waste Rock Pile Disturbances (≤ 10 acres)
- 7-0. Stage 2 Pipeline Removal Schedule

List of Figures

- 3-1. Stage 2 Pipeline Removal Locations
- 3-2. Stage 2 Pipeline Removal Location, Columbine Wells Area
- 3-3. Stage 2 Pipeline Removal Location, Crossing State Road and Embargo Road, Corny's Corner Hillside, and Tailing Facility Entrance
- 3-4. Stage 2 Pipeline Removal Location, Singleton's Cut and Robinson's Property
- 3-5. Stage 2 Pipeline Removal Location, East of Molycorp Baseball Field and Upstream of the Lower Dump Sump

1.0 INTRODUCTION

Chevron Mining Inc. (CMI) submitted the revised "Questa Tailings Pipeline Removal MMD/NMED Work Plan, Chevron Environmental Management Company, Questa Mine" (Removal Work Plan) to New Mexico Energy, Minerals and Natural Resources Department (EMNRD), Mining and Minerals Division (MMD), New Mexico Environmental Department's (NMED) Groundwater Bureau and U.S. Environmental Protection Agency, Region 6 (USEPA) on May 19, 2017. Approval for this work plan was received from MMD and NMED on June 5, 2017 and from USEPA on June 14, 2017. The Removal Work Plan provides an overarching plan for the removal of the Questa tailings pipeline. The Removal Work Plan states that specific work plans will be developed to detail the removal plans for individual segments of the pipeline.

The pipeline removal project has been divided into eight stages. Stage 1 activities entail the removal of HDPE and steel pipe from the existing tailings facility. This work will be performed solely under the process described in the Removal Work Plan. Stage 1 work commenced in early July 2017. Stage 2 through Stage 8 work activities will be conducted under the Removal Work Plan as well as individual stage specific work plans. Stages two through eight are outlined in Table 1.0.

This document represents the individual plan for Stage 2 removal of the tailings pipeline. The work identified in this plan will result in the removal of approximately 14,750 ft. of pipe. The pipe will be removed principally from Chevron owned property with a lesser amount from private property, thereby limiting the number of additional permits and access agreements required.



201708_Stagell-WP_RPT.docx 1-1

2.0 AGENCY PERMITS AND NOTIFICATIONS

The bulk of Stage 2 activities will be covered by the MMD Mining Act Permit TA001RE, Revision 96-1 and NMED Discharge Permit DP-933. Any historic tailing spills encountered during the pipeline removal will be removed pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Administrative Order on Consent for Removal Actions (Removal AOC), Docket No. 06-09-12.

Additional permits/notifications required may include:

- An excavation permit from Taos County will be required if tailings removal will exceed 50 cubic yards. The amount of tailings to be removed will be calculated during the pipe removal process. If the estimated quantity exceeds 50 cubic yards CMI will apply to Taos County for an excavation permit.
- An asbestos notification form under the National Emission Standards for Hazardous Air Pollutants (NESHAP) submitted to the NMED Air Quality Bureau (AQB) will be filed before any asbestos removal is undertaken. The pipeline and associated structures will be sampled for the presence of asbestos and lead under the guidelines presented in the Removal Work Plan.
- Consultation with the United States Fish and Wildlife Service (USFWS) and/or the New Mexico Department of
 Game and Fish to ensure compliance with the Threatened and Endangered Species Act (USFWS 1973), Migratory
 Bird Treaty Act (USFWS 1918), and the Bald and Golden Eagle Protection Act (U.S.C. 1940)
- A Storm Water Pollution Prevention Plan (SWPPP), 2012 Construction General Permit (GCP) will be obtained prior to commencement of work.
- Notification will be made to New Mexico Department of Transportation to discuss the Embargo Road/NM 522 segment of pipeline. Chevron will discuss the intent to abandon in place pipe underneath NM522 and the potential for removal.

201708_Stagell-WP_RPT.docx 2-1

3.0 STAGE 2 AREAS

A description of the areas included in the Stage 2 pipeline removal plan are illustrated below in Table 3-0. Figure 3-1 provides an overall view of the Stage 2 project areas. Detailed views of individual pipe sections are included as Figures 3-2 through 3-5.

Table 3-0. Areas Included In Stage 2 Pipeline Removal Plan

Pipeline Segment Description	Approximate Length of Segment (feet)	Seasonal Considerations or Preferred Months (Alternative 1)	Above (A) or Underground (U)?	CMI Ownership?	Figure
Columbine Wells Area	4000	Late September or early October, practice area	А	Υ	3-2
Tailing Facility Entrance	2800	October	А	Υ	3-3
Corny's Corner Hillside/Embargo Road.NM522*	1200	October*	U	Υ	3-3
Singleton's Cut	2900	November, early December	А	Y	3-4
Robinson's Property	850	November, early December	A	N	3-4
East of Molycorp Baseball Field	1400	November, early December	А	Y	3-5
Upstream of the Lower Dump Sump 1600 November, early December		November, early December	А	Y	3-5

^{*}NOTE: The Embargo Road/NM 522 portion of the segment may be moved to a later Stage depending on discussions with stakeholders.

