INTERWEST MINING COMPANY
A SUBSIDIARY OF PACIFICORP

Interwest Mining Company
Huntington Office
P. O. Box 310
15 North Main Street
Huntington, UT 84528

January 08, 2019

Utah Coal Program
Utah Division of Oil, Gas, and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Subj: Amendment to Deer Creek Mine Permit C/015/0018 – Remove Deer Creek Waste Rock Site from Permit, Task #5776, With Response to Deficiency

PacifiCorp, by and through its wholly-owned subsidiary, Interwest Mining Company "Interwest", hereby submits a revised application for removal of the Deer Creek Waste Rock Site from the Deer Creek Mine Permit, in response to the deficiency notice dated December 6, 2018.

On May 15, 2015, the operations at the Deer Creek Mine facilities in Deer Creek Canyon ceased. Since then, all portals at this site have been sealed and backfilled, and all mining structures have been demolished. Reclamation earthwork operations will commence in 2019.

An Asset Purchase and Sales agreement (dated May 21, 2018) provides Rhino - Castle Valley Mining, LLC (Rhino) with the entire 31.92 acre area of the waste rock disposal site. The waste rock facilities have been committed to Rhino's ownership and responsibility. Rhino has obtained its own MSHA ID number and Air Quality Permit for the site. PacifiCorp will no longer retain right-of-entry into this site, and will no longer submit quarterly pond and pile inspection reports for the site.

Rhino has obtained a permit approval for the site from UDOGM as of November 2, 2018. This amendment changes the Deer Creek Permit to reflect the UDOGM permit transfer from PacifiCorp to Rhino.

For informational and historic purposes, all information regarding the operations of the Deer Creek Mine and the Waste Rock Site is being retained with the exception of Appendix XII (Volume 10) and Appendix XIII (Vegetation Information of the WRS). This information has been removed from the MRP and transferred to Rhino, and the Deer Creek Mine permit area has been reduced by 31.92 acres (the area of the Waste Rock Site). PacifiCorp will remove references to the site from its operation and reclamation plan, as well as references to the site in the Legal and Financial Volume.

In response to the deficiency letter dated December 6, 2018 from the Division, and in as a result of discussions with DOGM staff, the Deer Creek Mine permit reclamation bond has been adjusted to remove the appropriate amount of bond that was allocated for the Waste Rock Site to reflect the posting of bond by the new permit holder, Rhino Castle Valley Mine.

The revised bond estimates are provided in redline/strikeout form for the section entitled: Volume 2, R645-301-800 Bonding, Deer Creek Mine Reclamation Bond Estimates.

If you have any questions or concerns regarding this notification, please contact myself at 435-687-4712 or Dennis Oakley at 435-687-4825.

Sincerely,

Kenneth S. Fleck

Kenneth Fleck
Geology and Environmental Affairs Manager

Cc: Chuck Semborski, IMC
Dennis Oakley, IMC
Scott Child, IMC
file

APPLICATION FOR COAL PERMIT PROCESSING

Permit Change ☒ New Permit ☐ Renewal ☐ Exploration ☐ Bond Release ☐ Transfer ☐

Permittee: PacifiCorp

Mine: Deer Creek Mine **Permit Number:** C/015/0018

Title: Amendment to Update the Deer Creek Mining and Reclamation Permit to Remove the Waste Rock Site from the Mining and Reclamation Plan & Update Bond, PacifiCorp, Deer Creek Mine, C/015/0018, Emery County, Utah.

Description, Include reason for application and timing required to implement:

Instructions: If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

☒ Yes ☐ No 1. Change in the size of the Permit Area? Acres: 31.92 ☐ increase ☒ decrease.
☐ Yes ☒ No 2. Is the application submitted as a result of a Division Order? DO# _____
☐ Yes ☒ No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
☐ Yes ☒ No 4. Does the application include operations in hydrologic basins other than as currently approved?
☒ Yes ☐ No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
☐ Yes ☒ No 6. Does the application require or include public notice publication?
☒ Yes ☐ No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
☐ Yes ☒ No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
☐ Yes ☒ No 9. Is the application submitted as a result of a Violation? NOV # _____
☐ Yes ☒ No 10. Is the application submitted as a result of other laws or regulations or policies?
Explain: _____
☒ Yes ☐ No 11. Does the application affect the surface landowner or change the post mining land use?
☐ Yes ☒ No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
☐ Yes ☒ No 13. Does the application require or include collection and reporting of any baseline information?
☐ Yes ☒ No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
☐ Yes ☒ No 15. Does the application require or include soil removal, storage or placement?
☐ Yes ☒ No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
☒ Yes ☐ No 17. Does the application require or include construction, modification, or removal of surface facilities?
☐ Yes ☒ No 18. Does the application require or include water monitoring, sediment or drainage control measures?
☒ Yes ☐ No 19. Does the application require or include certified designs, maps or calculation?
☐ Yes ☒ No 20. Does the application require or include subsidence control or monitoring?
☒ Yes ☐ No 21. Have reclamation costs for bonding been provided?
☐ Yes ☒ No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
☐ Yes ☒ No 23. Does the application affect permits issued by other agencies or permits issued to other entities?

Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five (5) copies, thank you. (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Kenneth Fleck — Kenneth S. Fleck — Manager of Environmental Affairs JAN 8, 2019
Print Name — Sign Name, Position, Date

Subscribed and sworn to before me this 8th day of January, 2019

Miranda Lofley
Notary Public

My commission Expires: 03-26, 2022

Attest: State of Utah } ss:
County of Emery

MIRANDA LOFLEY
NOTARY PUBLIC
STATE OF UTAH
COMMISSION # 699728
COMM. EXP. 03/26/2022

For Office Use Only:	Assigned Tracking Number:	Received by Oil, Gas & Mining

Form DOGM- C1 (Revised March 12, 2002)

APPLICATION FOR COAL PERMIT PROCESSING
Detailed Schedule Of Changes to the Mining And Reclamation Plan

Permittee: PacifiCorp
Mine: Deer Creek Mine **Permit Number:** C/015/0018
Title: Amendment to Update the Deer Creek Mining and Reclamation Permit to Remove the Waste Rock Site from the Mining and Reclamation Plan & Update Bond, PacifiCorp, Deer Creek Mine, C/015/0018, Emery County, Utah.

Provide a detailed listing of all changes to the Mining and Reclamation Plan, which is required as a result of this proposed permit application. Individually list all maps and drawings that are added, replaced, or removed from the plan. Include changes to the table of contents, section of the plan, or other information as needed to specifically locate, identify and revise the existing Mining and Reclamation Plan. Include page, section and drawing number as part of the description.

			DESCRIPTION OF MAP, TEXT, OR MATERIAL TO BE CHANGED
☒ Add	☐ Replace	☐ Remove	Volume 1, Informational Cover Page
☐ Add	☒ Replace	☐ Remove	Volume 1, Table of Contents
☐ Add	☒ Replace	☐ Remove	Volume 1, Part 2, Map HM-1A
☐ Add	☒ Replace	☐ Remove	Volume 2, R645-301-800 Bonding - Deer Creek Mine Reclamation Bond Estimates
☐ Add	☐ Replace	☒ Remove	Volume 3, Appendix XII
☐ Add	☐ Replace	☒ Remove	Volume 3, Appendix XIII
☐ Add	☒ Replace	☐ Remove	Legal & Financial Volume, App. B, General Environmental Permits Table
☐ Add	☒ Replace	☐ Remove	Legal & Financial Volume, App. G, Deer Creek Permit Boundary Desc. Page DC-6, DC-7
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	

Any other specific or special instruction required for insertion of this proposal into the Mining and Reclamation Plan.	**Received by Oil, Gas & Mining**

Informational Cover Page – Volume 1

The Deer Creek coal mining complex is located within Huntington Canyon approximately 10 miles west of the town of Huntington in Emery County, Utah. This coal mining complex consists of surface support facilities situated within Deer Creek and Rilda Canyons including an off-site waste rock storage area located east of the Huntington Power Plant.

Since mine closure was announced on December 15, 2014, efforts have been made to complete all mine closure activities including the construction of permanent portal seals for the entire Deer Creek Mine. The construction of the portal seals in Rilda Canyon during December 2017 completed the final closure of the Deer Creek Mine that was originally envisioned when mine closure was first announced in December 2014.

Since the closure announcement, large portions of the southern area of the mine were sealed off during April 2015, with the remaining Rilda Canyon portion left open while implementing mitigation measures to handle anticipated intercepted groundwater. The final sealing of the Rilda Canyon Right Fork portals consisted of first constructing a water drainage system inclusive of an in-mine collection gallery and then the construction and permanent placement of a buried water pipeline from the Rilda Canyon Right Fork portal to the Huntington Power Plant raw water pond. This pipeline project was completed November 2017.

The final Rilda Canyon portal sealings consisted of two 25-foot thick concrete portal plugs with water drains, one each in the 1st Right facility fan and roadway portals that were constructed on November 8 and 10, 2017, and high strength Strata panel portal seals, one each in the Left Fork facility fan and the roadway portals completed on December 18 and December 20, 2017. The portal seals were constructed to meet or exceed regulatory requirements of 30CFR 75.1711.

In-mine environmental inspections for the entire Deer Creek Mine were systematically conducted with BLM and DOGM representatives during the course of mine closure activities. On November 29, 2017, a final mine inspection was conducted with the BLM and DOGM representatives in attendance to inspect for hazardous materials and witness the underground conditions prior to the final sealing of the Rilda Canyon portals.

With the final sealing of the Rilda Canyon mine portals completed, the final abandonment and closure of the Deer Creek Mine was concluded including the placement of permanent portal seals for the entire mine complex in accordance with the approved plans. With final abandonment completed, on April 16, 2018 PacifiCorp file Notice-of-Intent to the Division of Oil, Gas and Mining to commence with final reclamation activities of the entire Deer Creek Mine complex per the approved reclamation plan under mine permit C/015/0018.

For informational and historic purposes, all environmental and operational information regarding the operations of the Deer Creek Mine and the Waste Rock Site is being retained with the exception of Appendix XII (Volume 10) and Appendix XIII (Vegetation Information of the WRS). This information has been removed from the MRP and transferred to Rhino Coal.

TABLE OF CONTENTS

Volume 1

DOGM REGULATION	TITLE	PAGE NO.
R645-301-100: General Contents		
All Legal and Financial Information has been relocated to the Supplemental Volume entitled "Legal and Financial Volume"		
	PART 2 - ENVIRONMENTAL RESOURCES	
R645-301-411.140	Archeological Survey	2-1
	All Archeological Sample Survey Data and Cultural Resource Evaluations of East Mountain has been relocated to the PacifiCorp Confidential and Protected Volume	
R645-301-600	Geology	Volume 8
R645-301-700	Hydrology (including Climatological Information)	Volume 9
R645-301-321	Vegetation	2-135
R645-301-321	Vegetation Monitoring Plan	2-174
R645-301-200	Soils Information	2-174
R645-301-322	Fish and Wildlife Resources	2-182
	All Raptor Survey Data of East Mountain has been relocated to the PacifiCorp Confidential and Protected Volume	
R645-301-410	Land Use Information	2-211
R645-301-221	Prime Farm Land Investigation	2-214
RR645-301-320	Alluvial Valley Floors	2-219

Volume 2

DOGM REGULATION	TITLE	PAGE NO.
PART 3 - MINING OPERATION PLAN		
R645-301-511.100	Deer Creek Mine Operation	3-1
R645-301-523	Mining Plan	3-3
R645-301-523	Mining Method	3-6

TABLE OF CONTENTS

Volume 2

DOGM REGULATION	TITLE	PAGE NO.
PART 3 - MINING OPERATION PLAN (cont.)		
R645-301-523	Production	3-13
R645-301-511.200	Engineering Principles and Techniques	3-15
R645-301-526	Mine Facilities	3-16
R645-301-526.300	Water Pollution Control Facilities	3-36
R645-301-527	Transportation Facilities	3-40
R645-301-528.321	Return of Coal Processing Waste to Underground	3-44
R645-301-524	Blasting Plan	3-44
R645-301-420	Air Pollution Control Plan	3-45
R645-301-521.180	In Situ Processing	3-46
R645-301-526.110	Operation Plan Existing Structures	3-46
R645-301-521.200	Sign and Markers	3-57
R645-301-515	Reporting and Emergency Procedures	3-58
R645-301-515.300	Temporary Cessation of Operations	3-58
R645-301-536	Underground Development Waste	3-63
Exhibit A	Rilda Canyon Stream Alteration Permit	
Exhibit B	Rilda Canyon Geotechnical Investigation RB&G Report 1991	
PART 4 - RECLAMATION PLAN		
R645-301-200	***Soils***	
R645-301-240	Reclamation Plan	2-1
R645-301-242	Soil Redistribution	2-1
R645-301-233	Topsoil Substitutes and Supplements	2-2
R645-301-243	Soil Nutrients and Amendments	2-5
R645-301-244	Soil Stabilization	2-5
Appendix 200-A	Soil Sample Analysis – Sampling Program	
Appendix 200-B	Soil Sample Location Map	
Appendix 200-C	Soil Sample Analysis for the Terrace Area Above Deer Creek Surface Facilities	

TABLE OF CONTENTS

Volume 2

DOGM REGULATION	TITLE	PAGE NO.
PART 4 - RECLAMATION PLAN (cont.)		
R645-301-300	***Biology***	
R645-301-340	Reclamation Plan	3-1
R645-301-341	Revegetation	3-1
R645-301-342	Fish and Wildlife Resources	3-6
R645-301-350	Performance Standards	3-7
Appendix 300-A	Vegetation Community Locations	
R645-301-400	***Land Use & Air Quality***	
R645-301-412	Reclamation Plan	4-1
R645-301-500	***Engineering***	
R645-301-540	Reclamation Plan	5-1
R645-301-541	General	5-1
R645-301-542	Narratives, Maps and Plans	5-2
R645-301-550	Reclamation Design Criteria and Plans	5-2
R645-301-551	Casing and Sealing of Underground Openings	5-2
R645-301-553	Backfilling and Grading	5-6
R645-301-560	Performance Standards	5-14
Appendix 500-A	Sequence of Reclamation Drawing	
	Pre-Reclamation Surface Disturbance Drawings	
Appendix 500-B	Reclamation Plans	
	Rilda Canyon Facilities – Left Fork	
	9th East North Meetinghouse Portals	
	9th East Grimes Wash Portals	
Appendix 500-C	Final Reclamation Maps	
Appendix 500-D	Highwall Elimination Plan	
Appendix 500-E	Slope Stability Analysis Report – RB&B Engineering	

TABLE OF CONTENTS

Volume 2

DOGM
REGULATION TITLE .....PAGE NO.
PART 4 - RECLAMATION PLAN (cont.)

R645-301-700 Hydrology
R645-301-760 Reclamation Plan 7-1
R645-301-761 General Requirements.....7-1
R645-301-762 Roads.....7-5
R645-301-763 Siltation Structures.....7-15
R645-301-764 Structural Removal 7-15
R645-301-765 Permanent Casing and Sealing of Wells.....7-15
Appendix 700-A Watershed Hydrographs for Deer Creek, Deer and Elk canyons
Appendix 700-B East Mountain Topographic Map
Final Reclamation Hydrology Map
Typical Channel Design Figures
Appendix 700-C Slope Profile Used in Calculating RUSLE Factors
RULSE Input Parameters for Soil Loss Calculations
Appendix 700-D Channel Design Results for the Deer Creek Mine Drainages
Appendix 700-E Riprap Gradation Calculations for Filter Design of Channels

R645-301-800 Bonding
Deer Creek Mine 2011 Reclamation Cost Estimates

R645-301-525.100 Subsidence Control Plan.....4-68
R645-301-358 Protection of Fish and Wildlife.....4-79
R645-301-322 Fish and Wildlife Resource Information.....4-85

TABLE OF CONTENTS

Volume 3A

Appendices

I - Coal Litholigic Logs
- a. Drill Hole EM-23C
- b. Drill Hole EM-12C
- c. Drill Hole A-25
- d. Drill Hole B-124

II - Field Data for the Vegetation Reference Area

III - Safety Factor Calculations for Road and Impoundment Embankments

IV - Escarpment Stability Study - Newberry and Rilda Canyon Comparisions
Time Domain Reflectometry Study
Deer Creek Mine Lease Extension Mine Plan and Excarpment Stability Analysis
Sandstone Escarpment Stability in Vicinity of Longwall Mining Operations

V - Photographs of Existing Structures

VI - Blasting Plan

VII - Hydrological Calculations

Volume 3B

Appendices

VIII - Stability Report (Rollins)

IX - Hydrological Procedures and Calculations with Drainage Map CM-10529-EM

X - Subsidence Monitoring Plan

XI - Structures Within the Permit and Adjacent Areas which could be Affected by Subsidence

~~XII - Waste Rock Storage Facility (See Volume 10)~~

~~XIII - Reference area/fill slope comparisons for Waste Rock Site access road~~

TABLE OF CONTENTS

DEER CREEK MAPS AND DRAWINGS

Volume 4

Legal, Financial, Compliance Information

1-1 Coal Ownership CM-10522-DR
1-2 Surface Ownership.....CM-10521-DR
1-3 Permit Area with Mine Development.....CM-10367-DR
Mine Permit Area with Mine Development as August 1977 Blind Canyon Seam
1-4 Surface Yard & Overland Conveyor Disturbed Area Boundary CM-10882-DR

Environmental Resources, Vegetation and Soils

2-1 thru 2-12 have been deleted. Geologic and Hydrologic Data Maps are found in Volume 8 & 9.

