C/015/015 Incoming
#5211

NPN ENVIRONMENTAL

July 11, 2016

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

RE: Bronco Utah Operations LLC
Emery Mine
DOGM Permit No. C/015/0015
Emery 2 Expansion Within Boundary Task ID #5198, Deficiency Responses
Clean Copy Submittal to CONFIDENTIAL Binder

Mr. Haddock:

On behalf of Bronco Utah Operations LLC, consider this response a clean copy submittal of the above mentioned task. Chapter IV, Appendix IV-10 has been inserted to hold confidential contractor estimates in support of bond calculations. Enclosed are two copies including an executed C1 form, C2 form, and revised MRP pages. A CD has been included with the submittal in pdf format.

If you have any questions concerning this request, please contact Kit Pappas at 435-286-2027.

Sincerely,

John Gefferth
Project Principal

Attachments Application for Coal Permit Processing (2)
Electronic CD

c: Kit Pappas (Bronco Utah Operations LLC) w/Attachments

JAG/jag EM UTDOGM C0150015 e2 Phase I Permitted CONFIDENTIAL.cln.docx

RECEIVED
JUL 13 2016
DIV. OF OIL, GAS & MINING

1631 Headland Drive • St. Louis, MO 63026 • (636) 343-1300 • FAX (636) 343-8192

APPLICATION FOR COAL PERMIT PROCESSING

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

Permittee: Bronco Utah Operations LLC (BUOLLC)
Mine: Emery Mine **Permit Number:** 015/0015
Title: e2 Phase I Permitted CONFIDENTIAL
Description, Include reason for application and timing required to implement:
Permit 015/0015 e2 add coal processing structures at main portal disturbed area def resp tsk5198 clean 7/16

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: _____ Disturbed Area: _____ ☐ 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

L. R. BAKER — Print Name

Dan R. Baker PRESIDEN 7/7/16 — Sign Name, Position, Date

Subscribed and sworn to before me this 7 day of July, 2016

Notary Public

My commission Expires: 3-7, 2018

Attest: State of UTAH } ss:
County of Carbon

JOHN CHRISTOPHER PAPPAS
Notary Public, State of Utah
Commission # 674103
My Commission Expires
March 07, 2018

For Office Use Only:	Assigned Tracking Number:	Received by Oil, Gas & Mining
		RECEIVED JUL 13 2016 DIV. OF 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: Bronco Utah Operations LLC (BUOLLC)
Mine: Emery Mine **Permit Number:** 015/015
Title: e2 PhaseI Permitted def res tsk id 5198 add info clean copy CONFIDENTIAL 07/16

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
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☒ Add	☐ Replace	☐ Remove	CH IV Appendix IV-10, R.S. Means Competitive Bid Support (CONFIDENTIAL)
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Any other specific or special instruction required for insertion of this proposal into the Mining and Reclamation Plan.	**Received by Oil, Gas & Mining** RECEIVED JUL 13 2016 DIV. OF OIL, GAS & MINING

Form DOGM - C2 (Revised March 12, 2002)

CHAPTER IV, APPENDIX IV-10
Bond Release R.S. Means Competitive Bids

CONFIDENTIAL FOLDER

INCORPORATED

JUL 1 4 20

Div. of Oil, Gas & Mining

NPN ENVIRONMENTAL

July 11, 2016

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

RECEIVED
JUL 13 2016
DIV. OF OIL, GAS & MINING

RE: Bronco Utah Operations LLC
Emery Mine
DOGM Permit No. C/015/0015
Emery 2 Expansion Within Boundary Task ID #5198, Deficiency Responses
Clean Copy Submittal to CONFIDENTIAL Binder

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John Gefferth
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Electronic CD

c: Kit Pappas (Bronco Utah Operations LLC) w/Attachments

JAG/jag EM UTDOGM C0150015 e2 Phase I Permitted.CONFIDENTIAL.cln.docx

Deficiency List
Task id # 5198
E2 Phase I Permitted
July 11, 2016

The members of the review team who have identified deficiencies include the following individuals:

Cheryl Parker (Cparker)
Ingred Wiser (Bwiser)

OPERATION PLAN

Existing Structures

R645-301-526.112: The Permittee will update Plate II-1 to show only existing structures and proposed structures relevant to pending application. Blue proposed structures shall be moved to similar new plate, i.e. Plate II-1A. The Permittee will also add a clarifying statement at the beginning of Chapter II to broadly cover the conditions or required rehabilitation of the existing structure for the current operations, i.e. reference to a photo log. (Cparker)

Chapter II, Plate II-1(Structures and Facilities Main Portal Area) has been revised to show only existing structures. Per the Division's request and to expedite the bond review, Bronco has included a photographic record of the surface facilities.

The blue proposed structures supporting the proposed coal preparation plant have been moved to insert Plate II-1A (Proposed Structures and Facilities Map).

Chapter II Plate II-3 (4 East Portal Surface Facilities) has been revised to reflect the demolition that has occurred at the 4th East portal.