201708_Stagell-WP_RPT.docx 3-1

4.0 REMOVAL ACTIVITIES

Prior to Stage 2 pipe removal activities, the pipe and associated structures will be sampled and analyzed for lead based paint and asbestos using the methods detailed in the Removal Work Plan. Pipe or pipeline structures found to contain lead based paint or asbestos will be disposed of according to State and Federal requirements as well as Chevron's Third Party Waste Stewardship (TWS) requirements.

Utility locates, and any necessary surveying will be conducted prior to pipe removal activities. Although unlikely in Stage 2 activities, road closures will be negotiated with the pertinent stakeholders prior to undertaking any closure activities.

Pipe removal will be conducted under the guidelines specified under Section 4.1 of the Removal Work Plan, May 2017. Stage 2 pipeline areas are primarily located on the Chevron and Robinson properties. The pipeline also passes underneath Embargo Road on Village of Questa property, with a 100 foot section crossing over the Montoya property near Highway 522.

The majority of pipe in Stage 2 is on the surface. This pipe will be removed by removing the Victaulic couplings and separating the pipe. In areas where de-coupling is impractical the pipe will be cut using a hydraulic shear mounted on an excavator. The pipe will then be loaded and trucked to a laydown area on the tailings facility.

Pipe with suspected asbestos containing material (ACM) will be identified during sampling prior to removal. ACM will be removed from a 2 foot section of the pipe allowing it to be safely sheared. The ACM coated pipe will be wrapped in plastic and placed in hazardous waste roll off boxes for transport to a disposal facility. The area will then be thoroughly inspected and any remaining ACM will be picked up, bagged and disposed of with the pipe.

Pipe in the area of Embargo Road and NM522 has been identified as being difficult to remove due the depth of the pipeline and location. The pipeline profile indicates that this pipe is as deep as 14 feet, crosses two busy transportation arteries, and is in close proximity to active utilities. Chevron is currently in discussion with the Village of Questa, NMDOT and affected property owners to determine the best method for addressing this segment of pipe. Chevron prefers to abandon in place approximately 850 feet of pipe in this area. The pipe, if abandoned, will be pressure grouted and left in place. A hole will be excavated in the upper portion of the section and grout will be pumped into the pipe. Another hole will be excavated in the lower portion to install a vent, allowing air to escape during the grouting process.



201708_StageII-WP_RPT.docx 4-1

In initial discussions, the Village has indicated they prefer to have the pipeline excavated and removed. Further detailed discussion between the impacted stakeholders and Chevron are planned for later in August to discuss the anticipated impacts from excavation and removal. If it is determined that the Embargo Road/NM522 section of pipe will be removed, efforts will be undertaken to minimize surface disturbance and traffic disruption during the excavation activities; however, due to the pipe depth, disturbance will likely be extensive. If it is decided that the pipe segment must be removed, there is a potential that this segment will be addressed in a later stage of removal to allow for sufficient coordination with DOT, the Village of Questa, and affected property owners.

Structures such as pipe couplings, anchor structures, pipe bend structures, and concrete thrust blocks will be removed in accordance with Section 4.2 of the Removal Work Plan, May 2017.

All waste will be disposed of according to the methods outlined in "Removal Work Plan, May 2017" Section 2.3.3 and Section 4.0

Approximate quantities of material to be removed are detailed below in Table 4.0.

Table 4-0. Quantities of Demolition Materials

Pipeline Segment Description	Approximate Quantity of Pipe to be Removed (feet)	Approximate Quantity of Concrete (tons)	Approximate Quantity of Steel (tons)	
Columbine Wells Area	8000	166	1	
Tailing Facility Entrance	11200			
Corny's Corner Hillside/Embargo Road/NM522	4800	60	2	
Singleton's Cut	5800			
Robinson's Property	1700	000		
East of Molycorp Baseball Field	2800	268	2	
Upstream of the lower Dump Sump	3200			

4-2 201708_StageII-WP_RPT.docx

5.0 RECLAMATION

Areas disturbed during pipe removal, tailing removal and other demolition activities conducted under this work plan will be reclaimed according to the procedures outlined in Section 4.2.10 of the Removal Work Plan, May 2017. The pipeline right of way will be regraded to match the natural grade of the area or to meet the needs of future planned land use, such as a trail. Clean fill, if necessary, will be imported from previously approved borrow sources. Once the grading has been completed disturbed areas will be reseeded using the mix detailed in Table 5.0. Alternate seed mixes may be used for private properties depending upon the anticipated land use.