2-13 Cross Section of Roans Canyon Fault System (sheet 1 of 2) CE-10517-EM
Roans Canyon Fault Crossing Rock Tunnel Layout and Profiles CM-10784-DR
2-14 Vegetation Map.....CE-10488-DR
2-15 Mine Plan Area Vegetation Map CE-10485-DR
2-15A Rilda Canyon Vegetation Map.....CE-10885-EM
2-16 General Soils Map.....CE-10498-DR
2-17 Mine Plan Area Soils Map.....CE-10344-DR
2-17A Rilda Canyon Access Road/Facilities Soils Map.....CE-10886-DR
2-18A Land Use Map.....CE-10595-DR
2-18B Raptor Nesting Map.....CE-10588-DR
Raptor Nesting Location & Habitat Map of East Mountain has been relocated to the PacifiCorp Confidential and Protected Volume
2-19A Elk Habitat CE-10906-DR
2-19B Mule Deer Habitat.....CE-10543-DR

TABLE OF CONTENTS

Operation Plan

3-1 Deleted 10/7/95
3-2 Deleted 10/7/95
3-3 Deleted 10/7/95
3-4 Deleted 10/9/90
3-5 Deleted 10/9/90

TABLE OF CONTENTS

Volume 5

Operation Plan (cont.)

3-6	Life of Mine Plan 5 Year Increments - Blind Canyon Seam	CM-10899-DR
3-7	Life of Mine Plan 5 Year Increments - Hiawatha Canyon Seam	CM-10900-DR
3-8	Typical Alternative Sediment Control Measures	GENS1555A
3-9	Surface Yard Map (Maps 1 – 4)	DS202E
3-9A	Surface Yard Map Pre/Post SMCRA Development Map	DS1812E
3-9A	Rilda Canyon Surface Facilities and Access Road	CE-10883-EM
3-9B	Rilda Canyon Centerline Access Road Profile	CE-10890-EM
3-9C	Deer Creek Mine Sediment Trap	DS1159C
3-10	Sanitation System/Sewer Lines (R&S)	7750-C1
3-11	Sewer Pipeline Plan View	DS-668-C
	Sewer Drainfield	DS1704B
3-12	Deleted 10/9/90	
3-13	Deleted 10/9/90	
3-14	Sediment Retention Box	DS1491D
3-15	Sedimentation Pond	CM-10867-DR
	Sedimentation Pond Cross Section	CM-10593-DR
3-16	Storm Water Diversion System & Impoundment Dam Sections & Details	MK-00-52-1-010
3-17	Waste Rock Disposal Site-Yard Extention Area	CM-10386-DR
3-17A	Elk Canyon Storage Pad-Site Plan (Sheet 1 of 2)	CM-10774-DR
3-17B	Elk Canyon Storage Pad-Site Plan (Hydrological Areas)	CM-10774-DR
3-17C	Elk Canyon Storage Pad-Site Plan - Cross Sections (Sheet 2 of 2)	CM-10774-DR

TABLE OF CONTENTS

Volume 6

Operation Plan (cont.)

3-18 Deleted 4/30/04
3-19 Deleted 4/30/04
3-20 Main Access Road (Primary) Cross-Sections.....CM-10881-DR

Volume 6

Reclamation

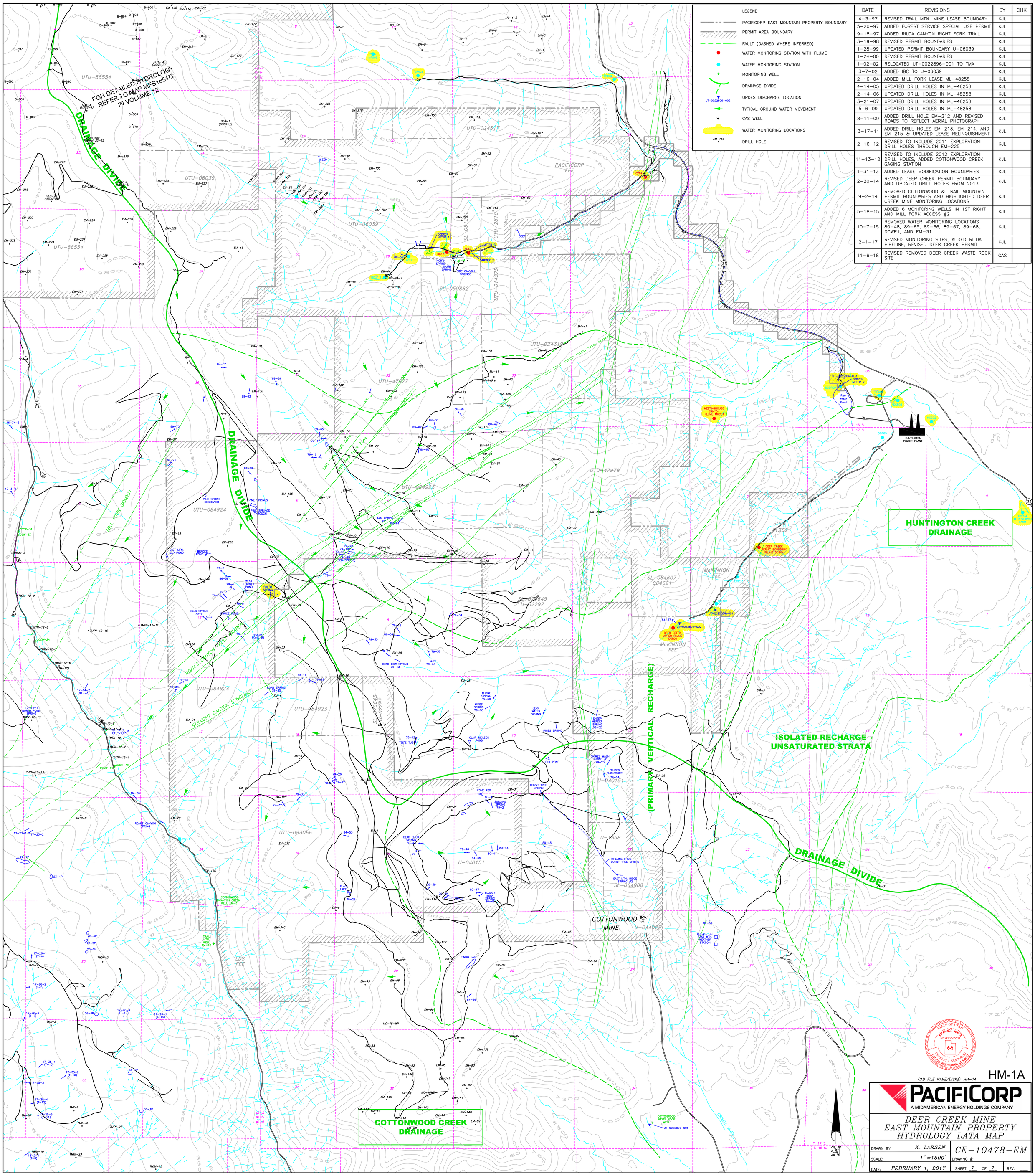
4-1 Deleted 4/30/04
4-1A Rilda Canyon Left Fork Proposed Final Reclamation
Surface & Access Road CM-10884-EM
4-2 Deleted 4/30/04
4-3 Deleted 4/30/04
4-4 Deleted 4/30/04
4-4A Rilda Canyon Access Road/Facilities Cross-Sections (2 Sheets).....CM-10891-EM
4-5 Subsidence Monitoring Overlay CM-10400-DR
East Mountain 1980 Primary Control Diagram CM-10590-DR

Volume 7

Operation Plan (additional)

5-1 Layout and Plan View / 8" Underground Pipeline
Huntington Pond to Deer Creek Mine CM-10673-DR
5-2 8" Outside Service Water (Sheets 1-4) CM-10671
8" Outside Service Water (Sheets 5-8) CM-10671
8" Outside Service Water (Sheets 9-11) CM-10671

Volume 8 **Geologic Section** **(refer to individual volume for Table of Contents)**
Volume 9 **Hydrologic Section** **(refer to individual volume for Table of Contents)**
Volume 11 **North Rilda Canyon** **(refer to individual volume for Table of Contents)**
Volume 12 **Mill Fork** **(refer to individual volume for Table of Contents)**



DATE	REVISIONS	BY	CHK
4–3–97	REVISED TRAIL MTN. MINE LEASE BOUNDARY	KJL	
5–20–97	ADDED FOREST SERVICE SPECIAL USE PERMIT	KJL	
9–18–97	ADDED RILDA CANYON RIGHT FORK TRAIL	KJL	
3–19–98	REVISED PERMIT BOUNDARIES	KJL	
1–28–99	UPDATED PERMIT BOUNDARY U–06039	KJL	
1–24–00	REVISED PERMIT BOUNDARIES	KJL	
1–02–02	RELOCATED UT–0022896–001 TO TMA	KJL	
3–7–02	ADDED IBC TO U–06039	KJL	
2–16–04	ADDED MILL FORK LEASE ML–48258	KJL	
4–14–05	UPDATED DRILL HOLES IN ML–48258	KJL	
2–14–06	UPDATED DRILL HOLES IN ML–48258	KJL	
3–21–07	UPDATED DRILL HOLES IN ML–48258	KJL	
5–6–09	UPDATED DRILL HOLES IN ML–48258	KJL	
8–11–09	ADDED DRILL HOLE EM–212 AND REVISED ROADS TO REFLECT AERIAL PHOTOGRAPH	KJL	
3–17–11	ADDED DRILL HOLES EM–213, EM–214, AND EM–215 & UPDATED LEASE RELINQUISHMENT	KJL	
2–16–12	REVISED TO INCLUDE 2011 EXPLORATION DRILL HOLES THROUGH EM–225	KJL	
11–13–12	REVISED TO INCLUDE 2012 EXPLORATION DRILL HOLES, ADDED COTTONWOOD CREEK GAGING STATION	KJL	
1–31–13	ADDED LEASE MODIFICATION BOUNDARIES	KJL	
2–20–14	REVISED DEER CREEK PERMIT BOUNDARY AND UPDATED DRILL HOLES FROM 2013	KJL	
9–2–14	REMOVED COTTONWOOD & TRAIL MOUNTAIN PERMIT BOUNDARIES AND HIGHLIGHTED DEER CREEK MINE MONITORING LOCATIONS	KJL	
5–18–15	ADDED 6 MONITORING WELLS IN 1ST RIGHT AND MILL FORK ACCESS #2	KJL	
10–7–15	REMOVED WATER MONITORING LOCATIONS 80–48, 89–65, 89–66, 89–67, 89–68, DCWR1, AND EM–31	KJL	
2–1–17	REVISED MONITORING SITES, ADDED RILDA PIPELINE, REVISED DEER CREEK PERMIT	KJL	
11–6–18	REVISED REMOVED DEER CREEK WASTE ROCK SITE	CAS	

STATE OF UTAH
REFERENCE NUMBER
5234167-2250
CHARLES A. SEMBOWER
LICENSED PROFESSIONAL GEOLOGIST

HM-1A

CAD FILE NAME/DISK#: HM-1A

PACIFICORP
A MIDAMERICAN ENERGY HOLDINGS COMPANY

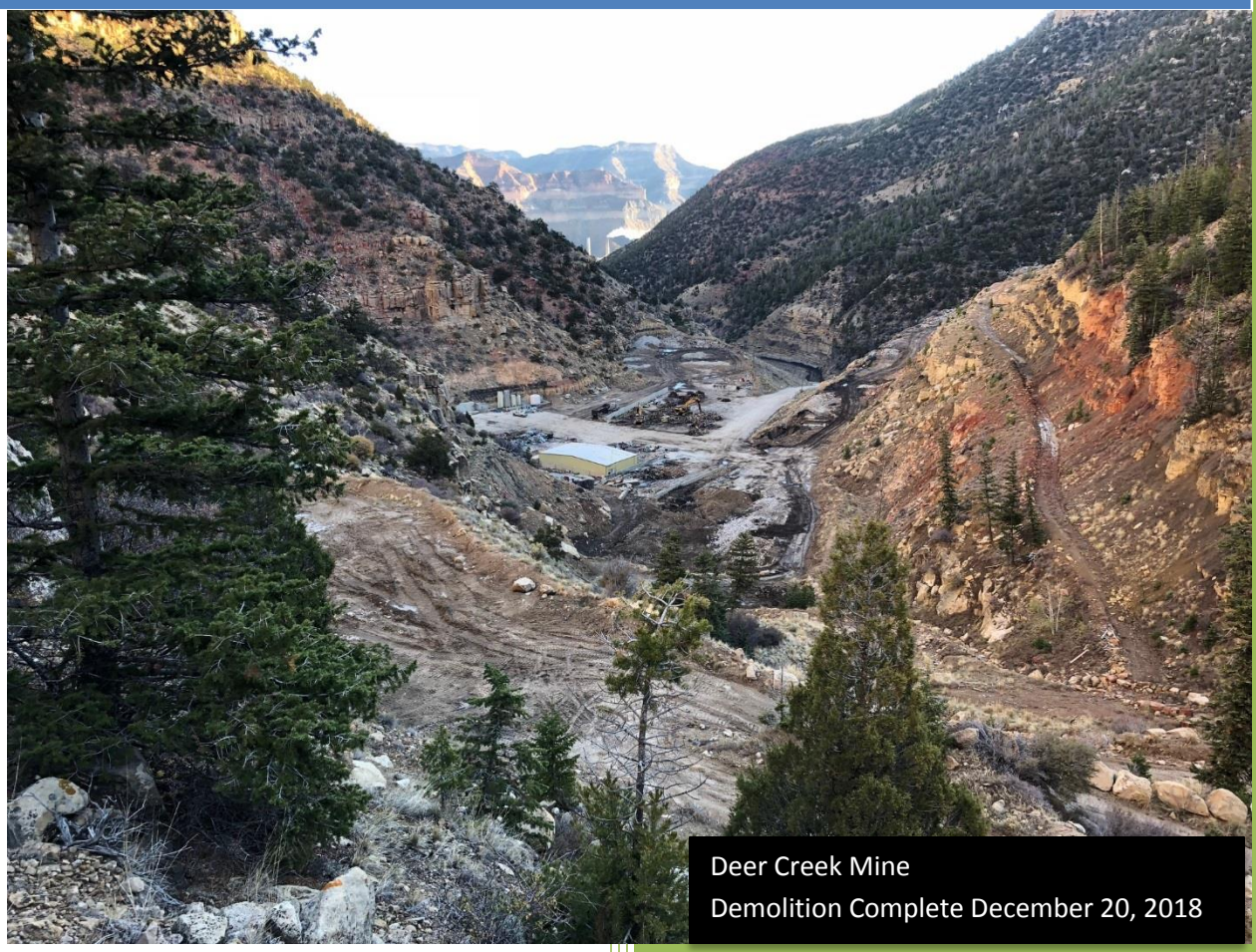
DEER CREEK MINE
EAST MOUNTAIN PROPERTY
HYDROLOGY DATA MAP

DRAWN BY:	K. LARSEN	CE–10478–EM	
SCALE:	1"=1500'	DRAWING #:	
DATE:	FEBRUARY 1, 2017	SHEET 1 OF 1	REV.