See Chapter II replacement pages 5 through 17f and Chapter IV Part IV.B (bond calculation sheets) for the design detail of the existing and New Facilities related to Emery 2 expansion that are listed on Plates II-1, II-1A and II-3.

Road System Plans and Drawings

R645-301-534.100-534.200, R645-301-521.170, R645-301-521.170, R645-301-521.180 and R645-301-526 through -526.222: The Permittee shall supply detailed design specification drawings of each of the called out facilities pertinent to this application, i.e. New facilities listed in red on Plate II-1 or reference existing roadway designs if the roadway is not new construction. (Cparker)

See Chapter II replacement pages 5 through 17f and Chapter IV Part IV.B (bond calculation sheets) for the design detail of the existing and New Facilities related to Emery 2 expansion that are listed on Plates II-1, II-1A and II-3.

See Chapter IV Appendix IV-7 and Plate IV-8 (Mine Yard Roads) for the existing approved road and drainage design detail in the main portal area.

See Chapter IV Plate IV-8A (Emery 2 Expansion Roads) for detailed design specification drawings pertaining to the new road system. The existing approved roads depicted on Plate IV-8 are shown on this Plate. Plate IV-8 depicts approved roads Sections 1 through 4. Section 1 is paved (see CH IV Appendix IV-7). Previously, the Division did not require road design for the end of the paved section to the starting points of Sections 2, 3, and 4 or on the approved loadout area due to the area being very flat with no real defined roadways to and from the loadout. All unpaved roads are compacted durable surface. Plan/profile/x-section of this area has been included on Plate IV-8A.

Road System – Other Transportation Facilities

R645-301-534.100-534.200, R645-301-521.170, R645-301-521.180 and R645-301-526 through -526.222: The Permittee shall supply detailed design specification drawings of each of the called out facilities pertinent to this application, i.e. New facilities listed in red on Plate II-1. (Cparker)

See Chapter II replacement pages 5 through 17f and Chapter IV Part IV.B (bond calculation sheets) for the design detail of the existing and New Facilities related to Emery 2 expansion that are listed on Plates II-1, II-1A and II-3.

Support Facilities and Utility Installations

R645-301-534.100-534.200, R645-301-521.170, R645-301-521.180 and R645-301-256 through -526.222: The Permittee shall supply detailed design specification drawings of each of the called out new facilities and references to existing facilities. (Cparker)

See Chapter II replacement pages 5 through 17f and Chapter IV Part IV.B (bond calculation sheets) for the design detail of the existing and New Facilities related to Emery 2 expansion that are listed on Plates II-1, II-1A and II-3.

Maps Facilities

R-645-301-521.180 and R645-301-526 through -526.222: The Permittee shall add narrative to the truck loadout area detailed that presumably no pavement will be associated with the turnaround and also include a detail of the grading and drainage controls associated with the roadway. The Permittee shall add narrative to the reclaim tunnel to explain construction only relevant to the existing amendment of volumes of earthwork required for reclamation. All narratives should reference specific designs of each segment of the facility described, either new or existing drawings. (Cparker)

See Chapter IV Plate IV-8a (Emery 2 Expansion Roads) for detailed design specification drawings pertaining to the new road system. The existing approved roads depicted on Plate IV-8 are shown on this Plate. Plate IV-8 depicts approved roads Sections 1

through 4. Section 1 is paved. Previously the Division did not require road design for the end of the paved section to the starting points of Sections 2, 3 and 4, including the approved loadout area. Plan/profile/x-section of this area has been included on Plate IV-8A.

RECLAMATION PLAN

Bonding and Insurance General

R645-301-534-.100-534.200, R645-301-521.170, R645-301-521.180 and R645-301-526 through -526.222: The Permittee shall supply detailed design specification drawings of each of the called out facilities pertinent to this application, i.e. New facilities listed in red on Plate II-1. (Cparker)

See Chapter II replacement pages 5 through 17f and Chapter IV Part IV.B (bond calculation sheets) for the design detail of the existing and New Facilities related to Emery 2 expansion that are listed on Plates II-1, II-1A and II-3.

Bonding Determination of Amount

R645-301-830.410: The Permittee will update all individual line items to match existing site conditions in 2016 dollars and provide all photographs to the current state of said features. (Bwiser)

See Chapter IV, page 12 and Chapter IV Part IV.B for bond calculations and summary. Photographs of existing structures are provided on Plates II-1 and II-3.
See inserted Chapter IV, Appendix IV-9 (Bond Deletion Support) for additional information to support specific Bond calculation sheet tabs that have been deleted.

R645-303-211, R645-301-830.100 through -830.140, R645-301-830.410: The Permittee must submit detail cost quotes from a minimum of three parties to utilize a cost reference outside of published construction related cost reference manuals, e.g. R.S. Mean Heavy Construction

Cost references for bond calculations were obtained from the 2016 second quarter R.S. Means v7.8 Heavy Construction, Price Utah (845).
See CONFIDENTIAL folder Chapter IV, Appendix IV-10 (Bond Unit Rate Support) for various quotes to replace R.S Means unit rates.