Table 5-0. August 31, 2015 Proposed Questa Mine Seed Mixture for Non-waste Rock Pile Disturbances (≤ 10 acres)

Common Name	Scientific Name	Seeding Rate pounds of PLS/A†	
Grasses			
Western wheatgrass, var. Arriba	Pascopyrum smithii	-5.0	
Slender wheatgrass, var. San Luis	Elymus trachycaulus	3.0	
Bluebunch wheatgrass, var. Goldar	Pseudoroegneria spicata	4.0	
Sand dropseed	Sporobolus cryptandrus	1.0	
Prairie junegrass	Koeleria macrantha	2.0	
Forbs			
Western yarrow	Achillea millefolium	2.0	
Rocky Mountain penstemon, var. Bandera	Penstemon strictus	4.0	
Lewis flax	Linum perenne spp. lewisii	4.0	
Tall evening primrose	Oenother hookeri	2.0	
Shrubs			
Big rabbitbrush	Ericameria nauseosa	2.0	
TOTAL			

Note:



201708_Stagell-WP_RPT.docx 5-1

Pure Live Seeds (PLS) per acre based on a broadcast seeding method.

6.0 STAKEHOLDER ENGAGEMENT

The key stakeholders for this stage of pipeline removal include:

- Village of Questa
- DOT
- Taos County
- NMDGF
- USFWS
- Private property owners

Outreach to the key stakeholders has begun and will continue throughout the pipeline removal project. Stage 2 activities were discussed with the public during the July 13, 2017 USEPA open house. Discussions with Mr. Gordon Robinson and Mr. Juan Montoya have begun and will continue throughout the demolition process. Updates will be provided to the Village of Questa at regularly scheduled council meetings.

201708_Stagell-WP_RPT.docx 6-1

7.0 SCHEDULE

The schedule for Stage 2 of the Questa pipeline removal project is detailed below in Table 7.0

Table 7-0. Stage 2 Pipeline Removal Schedule

raise r or orage = r iponino racino rai conociano			
Pipeline Segment Description	Target Date of Commencement for Pipe Removal		
Columbine Wells Area	2017 Q4		
Tailing Facility Entrance	2017 Q4		
Corny's Corner Hillside/Embargo Road/NM522	2017 Q4		
Singleton's Cut	2017 Q4		
Robinson's Property	2017 Q4		
East of Molycorp Baseball Field	2017 Q4		
Upstream of the lower Dump Sump	2017 Q4		

8.0 HEALTH AND SAFETY

CMI, Entact and Trihydro put safety first and foremost in all operations. A project specific Health and Safety Plan will be developed for the pipeline removal activities. This plan will include:

- Emergency response procedures and reporting
- Project team organization and responsibilities
- Training, orientation, and medical monitoring requirements
- A site hazard analysis
- Analysis of chemical, physical, and biological hazards
- Required personal protective equipment
- Air monitoring requirements
- Site control measures
- Waste management
- Motor vehicle safety requirements

Other documents used to identify and mitigate hazards associated with the project include:

- Pre-fieldwork safety readiness reviews. This document provides project management an opportunity to interact with field personnel prior to commencement of field activities. An example is Provide in Appendix A.
- Job Safety Analyses (JSA). JSAs are drafted for each task. Job steps, potential hazards and mitigation steps are identified and communicated to team members. The JSA form is included in Appendix A.
- Field observations. Observations will be conducted throughout the project to verify compliance with operational safety standards. The observation form is included in Appendix A.
- Near Miss investigations. Near misses identified by team members will be investigated to determine root causes and means to avoid similar incidents in future operations. The outcome of these investigations will be shared with all team members. The Near Miss reporting form is included in Appendix A.
- Daily tailgate safety meetings. Daily tailgate safety meeting will be conducted every day prior to commencement
 of operations. The meetings are an opportunity to review JSAs, discuss changing conditions, lessons learned and
 operational details.



201708_Stagell-WP_RPT.docx 8-1

- Weekly management safety meetings. This meeting is an opportunity for the project leadership to discuss upcoming operations, lessons learned, near loss investigations and other potential issues.
- Journey management plans (JMP). JMPs are used to identify hazards associated with transportation. These plans identify hazard and provide mitigation steps for enhancing vehicle operational safety. An example JMP is included in Appendix A.

The use of the documents create the foundation for hazard awareness and mitigation. Our companies have embedded their use into our respective corporate cultures and freely share best practices and lesson learned.