2011

Revised January 2019

Deer Creek Mine: Reclamation Cost Estimates



Deer Creek Mine
Demolition Complete December 20, 2018

PacifiCorp – Interwest Mining Company

01/01/2011

Deer Creek Mine

Deer Creek Mine Complex: C/015/0018

Reclamation Bond Estimates

Bond Summary

Bonding Calculations
Deer Creek Mine - including Rilda Canyon Portal Facilities

Deer Creek Mine Facilities		
Direct Costs (2003 Costs)		
Subtotal Demolition,	$779,235	
Subtotal Backfilling and Grading	$823,312	
Subtotal Revegetation	$72,966	
Direct Costs Total	$1,675,513	
Indirect Costs		
Mob/Demob	$167,551	10.0%
Contingency	$83,776	5.0%
Engineering Redesign	$41,888	2.5%
Main Office Expense	$113,935	6.8%
Project Mainagement Fee	$41,888	2.5%
Indirect Costs Totals	$449,038	26.8%
Total Cost in 2003 Dollars	**$2,124,551**	
Escalation (refer to Deer Creek Escalation Sheet for Escalation Factors)		
Deer Creek Mine Facilities Total Reclamation Cost 2004 Dollars	$2,184,463	
Deer Creek Mine Facilities Total Reclamation Cost 2005 Dollars	$2,246,065	
Deer Creek Mine Facilities Total Reclamation Cost 2006 Dollars	$2,268,975	
Deer Creek Mine Facilities Total Reclamation Cost 2007 Dollars	$2,292,118	
Deer Creek Mine Facilities Total Reclamation Cost 2008 Dollars	$2,315,498	
Deer Creek Mine Facilities Total Reclamation Cost 2009 Dollars	$2,345,599	
Deer Creek Mine Facilities Total Reclamation Cost 2010 Dollars	$2,376,092	
Deer Creek Mine Facilities Total Reclamation Cost 2011 Dollars	$2,406,981	
Deer Creek Mine Facilities Total Reclamation Cost 2012 Dollars	$2,447,900	
Deer Creek Mine Facilities Total Reclamation Cost 2013 Dollars	$2,489,514	
Deer Creek Mine Facilities Total Reclamation Cost 2014 Dollars	$2,531,836	
Deer Creek Mine Facilities Total Reclamation Cost 2015 Dollars	$2,574,877	
Deer Creek Mine Facilities Total Reclamation Cost 2016 Dollars	$2,618,650	
Deer Creek Mine Facilities Total Reclamation Cost 2017 Dollars	$2,636,980	
Deer Creek Mine Facilities Total Reclamation Cost 2018 Dollars	$2,655,439	
Total Cost in 2018 Dollars	**$2,655,439**	
Deer Creek Mine - Rilda Portal Facilities		
Direct Costs Total		
Subtotal Demolition,	$357,280	
Subtotal Earthwork	$91,473	
Subtotal Revegetation	$8,016	
Direct Costs Total	$456,770	
Indirect Costs		
Mob/Demob	$45,676.96	10.0%
Contingency	$22,838.48	5.0%
Engineering Redesign	$11,419.24	2.5%
Main Office Expense	$31,060.33	6.8%
Project Mainagement Fee	$11,419.24	2.5%
Indirect Costs Totals	$122,414.24	26.8%
Rilda Canyon Portal Facilities Total Cost in 2011 Dollars	**$579,183.79**	
Escalation (refer to Rilda Canyon Escalation Sheet for Escalation Factors)		
Rilda Canyon Portal Facilities Total Cost in 2012 Dollars	$589,029	
Rilda Canyon Portal Facilities Total Cost in 2013 Dollars	$598,876	
Rilda Canyon Portal Facilities Total Cost in 2014 Dollars	$608,722	
Rilda Canyon Portal Facilities Total Cost in 2015 Dollars	$618,568	
Rilda Canyon Portal Facilities Total Cost in 2016 Dollars	$628,414	
Rilda Canyon Portal Facilities Total Cost in 2017 Dollars	$632,468	
Rilda Canyon Portal Facilities Total Cost in 2018 Dollars	$636,895	
Total Cost in 2018 Dollars	**$636,895**	
Deer Creek Mine Complex -Total Reclamation Bond		
Total Deer Creek Mine Complex Reclamation Costs in 2018 Dollars	**$3,292,335**	
Bond Amount (rounded to nearest $1,000)	**$3,374,000**	

Deer Creek Mine

Deer Creek Mine Portal Facilities: C/015/0018

Reclamation Bond Estimates

Escalation Calcualtions

DEER CREEK MINE

	Revised December 2018	Original Bond	Variance		
Direct Costs (2003 Costs)					
Subtotal Demolition,	$ 779,235	$ 769,234	$ 10,001	Note 1	Note 2
Subtotal Backfilling and Grading	$ 823,312	$ 832,473	$ (9,161)	Note 2	
Subtotal Revegetation	$ 72,966	$ 158,421	$ (85,455)	Note 2	Note 3
Direct Cost	$ 1,675,513	$ 1,760,128	$ (84,615)		

Revisions:

Note 1	Addition, included link to Item M
Note 2	Removed Rilda Canyon Left Fork and Waste Rock Site
Note 3	Spreadsheet reference error (approved bond listed $151,781)

Indirect Cost +26.8%	26.8%	$ 449,037		
Total Cost in 2003 dollars		$ 2,124,550		
Escalate 2.82% for 2 years to 2005		$ 2,184,463	$59,912.32	2004
		$ 2,246,065	$61,601.85	2005
Escalate 1.02% for 3 years to 2008		$ 2,268,975	$22,909.86	2006
		$ 2,292,118	$23,143.54	2007
		$ 2,315,498	$23,379.60	2008
Escalate 1.30% for 3 years to 2011		$ 2,345,599	$30,101.47	2009
		$ 2,376,092	$30,492.79	2010
		$ 2,406,981	$30,889.19	2011
Escalate 1.70% for 5 years to 2016		$ 2,447,900	$40,918.68	2012
		$ 2,489,514	$41,614.30	2013
		$ 2,531,836	$42,321.74	2014
		$ 2,574,877	$43,041.21	2015
		$ 2,618,650	$43,772.91	2016
Escalate 0.70% for 2 years to 2018		$ 2,636,980	$18,330.55	2017
		$2,655,439.36	**$18,458.86**	**2018**

Yearly Escalation Factors Provided by DOGM

Deer Creek Mine

Rilda Canyon Portal Facilities: C/015/0018

Reclamation Bond Estimates

Escalation Calcualtions

Rilda Canyon

	Revised December 2018	Orignal Bond	Variance	
Direct Costs (2003 Costs)				
Subtotal Demolition,	$ 357,280.00	357280	$ -	Note 1
Subtotal Backfilling and Grading	91473.16	91473.16	$ -	
Subtotal Revegetation	$ 8,016.00	15487.94	$ (7,471.94)	
Direct Cost	$ 456,769.16	$ 464,241.10	$ (7,471.94)	

Revisions:

Note 1 Item removed - Live Plantings, Amendment #5736 approved August 30, 2018

Indirect Cost +26.8%	26.8%	$ 122,414.13			
Total Cost in 2011 dollars		$ 579,183.29			
Escalate 1.70% for 5 years to 2016		$ 589,029		$9,846.12	2012
		$ 598,876		$9,846.12	2013
		$ 608,722		$9,846.12	2014
		$ 618,568		$9,846.12	2015
		$ 628,414		$9,846.12	2016
Escalate 0.70% for 2 years to 2018		$ 632,468		$4,054.28	2017
		$636,895.44		**$4,427.28**	**2018**

Yearly Escalation Factors Provided by DOGM

Deer Creek Mine

Deer Creek Mine Portal Facilities: C/015/0018

Reclamation Bond Estimates

Demolition

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Fuel Tank Fan 1A																			657
	Redwood Water Tank 1B																			1301
	Fan 1C																			4150
	Water Storage Tank 1D																			11612
	Main Office Bathhouse 1E																			72970
	Water Treatment Plant 1F																			3656
	Skimmer Building 1G																			3656
	High Pressure Pump Building 1H																			2768
	Power Installations 1I																			3287
	ROM Belt Line 1 J																			22755
	Parking Garage 1K																			11377
	Storage Shed 1L																			11993
	Security GateFence 1Q																			2002
	Shop Warehouse 1M																			22025
	Salt and Storage Shed 1N																			4451
	Oil Fuel Storage 1O																			3196
	Tire Dock 1P																			14898
	Septic Tanks 1R																			4034
	Storage Docks 1S																			26450
	Rock Dust Silo 1T																			5702
	Reclaim Tunnel 1U																			1885
	Retaining Walls Tipple 1V																			6369
	Tipple 1W																			62591
	Beltline C1 C2 1X																			11962
	Transfer Tower C1 C2 1Y																			4136
	Misc Culverts 1 Z																			18748
	Misc Concrete 1AA																			109110
	Guard Rail 1AB																			3742
	SedPond 1AC																			9191
	Trash Bunker 1AD																			4143
	Portals 2 A																			20800
	Asphalt Removal 3 A																			121618
	Riprap 4A																			172000
	Total																			779235

Added reference to Item M	Additional cost	22025
Guard Rail 1AB	Removed Waste Rock Site cost	3749
Asphalt Removal 3 A (partial)	Removed Waste Rock Site cost	8275

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Fuel Tank Fan 1A																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									0.25	1	day		0.25	day	159
		Attachment Bucket Thumb	01590 200 0342	113.18	/day									0.25	1	day		0.25	day	28
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									2	1	hr		2	hr	99
		CLAB	Clab	$38.50	HR									2	1	hr		2	hr	77
		Foreman Average, Outside	Foreman	$53.65	HR									2	1	hr		2	hr	107
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									0.25	1	day		0.25	day	102
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									2	1	hr		2	hr	78
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							1				ton		1	ton	7
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			657
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			657

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Redwood Water Tank 1B																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									0.5	1	day		0.5	day	317
		Hammer Hydraulic 500 to 1,200 ft-lb	01590 400 2860	72.15	/day									0.5	1	day		0.5	day	36
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									4	1	hr		4	hr	197
		CLAB	Clab	$38.50	HR									4	1	hr		4	hr	154
		Foreman Average, Outside	Foreman	$53.65	HR									4	1	hr		4	hr	215
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									0.5	1	day		0.5	day	204
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									4	1	hr		4	hr	157
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							3				ton		3	ton	21
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			1301
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			1301

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Fan 1C																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									1	2	day		2	day	1269
		Attachment Bucket Thumb	01590 200 0342	113.18	/day									1	1	day		1	day	113
		Hammer Hydraulic 500 to 1,200 ft-lb	01590 400 2860	72.15	/day									1	1	day		1	day	72
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	2	hr		16	hr	790
		CLAB	Clab	$38.50	HR									8	2	hr		16	hr	616
		Foreman Average, Outside	Foreman	$53.65	HR									8	1	hr		8	hr	429
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									1	1	day		1	day	408
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							20				ton		20	ton	140
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			4150
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			4150

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Water Storage Tank 1D																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									0.5	1	day		0.5	day	317
		Hammer Hydraulic 500 to 1,200 ft-lb	01590 400 2860	72.15	/day									0.5	1	day		0.5	day	36
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									4	1	hr		4	hr	197
		Crane Mounted 25 ton	01590 600 2500	583.41	/day									4.5	1	day		4.5	day	2625
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									36	1	hr		36	hr	1777
		CLAB	Clab	$38.50	HR									24	2	hr		48	hr	1848
		Foreman Average, Outside	Foreman	$53.65	HR									36	1	hr		36	hr	1931
		Torch Equipment	01590 400 6350	2.78	/HR									24	1	hr		24	hr	67
		Torch Operating	01590 400 6360	4.95	/HR									24	1	hr		24	hr	119
		CLAB	Clab	$38.50	HR									24	1	hr		24	hr	924
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									1	1	day		1	day	408
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							150				ton		150	ton	1050
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			11612
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			11612

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Main Office Bathhouse 1E																			
	Structure's Demolition Cost																			
		300 H. P. (D8)	01590 200 4310	985.16	/day									15.5	1	day		15.5	day	15270
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									124	1	hr		124	hr	6119
		Excavator 1.5 CY	01590 200 0200	634.63	/day									15.5	1	day		15.5	day	9837
		Attachment Bucket Thumb	01590 200 0342	113.18	/day									15.5	1	day		15.5	day	1754
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									124	1	hr		124	hr	6119
		Tractor Loader 7 to 8 CY	01590 200 4810	1090.52	/day									6	1	day		6	day	6543
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									48	1	hr		48	hr	2369
		Off highway 50 ton	01590 200 5610	1020.56	/day									6	1	day		6	day	6123
		Truck Driver, Heavy	Trhv	$39.15	HR									48	1	hr		48	hr	1879
		CLAB	Clab	$38.50	HR									124	2	hr		248	hr	9548
		Foreman Average, Outside	Foreman	$53.65	HR									124	1	hr		124	hr	6653
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									1	1	day		1	day	408
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							5				ton		5	ton	35
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			72970
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			72970

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Water Treatment Plant 1F																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									1	1	day		1	day	635
		Attachment Bucket Thumb	01590 200 0342	113.18	/day									1	1	day		1	day	113
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395
		300 H. P. (D8)	01590 200 4310	985.16	/day									1	1	day		1	day	985
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395
		CLAB	Clab	$38.50	HR									8	1	hr		8	hr	308
		Foreman Average, Outside	Foreman	$53.65	HR									8	1	hr		8	hr	429
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									0.5	1	day		0.5	day	204
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									4	1	hr		4	hr	157
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							5				ton		5	ton	35
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			3656
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			3656

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Skimmer Building 1G																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									1	1	day		1	day	635
		Attachment Bucket Thumb	01590 200 0342	113.18	/day									1	1	day		1	day	113
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395
		300 H. P. (D8)	01590 200 4310	985.16	/day									1	1	day		1	day	985
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395
		CLAB	Clab	$38.50	HR									8	1	hr		8	hr	308
		Foreman Average, Outside	Foreman	$53.65	HR									8	1	hr		8	hr	429
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									0.5	1	day		0.5	day	204
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									4	1	hr		4	hr	157
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							5				ton		5	ton	35
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			3656
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			3656

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	High Pressure Pump Building 1H																			
	Structure's Demolition Cost																			
		300 H. P. (D8)	01590 200 4310	985.16	/day									0.5	1	day		0.5	day	493
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									4	1	hr		4	hr	197
		Excavator 1.5 CY	01590 200 0200	634.63	/day									0.5	1	day		0.5	day	317
		Attachment Bucket Thumb	01590 200 0342	113.18	/day									0.5	1	day		0.5	day	57
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									4	1	hr		4	hr	197
		Tractor Loader 7 to 8 CY	01590 200 4810	1090.52	/day									0.5	1	day		0.5	day	545
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									4	1	hr		4	hr	197
		CLAB	Clab	$38.50	HR									4	1	hr		4	hr	154
		Foreman Average, Outside	Foreman	$53.65	HR									4	1	hr		4	hr	215
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									0.5	1	day		0.5	day	204
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									4	1	hr		4	hr	157
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							5				ton		5	ton	35
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			2768
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			2768

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Power Installations 1I																			
	Structure's Demolition Cost																			
		Tractor Loader 7 to 8 CY	01590 200 4810	1090.52	/day									1	1	day		1	day	1091
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395
		CLAB	Clab	$38.50	HR									8	2	hr		16	hr	616
		Foreman Average, Outside	Foreman	$53.65	HR									8	1	hr		8	hr	429
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									1	1	day		1	day	408
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							5				ton		5	ton	35
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			3287
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			3287

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	ROM Belt Line 1 J																			
	Structure's Demolition Cost																			
		Crane Mounted 55 ton	01590 600 2600	999.76	/day									3	1	day		3	day	2999
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									24	1	hr		24	hr	1184
		Excavator 1.5 CY	01590 200 0200	634.63	/day									6	1	day		6	day	3808
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									48	1	hr		48	hr	2369
		Crane Mounted 25 ton	01590 600 2500	583.41	/day									3	1	day		3	day	1750
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									24	1	hr		24	hr	1184
		CLAB	Clab	$38.50	HR									24	2	hr		48	hr	1848
		Foreman Average, Outside	Foreman	$53.65	HR									48	1	hr		48	hr	2575
		Torch Equipment	01590 400 6350	2.78	/HR									24	1	hr		24	hr	67
		Torch Operating	01590 400 6360	4.95	/HR									24	1	hr		24	hr	119
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									6	1	day		6	day	2448
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									48	1	hr		48	hr	1879
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							75				ton		75	ton	525
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			22755
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			22755

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Parking Garage 1K																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									1	1	day		1	day	635
		Attachment Bucket Thumb	01590 200 0342	113.18	/day									1	1	day		1	day	113
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395
		Excavator 1.5 CY	01590 200 0200	634.63	/day									5	1	day		5	day	3173
		Hammer Hydraulic 500 to 1,200 ft-lb	01590 400 2860	72.15	/day									5	1	day		5	day	361
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									40	1	hr		40	hr	1974
		Tractor Loader 7 to 8 CY	01590 200 4810	1090.52	/day									1	1	day		1	day	1091
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395
		Off highway 50 ton	01590 200 5610	1020.56	/day									1	1	day		1	day	1021
		Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
		CLAB	Clab	$38.50	HR									8	2	hr		16	hr	616
		Foreman Average, Outside	Foreman	$53.65	HR									8	1	hr		8	hr	429
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									1	1	day		1	day	408
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							20				ton		20	ton	140
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			11377
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			11377

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Storage Shed 1L																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									1	1	day		1	day	635
		Attachment Bucket Thumb	01590 200 0342	113.18	/day									1	1	day		1	day	113
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395
		Excavator 1.5 CY	01590 200 0200	634.63	/day									5	1	day		5	day	3173
		Hammer Hydraulic 500 to 1,200 ft-lb	01590 400 2860	72.15	/day									5	1	day		5	day	361
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									40	1	hr		40	hr	1974
		Tractor Loader 7 to 8 CY	01590 200 4810	1090.52	/day									1	1	day		1	day	1091
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395
		Off highway 50 ton	01590 200 5610	1020.56	/day									1	1	day		1	day	1021
		Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
		CLAB	Clab	$38.50	HR									8	4	hr		32	hr	1232
		Foreman Average, Outside	Foreman	$53.65	HR									8	1	hr		8	hr	429
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									1	1	day		1	day	408
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							20				ton		20	ton	140
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			11993
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			11993