APPLICATION FOR COAL PERMIT PROCESSING

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

Permittee: Bronco Utah Operations LLC (BUOLLC)
Mine: Emery Mine **Permit Number:** 015/0015
Title: e2 Phase I Permitted CONFIDENTIAL
Description, Include reason for application and timing required to implement:
Permit 015/0015 e2 add coal processing structures at main portal disturbed area def resp tsk5198 clean 7/16

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

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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

Print Name: [illegible] BAKER

Sign Name, Position, Date: [signature] PRES. CEO 7/7/16

Subscribed and sworn to before me this 7 day of JULY, 20 16

Notary Public: [signature]

My commission Expires: 3-7, 20 18

Attest: State of UTAH } ss:
County of CARBON

JOHN CHRISTOPHER PAPPAS
Notary Public, State of Utah
Commission # 674103
My Commission Expires
March 07, 2018

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: Bronco Utah Operations LLC (BUOLLC)
Mine: Emery Mine **Permit Number:** 015/015
Title: e2 Phase I Permitted deficiency response tsk id 5198 add info clean copy 07/16

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	CH II index page
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☐ Add	☐ Replace	☐ Remove	
☐ Add	☒ Replace	☐ Remove	CH II pages 5 through 17f
☐ Add	☒ Replace	☐ Remove	CH II Plate II-1, Structures and Facilities Main Portal Area
☒ Add	☐ Replace	☐ Remove	CH II Plate II-1A, Proposed Structures and Facilities Main Portal
☐ Add	☒ Replace	☐ Remove	CH II PLate II-3, 4 East Portal Surface Facilities
☐ Add	☐ Replace	☐ Remove	
☐ Add	☐ Replace	☐ Remove	
☐ Add	☒ Replace	☐ Remove	CH IV table of contents (pages 2/3, 3/3)
☒ Add	☐ Replace	☐ Remove	CH IV, Plate IV-8A, Emery 2 Phase I Expansion Roads & Conveyor
☒ Add	☐ Replace	☐ Remove	CH IV Appendix IV-9, Bond Deletion Support
☒ Add	☐ Replace	☐ Remove	CH IV Appendix IV-10, R.S. Means Competitive Bid Support (CONFIDENTIAL index page)
☐ Add	☒ Replace	☐ Remove	CH IV, Page 12 (bond summary sheet)
☐ Add	☐ Replace	☒ Remove	CH IV, Part IV.B, Demo bond calc sheets (pages 1 through 52)
☒ Add	☐ Replace	☐ Remove	CH IV, Part IV.B, Demo bond calc sheets (pages 1 through 47)
☐ Add	☒ Replace	☐ Remove	CH IV, Part IV.B, Earth bond calc sheets (pages 1 through 18)
☐ Add	☒ Replace	☐ Remove	CH IV, Part IV.B, Reveg bond calc sheets (pages1 through 3)
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Any other specific or special instruction required for insertion of this proposal into the Mining and Reclamation Plan.	**Received by Oil, Gas & Mining**

CHAPTER II

OPERATION PLAN

PARTS		PAGE
II.A	STRUCTURES AND FACILITIES	1-19
II.B	DRAINAGE CONTROLS	20-21
II.C	PLACEMENT AND HANDLING OF MATERIALS	22-24
II.D	OPERATIONAL MONITORING PLANS	25-27
II.E	SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION	28-29

PLATES

II-1	STRUCTURES AND FACILITIES: MAIN PORTAL AREA	Map Pocket
II-1a	PROPOSED STRUCTURES AND FACILITIES: MAIN PORTAL AREA	Map Pocket
II-2	STRUCTURES AND FACILITIES: REFUSE DISPOSAL AREA	Map Pocket
II-3	4th EAST PORTAL	Map Pocket
II-3a	4th EAST PORTAL "As-Built"	Map

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Div. of Oil, Gas & Mining

CHAPTER II OPERATION PLAN

This chapter summarizes the surface facilities and operations which will be utilized during the life of the Emery Mine including the original Main Portal facilities (Plate II-1), the new Emery 2 Expansion facilities (Plate II-1), 4th East Portal facilities (Plate II-3), and the proposed Preparation Plant Facility (new Plate II-1A). Plate II-1 only depicts the original mine portal facilities and the new proposed Emery 2 expansion facilities. Plate II-1A depicts the proposed preparation plant facilities only. Removal of structures is discussed in Chapter III under UMC 784.11(b).

Per the Division's request, photo logs have been embedded into Plates II-1 and Plate II-3. These photo logs depict the condition of the existing facilities.

Chapter II pages 5 through 17f have been replaced with pages 5 through 17f. These supporting pages along with Plates II-1, II-1A and II-3 have been reordered, renumbered, and reworded to correspond directly with Chapter IV Part IV.B bond calculation sheets.