8-2 201708_StageII-WP_RPT.docx

9.0 CONTRACTORS KEY PERSONNEL

Entact LLC will be the primary contractor for Stage 2 pipe removal, waste management, and regrading of the right of way. Key Entact personnel include:

- Michael Cincirpini. Michael is the Project Manager and primary operations contact for Entact on the tailings pipeline removal project (Project). Michael holds a Bachelor of Science degree in Civil and Environmental Engineering, a Construction Management Certificate and is a Lean Sigma Green Belt. He has a significant level of experience at the Questa Mine facility. He can be reached at (412) 417-8460 or mcincirpini@entact.com.
- Veto Vialpando. Veto fills the role of Health and Safety Officer for Entact on the Project. Veto has AHERA Asbestos Supervisor training, Chevron Managing Safe Work (MSW) training, is an MSHA Instructor, Mine Rescue Instructor and has OSHA 40 hour HAZWOPER training. Mr. Vialpando also has extensive experience at the Questa Mine facility. He can be reached at (575) 263-4343 or vvialpando@entact.com.

Trihydro Corporation will be responsible engineering, contractor oversight, environmental sampling, permitting and regulatory support. Key Trihydro personnel include:

- Shaun Harshman. Shaun is the Project Manager and primary contact for Trihydro on the Project. Shaun has a Bachelor of Science degree in Soil Science. He has over 30 years of experience in the environmental field, with over 17 years of experience on Chevron projects. He can be reached at (307) 259-5909 or sharshman@trihydro.com.
- Tony Kupilik. Tony will be Trihydro's primary construction oversight and health and safety manager. Tony has over 25 years of experience in heavy construction and mining. He is a certified MSHA instructor, New Mexico Surface Coal Foreman, Excavation Competent Person, 3D Driving instructor and has OSHA 40 hour HAZWOPER training. He is also certified in Red Cross CPR, AED, and First Aid. He can be reached at (307) 760-8082 or tkupilik@trihydro.com.

201708_Stagell-WP_RPT.docx 9-1

10.0 REFERENCES

Questa Tailings Pipeline Removal MMD/NMED Work Plan. 2017. Chevron Environmental Management Company, Questa Mine' (Removal Work Plan, May 2017).