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Shop Warehouse 1M																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									7	1	day		7	day	4442
		Attachment Bucket Thumb	01590 200 0342	113.18	/day									7	1	day		7	day	792
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									56	1	hr		56	hr	2764
		Excavator 1.5 CY	01590 200 0200	634.63	/day									3	1	day		3	day	1904
		Hammer Hydraulic 500 to 1,200 ft-lb	01590 400 2860	72.15	/day									3	1	day		3	day	216
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									24	1	hr		24	hr	1184
		Tractor Loader 7 to 8 CY	01590 200 4810	1090.52	/day									1	1	day		1	day	1091
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395
		Off highway 50 ton	01590 200 5610	1020.56	/day									1	1	day		1	day	1021
		Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
		CLAB	Clab	$38.50	HR									24	4	hr		96	hr	3696
		Foreman Average, Outside	Foreman	$53.65	HR									24	1	hr		24	hr	1288
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									1	1	day		1	day	408
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							314				ton		314	ton	2198
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			22025
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			22025

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Salt and Storage Shed 1N																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									2	1	day		2	day	1269
		Hammer Hydraulic 500 to 1,200 ft-lb	01590 400 2860	72.15	/day									2	1	day		2	day	144
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									16	1	hr		16	hr	790
		CLAB	Clab	$38.50	HR									16	1	hr		16	hr	616
		Foreman Average, Outside	Foreman	$53.65	HR									16	1	hr		16	hr	858
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									0.5	1	day		0.5	day	204
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									4	1	hr		4	hr	157
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							59				ton		59	ton	413
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			4451
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			4451

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Oil Fuel Storage 1O																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									0.5	1	day		0.5	day	317
		Hammer Hydraulic 500 to 1,200 ft-lb	01590 400 2860	72.15	/day									0.5	1	day		0.5	day	36
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									4	1	hr		4	hr	197
		Crane Mounted 25 ton	01590 600 2500	583.41	/day									1	1	day		1	day	583
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395
		CLAB	Clab	$38.50	HR									8	1	hr		8	hr	308
		Foreman Average, Outside	Foreman	$53.65	HR									8	1	hr		8	hr	429
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									1	1	day		1	day	408
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							30				ton		30	ton	210
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			3196
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			3196

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Tire Dock 1P																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									3	1	day		3	day	1904
		Hammer Hydraulic 500 to 1,200 ft-lb	01590 400 2860	72.15	/day									3	1	day		3	day	216
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									24	1	hr		24	hr	1184
		Tractor Loader 7 to 8 CY	01590 200 4810	1090.52	/day									3	1	day		3	day	3272
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									24	1	hr		24	hr	1184
		Off highway 50 ton	01590 200 5610	1020.56	/day									3	1	day		3	day	3062
		Truck Driver, Heavy	Trhv	$39.15	HR									24	1	hr		24	hr	940
		CLAB	Clab	$38.50	HR									24	2	hr		48	hr	1848
		Foreman Average, Outside	Foreman	$53.65	HR									24	1	hr		24	hr	1288
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			14898
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			14898

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Security GateFence 1Q																			
	Structure's Demolition Cost																			
		Tractor Loader 7 to 8 CY	01590 200 4810	1090.52	/day									0.5	1	day		0.5	day	545
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									4	1	hr		4	hr	197
		CLAB	Clab	$38.50	HR									8	2	hr		16	hr	616
		Foreman Average, Outside	Foreman	$53.65	HR									8	1	hr		8	hr	429
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									0.25	1	day		0.25	day	102
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									2	1	hr		2	hr	78
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							5				ton		5	ton	35
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			2002
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			2002

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Septic Tanks 1R																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									1	1	day		1	day	635
		Hammer Hydraulic 500 to 1,200 ft-lb	01590 400 2860	72.15	/day									1	1	day		1	day	72
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395
		Off highway 50 ton	01590 200 5610	1020.56	/day									1	1	day		1	day	1021
		Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
		CLAB	Clab	$38.50	HR									8	1	hr		8	hr	308
		Foreman Average, Outside	Foreman	$53.65	HR									8	1	hr		8	hr	429
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									1	1	day		1	day	408
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							20				ton		20	ton	140
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			4034
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			4034

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Storage Docks 1S																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									5.5	1	day		5.5	day	3490
		Attachment Bucket Thumb	01590 200 0342	113.18	/day									1	1	day		1	day	113
		Hammer Hydraulic 500 to 1,200 ft-lb	01590 400 2860	72.15	/day									4.5	1	day		4.5	day	325
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									44	1	hr		44	hr	2171
		Tractor Loader 7 to 8 CY	01590 200 4810	1090.52	/day									5.5	1	day		5.5	day	5998
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									44	1	hr		44	hr	2171
		Off highway 50 ton	01590 200 5610	1020.56	/day									5.5	1	day		5.5	day	5613
		Truck Driver, Heavy	Trhv	$39.15	HR									44	1	hr		44	hr	1723
		CLAB	Clab	$38.50	HR									44	1	hr		44	hr	1694
		Foreman Average, Outside	Foreman	$53.65	HR									44	1	hr		44	hr	2361
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									1	1	day		1	day	408
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							10				ton		10	ton	70
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			26450
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			26450

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Rock Dust Silo 1T																			
	Structure's Demolition Cost																			
		Crane Mounted 55 ton	01590 600 2600	999.76	/day									1	1	day		1	day	1000
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395
		Excavator 1.5 CY	01590 200 0200	634.63	/day									1	1	day		1	day	635
		Hammer Hydraulic 500 to 1,200 ft-lb	01590 400 2860	72.15	/day									1	1	day		1	day	72
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395
		Off highway 50 ton	01590 200 5610	1020.56	/day									1	1	day		1	day	1021
		Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
		CLAB	Clab	$38.50	HR									8	2	hr		16	hr	616
		Foreman Average, Outside	Foreman	$53.65	HR									8	1	hr		8	hr	429
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									1	1	day		1	day	408
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							15				ton		15	ton	105
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			5702
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			5702

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Reclaim Tunnel 1U																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									0.5	1	day		0.5	day	317
		Attachment Bucket Thumb	01590 200 0342	113.18	/day									0.5	1	day		0.5	day	57
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									4	1	hr		4	hr	197
		CLAB	Clab	$38.50	HR									4	2	hr		8	hr	308
		Foreman Average, Outside	Foreman	$53.65	HR									4	1	hr		4	hr	215
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									0.5	2	day		1	day	408
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									4	2	hr		8	hr	313
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							10				ton		10	ton	70
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			1885
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			1885

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Retaining Walls Tipple 1V																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									1.5	1	day		1.5	day	952
		Hammer Hydraulic 500 to 1,200 ft-lb	01590 400 2860	72.15	/day									1.5	1	day		1.5	day	108
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									12	1	hr		12	hr	592
		Tractor Loader 7 to 8 CY	01590 200 4810	1090.52	/day									1	1	day		1	day	1091
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395
		Off highway 50 ton	01590 200 5610	1020.56	/day									1	1	day		1	day	1021
		Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
		CLAB	Clab	$38.50	HR									12	1	hr		12	hr	462
		Foreman Average, Outside	Foreman	$53.65	HR									12	1	hr		12	hr	644
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									1	1	day		1	day	408
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							10				ton		10	ton	70
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			6369
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			6369

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Tipple 1W																			
	Structure's Demolition Cost																			
		Crane Mounted 55 ton	01590 600 2600	999.76	/day									10	1	day		10	day	9998
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									80	1	hr		80	hr	3948
		Excavator 1.5 CY	01590 200 0200	634.63	/day									10	1	day		10	day	6346
		Attachment Bucket Thumb	01590 200 0342	113.18	/day									10	1	day		10	day	1132
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									80	1	hr		80	hr	3948
		Excavator 1.5 CY	01590 200 0200	634.63	/day									10	1	day		10	day	6346
		Attachment Grapples	01590 200 0345	100.05	/day									10	1	day		10	day	1001
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									80	1	hr		80	hr	3948
		CLAB	Clab	$38.50	HR									80	4	hr		320	hr	12320
		Foreman Average, Outside	Foreman	$53.65	HR									80	1	hr		80	hr	4292
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									10	1	day		10	day	4080
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									80	1	hr		80	hr	3132
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							300				ton		300	ton	2100
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			62591
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			62591

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Beltline C1 C2 1X																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									3.5	1	day		3.5	day	2221
		Attachment Bucket Thumb	01590 200 0342	113.18	/day									3.5	1	day		3.5	day	396
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									28	1	hr		28	hr	1382
		CLAB	Clab	$38.50	HR									28	4	hr		112	hr	4312
		Foreman Average, Outside	Foreman	$53.65	HR									28	1	hr		28	hr	1502
		Torch Equipment	01590 400 6350	2.78	/HR									28	1	hr		28	hr	78
		Torch Operating	01590 400 6360	4.95	/HR									28	1	hr		28	hr	139
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									2	1	day		2	day	816
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									16	1	hr		16	hr	626
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							70				ton		70	ton	490
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			11962
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			11962

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Transfer Tower C1 C2 1Y																			
	Structure's Demolition Cost																			
		Crane Mounted 55 ton	01590 600 2600	999.76	/day									1	1	day		1	day	1000
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395
		Excavator 1.5 CY	01590 200 0200	634.63	/day									1	1	day		1	day	635
		Attachment Bucket Thumb	01590 200 0342	113.18	/day									1	1	day		1	day	113
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395
		CLAB	Clab	$38.50	HR									4	2	hr		8	hr	308
		Foreman Average, Outside	Foreman	$53.65	HR									8	1	hr		8	hr	429
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									1	1	day		1	day	408
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							20				ton		20	ton	140
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			4136
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			4136

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Misc Culverts 1 Z																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									7	1	day		7	day	4442
		Hammer Hydraulic 500 to 1,200 ft-lb	01590 400 2860	72.15	/day									7	1	day		7	day	505
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									54	1	hr		54	hr	2665
		CLAB	Clab	$38.50	HR									54	2	hr		108	hr	4158
		Foreman Average, Outside	Foreman	$53.65	HR									54	1	hr		54	hr	2897
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									2	1	day		2	day	816
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									16	1	hr		16	hr	626
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							377				ton		377	ton	2639
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			18748
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			18748

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Misc Concrete 1AA																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									40	1	day		40	day	25385
		Hammer Hydraulic 500 to 1,200 ft-lb	01590 400 2860	72.15	/day									40	1	day		40	day	2886
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									320	1	hr		320	hr	15792
		Tractor Loader 7 to 8 CY	01590 200 4810	1090.52	/day									5	1	day		5	day	5453
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									40	1	hr		40	hr	1974
		CLAB	Clab	$38.50	HR									320	2	hr		640	hr	24640
		Foreman Average, Outside	Foreman	$53.65	HR									320	1	hr		320	hr	17168
		Torch Equipment	01590 400 6350	2.78	/HR									320	1	hr		320	hr	890
		Torch Operating	01590 400 6360	4.95	/HR									320	1	hr		320	hr	1584
		Off highway 50 ton	01590 200 5610	1020.56	/day									5	2	day		10	day	10206
		Truck Driver, Heavy	Trhv	$39.15	HR									40	2	hr		80	hr	3132
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			109110
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			109110

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	Cost Revised
	Guard Rail 1AB																				
	Structure's Demolition Cost																				
	Deer Creek Mine																				
		Excavator 2 1/2 CY	01590 200 0320	1237.56	/day									1	1	day		1	day	1238	1238
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395	395
		CLAB	Clab	$38.50	HR									8	3	hr		24	hr	924	924
		Foreman Average, Outside	Foreman	$53.65	HR									8	1	hr		8	hr	429	429
																					0
																					0
																					0
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									1	1	day		1	day	408	408
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313	313
	Disposal Cost Steel	Nielson Construction	Neilson Con.	7	/TON							5				ton		5	ton	35	35
	Subtotal																			3742	3742
	Waste Rock Site Access Road																				
		Excavator 2 1/2 CY	01590 200 0320	1237.56	/day									1	1	day		1	day	1238	
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									8	1	hr		8	hr	395	
		CLAB	Clab	$38.50	HR									8	3	hr		24	hr	924	
		Foreman Average, Outside	Foreman	$53.65	HR									8	1	hr		8	hr	429	
		Truck dump 16 ton payload	01590 200 5300	408.01	/day									1	1	day		1	day	408	
		Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313	
		Nielson Construction	Neilson Con.	7	/TON							6				ton		6	ton	42	
	Subtotal																			3749	
	Total																			7491	3742

Item to be removed bond estiamte	$3,749

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	SedPond 1AC										138								cy	
	Structure's Demolition Cost																			
		Excavator 2 1/2 CY	01590 200 0320	1237.56	/day									3	1	day		3	day	3713
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									24	1	hr		24	hr	1184
		Hammer Hydraulic 500 to 1,200 ft-lb	01590 400 2860	72.15	/day									3	1	day		3	day	216
		CLAB	Clab	$38.50	HR									24	2	hr		48	hr	1848
		Foreman Average, Outside	Foreman	$53.65	HR									24	1	hr		24	hr	1288
		Torch Equipment	01590 400 6350	2.78	/HR									24	1	hr		24	hr	67
		Torch Operating	01590 400 6360	4.95	/HR									24	1	hr		24	hr	119
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									1	1	day		1	day	408
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									8	1	hr		8	hr	313
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							5				ton		5	ton	35
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			9191
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			9191

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Trash Bunker 1AD																			
	Structure's Demolition Cost																			
		Excavator 1.5 CY	01590 200 0200	634.63	/day									2	1	day		2	day	1269
		Hammer Hydraulic 500 to 1,200 ft-lb	01590 400 2860	72.15	/day									2	1	day		2	day	144
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									16	1	hr		16	hr	790
		CLAB	Clab	$38.50	HR									16	1	hr		16	hr	616
		Foreman Average, Outside	Foreman	$53.65	HR									16	1	hr		16	hr	858
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	408.01	/day									0.5	1	day		0.5	day	204
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Trhv	$39.15	HR									4	1	hr		4	hr	157
	Disposal Cost Non Steel	Nielson Construction	Neilson Con.	7	/TON							15				ton		15	ton	105
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			4143
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Dismantling Cost																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			4143

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Portals 2 A																			
	Structure's Demolition Cost	Seal Portals	AML1	5200	EA.										4	EA		4	EA	20800
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			20800
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	3 Man Crew																			
	Forman																			
	Crane Operator																			
	Truck Driver																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			20800

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	Cost Revised
	Asphalt Removal 3 A																				
	Service Road																				
		Tractor Loader 7 to 8 CY	01590 200 4810	1090.52	/day									9.4	1	day		9.4	day	10251	10251
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									75.2	1	hr		75.2	hr	3711	3711
		Truck dump 16 ton payload	01590 200 5300	408.01	/day									9.4	4	day		37.6	day	15341	15341
		Truck Driver, Heavy	Trhv	$39.15	HR									75.2	4	hr		300.8	hr	11776	11776
		300 H. P. (D8)	01590 200 4310	985.16	/day									15.5	1	day		15.5	day	15270	15270
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									124	1	hr		124	hr	6119	6119
	Subtotal																			62468	62468
	Asphalt Removal																				
	Upper Parking Lot and Yard	Tractor Loader 7 to 8 CY	01590 200 4810	1090.52	/day									10.3	1	day		10.3	day	11232	11232
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									82.1	1	hr		82.1	hr	4052	4052
		Truck dump 16 ton payload	01590 200 5300	408.01	/day									10.3	4	day		41.2	day	16810	16810
		Truck Driver, Heavy	Trhv	$39.15	HR									82.1	4	hr		328.4	hr	12857	12857
		300 H. P. (D8)	01590 200 4310	985.16	/day									10.3	1	day		10.3	day	10147	10147
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									82.1	1	hr		82.1	hr	4052	4052
	Subtotal																			59150	59150
	Asphalt Removal																				
	Waste Rock Site Access Road	Tractor Loader 7 to 8 CY	01590 200 4810	1090.52	/day									3.75	1	day		3.75	day	4089	
		Eq. Op., Medium Equipment (Eqmd)	Eqmd	$49.35	HR									30	1	hr		30	hr	1481	
		Truck dump 16 ton payload	01590 200 5300	408.01	/day									3.75	1	day		3.75	day	1530	
		Truck Driver, Heavy	Trhv	$39.15	HR									30	1	hr		30	hr	1175	
	Subtotal																			8275	
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Total																			129893	121618

Item to be removed bond estiamte	8275

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Riprap 4A																			
	Deer Creek Canyon	Riprap	USFS001	32	/CY						3869					CY		3869	CY	123808
	Deer Canyon	Riprap	USFS001	32	/CY						376					CY		376	CY	12032
	Elk Canyon	Riprap	USFS001	32	/CY						1130					CY		1130	CY	36160
	Subtotal																			172000
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	2 Man Crew																			
	Crane Operator																			
	Truck Driver																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			172000