The numbered facilities appearing in the Facilities Key in Plates II-1 and II-3 have been assigned colors to identify their current state of reclamation. Facilities identified with green text have been removed. Facilities identified with yellow text are partially removed. Facilities identified with black text are existing. Facilities that have been removed appear only on the map. Existing facilities or partially removed facilities appear on the map, in the operations plan, and in the bond sheets.

Chapter IV, Appendix IV-9 (Bond Deletion Support) has been inserted to provide detail on the facilities that have been removed and cross referenced with map codes and bond calculation sheet names.

II.A STRUCTURES AND FACILITIES

UMC 784.11(b) 784.12

Following is a list and description of the entire surface structures either in use or proposed for the mine. The status of each structure and the map reference are provided at the beginning of each description.

At the 4th East Portal, no surface structures or subsurface utilities existed prior to disturbing the site for excavation of the portal boxcut in 2002, with the exception of subsidence marker (#88-7). This marker was established in 1988 to provide elevation control as part of the subsidence control plan. The marker was replaced with a new marker to provide subsidence monitoring for this section of the underground mine workings. See Chapter IV Appendix IV-7 and Plate IV-8 (Mine Yard Roads) for the existing approved road and drainage design detail.

Main Portal Facilities

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Tipple Stacker-Reclaim System
Map Code: 1, Plate II-1
Status: Existing – 3rd quarter 1976

The reclaim system consists of a stationary 48-inch stacking conveyor, coal stockpile feeder, ventilated reclaim tunnel, and 48-inch reclaim conveyor.

Coal exiting the mine via conveyor is transferred to the stacking conveyor, which discharges into a surge pile. The reclaim tunnel is located under the surge pile and is equipped with an adjustable feeder belt that withdraws a controlled flow of coal from the surge pile and deposits it upon the reclaim conveyor. The reclaim conveyor then transports coal to the tipple feed system.

All drainage from the reclaim area is diverted to Sedimentation Pond No. 2.

The tipple consists of a 1¼-inch scalping screen, crusher, double deck 1¼"x5/16" sizing screen, 4 product storage bins, and various short-length product conveyors.

Coal is fed to the tipple via the reclaim system. It is initially spilt into 2 flows by the scalping screen. The 1¼"x0" material becomes the "crushed run-of-mine" (CROM) while the +1¼" is crushed to 1¼ x 0".

Tipple Control Station
Map Code: 3, Plate II-1
Status: Existing – prior to 1975

The tipple control station is a small concrete block structure adjacent to the tipple that contains the controls for the tipple and reclaim systems. This structure is within the surface drainage control area.

Surface Storage Tank Containment Area
Map Code: 4, Plate II-1
Status: Existing 3rd quarter 1991

The concrete containment structure measures 50 feet by 23.5 feet, with 3-foot high walls that contains a 6,000-gallon diesel fuel tank and an 8,000-gallon stoker oil tank. Also to be included in this containment structure is an area for outside storage of petroleum products in 5- to 55-gallon drums for use underground as required.

Foreman's Bath House
Map Code: 6, Plate II-1
Status: Existing

The Foreman's Bath House consists of a Steel building on concrete pad. The building dimensions are 45'x24'x9' and 3'x27'x9' with a volume of 10,449 CF.
The concrete floor and sidewalk dimensions are 48'x24'x0.33' and 6'x 30'x0.33' for 444 cubic feet of concrete. The foundation is approximately 30 inches thick and consists of 504 cubic feet of concrete. The cross sectional area is 3.5 square feet and the perimeter is 144 feet.

Evaporation Lagoon
Map Code: Existing Pond No 4 (located in NW quadrant of map), Plate II-1
Status: Existing – 1st quarter 1976, reconstructed 1984/1985

The evaporation lagoon is an earthen structure that covers approximately 1.6 acres of surface area and has a storage capacity of 2.7 acre-feet. The lagoon is formed by a circular 3.5-foot high berm installed on a 1V:3H upstream and downstream slope, with an embankment top width of 12 feet. The evaporation lagoon is no longer in service due to installation of a public water supply, sewer, and county road. The evaporation pond disturbed area is currently part of the Reclamation test plot study per Chapter III pg 4a and Chapter III App 1.

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Div. of Oil, Gas & Mining

Warehouse-Office Building
Map Code: 11, Plate II-1
Status: Existing – 4th quarter 1978

The warehouse/office building measures approximately 120'x60 x20' and is segmented into three sections. Three-fourths of the available space is devoted to the warehouse, while the remaining space is allocated to the main shop and mine offices.

The offices serve as the headquarters for the mine. The warehouse provides enclosed storage space for small and delicate mine supply items and the main shop is used to perform repairs and routine maintenance on mine equipment.

Surface drainage from the area around this building is controlled by the approved surface drainage control system. Wastewater from the building is cycled through an approved sewage system.

There are approximately 193 cubic yards of concrete between the building pads and foundations.