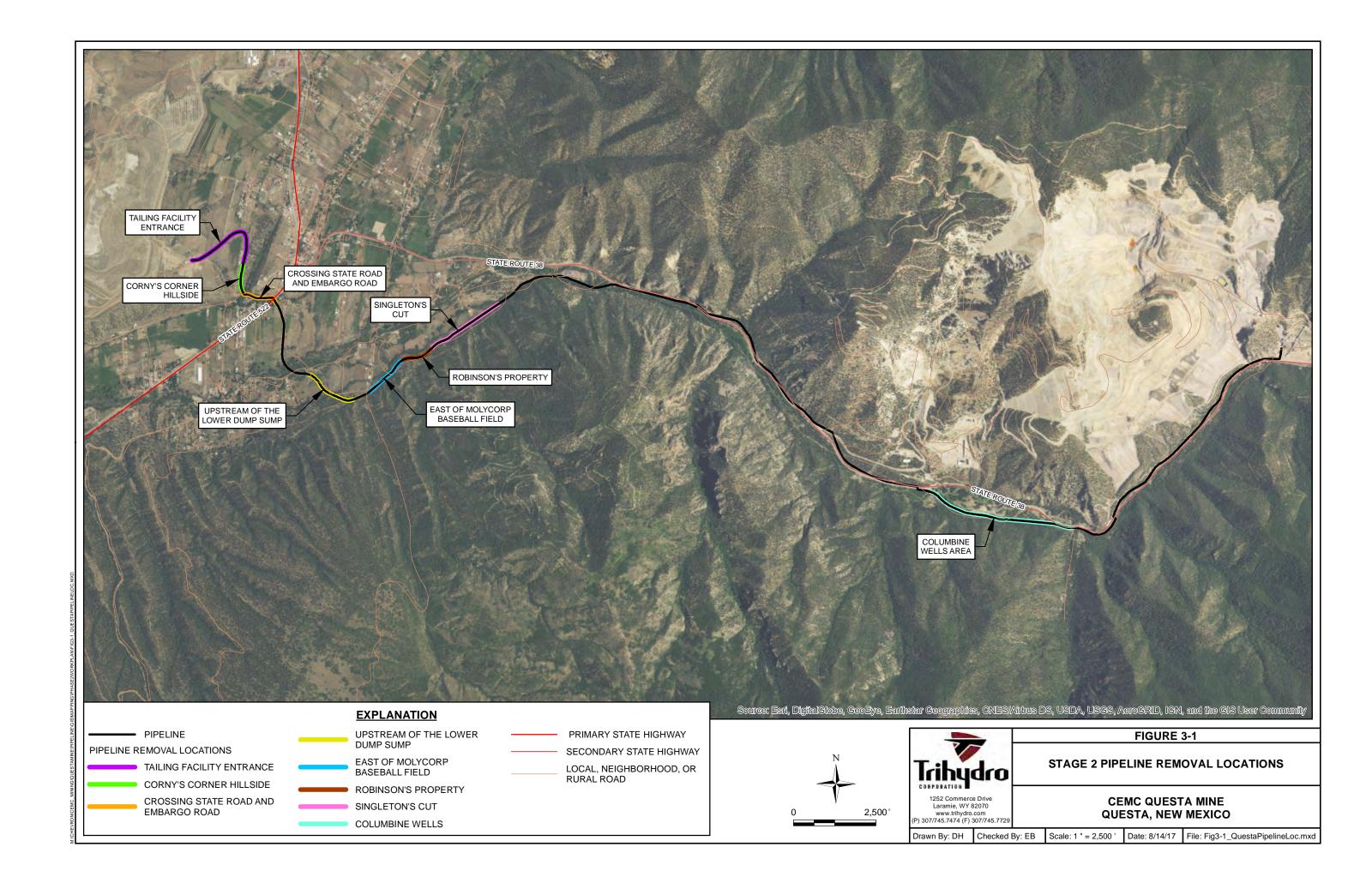
201708_StageII-WP_RPT.docx

TABLE

Pipeline Segment Description	Approximate Length of Segment (feet)	Phase	Target date of commencement of removal - Alternative 1	Pipeline Segment Description	Approximat Length of Segment (feet)	
Tailing Facility	10000	1	2017 Q3	Tailing Facility	10000	
Columbine Wells Area	4000	2	2017 Q3	Columbine Wells Area	4000	
Tailing Facility Entrance	2800	2	2017 Q4	Tailing Facility Entrance	2800	
Corny's Corner hillside	1200	2	2017 Q4	Corny's Corner hillside	1200	
4th Road Crossing (State Road) plus Embargo Road	1100	2	2017 Q4	4th Road Crossing (State Road) plus Embargo Road	1100	
Singleton's Cut	2900	2	2017 Q4	Singleton's Cut	2900	
Robinson's Property	850	2	2017 Q4	Robinson's Property	850	
East of Molycorp baseball field	1400	2	2017 Q4	East of Molycorp baseball field	1400	
Upstream of the lower Dump Sump	1600	2	2017 Q4	Upstream of the lower Dump Sump	1600	
Pressure vessels to underground	500	3	2018 Q1	Pressure vessels to underground	500	
East of Middle Pile	1000	3	2018 Q1	East of Middle Pile	1000	
Goat Hill Entrance Area	2350	3	2018 Q1	Goat Hill Entrance Area	2350	
Bear Cut	2500	3	2018 Q1	Bear Cut	2500	
USFS Office Area	3200	4	2018 Q3	USFS Office Area	3200	
Forest Service Property west of Molycorp field	950	4	2018 Q3	Forest Service Property west of Molycorp field	950	
East of Sulphur gulch	650	5	2018 Q3/Q4 - Sept start	East of Sulphur gulch	650	
West of Sulphur gulch	1200	5	2018 Q3/Q4 - Sept start	West of Sulphur guich	1200	
Sugar Shack South	4100	5	2018 Q3/Q4 - Sept start	Sugar Shack South	4100	
1st Road Crossing (East Hwy 38 road)	90	5	2018 Q3/Q4 - Sept start	1st Road Crossing (East Hwy 38 road)	90	
Columbine Curve	1400	5	2018 Q3/Q4 - Sept start	Columbine Curve	1400	
2nd Road Crossing	90	5	2018 Q3/Q4 - Sept start	2nd Road Crossing	90	
Admin Section	1800	5	2018 Q3/Q4 - Sept start	Admin Section	1800	
Between Goat Hill and Bear Cut	2500	5	2018 Q3/Q4 - Sept start	Between Goat Hill and Bear Cut	2500	
3rd Road Crossing	90	5	2018 Q3/Q4 - Sept start		90	
Rock Wall (Between Bear Cut and Forest Service) (aka "Rock and Hard Place")	3300	5	2018 Q3/Q4 - Sept start	Rock Wall (Between Bear Cut and Forest Service) (aka "Rock and Hard Place")	3300	
Rael Property	1500	6	2019 Q1	Rael Property	1500	
1st River Crossing (by Columbine Park)	60	6	2019 Q2	1st River Crossing (by Columbine Park)	60	
2nd River Crossing (aka Thunder Bridge)	100	6	2019 Q2	2nd River Crossing (aka Thunder Bridge)	100	
3rd River Crossing	100	6	2019 Q2	3rd River Crossing	100	
Elevated Trestle	1300	7	2018 Q3	Elevated Trestle	1300	
Lower Dump Sump	0	8	2019 Q1	Lower Dump Sump	0	
Downstream of 1st River Crossing- Columbine Park Entrance	600			Downstream of 1st River Crossing- Columbine Park Entrance	600	