Deer Creek Mine

Deer Creek Mine Portal Facilities: C/015/0018

Reclamation Bond Estimates

Earthwork

	Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost
Earthwork Summary Deer Creek Mine															
Earthwork Summary Deer Creek Mine															810852
Pocking															12460
Total															823312

Item to be removed bond estiamte

Rilda Canyon - Left Fork	623
Waste Rock Site	8538

	Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost
Earthwork Summary Deer Creek Mine															
Dozer															
D8R Semi-U EROPS (9-43) (3Q02)	17060	64.8	0.1	49.35	227.26	1	227.26	$/HR	228693	LCY	158	LCY/HR	1447.4	HR	328936
Scrapper Work															
Scrapper															
631E SERIES II EROPS 2001 (9-40) (3Q02)	18615	82.4	0.1	49.35	256.33	3	768.99	$/HR					27.1	HR	20840
Dozer to load scrapper															
D8R Semi-U EROPS (9-43) (3Q02)	17060	64.8	0.1	49.35	227.26	1	227.26	$/HR					27.1	HR	6159
Support Equipment and Personnel															
D8R Semi-U EROPS (9-43) (3Q02)	17060	64.8	0.1	49.35	227.26	1	227.26	$/HR					85.8	HR	19499
988G EROPS (9-27) (3Q02)	13685	57.75	0.1	49.35	198.41	1	198.41	$/HR					1447.7	HR	287238
140H EROPS (9-1) (3Q02)	6060	22.8	0.1	49.35	112.31	1	112.31	$/HR					85.77	HR	9633
5,000 gal H2O truck Diesel (20-6) (2Q02)	4895	27.15	0.1	39.15	99.61	1	99.61	$/HR					85.77	HR	8544
CLAB					38.5	1	38.5	$/HR					1447.7	HR	55736
Foreman Average, Outside					51.3	1	51.3	$/HR					1447.7	HR	74267
Total															810852

	Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost	Revised Cost
Pocking																
Main Mine Pinion Juniper																
Area									34.2	AC						
Volume									340	CY/AC						
CAT 325BL (10-8)(3Q02)	9205	31.55	0.1	49.35	141.59	1	141.59		11628	CY	180	CY/HR	64.6	HR	9147	9147
Main Mine Riparian																
Area									3.6							
Volume									340	CY/AC						
CAT 325BL (10-8)(3Q02)	9205	31.55	0.1	49.35	141.59	1	141.59		1224	CY	180	CY/HR	6.8	HR	963	963
Main Mine Raparian																
Area									8.8							
Volume									340	CY/AC						
CAT 325BL (10-8)(3Q02)	9205	31.55	0.1	49.35	141.59	1	141.59		2992	CY	180	CY/HR	16.6	HR	2350	2350
Rilda Left Fork																
Area									2.33							
Volume									340	CY/AC						
CAT 325BL (10-8)(3Q02)	9205	31.55	0.1	49.35	141.59	1	141.59		792	CY	180	CY/HR	4.4	HR	623	
Waste Rock Site																
Area									31.92							
Volume									340	CY/AC						
CAT 325BL (10-8)(3Q02)	9205	31.55	0.1	49.35	141.59	1	141.59		10853	CY	180	CY/HR	60.3	HR	8538	
Total															21621	12460

Item removed

Rilda Canyon - Left Fork	623
Waste Rock Site	8538

Deer Creek Mine

Deer Creek Mine Portal Facilities: C/015/0018

Reclamation Bond Estimates

Revegetation

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Main Mine Pinion Juniper																			42954
	Main Mine Riparian																			9324
	Main Mine Mixed Conifer																			20688
	Rilda Canyon (Left Fork)																			0
	Waste Rock Site																			0
	Total																			72966

Items removed

Rilda Canyon (Left Fork)
Waste Rock Site

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Main Mine Pinion Juniper																			
	Mulch	Mulch										1.5				Ton/AC				
	Hay only	Hay Material Cost only	02370 550 1200 Ma	65.1	/TON					34.2						AC		51	tons	3320
	Seeeing																			
	Material Costs	Main Mine P-J Seed	DeerCreek001	79.46	Acre					34.2						AC		34.2	AC	2718
	Lavor Costs	Hydro Spreader (equip. & labor) B-81 80MS	Reveg002	19.01	/MSF					34.2						AC		1490	MSF	28325
	Subtotal																			34363
	Reseeding Rate 25%																			8591
	Subtotal																			8591
	Total																			42954

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Main Mine Riparian																			
	Mulch	Mulch										1.5				Ton/AC				
	Hay only	Hay Material Cost only	02370 550 1200 Ma	65.1	/TON					3.6						AC		5	tons	326
	Seeeing																			
	Material Costs	Main Mine Riparian Seed	DeerCreek002	317.15	Acre					3.6						AC		3.6	AC	1142
	Lavor Costs	Hydro Spreader (equip. & labor) B-81 80MSF/day		19.01	/MSF					3.6						AC		157	MSF	2985
	Transplant																			
	300 Transplant per Acre																			
		300/acre within 20 ft stream	DeerCreek003	300	Acre					3.6						AC		3.6	AC	1080
		Bare root seedlings 6" to 10"	02912 350 0561	0.85	Ea.										1080	EA		1080	EA	918
	200 Transplant per Acre																			
		200/acre within 20 ft stream	DeerCreek004	110	Acre					3.6						AC		3.6	AC	396
		Bare root seedlings 6" to 10"	02912 350 0561	0.85	Ea.										720	EA		720	EA	612
	Subtotal																			7459
	Reseeding Rate 25%																			1865
	Subtotal																			1865
	Total																			9324

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Main Mine Mixed Conifer																			
	Mixed Conifers																			
	Mulch	Mulch										1.5				Ton/AC				
	Hay only	Hay Material Cost only	02370 550 1200 Ma	65.1	/TON					8.8						AC		13	tons	846
	Seeeing																			
	Material Costs	Main Mine Mixed Conifer Seed	DeerCreek008	388.35	Acre					8.8						AC		8.8	AC	3417
	Lavor Costs	Hydro Spreader (equip. & labor) B-81 80MS	Reveg002	19.01	/MSF					8.8						AC		383	MSF	7281
	Transplant																			
	Conifter Transplants																			
		Main Mine Mixed Conifer Transplant	DeerCreek009	395	Acre					8.8						AC		8.8	AC	3476
		Bare root seedlings 6" to 10"	02912 350 0561	0.85	Ea.										1800	EA		1800	EA	1530
	Subtotal																			16550
	Reseeding Rate 25%																			4138
	Subtotal																			4138
	Total																			20688

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	Cost Revised
	Left Fork Rilda Canyon																				
	Mulch	1.5 tons/AC										1.5				Ton/AC					
	Mulch Equipment, Labor and Mat.	Hay Material Cost only	02370 550 1200 Mat	65.1	/TON					2.33						AC		3	Ton	195	0
	Seeding																				
	Material Costs	Rilda Seed	DeerCreek010	830	Acre					2.33						AC		2.33	AC	1934	0
	Labor Costs	Hydro Spreader (equip. & labor) B-81 80MS	Reveg002	19.01	/MSF					2.33						AC		101	MSF	1920	0
	Transplant																				
	100 Transplant per Acre																				
		Rilda Trans 100/AC	DeerCreek011	974	Acre					2.33						AC		2.33	AC	2269	0
		Bare root seedlings 6" to 10"	02912 350 0561	0.85	Ea.										233			233		198	0
	200 Transplant per Acre																				
		Rilda Trans 200/AC	DeerCreek012	166	Acre					2.33						AC		2.33	AC	387	0
		Bare root seedlings 6" to 10"	02912 350 0561	0.85	Ea.										466			466		396	0
	400 Transplant per Acre																				
		Rilda Trans 400/AC	DeerCreek013	440	Acre					2.33						AC		2.33	AC	1025	0
		Bare root seedlings 6" to 10"	02912 350 0561	0.85	Ea.										932			932		792	0
	Subtotal																			9116	0
	Reseeding Rate 25%																			2279	0
	Subtotal																			2279	0
	Total																			11395	0

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	Cost Revised
	Waste Rock Site																				
	Pinyon-Juniper																				
	Mulch	1.5 tons/AC										1.5				Ton/AC					
	Mulch Equipment, Labor and Mat.	Hay Material Cost only	02370 550 1200 Mat	65.1	/TON					31.92						AC		48	Ton	3125	0
	Seeding																				
	Material Costs	Waste Rock Site	DeerCreek015	931	Acre					31.92						AC		31.9	AC	29699	0
	Labor Costs	Hydro Spreader (equip. & labor) B-81 80MS	Reveg002	19.01	/MSF					31.92						AC		1390	MSF	26424	0
	Subtotal																			59248	0
	Reseeding Rate 25%																			14812	0
	Subtotal																			14812	0
	Total																			74060	0

Deer Creek Mine

Rilda Canyon Portal Facilities: C/015/0018

Reclamation Bond Estimates

Demolition

Bonding Calculations
Deer Creek Mine - Rilda Canyon Portal Facilities

Direct Costs (2011 Dollars)				Revised Dec. 2018	
Subtotal Demolition	$	357,280.00		357280	
Subtotal Earthwork	$	91,473.16		91473	
Subtotal Revegetation	$	15,487.94		8016	Item removed - Live Plantings, Amendment #5736 approved August 30, 2018
Subtotal Direct Costs	$	464,241.10		$ 456,770	
Indirect Costs					
Mob/Demob	$	46,424.11	10%	$ 45,677	
Contingency	$	23,212.05	5%	$ 22,838	
Engineering Redesign	$	11,606.03	2.50%	$ 11,419	
Main Ofice Expense	$	31,568.39	6.80%	$ 31,060	
Project Management Fee	$	11,606.03	2.50%	$ 11,419	
Subtotal Indirect Costs	$	124,416.61	26.8%	$ 122,414.24	
Total Costs in 2011 Dollars	**$**	**588,657.71**		**$ 579,183.79**	
Escalation Factor		1.70%			
Number of Years		2			
Total Costs in 2013 Dollars	$	608,842.20			
Bond Amount (Rounded to nearest $1,000)	**$**	**609,000.00**			

Summary
Demolition

Description	Cost
Mine Ventilation Fan	$46,377
Substation	$7,917
MCC Building	$8,104
Oil and Fuel Storage	$4,012
Fencing	$2,995
Covered Storage Bins	$9,391
Rock Dust Silo	$7,767
Waste and Material Bins	$11,270
Pad and MSE Wall	$165,912
Buried Culverts	$93,535
Total	**$357,280**

.

Mine Ventilitation Fan

Description	Means Reference Number (2011 Heavy Construction Cost Data)	Equipment	Labor	Quantity (number)	Volume (cy)	Weight (tons)	Time (hr)	Unit	Cost	Total Cost	Ref.
Steel Demolition Cost						50					
	Foreman Average, Outside		Foreman	1			8	hr	$ 71.20	$ 569.60	
	Common Building Labor		CLAB	2			32	hr	$ 52.70	$ 3,372.80	
	01 54 33 60 2720	Crane 100 ton		1			32	hr	$ 206.25	$ 6,600.00	
	Equipment Operator, Crane or Shovel		Eqhv	1			32	hr	$ 69.45	$ 2,222.40	
	N/A	Utility Truck		1			32	hr	$ 8.00	$ 256.00	1
Concrete Demolition Cost					530						2, 3
	Foreman Average, Outside		Foreman	1			5.0	hr	$ 71.20	$ 356.00	
	Common Building Labor		CLAB	2			21.0	hr	$ 52.70	$ 2,213.40	
	01 54 33 20 0200	Excavator - 1.5 CY		1			21.0	hr	$ 118.43	$ 2,487.03	
	Equipment Operator, Medium Equipment		Eqmd	1			21.0	hr	$ 67.75	$ 1,422.75	
	01 54 33 20 0347	Hydraulic Hammer		1			21.0	hr	$ 44.03	$ 924.63	
	01 54 33 20 0200	Excavator - 1.5 CY		1			21.0	hr	$ 118.43	$ 2,487.03	
	01 54 33 20 0342	Bucket Thumb		1			21.0	hr	$ 21.38	$ 448.98	
	Equipment Operator, Medium Equipment		Eqmd	1			21.0	hr	$ 67.75	$ 1,422.75	
	01 54 33 40 0700	Compressor - 1200 CFM		1			21.0	hr	$ 56.67	$ 1,190.07	4
	01 54 33 40 0940	Air tools, breaker, pavement, 60 lb.		1			21.0	hr	$ 1.30	$ 27.30	
	01 54 33 40 1000	Hose w/couplings 50 ft., 1" dia.		4			21.0	hr	$ 1.30	$ 109.20	
	N/A	Utility Truck		1			21.0	hr	$ 8.00	$ 168.00	
Transportation Costs	01 54 33 20 5300	Dump Truck - 3 axle, 12 CY		1			20	hr	$ 63.25	$ 1,265.00	5
	Truck Driver, Light		Drlt	1			20	hr	$ 50.75	$ 1,015.00	
	01 54 33 40 7200	Pickup Truck - 3/4 ton 4x4		1			53	hr	$ 13.08	$ 693.24	
Miscellaneous											
Disposal Fee - Metal	02 41 19.23 0950					50		ton	$ 90.00	$ 4,500.00	
Demolished Concrete Handling					689						6
	01 54 33 20 4760	Loader - 5-1/4 to 5-3/4 CY 290hp		2			34	hr	$ 116.68	$ 7,934.24	7
	Equipment Operator, Medium Equipment		Eqmd	2			34	hr	$ 67.75	$ 4,607.00	
	01 54 33 40 6410	Toilet, portable chemical		1			53	hr	$ 1.60	$ 84.80	
Total										$ 46,377.22	

Reference Information
1 - From Nielson Construction services contract with Energy West Mining - Includes 3/4 ton 4x4 truck, metal tool box, acetylend kit, rack for oxygen and acetylene, 1/2" electric drill, 71/4 " circular saw, 9" grinder.
2 - Concrete rubble disposed of as fill or permanently backfilled inside portals.
3 - Base on a concrete demolition production of 200 cubic yards per 8 hour shift. (Reference: http://www.indeco-breakers.com).
4 - Added 5% for larger size compressor.
5 - For haul of steel demolition material to Nielsen's landfill. Distance is approximately 25.5 miles one-way. Time estimate is 2 hours for one round trip.
6 - A swell factor of 1.3 is used for crushed concrete. Rental cost for 5.5 CY loader is used in place of Wagner scoop for transporting and storing crushed concrete in mine.
7 - Based on haul of 5 CY at 30 min round trip or 2 trips/hour.

Substation and Power Poles

Description	Means Reference Number (2011 Heavy Construction Cost Data)	Equipment	Labor	Quantity (number)	Volume (cy)	Weight (tons)	Time (hr)	Unit	Cost	Total Cost	Ref.
Steel Demolition Cost						5					
	Foreman Average, Outside		Foreman	1			2	hr	$ 71.20	$ 142.40	
	Common Building Labor		CLAB	2			6	hr	$ 52.70	$ 632.40	
	01 54 33 20 0200	Excavator - 1.5 CY		1			6	hr	$ 118.43	$ 710.58	
	Equipment Operator, Medium Equipment		Eqmd	1			6	hr	$ 67.75	$ 406.50	
	N/A	Utility Truck		1			6	hr	$ 8.00	$ 48.00	1
Concrete Demolition Cost					17						2, 3
	Foreman Average, Outside		Foreman	1			1.0	hr	$ 71.20	$ 71.20	
	Common Building Labor		CLAB	2			1.0	hr	$ 52.70	$ 105.40	
	01 54 33 20 0200	Excavator - 1.5 CY		1			1.0	hr	$ 118.43	$ 118.43	
	Equipment Operator, Medium Equipment		Eqmd	1			1.0	hr	$ 67.75	$ 67.75	
	01 54 33 20 0347	Hydraulic Hammer		1			1.0	hr	$ 44.03	$ 44.03	
	01 54 33 20 0200	Excavator - 1.5 CY		1			1.0	hr	$ 118.43	$ 118.43	
	01 54 33 20 0342	Bucket Thumb		1			1.0	hr	$ 21.38	$ 21.38	
	Equipment Operator, Medium Equipment		Eqmd	1			1.0	hr	$ 67.75	$ 67.75	
	01 54 33 40 0700	Compressor - 1200 CFM		1			1.0	hr	$ 56.67	$ 56.67	
	01 54 33 40 0940	Air tools, breaker, pavement, 60 lb.		1			1.0	hr	$ 1.30	$ 1.30	
	01 54 33 40 1000	Hose w/couplings 50 ft., 1" dia.		4			1.0	hr	$ 0.51	$ 2.04	
	N/A	Utility Truck		1			1.0	hr	$ 8.00	$ 8.00	
Pole Removal				14		5					
	Foreman Average, Outside		Foreman	1			2	hr	$ 71.20	$ 142.40	
	Common Building Labor		CLAB	2			8	hr	$ 52.70	$ 843.20	
	01 54 33 60 2720	Crane - 100 ton		1			8	hr	$ 206.25	$ 1,650.00	
	Equipment Operator, Heavy Equipment		Eqhv	1			8	hr	$ 69.45	$ 555.60	
Transportation Costs											
	01 54 33 20 5300	Dump Truck - 3 axle, 12 CY		1			2	hr	$ 63.25	$ 126.50	4
	Truck Driver, Light		Drlt	1			2	hr	$ 50.75	$ 101.50	
	01 54 33 40 7300	Tractor - 4x2, 220hp		1			2	hr	$ 34.90	$ 69.80	
	01 54 33 40 6500	Trailer, platform, 2 axle, 25 ton		1			2	hr	$ 13.90	$ 27.80	5
	Truck Driver, Heavy		Drhv	1			2	hr	$ 52.25	$ 104.50	
	01 54 33 40 7200	Truck - Forman and Crew		1			15	hr	$ 13.08	$ 196.20	
Miscellaneous											
Disposal Fee - Metal	02 41 19.23 0950					10		ton	$ 90.00	$ 900.00	
Demolished Concrete Handling					22.1						6
	01 54 33 20 4760	Loader - 5-1/4 to 5-3/4 CY 290hp		2			1.5	hr	$ 116.68	$ 350.04	7
	Equipment Operator, Medium Equipment		Eqmd	2			1.5	hr	$ 67.75	$ 203.25	
	01 54 33 40 6410	Toilet, portable chemical		1			15	hr	$ 1.60	$ 24.00	
Total										$ 7,917.05	

Reference Information

1 - From Nielson Construction services contract with Energy West Mining - Includes 3/4 ton 4x4 truck, metal tool box, acetylend kit, rack for oxygen and acetylene, 1/2" electric drill, 71/4 " circular saw, 9" grinder.
2 - Concrete rubble disposed of as fill or permanently backfilled inside portals.
3 - Base on a concrete demolition production of 200 cubic yards per 8 hour shift. (Reference: http://www.indeco-breakers.com).
4 - For haul of steel demolition material to Nielsen's landfill. Distance is approximately 25.5 miles one-way. Time estimate is 2 hours for one round trip.
5 - Haulage for removed power pole lengths.
6 - A swell factor of 1.3 is used for crushed concrete. Rental cost for 5.5 CY loader is used in place of Wagner scoop for transporting and storing crushed concrete in mine.
7 - Based on haul of 5 CY at 30 min round trip or 2 trips/hour.