Bathhouses
Map Code: 12, Plate II-1
Status: Existing – prior to 1975

The bathhouses consist of five units and one empty pad that were converted from trailer-type mobile homes. Each bathhouse is equipped with shower stalls, toilets, sinks, and lockers. The largest unit contains a separate installation for female personnel.

Tipple Transformer Building
Map Code: 16, Plate II-1
Status: Existing – 2nd quarter 1977

This building is a 3-sided cement block structure located just east of the silt fence that houses the transformer to reduce the 7200 volts incoming from the mine substation to 480 volts for use at the tipple. This structure is located within the improved drainage control area.

Foreman's/Shift Change Office
Map Code: 19, Plate II-1
Status: Existing – prior to 1975

This structure is an office trailer situated near the warehouse and is located within the approved drainage control area covering the warehouse and supply yard.

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Mine Fan Building
Map Code: 20, Plate II-1
Status: Existing – 3rd quarter 1978

The mine fan building is a compartmented metal structure which contains the main fan (8-foot Jeffery, axial flow), motor house and controls, and dueling. The fan building (located at the mine return air opening which has been backfilled and reclaimed) is equipped with an air lock for access, explosion doors, and an emergency diesel power unit. The auxiliary fan (54-inch Joy, axial flow) has been removed.

The main fan was used to ventilate the mine under normal operating conditions. The auxiliary would be used if the main fan became inoperable. The mine fan building was constructed according to MSHA guidelines and is within the approved drainage control area.

Steam Cleaner Building
Map Code: 23, Plate II-1
Status: Existing – prior to 1975

This cement block building houses the steam cleaner unit used to wash down equipment and is located within the approved drainage control area.

Scrap Yard
Map Code: 26, Plate II-1
Status: Existing – 2nd quarter 1979

The scrap yard occupies an area on the south side of Quitchupah Creek and is used to store old or used equipment. Some of the material is sold to a scrap dealer about once a year. The remaining items are kept on hand for possible use around the mine. The scrap yard is located within the approved surface drainage control area.

Supply Yard
Map Code: 27, Plate 1
Status: Existing – prior to 1975

This supply yard is located south of the warehouse and contains parts and bulk supply items used on a continual basis for either the surface or underground operation. The yard is used to store inventory parts, machinery, and bulk items in a consistent and easily accessible manner. The supply yard is located within the approved surface drainage control area.

Truck Scale
Map Code: 28A, Plate II-1
Status: Existing – 4th quarter 1989

The truck scale consists of a standard highway scale unit of a size and capacity suitable for weighing medium duty highway coal trucks. Also associated with the scale is a small metal building in which the controls and readout are located. The scale weighs the trucks before and after loading to determine the tonnage of coal being sold. It is calibrated and certified by the State at least once each year. The truck scale is located within the approved surface drainage control area.

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Coal Stockpile Area
Map Code: 31, Plate II-1
Status: Existing – lower piles prior to 1975
– northwest pile 3rd quarter 1982

The CROM product is discharged into a "live" storage pile at the tipple, where it is either loaded immediately onto trucks with a front-end loader or shuttled to a stockpile.

The mine has two static stockpile areas. The "lower" stockpile located south of Quitchupah Creek has a storage capacity of 20,000 tons. The third stockpile is northwest of the mine office near the mine entrance gate. This pile has a capacity of 150,000 tons and is used to handle excess mine production during times of decreased near term coal sales. Under normal operating conditions, approximately 15,000 tons of combined products are stockpiled at any time, with a monthly stockpile flux of about 5,000 tons. This allows adequate surge capacity but eliminates the problems of stockpile fires and the expense of rehandling.

All the stockpile areas are contained within the approved surface drainage control system.

Bridge on Quitchupah Creek
Map Code: 33, Plate II-1
Status: Existing – 3rd quarter 1979

The bridge on Quitchupah Creek is constructed of a multiplate arch on a concrete foundation with concrete wingwalls and is equipped with guardrail and designed to pass 2,230 cfs of water. The bridge was installed to allow access to the stockpile area south of Quitchupah Creek. It replaced two 3-foot diameter culverts determined to be undersized for design flood conditions. This structure was approved for construction by the Utah State Division of Oil, Gas, and Mining on March 19, 1979.

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Non-Coal Waste Storage Area
Map Code: 34. Plate II-1
Status: Existing – prior to 1975

The non-coal waste storage area consists of two small pits dug into the side of the hill in the stockpile area south of Quitchupah Creek. The pits measure approximately 20'x40'x10'.

Waste materials such as trash, timbers, and cement blocks are hauled from the mine and temporarily stored in the two waste pits. Periodically, the material is loaded onto coal trucks and hauled to a private landfill that is not controlled by Bronco Utah Operations.

The pits slope into the hill so surface water entering the pit is contained. The storage area is within the approved surface drainage control system.

Parking Area
Map Code 35, Plate II-1
Status: Existing – prior to 1975

The employee parking area is located near the office and bathhouses and provides ample space for employees and visitors. The parking area is within the approved surface drainage control area.