FIGURES







EXPLANATION

PIPELINE

COLUMBINE WELLS AREA PIPELINE SEGMENT



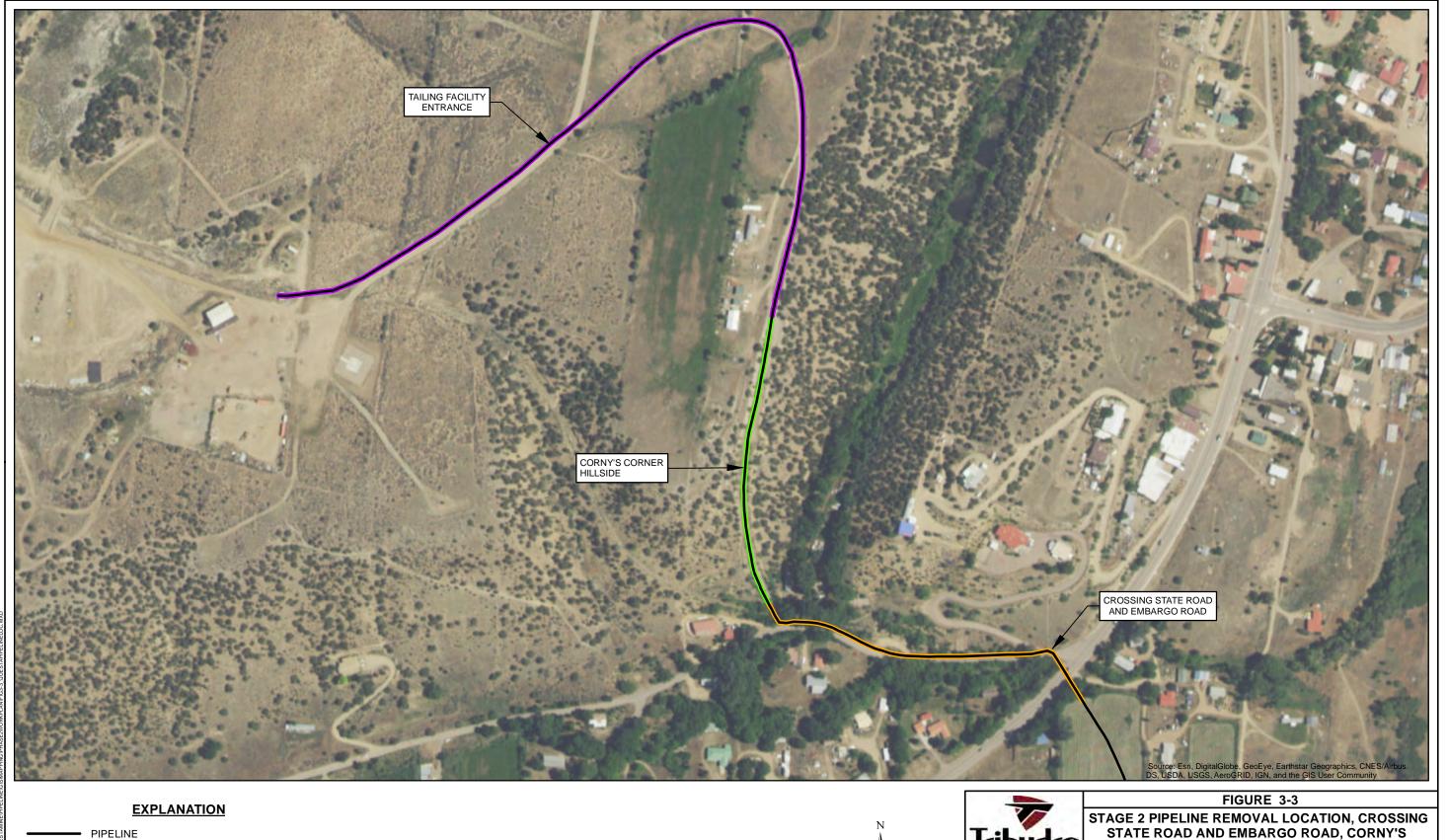


COLUMBINE WELLS AREA

CEMC QUESTA QUESTA, NEW MEXICO

Drawn By: DH Checked By: EB Scale: 1 " = 400 '