MCC Building

Description	Means Reference Number (2011 Heavy Construction Cost Data)	Equipment	Labor	Quantity (number)	Volume (cy)	Weight (tons)	Time (hr)	Unit	Cost	Total Cost	Ref.
Steel Demolition Cost						10					
	Foreman Average, Outside		Foreman	1			4	hr	$ 71.20	$ 284.80	
	Common Building Labor		CLAB	2			16	hr	$ 52.70	$ 1,686.40	
	01 54 33 20 0200	Excavator - 1.5 CY		1			16	hr	$ 118.43	$ 1,894.88	
	Equipment Operator, Medium Equipment	Operator	Eqmd	1			16	hr	$ 67.75	$ 1,084.00	
	N/A	Utility Truck		1			16	hr	$ 8.00	$ 128.00	1
Concrete Demolition Cost					25						2, 3
	Foreman Average, Outside		Foreman	1			1.0	hr	$ 71.20	$ 71.20	
	Common Building Labor		CLAB	2			1.0	hr	$ 52.70	$ 105.40	
	01 54 33 20 0200	Excavator - 1.5 CY		1			1.0	hr	$ 118.43	$ 118.43	
	Equipment Operator, Medium Equipment	Operator	Eqmd	1			1.0	hr	$ 67.75	$ 67.75	
	01 54 33 20 0347	Hydraulic Hammer		1			1.0	hr	$ 44.03	$ 44.03	
	01 54 33 20 0200	Excavator - 1.5 CY		1			1.0	hr	$ 118.43	$ 118.43	
	01 54 33 20 0342	Bucket Thumb		1			1.0	hr	$ 21.38	$ 21.38	
	Equipment Operator, Medium Equipment	Operator	Eqmd	1			1.0	hr	$ 67.75	$ 67.75	
	01 54 33 40 0700	Compressor - 1200 CFM		1			1.0	hr	$ 56.67	$ 56.67	
	01 54 33 40 0940	Air tools, breaker, pavement, 60 lb.		1			1.0	hr	$ 1.30	$ 1.30	
	01 54 33 40 1000	Hose w/couplings 50 ft., 1" dia.		4			1.0	hr	$ 0.51	$ 2.04	
	N/A	Utility Truck		1			1.0	hr	$ 8.00	$ 8.00	
Transportation Costs	01 54 33 20 5300	Dump Truck - 3 axle, 12 CY		1			4	hr	$ 63.25	$ 253.00	4
		Driver	Drlt	1			4	hr	$ 50.75	$ 203.00	
	01 54 33 40 7200	Truck - Forman and Crew		1			17	hr	$ 13.08	$ 222.36	
Miscellaneous											
Disposal Fee - Metal	02 41 19.23 0950					10		ton	$ 90.00	$ 900.00	
Demolished Concrete Handling					32.5						5
	01 54 33 20 4760	Loader - 5-1/4 to 5-3/4 CY 290hp		2			2	hr	$ 116.68	$ 466.72	6
	Equipment Operator, Medium Equipment		Eqmd	2			2	hr	$ 67.75	$ 271.00	
	01 54 33 40 6410	Toilet, portable chemical		1			17		$ 1.60	$ 27.20	
Total										$ 8,103.74	

Reference Information

1 - From Nielson Construction services contract with Energy West Mining - Includes 3/4 ton 4x4 truck, metal tool box, acetylend kit, rack for oxygen and acetylene, 1/2" electric drill, 71/4 " circular saw, 9" grinder.
2 - Concrete rubble disposed of as fill or permanently backfilled inside portals.
3 - Base on a concrete demolition production of 200 cubic yards per 8 hour shift. (Reference: http://www.indeco-breakers.com).
4 - For haul of steel demolition material to Nielsen's landfill. Distance is approximately 25.5 miles one-way. Time estimate is 2 hours for one round trip.
5 - A swell factor of 1.3 is used for crushed concrete. Rental cost for 5.5 CY loader is used in place of Wagner scoop for transporting and storing crushed concrete in mine.
6 - Based on haul of 5 CY at 30 min round trip or 2 trips/hour.

Oil Storage/Fuel Storage

Description	Means Reference Number (2011 Heavy Construction Cost Data)	Equipment	Labor	Quantity (number)	Weight (tons)	Time (hr)	Unit	Cost	Total Cost	Ref.
Steel Demolition Cost					10					
	Foreman Average, Outside		Foreman	1		2	hr	$ 71.20	$ 142.40	
	Common Building Labor		CLAB	2		8	hr	$ 52.70	$ 843.20	
	01 54 33 20 0200	Excavator - 1.5 CY		1		8	hr	$ 118.43	$ 947.44	
	Equipment Operator, Medium Equipment	Operator	Eqmd	1		8	hr	$ 67.75	$ 542.00	
	N/A	Utility Truck		1		8	hr	$ 8.00	$ 64.00	1
Concrete Demolition Cost	Note: Cost for removing pedestal footers and pad is included with pad demolition costs.									2
Transportation Costs	01 54 33 20 5300	Dump Truck - 3 axle, 12 CY		1		4	hr	$ 63.25	$ 253.00	3
		Driver	Drlt	1		4	hr	$ 50.75	$ 203.00	
	01 54 33 40 7200	Truck - Forman and Crew		1		8	hr	$ 13.08	$ 104.64	
Miscellaneous										
Disposal Fee - Metal	02 41 19.23 0950				10		ton	$ 90.00	$ 900.00	
	01 54 33 40 6410	Toilet, portable chemical		1		8	hr	$ 1.60	$ 12.80	
Total									$ 4,012.48	

Reference Information

1 - From Nielson Construction services contract with Energy West Mining - Includes 3/4 ton 4x4 truck, metal tool box, acetylend kit, rack for oxygen and acetylene, 1/2" electric drill, 71/4 " circular saw, 9" grinder.

2 - Concrete rubble disposed of as fill or permanently backfilled inside portals.

3 - For haul of steel demolition material to Nielsen's landfill. Distance is approximately 25.5 miles one-way. Time estimate is 2 hours for one round trip.

Fences

Description	Means Reference Number (2011 Heavy Construction Cost Data)	Equipment	Labor	Quantity (number)	Length (ft)	Weight (tons)	Time (hr)	Unit	Cost	Total Cost	Ref.
Steel Demolition Cost					365	5					
	Foreman Average, Outside		Foreman	1			2	hr	$ 71.20	$ 142.40	
	Common Building Labor		CLAB	2			8	hr	$ 52.70	$ 843.20	
	01 54 33 20 0470	Back-hoe, 112hp		1			8	hr	$ 76.00	$ 608.00	
	Equipment Operator, Light Equipment	Operator	Eqlt	1			8	hr	$ 67.75	$ 542.00	
	N/A	Utility Truck		1			8	hr	$ 8.00	$ 64.00	
Concrete Demolition Cost	N/A										
Transportation Costs											
	01 54 33 20 5300	Dump Truck - 3 axle, 12 CY		1			2	hr	$ 63.25	$ 126.50	1
		Driver	Drlt	1			2	hr	$ 50.75	$ 101.50	
	01 54 33 40 7200	Truck - Forman and Crew		1			8	hr	$ 13.08	$ 104.64	
Miscellaneous											
Disposal Fee - Metal	02 41 19.23 0950					5		ton	$ 90.00	$ 450.00	
	01 54 33 40 6410	Toilet, portable chemical		1			8	hr	$ 1.60	$ 12.80	
Total										$ 2,995.04	

Reference Information

1 - For haul of steel demolition material to Nielsen's landfill. Distance is approximately 25.5 miles one-way. Time estimate is 2 hours for one round trip.

Covered Storage

Description	Means Reference Number (2011 Heavy Construction Cost Data)	Equipment	Labor	Quantity (number)	Weight (tons)	Time (hr)	Unit	Cost	Total Cost	Ref.
Steel Demolition Cost					15					
	Foreman Average, Outside		Foreman	1		6	hr	$ 71.20	$ 427.20	
	Common Building Labor		CLAB	2		24	hr	$ 52.70	$ 2,529.60	
	01 54 33 20 4760	Loader - 5.5 CY		1		24	hr	$ 116.68	$ 2,800.32	
	Equipment Operator, Medium Equipment		Eqmd	1		24	hr	$ 67.75	$ 1,626.00	
	N/A	Utility Truck		1		24	hr	$ 8.00	$ 192.00	1
Concrete Demolition Cost	N/A									
Transportation Costs										2
	01 54 33 20 5300	Dump Truck - 3 axle, 12 CY		1		6	hr	$ 63.25	$ 63.25	
		Driver	Drlt	1		6	hr	$ 50.75	$ 50.75	
	01 54 33 40 7200	Truck - Forman and Crew		1		24	hr	$ 13.08	$ 313.92	
Miscellaneous										
Disposal Fee - Metal	02 41 19.23 0950				15		ton	$ 90.00	$ 1,350.00	
	01 54 33 40 6410	Toilet, portable chemical		1		24	hr	$ 1.60	$ 38.40	
Total									$ 9,391.44	

Reference Information

1 - From Nielson Construction services contract with Energy West Mining - Includes 3/4 ton 4x4 truck, metal tool box, acetylend kit, rack for oxygen and acetylene, 1/2" electric drill, 71/4 " circular saw, 9" grinder.

2 - For haul of steel demolition material to Nielsen's landfill. Distance is approximately 25.5 miles one-way. Time estimate is 2 hours for one round trip.

Rock Dust Silo

Description	Means Reference Number (2011 Heavy Construction Cost Data)	Equipment	Labor	Quantity (number)	Volume (cy)	Weight (tons)	Time (hr)	Unit	Cost	Total Cost	Ref.
Steel Demolition Cost						15					
	Foreman Average, Outside		Foreman	1			2	hr	$ 71.20	$ 142.40	
	Common Building Labor		CLAB	2			8	hr	$ 52.70	$ 843.20	
	01 54 33 60 2720	Crane - 100 ton		1			8	hr	$ 206.25	$ 1,650.00	
	Equipment Operator, Crane or Shovel		Eqhv	1			8	hr	$ 69.45	$ 555.60	
	N/A	Utility Truck		1			8	hr	$ 8.00	$ 64.00	1
Concrete Demolition Cost					18.5						2, 3
	Foreman Average, Outside		Foreman	1			1.0	hr	$ 71.20	$ 71.20	
	Common Building Labor		CLAB	2			1.5	hr	$ 52.70	$ 155.99	
	01 54 33 20 0200	Excavator - 1.5 CY		1			1.5	hr	$ 118.43	$ 118.43	
	Equipment Operator, Medium Equipment		Eqmd	1			1.5	hr	$ 67.75	$ 67.75	
	01 54 33 20 0347	Hydraulic Hammer		1			1.5	hr	$ 44.03	$ 44.03	
	01 54 33 20 0200	Excavator - 1.5 CY		1			1.5	hr	$ 118.43	$ 118.43	
	Equipment Operator, Medium Equipment		Eqmd	1			1.5	hr	$ 67.75	$ 67.75	
	01 54 33 40 0700	Compressor - 1200 CFM		1			1.5	hr	$ 56.67	$ 83.87	
	01 54 33 40 0940	Air tools, breaker, pavement, 60 lb.		1			1.5	hr	$ 1.30	$ 1.92	
	01 54 33 40 1000	Hose w/couplings 50 ft., 1" dia.		4			1.5	hr	$ 0.51	$ 3.02	
	N/A	Utility Truck		1			1.5	hr	$ 8.00	$ 11.84	
Transportation Costs											4
	01 54 33 40 7300	Tractor - 4x2, 220hp		1			14	hr	$ 34.90	$ 488.60	
	01 54 33 40 6500	Trailer, platform, 2 axle, 25 ton		1			14	hr	$ 13.90	$ 194.60	
	Truck Driver, Heavy			1			14	hr	$ 52.25	$ 731.50	
	01 54 33 40 7200	Truck - Forman and Crew		1			8	hr	$ 13.08	$ 104.64	
Miscellaneous											
Disposal Fee - Metal	02 41 19.23 0950					15		ton	$ 90.00	$ 1,350.00	
Demolished Concrete Handling					24.1						5
	01 54 33 20 4760	Loader - 5-1/4 to 5-3/4 CY 290hp		2			2.4	hr	$ 116.68	$ 560.06	6
	Equipment Operator, Medium Equipment		Eqmd	2			2.4	hr	$ 67.75	$ 325.20	
	01 54 33 40 6410	Toilet, portable chemical		1			8	hr	$ 1.60	$ 12.80	
Total										$ 7,766.84	

Reference Information

1 - From Nielson Construction services contract with Energy West Mining - Includes 3/4 ton 4x4 truck, metal tool box, acetylend kit, rack for oxygen and acetylene, 1/2" electric drill, 71/4 " circular saw, 9" grinder.
2 - Concrete rubble disposed of as fill or permanently backfilled inside portals.
3 - Base on a concrete demolition production of 200 cubic yards per 8 hour shift. (Reference: http://www.indeco-breakers.com).
4 - For haul of steel demolition material to Nielsen's landfill. Distance is approximately 25.5 miles one-way. Time estimate is 2 hours for one round trip.
5 - A swell factor of 1.3 is used for crushed concrete. Rental cost for 5.5 CY loader is used in place of Wagner scoop for transporting and storing crushed concrete in mine.
6 - Based on haul of 5 CY at 30 min round trip or 2 trips/hour.