Mine Yard Roads
Map Code: 36, Plate II-1
Status: Existing – prior to 1975

The mine yard road system is comprised of 6 sections. Four are Class I roads and 2 are Class II roads. Section 1 (a paved Class I road) begins at the mine gate and ends at the warehouse office building. Section 2 (a Class II road) branches off Section 1 and accesses the storage area west of the warehouse/office building. Section 3 is a Class I road which starts at the mine yard and accesses the coal storage area south of Quitchupah Creek, crossing an approved bridge over the Creek. Section 4 (a Class II road) is located between the tipple stockpile and ventilation fan building. New Plate IV-8A depicts Section 5 and Mine Yard Road not previously shown, a Class I road that is a continuation of Section 3 and will facilitate access to the Emery 2 expansion portal. As-built cross sections for the Class I roads are contained in Chapter IV.

See Chapter IV Appendix IV-7 and Plate IV-8 (Mine Yard Roads) for the existing approved road and drainage design detail in the main portal area. All these roads are within the approved surface drainage control area and are periodically watered down during dry weather to prevent fugitive dust.

Mine Rescue Storage Area
Map Code: 37, Plate II-1
Status: Existing – prior to 1975

The mine rescue storage area is a steel building that measures approximately 20'x24'x12' with a total volume of approximately 5,760 cubic feet. The floor consists of a concrete pad which measures 24'x18'x 0.5'. The foundation contains approximately 224 cubic feet of non-reinforced concrete. The mine rescue storage area is within the approved surface drainage control and disturbed area.

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Material Storage Area
Map Code: 40, Plate II-1
Status: Existing – 4th = quarter 1982

Located east of the bathhouse trailers, this area is used as outside storage for parts, machinery, and bulk items in an orderly and accessible manner. It is located within the approved drainage control area.

Training Site Pad
Map Code: 41, Plate II-1
Status: Existing 2008

This area located near the employee parking area consists of a concrete pad measuring approximately 37'x47'x4" used for annual MSHA training. The training pad area is within the approved surface drainage control and disturbed area.

Existing Mine Substation
Map Code: 42, Plate II-1
Status: Existing – 3rd quarter 1976

The original mine substation is located on top of the north canyon overlooking the mine. It consists of various electrical appliances used to transform high voltage to usable mine power. The substation is enclosed by an 8-foot high fence.

This structure is used to convert high line voltage (69 KV) to 7200 volts AC. One circuit is strictly for the underground mine, while the second circuit supplies power to the surface facilities and the mine fan. The mine substation was installed according to existing electrical codes and MSHA guidelines.

Borehole Pump No. 1
Map Code: 43, Plate II-1 and Plate VI-10B
Status: Existing – prior to 1975

The borehole pump facility consists of a multi-stage deep-well turbine pump, 200 horsepower electric motor, and high-voltage transformer. The pump is rated at 1,200 gallons per operating minute and is used to dewater the underground workings. Water is diverted from the various areas of the mine to the borehole pump. From there, the water is pumped to the surface and through an 8-inch buried PVC line to the mine discharge sedimentation pond (Pond No. 1).

Borehole Pump No. 2
Map Code: Identified by name, Plate VI-10B
Status: Existing – 4th quarter 1986

This borehole pump facility consists of a multi-stage deep-well turbine pump, 200 horsepower electric motor, high voltage transformer, and automatic starter control. A 10-inch buried PVC carries water to Sedimentation Pond No. 1.

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Borehole Pump No. 3
Map Code: Plate VI-18 and Plate VI-10A
Status: Existing – 4th quarter 1988

This borehole pump facility consists of a multi-stage deep-well turbine pump, 200 horsepower electric motor, high voltage transformer, and because of the remote location, an automatic starter control. The facility also contains a sedimentation pond (designated as Pond No. 6). A buried 10-inch line conveys pump discharge to the pond. An alternate discharge line taps into the pipe downstream of the pump drive just prior to the buried section and discharges, when required, into the adjacent landowner's irrigation system. This alternate discharge point is incorporated into the NPDES permit as outfall 004. Prior to construction, topsoil and subsoil were salvaged and stockpiled for use in reclamation of the site.

Sewage Pumping Station
Map Code: 44, Plate II-1
Status: Existing – 4th quarter 1975

The mine sewage system consists of a 13,500-gallon septic tank, pump system, and 30,000 ft^2 leach field. The design capacity of the system is 13,500 gallons per day. The system now processes about 7,000 gallons of raw sewage per day produced from the bathhouses and the office/warehouse. The system was approved for construction by the Utah State Department of Health on September 22, 1975.

Transformer Storage Pad
Map Code: 45, Plate II-1
Status: Existing

The transformer storage pad consists of a concrete pad measuring approximately 32'x32'x0.5'.

Power Line
Map Code: 46, Plate II-1
Status: Existing

The power line from the existing mine substation Map Code 42 to the 4th East Portal is being reclaimed. 4012 feet of line west and north of the substation remains along with 17 utility poles. Approximately 3900 feet of power line and poles to the 4th East Portal have been removed.