Date: 8/14/17 File: Fig3-2_QuestaPipelineLoc.mxd

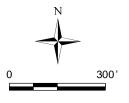


PIPELINE REMOVAL LOCATION SEGMENTS

TAILING FACILITY ENTRANCE

CORNY'S CORNER HILLSIDE

CROSSING STATE ROAD AND EMBARGO ROAD

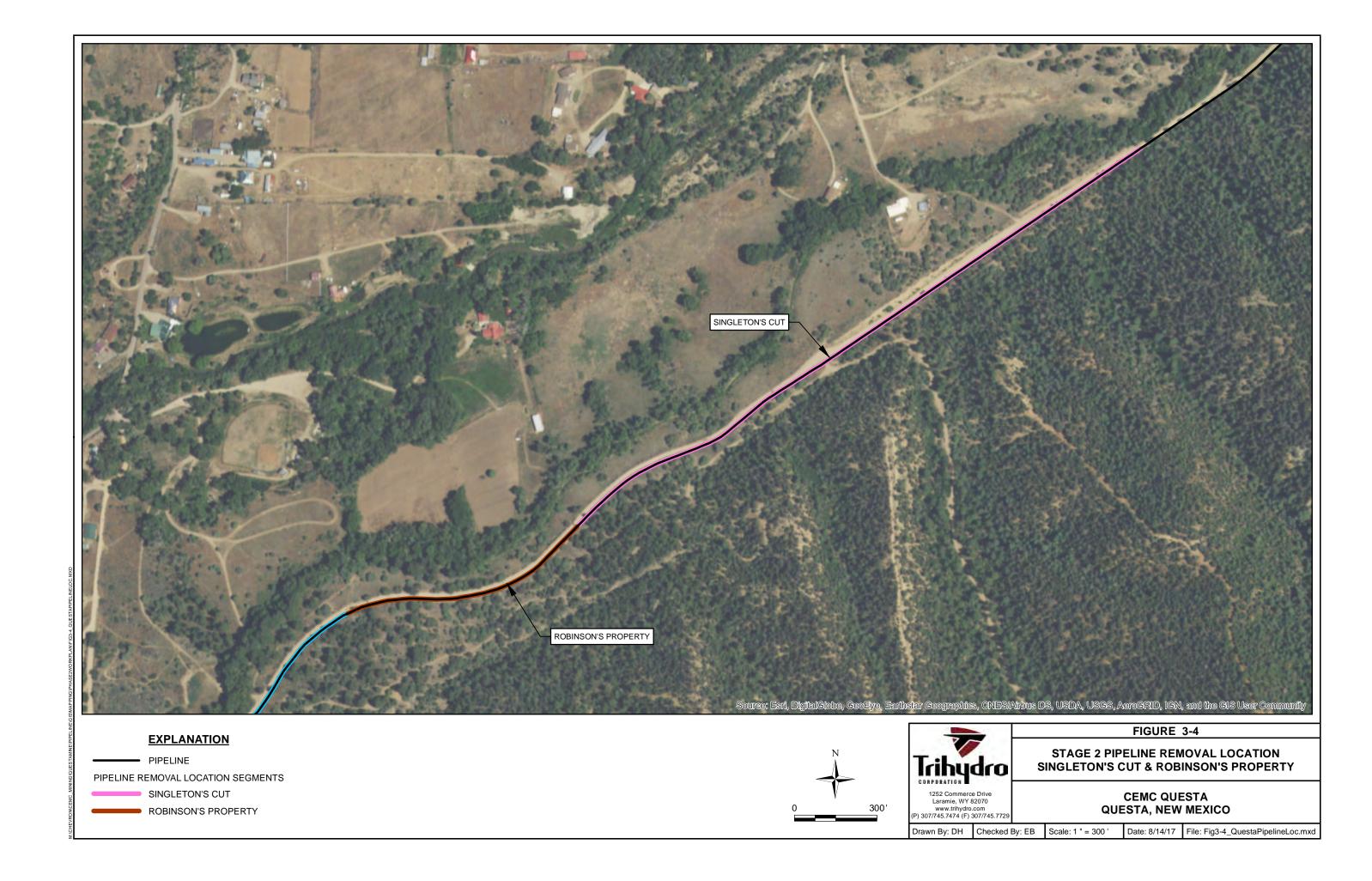


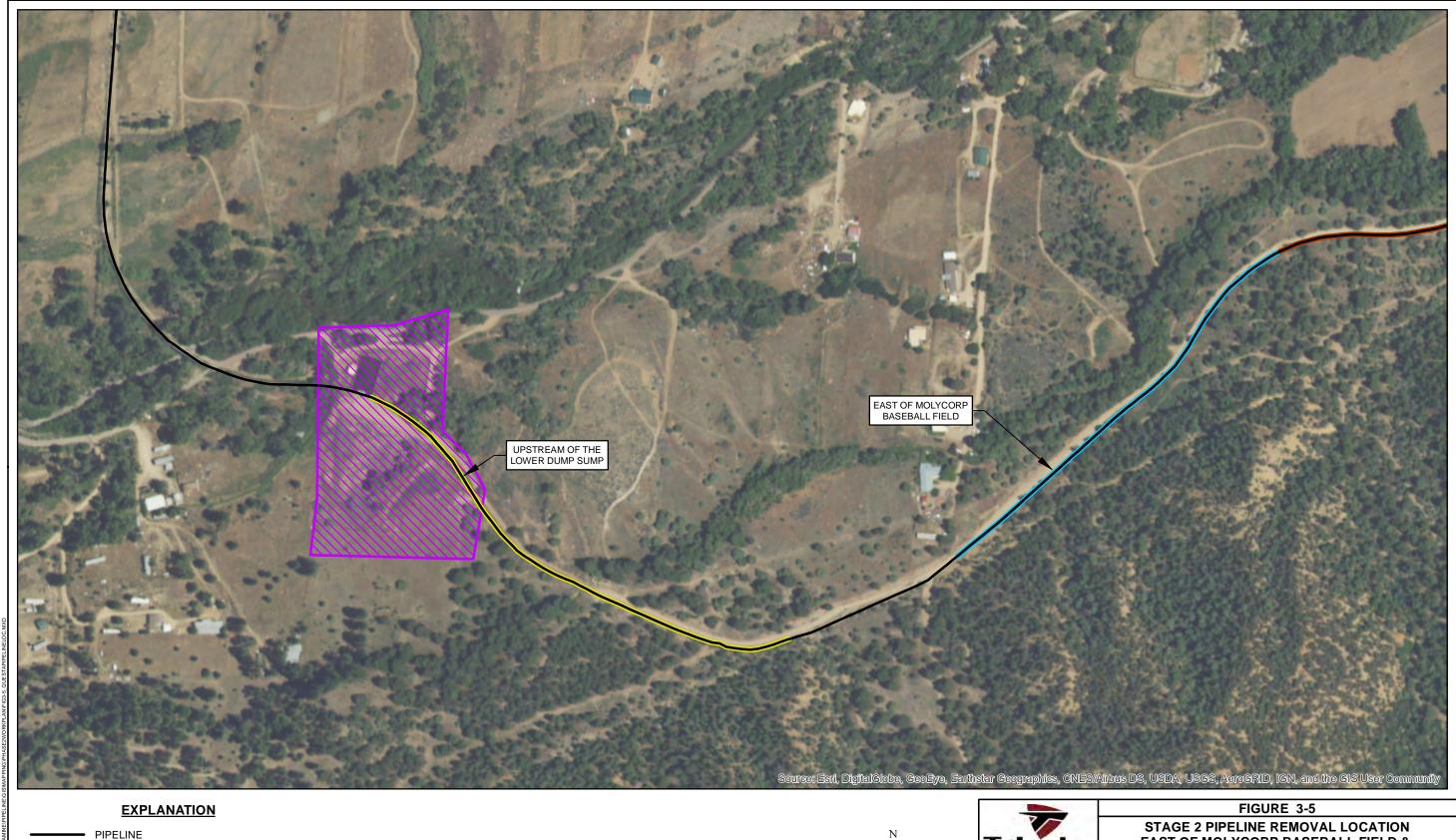
Tribydro 1252 Commerce Drive Laramie, WY 82070 www.trihydro.com (P) 307/745.7474 (F) 307/745.7729

STAGE 2 PIPELINE REMOVAL LOCATION, CROSSING STATE ROAD AND EMBARGO ROAD, CORNY'S CORNER HILLSIDE, & TAILING FACILITY ENTRANCE

CEMC QUESTA QUESTA, NEW MEXICO

Date: 8/14/17 File: Fig3-3_QuestaPipelineLoc.mxd





PIPELINE REMOVAL LOCATION SEGMENTS

UPSTREAM OF THE LOWER DUMP SUMP EAST OF MOLYCORP BASEBALL FIELD



LOWER DUMP SUMP AREA





EAST OF MOLYCORP BASEBALL FIELD & UPSTREAM OF THE LOWER DUMP SUMP

CEMC QUESTA QUESTA, NEW MEXICO

Date: 8/14/17 File: Fig3-5_QuestaPipelineLoc.mxd