Waste and Material Bins

Description	Means Reference Number (2011 Heavy Construction Cost Data)	Equipment	Labor	Quantity (number)	Volume (cy)	Length (ft)	Weight (tons)	Time (hr)	Unit	Cost	Total Cost	Ref.
Steel Demolition Cost							15					
	Foreman Average, Outside		Foreman	1				2	hr	$ 71.20	$ 142.40	
	Common Building Labor		CLAB	2				8	hr	$ 52.70	$ 843.20	
	01 54 33 60 2720	Crane - 100 ton		1				8	hr	$ 206.25	$ 1,650.00	
	Equipment Operator, Crane or Shovel		Eqhv	1				8	hr	$ 69.45	$ 555.60	
	N/A	Utility Truck		1				8	hr	$ 8.00	$ 64.00	1
Concrete Demolition Cost					122	411						2, 3
	Foreman Average, Outside		Foreman	1				2	hr	$ 71.20	$ 142.40	
	Common Building Labor		CLAB	3				9.8	hr	$ 52.70	$ 1,543.06	
	01 54 33 20 0200	Excavator - 1.5 CY		1				9.8	hr	$ 118.43	$ 118.43	
	Equipment Operator, Medium Equipment		Eqmd	1				9.8	hr	$ 67.75	$ 67.75	
	01 54 33 20 0347	Hydraulic Hammer		1				9.8	hr	$ 44.03	$ 44.03	
	01 54 33 20 0200	Excavator - 1.5 CY		1				9.8	hr	$ 118.43	$ 118.43	
	Equipment Operator, Medium Equipment		Eqmd	1				9.8	hr	$ 67.75	$ 67.75	
	01 54 33 40 0700	Compressor - 1200 CFM		1				9.8	hr	$ 56.67	$ 553.10	
	01 54 33 40 0940	Air tools, breaker, pavement, 60 lb.		1				9.8	hr	$ 1.30	$ 12.69	
	01 54 33 40 1000	Hose w/couplings 50 ft., 1" dia.		4				9.8	hr	$ 0.51	$ 19.91	
	N/A	Utility Truck		1				9.8	hr	$ 8.00	$ 78.08	
Transportation Costs												4
	01 54 33 20 5300	Dump Truck - 3 axle, 12 CY		1				6	hr	$ 63.25	$ 379.50	
		Driver	Drlt	1				6	hr	$ 50.75	$ 304.50	
	01 54 33 40 7200	Truck - Forman and Crew		1				18	hr	$ 13.08	$ 235.44	
Miscellaneous												
Disposal Fee - Metal	02 41 19.23 0950						15		ton	$ 90.00	$ 1,350.00	
Demolished Concrete Handling					158.6							5
	01 54 33 20 4760	Loader - 5-1/4 to 5-3/4 CY 290hp		2				8	hr	$ 116.68	$ 1,866.88	6
	Equipment Operator, Medium Equipment		Eqmd	2				8	hr	$ 67.75	$ 1,084.00	
	01 54 33 40 6410	Toilet, portable chemical		1				18	hr	$ 1.60	$ 28.80	
Total											$11,269.94	

Reference Information

1 - From Nielson Construction services contract with Energy West Mining - Includes 3/4 ton 4x4 truck, metal tool box, acetylend kit, rack for oxygen and acetylene, 1/2" electric drill, 71/4 " circular saw, 9" grinder.
2 - Concrete rubble disposed of as fill or permanently backfilled inside portals.
3 - Base on a concrete demolition production of 200 cubic yards per 8 hour shift. (Reference: http://www.indeco-breakers.com). Reduce to 100 cy/day for vertical demolition
4 - For haul of steel demolition material to Nielsen's landfill. Distance is approximately 25.5 miles one-way. Time estimate is 2 hours for one round trip.
5 - A swell factor of 1.3 is used for crushed concrete. Rental cost for 5.5 CY loader is used in place of Wagner scoop for transporting and storing crushed concrete in mine.
6 - Based on haul of 5 CY at 30 min round trip or 2 trips/hour.
7 - Substitute 100kw diesel generator for augcillary ventilation fan.

Pad and MSE Wall

Description	Means Reference Number (2011 Heavy Construction Cost Data)	Equipment	Labor	Quantity (number)	Volume (cy)	Weight (tons)	Time (hr)	Unit	Cost	Total Cost	Ref.
Steel Demolition Cost	N/A										
Concrete Demolition Cost					2230						2, 3
	Foreman Average, Outside		Foreman	1			22	hr	$ 71.20	$ 1,566.40	
	Common Building Labor		CLAB	3			89	hr	$ 52.70	$ 14,102.52	
	01 54 33 20 0200	Excavator - 1.5 CY		1			89	hr	$ 118.43	$ 10,563.96	
	Equipment Operator, Medium Equipment		Eqmd	1			89	hr	$ 67.75	$ 6,043.30	
	01 54 33 20 0347	Hydraulic Hammer		1			89	hr	$ 44.03	$ 3,927.48	
	01 54 33 20 0200	Excavator - 1.5 CY		1			89	hr	$ 118.43	$ 10,563.96	
	Equipment Operator, Medium Equipment		Eqmd	1			89	hr	$ 67.75	$ 6,043.30	
	01 54 33 40 0700	Compressor - 1200 CFM		1			89	hr	$ 56.67	$ 5,054.96	
	01 54 33 40 0940	Air tools, breaker, pavement, 60 lb.		1			89	hr	$ 1.30	$ 115.96	
	01 54 33 40 1000	Hose w/couplings 50 ft., 1" dia.		4			89	hr	$ 0.51	$ 181.97	
	N/A	Utility Truck		1			89	hr	$ 8.00	$ 713.60	1
Asphalt Demolition					65	87.75					
Access Road	Foreman Average, Outside		Foreman	1			2	hr	$ 71.20	$ 142.40	
	Common Building Labor		CLAB	1			8	hr	$ 52.70	$ 421.60	
	01 54 33 20 4760	Loader - 5.5 CY		1			8	hr	$ 116.68	$ 933.44	
	Truck Driver, Light		Drlt	3			8	hr	$ 50.75	$ 1,218.00	
MSE Wall						5					
	Foreman Average, Outside		Foreman	1			10	hr	$ 71.20	$ 712.00	
	Common Building Labor		CLAB	4			67.5	hr	$ 52.70	$ 14,229.00	
	01 54 33 20 4310	Dozer - 300hp		1			67.5	hr	$ 200.88	$ 13,559.40	
	Equipment Operator, Medium Equipment		Eqmd	1			67.5	hr	$ 67.75	$ 4,573.13	
	01 54 33 20 0200	Excavator - 1.5 CY		1			67.5	hr	$ 118.43	$ 7,994.03	
	Equipment Operator, Medium Equipment		Eqmd	1			67.5	hr	$ 67.75	$ 4,573.13	
Transportation Costs											4
	01 54 33 40 7300	Tractor - 4x2, 220hp		1			4	hr	$ 34.90	$ 139.60	
	01 54 33 40 6500	Trailer, platform, 2 axle, 25 ton		1			4	hr	$ 13.90	$ 55.60	
	Truck Driver, Heavy			1			4	hr	$ 52.25	$ 209.00	
	Equipment Operator, Medium Equipment		Eqmd	1			8	hr	$ 52.25	$ 418.00	
	01 54 33 20 5300	Dump Truck - 3 axle, 12 CY		3			8	hr	$ 63.25	$ 1,518.00	
	01 54 33 40 7200	Truck - Forman and Crew		1			165	hr	$ 13.08	$ 2,151.66	
Miscellaneous											
Disposal Fee	02 41 19.23 0950					5		ton	$ 90.00	$ 450.00	
Demolished Concrete Handling					2899						5
	01 54 33 20 4760	Loader - 5-1/4 to 5-3/4 CY 290hp		2			145	hr	$ 116.68	$ 33,825.53	6
	Equipment Operator, Medium Equipment		Eqmd	2			145	hr	$ 67.75	$ 19,647.50	
	01 54 33 40 6410	Toilet, portable chemical		1			165	hr	$ 1.60	$ 263.20	
Total										$165,911.61	

Reference Information

1 - From Nielson Construction services contract with Energy West Mining - Includes 3/4 ton 4x4 truck, metal tool box, acetylend kit, rack for oxygen and acetylene, 1/2" electric drill, 71/4 " circular saw, 9" grinder.
2 - Concrete rubble disposed of as fill or permanently backfilled inside portals. CY total based on an area of 80,275 sf by 9" thick concrete.
3 - Base on a concrete demolition production of 200 cubic yards per 8 hour shift. (Reference: http://www.indeco-breakers.com).
4 - For haul of steel demolition material to Nielsen's landfill. Distance is approximately 25.5 miles one-way. Time estimate is 2 hours for one round trip.
5 - A swell factor of 1.3 is used for crushed concrete. Rental cost for 5.5 CY loader is used in place of Wagner scoop for transporting and storing crushed concrete in mine.
6 - Based on haul of 5 CY at 30 min round trip or 2 trips/hour.

Buried Culverts

Description	Means Reference Number (2011 Heavy Construction Cost Data)	Equipment	Labor	Quantity (number)	Volume (cy)	Length (ft)	Weight (tons)	Time (hr)	Unit	Cost	Total Cost	Ref.
Steel Demolition Cost	N/A											
Concrete Demolition Cost					15.5							1, 2
	Foreman Average, Outside		Foreman	1				2	hr	$ 71.20	$ 142.40	
	Common Building Labor		CLAB	1				7.0	hr	$ 52.70	$ 368.90	
	01 54 33 20 0200	Excavator - 1.5 CY		1				7.0	hr	$ 118.43	$ 118.43	
	Equipment Operator, Medium Equipment		Eqmd	1				7.0	hr	$ 67.75	$ 67.75	
	01 54 33 40 5800	Chain Saw 18"		1				7.0	hr	$ 10.00	$ 70.00	
	01 54 33 20 4760	Loader 5.5 CY		1				1.0	hr	$ 116.68	$ 116.68	
	Equipment Operator, Medium Equipment		Eqmd	1				1.0	hr	$ 67.75	$ 67.75	
	N/A	Utility Truck		1				7.0	hr	$ 8.00	$ 56.00	3
Excavation of Culverts						2711	64.4					4
	Foreman Average, Outside		Foreman	1				40	hr	$ 71.20	$ 2,848.00	
	Common Building Labor		CLAB	2				161	hr	$ 52.70	$ 16,969.40	
	01 54 33 20 0200	Excavator - 1.5 CY		2				161	hr	$ 118.43	$ 38,134.46	
	Equipment Operator, Medium Equipment			2				161	hr	$ 67.75	$ 21,815.50	
	01 54 33 40 5800	Chain Saw 18"		1				161	hr	$ 10.00	$ 1,610.00	
	N/A	Utility Truck		1				161	hr	$ 8.00	$ 1,288.00	3
Transportation Costs												5
	01 54 33 40 7300	Tractor - 4x2, 220hp		1				14	hr	$ 34.90	$ 488.60	
	01 54 33 40 6500	Trailer, platform, 2 axle, 25 ton		1				14	hr	$ 13.90	$ 194.60	
	Truck Driver, Heavy			1				14	hr	$ 52.25	$ 731.50	
	01 54 33 40 7200	Truck - Forman and Crew		1				168	hr	$ 13.08	$ 2,197.44	
Miscellaneous												
Disposal Fee	02 41 19.23 0950						64.4		ton	$ 90.00	$ 5,796.00	
Demolished Concrete Handling					20.15							6
	01 54 33 20 4760	Loader - 5-1/4 to 5-3/4 CY 290hp		1				1	hr	$ 116.68	$ 116.68	7
	Equipment Operator, Medium Equipment		Eqmd	1				1	hr	$ 67.75	$ 67.75	
	01 54 33 40 6410	Toilet, portable chemical		1				168	hr	$ 1.60	$ 268.80	
Total											$ 93,534.64	

Reference Information
1 - Concrete rubble disposed of as fill or permanently backfilled inside portals.
2 - Costs base on a full excavation of each of the manhole assemblies and transport of rubble to portal area.
3 - From Nielson Construction services contract with Energy West Mining - Includes 3/4 ton 4x4 truck, metal tool box, acetylend kit, rack for oxygen and acetylene, 1/2" electric drill, 71/4 " circular saw, 9" grinder.
4 - Two excavators are used to excavate and remove pipe. One for trenching (productivity = 135ft/day) and one for lifting pipe out of trench onto truck flatbed.
5 - For haul of pipe demolition material to Nielsen's landfill. Distance is approximately 25.5 miles one-way. Time estimate is 2 hours for one round trip.
6 - Rental cost for 5.5 CY loader is used in place of Wagner scoop for transporting and storing crushed concrete in mine.
7 - Based on haul of 1 unit at 30 min round trip or 2 trips/hour.

Deer Creek Mine

Rilda Canyon Portal Facilities: C/015/0018

Reclamation Bond Estimates

Earthwork

Summary
Earthwork

Description	Cost
Backfilling and Grading	$25,483
Topsoil	$51,675
Road Rebuild	$14,316
Total	**$91,473**

.

Earthwork - Subsoil

	Equipment Cost/day	Operator's Hourly Wage Rate[A]	Hourly Cost[A]	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity (BCY)	Quantity (LCY)	Units	Production Rate	Units	Equipment Time	Units	Cost Col G * Col N
Earthwork Summary Rilda Canyon Backfilling and Grading														
D11R Semi-U [1]	$ 4,150.00	$ 67.75	$ 330.88	1	$ 330.88	$/HR								
Fill Area #1							10791	14028	CY	437	LCY/hr	33.00	HR	$ 10,919.04
Fill Area #2							315.5	410	CY	2420	LCY/hr	1.00	HR	$ 330.88
Fill Area #4							7075	9198	CY	2535	LCY/hr	4.00	HR	$ 1,323.52
Excavator 2.5 cy [2]	$ 1,613.00	$ 67.75	$ 269.38	1	$ 269.38	$/HR								
Cut Area #3							1364	1773	CY	224.1	LCY/hr	8.00	HR	$ 2,155.04
Truck Haul to Fill Area #3 [3]	$ 506.00	$ 52.25	$ 115.50	2	$ 231.00	$/HR	(Time of Excavator usage dictates truck/dozer usage)					8.00	HR	$ 1,848.00
D11R Semi-U	$ 4,150.00	$ 67.75	$ 330.88	1	$ 330.88							8.00	HR	$ 2,647.04
Truck	$ 104.60		$ 13.08	1	$ 13.08	$/HR						33.00	HR	$ 431.64
CLAB			$ 52.70	2	$ 105.40	$/HR						33.00	HR	$ 3,478.20
Foreman Average, Outside			$ 71.20	1	71.2	$/HR						33.00	HR	$ 2,349.60
Total														**$ 25,482.96**

[A] RSMeans Heavy Construction Cost Data 2011 - Refer to Wage and Rate Sheet

General Information for Earthwork Calculations

General Productivity Information

Material Weight*

Use 50% rock/50% earth - 2900 LCY/cf, 3850 BCY/cf, LF = 0.75, Swell Factor = 1.3

[1] **Dozer Correction Factors****

operator =	0.75
material =	0.9
slot dozing =	1.2
efficiency =	0.83

Grade***

Fill Area #1 - Avg. dist = 285', Elevation difference = 45', grade = +15.9%	0.65
Fill Area #2 - Avg. dist = 75', Elevation difference = 0, grade = 0%	0
Fill Area #3 - Avg. dist = 535', Truck/Track-hoe operation	
Fill Area #4 = Avg. dist = 110', Elevation difference = 25', grade = -22.7%	1.45

Dozing Production****

Use CAT Model D11R w/Semi-Universal Blade

Uncorrected Dozing Production	Area #1 =	1000	Corrected Dozing Production	Area #1 =	437	LCY/hr
	Area #2 =	3600		Area #2 =	2420	LCY/hr
	Area #4 =	2600		Area #4 =	2535	LCY/hr

*Refer to Catillpiller Performance Handbook Edition 31, page 28-4

**Refer to Catillpiller Performance Handbook Edition 31, page 1-45

***Refer to Plate 500-6, Rilda Canyon, Reclamation Mass Balance

****Uncorrected production based on the graph in Caterpillar Performance Handbook Edition 31, page 1-43

[2] **Excavator Correction Factors**

Production*

efficiency =	0.83
cycle time =	20
load factor =	60%

Uncorrected Production*	Cut Area #3	270	Corrected Production	224.1	LCY/hr

*Refer to Catillpiller Performance Handbook Edition 31, page 5-159

[3] **Truck Haul**

Use Three axle dump, 16 ton , 12cy payload

Earthwork - Topsoil

	Equipment Cost/day	Operator's Hourly Wage Rate[A]	Hourly Cost[A]	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity (BCY)	Quantity (LCY)	Units	Production Rate	Units	Equipment Time	Units	Cost Col G * Col N
Earthwork Summary Rilda Canyon														
Topsoil							7,862.00	10,220.60	CY					
Excavator 2.5 cy		$ 67.75	$ 269.38	1	$ 269.38	$/HR				224.1	LCY/hr	46	HR	$ 12,391.48
Truck Haul to topsoiling areas		$ 52.25	$ 115.50	3	$ 346.50	$/HR						46	HR	$ 15,939.00
Dozer		$ 67.75	$ 330.88	1	$ 330.88	$/HR						46	HR	$ 15,220.48
Pick Up Truck		$ 13.08		1	$ 13.08	$/HR								
CLAB			$ 52.70	2	$ 105.40	$/HR						46	HR	$ 4,848.40
Foreman Average, Outside			$ 71.20	1	71.2	$/HR						46	HR	3275.2
Total														**$ 51,674.56**

[A] RSMeans Heavy Construction Cost Data 2011 - Refer to Wage and Rate Sheet

County Road Rebuild

	Equipment Cost/day	Operator's Hourly Wage Rate[A]	Hourly Cost[A]	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity (BCY)	Quantity (LCY)	Units	Production Rate	Units	Equipment Time	Units	Cost Col G * Col N
Road Rebuild Summary Rilda Canyon														
Road Rebuild														
Grader*	$ 1,303.00	$ 67.75	$ 230.63	1	$ 230.63	$/HR				120,278	sqft/hr	2	HR	$ 461.26
Front-End Loader**	$ 1,811.00	$ 67.75	$ 294.13	1	$ 294.13	$/HR	950	1,235.00		0.1333	hr/trip	22	HR	$ 6,470.86
Sheepsfoot Vib. Roller***	$ 1,094.00	$ 67.75	$ 204.50	1	$ 204.50	$/HR						2	HR	$ 409.00
Smooth Drum Roller****	$ 498.80	$ 67.75	$ 130.10	1	$ 130.10							2	HR	$ 260.20
5,000 gal H2O truck Diesel*****	$ 1,030.00	$ 52.25	$ 181.00	1	$ 181.00	$/HR						2	HR	$ 362.00
Pick Up******	$ 104.60		$ 13.08	1	$ 13.08	$/HR						24	HR	$ 313.92
CLAB[A]			$ 52.70	2	$ 105.40	$/HR						24	HR	$ 2,529.60
Surveyor/Grade Setter*******					$ 1,800.00	$/Day				1	Day			$ 1,800.00
Foreman Average, Outside[A]			$ 71.20	1	$ 71.20	$/HR						24	HR	$ 1,708.80
Total														**$ 14,315.64**