Mine Discharge Sedimentation Ponds
Map Codes: Pond No. 1, Plate II-2
Pond No. 2, Plate II-1
Pond No. 3, Plate II-1
Pond No. 5, Plate II-1Pond No. 6, Plate VI-18
Pond No. 8, Plate II-1
Status: Existing

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The sediment pond numbering system in the MRP is not consistent with the NPDES Permit numbering system. For a cross reference and location, please see Plate VI-4 legend.

Pond No. 1 is an excavated sedimentation structure measuring 780 feet long, 140 feet wide, and 8 feet deep at normal pool and is equipped with a concrete inlet and outlet. The sides of the pond are riprapped to prevent wave erosion. This pond settles out particulate matter from mine water

discharged from borehole pumps 1 and 2. Discharge is measured by means of a flume and water samples are also taken monthly. The discharge point is approved by the EPA as outfall 001 of NPDES permit UT-0022616. The pond's design storage volume is 19.3 acre-feet and design flow is 1,401,150 gallons per day with a retention time of 36 hours. This results in an actual storage of 6.4 acre-feet with 12.9 acre-feet remaining for sediment and expansion. Sediment buildup since 1976 has reduced available storage to 16.1 acre-feet. Present flow from the mine averages 370,000 gallons per day.

Pond no. 6 is an excavated structure receiving mine water from borehole pump no. 3. The pond is 300 feet long, 230 feet wide, and 6½ feet deep. Treated water is then discharged into an unnamed tributary of Quitchupah Creek. The pond has both concrete inlet and outlet. The outlet contains a flume and volume readings and water samples are taken monthly. The sides are protected against erosion by riprap. Design storage volume is 10.2 acre-feet with a flow rate of 750 gpm and a retention time of 36 hours. This results in an actual storage for 5.0 acre-feet of water with 5.2 acre-feet remaining for sediment and expansion. Current discharge rates average 250,000 gpd. Two NPDES discharge points under UT-0022616 are approved for the facility. Outfall 003 is the pond outlet and outfall 004 is an alternate discharge point located at the borehole pump, to be used by an adjacent landowner for irrigation. Prior to pond excavation, 6 inches of CBE2 topsoil and 11 inches of BLC2 topsoil were stockpiled. Excess subsoil was also stockpiled for use in reclamation. Each stockpile is protected with a berm.

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Proposed Preparation Plant

Map Code: Preparation plant and loadout facilities shown on Plate II-1a
Waste disposal facilities shown on Plate II-2
Status: Proposed

The plant will consist of raw coal washing and crushing facilities and a waste (refuse) disposal system. The plant as described in the following narrative will process 700 tons of coal per hour, which will accommodate an expansion of the mine. As the underground operation proceeds to the south, it may be necessary to improve coal quality through washing to meet existing contractual requirements and expand markets.

The proposed preparation plant will be located above the canyon wall north of the existing facilities. The mine electrical substation and water tank are presently located near the proposed site. Two roads will access the plant: the coal haulage road will be the primary route for exporting coal from the plant and a smaller road will provide employee access. Best available control technology will be used to control fugitive dust emissions from the plant and associated facilities.

The existing 42-inch belt from the mine will feed the 8"x0 run-of-mine (ROM) coal to the existing ROM 48-inch stacker belt. The existing ROM belt will be extended to deliver the ROM coal at a maximum rate of 700 tons per hour (TPH) to the transfer building located at the top of the canyon wall. Two-stage sampling of the raw coal will be located in the transfer building.

The transfer building will divert the ROM coal to one of two 42-inch raw coal storage belts that will deliver the ROM coal via concrete stacking tubes to one of the two storage piles. The east raw coal storage pile which feeds the preparation plant will receive 8"x0 ROM coal. The west raw coal storage pile which feeds the 2,000-ton loadout silo will receive 1¼"x0 ROM coal. The 8"xO ROM coal will be screened and crushed to 1¼"x0 in the transfer building.

Each raw coal pile will be furnished with 4 reclaim feeders which will be used to control the feed from the piles to the 42-inch raw coal reclaim belt and the 42-inch raw coal loadout belt. Each belt will have a maximum rate of 700 TPH. The feeders and reclaim belt will be located in a reinforced concrete tunnel under the piles.

The reclaim belt will then deliver the raw coal to the transfer building to be located at the tail of the 42-inch plant feed belts. Raw coal will be delivered to the plant at the rate of 700 TPH by the plant feed belt.

The 8"x0 raw coal being delivered to the plant will be screened at 3/8". The 3/8"x0 sized coal will be delivered to the clean coal conveyor or stoker belt at the rate of 237 TPH. The 8"x3/8" will report to the pre-wet screen where the remaining minus 3/8" coal will be removed from the 8"x3/8".