[A] RSMeans Heavy Construction Cost Data 2011 - Refer to Wage and Rate Sheet

[1] **Road Rebuild**

Grader Productivity

*Refer to RSMeans Heavy Construction Cost Data (2011) 01 54 33 1930 pg 479

Area to grade - Sta. 0+00 to Sta. 12+00, road width 28' = 33,600 sq. ft., 8" road base (4 lifts), 2 lifts sub-grade grading = 33,600 x 6 = **201,600 sq. ft.**

Effective blade width = 8.7', allow for 2' overlap

Average Speed** = 1/2 heavy blading and 1/2 finish blading = 4.25 mph

Efficiency = 0.8

= 4.25 x(8.7' - 2') x 5280' x .8 = **120,278 sq. ft./hr**

201,600/120,2 1.7 Hours

Front End Loader Productivity**

**Refer to RSMeans Heavy Construction Cost Data (2011) 01 54 33 4810 pg 481

Job efficiency = 0.83

Bucket Fill Factor = 0.9 (Bucket volume is 8.33 cy) = 7.5

Cycle Time = 8 min/trip

Volume of roadbase to move 950 bcy = 1,235 lcy

1,235 cy/7.5 cy x 0.1333 hr/tr **22 Hours**

***Sheepsfoot Vibratory Roller Give same time as Grader

****Smooth Drum Roller Give same time as Grader

*****Water Tuck Give same time as Grader

******Truck Total cost based on 3 days use

*******Surveyor/Grade Setter Assume 3 man crew can stake road in one day

Deer Creek Mine

Rilda Canyon Portal Facilities: C/015/0018

Reclamation Bond Estimates

Revegetation

Pocking	Equipment Rental (hr) (Includes O & P)[A]	Operator's Hourly Wage Rate A	Material Cost	Labor Hourly Cost [A]	Number	Area (AC)	Quantity	Units	Production Rate	Units	Time	Units	Cost	Cost Revised Dec. 2018
						5.4		AC						
Volume							1836.0	CY	340	CY/AC				
Excavator, 2 CY	$ 153.00	$ 67.75			1				180	CY/HR	10.2	HR	$2,252	$2,252
Subtotal													**$ 2,251.65**	**$ 2,251.65**
Seeding/Planting														
Seed														
Sagebrush/Grass Mix*			$ 528.50	$ 52.70		1.5	1.67	lbs	1	Acre/HR	1.5		$ 607.55	$ 607.55
Pinyon/Juniper Mix*			$ 1,163.00	$ 52.70		4	19.4	lbs	1	Acre/HR	4		$ 1,373.80	$ 1,373.80
White Fir/Aspen Mix*			$ 335.94	$ 52.70		1.5	16.4	lbs	1	Acre/HR	1.5		$ 414.99	$ 414.99
Seedlings														
White Fir**			1.59	$ 52.70	1		1080	Trees	470	Trees/Day	18.4	HR	$ 2,685.98	$ -
Quaken Aspen**			1.59	$ 52.70	1		1080	Trees	470	Trees/Day	18.4	HR	$ 2,685.98	$ -
Blue Spruce**			1.59	$ 52.70	1		1080	Trees	470	Trees/Day	18.4	HR	$ 2,685.98	$ -
Subtotal													**$ 10,454.29**	**$ 2,396.34**
Mulching														
Hay									0.67	AC/HR				
Hay Quantity***							2000	LBS/AC					$ 540.00	$ 540.00
Mulcher, Diesel powered	$ 34.75				1						8	HR	$ 278.00	$ 278.00
Flat Bed Truck	$ 23.75	$ 50.75			1						8	HR	$ 596.00	$ 190.00
CLAB				$ 52.70	2						8	HR	$ 843.20	$ 843.20
Hydromulch									0.67	AC/HR				
Truck 4 x 2, 220hp	$ 34.90	$ 52.25			1						8	HR	$ 697.20	$ 697.20
Hydromulcher, 3000 gal	$ 34.75	$ 67.75			1						8	HR	$ 820.00	$ 820.00
CLAB				$ 52.70	3						8	HR	$ 1,264.80	$ -
Subtotal													**$ 5,039.20**	**$ 3,368.40**
Total													**$ 17,745.14**	**$ 8,016.39**

* Seedmix prices based on Stevenson Intermountain Seed Prices quoted in February 2011. See attached.

** Seedling tree prices based on Lone Peak Conservation Nursery (now contracted to High Mountain Nursery) Prices in February 2011 (http://www.highmtnnursery.com/servlet/StoreFront).

*** Cost of Hay is based on local prices of $100/ton (Personal Communication).

[A] RSMeans Heavy Construction Cost Data 2011 - Refer to Wage and Rate Sheet

Item removed - Live Plantings, Amendment #5736 approved August 30, 2018

Pinyon-Juniper/Mountain Brush Seed Mixture - 4 Acres				
Common Name	**Scientific Name**	**Lbs/Acre Equivalent PLS***	**Price PLS/lb**	**Seed Cost for Acreage**
Grasses				
Bluebunch Wheatgrass	Agropyron spicatum	2	$ 5.50	$ 44.00
Sandberg Bluegrass	Poa secunda	1	$ 4.50	$ 18.00
Great Basin Wild Rye	Leymus cinereus	2	$ 5.00	$ 40.00
Indian Ricegrass	Oryzopsis hymenoides var. Paloma	1	$ 9.50	$ 38.00
Western Wheatgrass	Agropyron smithii var. Rosanna	3	$ 2.75	$ 33.00
Forbes				
Blueleaf Aster	Aster glaucodes	0.25	$ 90.00	$ 90.00
Blue Flax	Linum lewisii	0.25	$ 6.00	$ 6.00
Louisiana Sage	Artemisia ludoviciana	0.2	$ 75.00	$ 60.00
Northern Sweetvetch	Hedysarum boreale	1	$ 55.00	$ 220.00
Palmer Penstemon	Penstemon palmeri	0.5	$ 12.00	$ 24.00
Shrubs				
Snowberry	Symphoricarpus oreophilus	0.5	$ 44.00	$ 88.00
Curleaf Mahogany	Cercocarpus ledifolius	1	$ 26.00	$ 104.00
Fourwing Saltbush	Atriplex canescens	2	$ 9.75	$ 78.00
Saskatoon Serviceberry	Amelanchier alnifolia	1	$ 42.00	$ 168.00
True Mountain Mahogany	Cercocarpus montanus	1	$ 38.00	$ 152.00
		Subtotal		**$ 1,163.00**

Sagebrush/Grass Seed Mixture - 1.25 Acres				
Common Name	**Scientific Name**	**Lbs/Acre Equivalent PLS***	**Price PLS/lb**	**Seed Cost for Acreage**
Grasses				
Salina Wildrye	Elymus salinus	2	$ 35.00	$ 87.50
Needle and Thread Grass	Stipa comata	3	$ 33.00	$ 123.75
Sandberg Bluegrass	Poa secunda	2	$ 4.50	$ 11.25
Indian Ricegrass	Oryzopsis hymenoides var. Paloma	3	$ 9.50	$ 35.63
Western Wheatgrass	Agropyron smithii var. Rosanna	2	$ 2.75	$ 6.88
Forbes				
Blueleaf Aster	Aster glaucodes	0.5	$ 90.00	$ 56.25
Blue Flax	Linum lewisii	1	$ 6.00	$ 7.50
Louisiana Sage	Artemisia ludoviciana	0.2	$ 75.00	$ 18.75
Northern Sweetvetch	Hedysarum boreale	1	$ 55.00	$ 68.75
Palmer Penstemon	Penstemon palmeri	0.5	$ 12.00	$ 7.50
Shrubs				
Bitterbrush	Purshia tridentate	1	$ 11.50	$ 14.38
Fourwing Saltbush	Atriplex canescens	2	$ 9.75	$ 24.38
Snowberry	Symphoricarpos oreophilus	1.2	$ 44.00	$ 66.00
		Subtotal		**$ 528.50**

White Fir/Aspen Seed Mixture - 1.25 Acres				
Common Name	**Scientific Name**	**Lbs/Acre Equivalent PLS***	**Price PLS/lb**	**Seed Cost for Acreage**
Grasses				
Bluebunch Wheatgrass	Agropyron spicatum	1	$ 5.50	$ 6.88
Indian Ricegrass	Oryzopisi hymenoides var. Paloma	2	$ 9.50	$ 23.75
Western Wheatgrass	Agropyron smithii var. Rosanna	3	$ 2.75	$ 10.31
Kentucky Bluegrass	Poa pretenses	1	$ 2.00	$ 2.50
Mountain Brome	Bromus marginatus	2	$ 1.75	$ 4.38
Slender Wheatgrass	Elymus trachycaulus ssp. trachycaulus	2	$ 1.75	$ 4.38
Forbs				
Louisiana Sage	Artemisia ludoviciana	0.2	$ 75.00	$ 18.75
Northern Sweetvetch	Hedysarum boreale	1	$ 55.00	$ 68.75
Pacific Aster	Aster chilensis	0.2	$ 90.00	$ 22.50
Rocky Mountain Penstemon	Penstemon strictus	1	$ 18.00	$ 22.50
Silky Lupine	Lupinus sericeus	1	$ 44.00	$ 55.00
Shrubs				
Snowberry	Symphoricarpos oreophilus	1	$ 44.00	$ 55.00
Saskatoon Serviceberry	Amelanchier alnifolia	0.5	$ 42.00	$ 26.25
Skunkbush Sumac	Rhus trilobata	0.5	$ 24.00	$ 15.00
		Subtotal		**$ 335.94**
		Total		**$ 2,027.44**

Note: Total seeding cost includes an area of 6.5 acres. The remaining area consists of the reconstructed Emery County road.

* Seedmix prices based on Stevenson Intermountain Seed Prices quoted in February 2011. See attached.

Energy West Mining Company
General Environmental Permits Issued to PacifiCorp
Emery County, Utah

Item No.	Air Quality	Date Issued	Description	Affiliated Mine	Term* Years	Termination Date	Remarks
1	DAQE-694-95	8/9/1995	Air Quality permit for mine site	Cottonwood	LOM	none	Mine site is in cessation.
2	DAQE-835-91	12/16/1991	Air quality permit for waste rock site	Trail Mountain	LOM	none	Mine site is in cessation.
3	DAQE-AN0239033-02	6/14/2002	Air quality permit for mine site	Deer Creek	LOM	none	Mine site currently active. Baghouse located at tipple.
~~4~~	~~DAQE-926-91~~	~~12/5/1991~~	~~Air quality permit for waste rock site~~	~~Deer Creek~~	~~LOM~~	~~none~~	~~Active site.~~
~~5~~ 4	DAQE-694-95	8/9/1995	Air Quality permit for mine site	Trail Mountain	LOM	none	Mine site is in cessation.

Item No.	EPA ID	Date Issued	Description	Affiliated Mine	Term Years	Termination Date	Remarks
1	UTD988078440	3/24/1993	Waste disposal permit	Cottonwood	LOM	none	Used for non-hazardous and hazardous waste disposal. Mine site is in cessation
2	UTD988078432	3/24/1993	Waste disposal permit	Deer Creek	LOM	none	Used for non-hazardous and hazardous waste disposal.
3	UTD980718340	11/12/1992	Waste disposal permit	Trail Mountain	LOM	none	Used for non-hazardous and hazardous waste disposal. Mine site is in cessation

Item No.	MSHA #	Date Issued	Description	Affiliated Mine	Term Years	Termination Date	Remarks
1	42-01211	5/5/1996	Required permit number for operation.	Cottonwood	LOM	none	Covers all areas of the mine including waste rock site.
2	42-00121	3/19/1973	Required permit number for operation.	Deer Creek	LOM	none	Covers all areas of the mine~~ including waste rock site~~.
3	42-01211	3/25/1975	Required permit number for operation.	Trail Mountain	LOM	none	Covers all areas of the mine site.

Item No.	UPDES Permit	Date Issued	Description	Affiliated Mine	Term Years	Termination Date	Remarks
1	UT-0022896	4/14/2014	-001 Sediment Pond - 002 Mine Discharge	Cottonwood	5	3/31/2019	Discharge permit into Grimes Wash
2	UT-0023604	12/1/2007	-001 Sediment Pond - 002 Mine Discharge	Deer Creek	5	11/30/2012	Discharge permit into Deer Creek.
3	UT-0023728	4/14/2014	-001 Sediment Pond - 002 Mine Discharge - 003 Waste Rock Site	Trail Mountain	5	3/31/2019	Discharge permit into Cottonwood Cyn Ck. 003 discharges into an ephemeral drainage near Grimes Wash.

* LOM = Life of Mine

	S½S½SE¼	40.00
Sec 18: (ALL)	Lots 1 and 2	45.87
	Lots 3 and 4	47.10
	NE¼	160.00
	SE¼	160.00
Sec 19: (ALL)	Lots 1 - 4	92.67
	E½	320.00
Sec 20: (ALL)	W½	320.00
	W½E½	160.00
	E½E½	160.00
Sec 21:	NW¼	160.00
	SW¼	160.00
	W½W½W½NE¼	20.00
	W½W½NW¼SE¼	10.00
	S½SE¼	80.00
Sec 22:	E½NW¼	80.00
	E½W½NW¼	40.00
	E½SW¼	80.00
	E½NW¼SW¼	20.00
	SW¼SW¼	40.00
	W½SE¼	80.00
Sec 27:	N½NW¼	80.00
	NW¼NE¼	40.00
Sec 28:	N½NE¼	80.00
	E½NE¼NW¼	20.00
Sec 29:	NW¼NE¼	40.00
	N½NW¼	80.00
Sec 30:	Lots 1, 5, 6	63.00
	N½NE¼	80.00
	SW¼NE¼	40.00
	NW¼SE¼	40.00
	Total for Township	**7,356.01**

~~T17S, R8E, SLB&M Emery County, UT~~

~~Section~~	~~Description~~	~~Acreage~~
~~Sec: 6 Deer Creek Waste Rock Site~~	~~Beginning 10 feet South of the NE corner of Section 6, T17S, R8E, SLB&M; thence, S 89° 52' 00" W, 1272.000 feet; thence, S 0° 08' 00" E, 600.000 feet; thence, S 83° 28' 43" E, 302.035 feet; thence, S 72° 54' 35" E, 314.083 feet; thence, S 63° 06' 41" E, 224.508 feet; thence, S 48° 18' 17" E, 268.404 feet; thence, S 20° 06' 29" W, 1066.848 feet; thence, S 39° 24' 03" W, 855.358 feet; thence, S 41° 10' 40" E, 100 feet; thence, N 43° 39' 42" E, 1635.000 feet; thence, N 31° 02' 18" E, 412.959 feet; thence, N 22° 58' 45" E, 1310.908 feet; thence, N 89° 40' 41"W, 740.000 feet; to the point of beginning. 31.92 acres more or less.~~	~~31.92~~
	~~**Total for Township**~~	~~**31.92**~~

Total Permit Acres ~~**20,308.10**~~ **20,276.18**

Refer to Surface and Subsurface ownership maps in Volume 4.

Deer Creek Permit Boundary Description

The Deer Creek Mine permit covers an area approximately ~~20,308.10~~ 20,276.18 acres. The total disturbed area at the mine is currently ~~91.63~~ 59.71 acres.

Disturbed Area Reconciliation Table

Type Area	Area Name	Reclamation Completion Date	Disturbed Acreage	Phase I Bond Release Date	Phase II Bond Release Date	Phase III Bond Release Date
Mine Site	Deer Creek Main Mine	N/A	50.08			
Mine Site	Rilda Canyon Left Fork Fan Facilities	N/A	2.33			
Mine Site	Rilda Canyon Portal/Fan Facilities	N/A	7.28			
Remote Portal	9th East Meetinghouse Portals	N/A	0.02			
Remote Portal	9th East Grimes Wash Portals	Dec-99	0.00	7/13/2007	11/8/2011	11/8/2011
Waste Rock Site*	Deer Creek Waste Rock Site	N/A	~~31.92~~ 0.00			
Total			**~~91.63~~ 59.71**			

* The Deer Creek Waste Rock Site was transferred to ~~Bowie Refined Coal~~ Castle Valley Mining LLC in a purchase agreement on ~~August 4, 2015~~ !