The 3/8"x0 coal from the pre-wet screens will be delivered to the "fine coal dewatering circuit" at the rate of 52 TPH. This circuit consists of a series of sieve bends, desliming screen, cyclones, and centrifuges. The desliming screen will be used to scalp out the 28 mesh x 0 material. The 3/8" x 28 mesh material will be fed to the centrifuge for drying. The minus 28 mesh will then be pumped to cyclones for a 100 mesh separation. The 28 mesh x 100 mesh from the cyclone under flow will report to another centrifuge for drying. The minus 100 mesh from the cyclones will be

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delivered to the static thickener. Under flow from the thickener will be pumped to the slurry pond at the rate of 3 TPH, 130 GPM. The total 3/8" x 100 mesh product from this circuit will be delivered to the clean coal belt at the rate of 49 TPH.

The 8"x3/8" coal from the pre-wet screens will report to the "coarse coal wash circuit" at the rate of 413 TPH. This circuit consists of a heavy media vessel, drain and rinse screens, centrifuge, clean coal crusher, and magnetic separators for recovery of the magnetite, media used in the wash. The 8"x3/8" size fraction will be processed in the heavy media vessel. The 8"x1¼" heavy media product will be crushed to 1¼"x0 and report to the clean coal belt at the rate of 128 TPH. The 1¼"x3/8" portion of the heavy media product will be centrifuged and delivered to the clean coal belt or stoker belt at the rate of 216 TPH.

The 8"x3/8" coarse refuse from the heavy media vessel will be dewatered on a drain and rinse screen before being sent to the 200-ton refuse bin at the rate of 67 TPH. Coarse refuse will be hauled by a scraper to the refuse disposal area.

A 42-inch clean coal transfer belt will deliver the 1¼"x0 clean product from the plant to a sample building where a 2-stage sampling system will be located. A 42-inch clean coal storage belt will take the coal from the sample building to a 20,000-ton stockpile. A concrete stacking tube will be used to drop the coal into the pile. Clean coal will be loaded from the pile into highway haulage trucks by front-end loaders or fed to the 2,000-ton loadout silo.

The clean coal storage pile will be furnished with 4 reclaim feeders which will be used to control the feed from the pile to the 42-inch clean coal loadout belt. The belt will have a maximum rate of 700 TPH. The feeders and loadout belt will be located in a reinforced concrete tunnel under the pile.

The 2,000-ton loadout silo will load highway haulage trucks. The mine will have the flexibility of loading trucks with raw coal, clean coal or a raw coal, clean coal blend.

The 3/8"x0 size raw coal fraction and the 1¼"x3/8" clean coal size fraction can be diverted to a 36-inch stoker belt. This system will be incorporated into the facilities to allow for projected sales of 40,000 tons per year (TPY) of stoker coal (1¼"x3/8") and modified stoker coal (1¼"x3/8" plus 10-20% of 3/8"x0).

At any given time, the stoker belt will deliver either the 1¼"x3/8" to a 200-ton bin or the 3/8"x0 to a 50-ton bin. The proper size fraction will be diverted to the proper bin when the bin needs to be refilled. A 2-stage sampling system is located above the bins.

Stoker coal and modified stoker coal will be loaded out of the bins to trucks by a 36-inch truck loadout belt. This belt is used so the amount of 3/8"x0 in the modified stoker can be monitored. The belt loadout also allows the coal to be sprayed with oil before being loaded into the trucks.

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Underground Development Waste Disposal Site
Map Code: Identified by name, Plate II-1a
Status: Proposed

Underground development wastes currently stored on the northwest coal stockpile site and any new development wastes generated will be permanently buried in this disposal site. This disposal area is a 2.1-acre site located at the gravel borrow pit on the hilltop east of the northwest coal stockpile area. A complete description of this disposal site is given in this part under UMC 784.19, with design information located in Chapter IV.

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4th East Portal Facilities

4 East Mine Access Portal
Map Code: 4E24 Plate II-3 (plan view)
Status: Sealed, some grading required

This 3-entry portal system has been sealed per MSHA requirements.

Excavated rock was stockpiled around the western perimeter of the open cut and will be used for boxcut backfilling during reclamation. Details of the excavation design and diversion are provided in Chapter IV. Drainage information for the site is covered in Chapter VI.

Topsoil Stockpile
Map Code: 4E09 Plate II-3
Status: Existing

This stockpile (located in the northwest corner of the proposed disturbance) will be fully bermed to contain a 100-year/24-hour rainfall event. The stockpile and berms are sized to contain approximately 7,900 cubic yards of topsoil material. Berms constructed with topsoil make up the north and west portion of the excavation stockpile and the west perimeter of the disturbance boundary. These berms contain approximately 1,400 cubic yards of topsoil.

Excavation Material Stockpile
Map Code: 4E08 Plate II-3
Status: Existing

This stockpile (located on the west edge of the portal excavation) is sized to contain approximately 128,000 cubic yards of material. Material placed in the pile will come from the portal and airshaft excavation. Additional material from the construction of the coal handling facilities may also be placed within the pile. Placement of a material berm will be constructed around the pile to assist in sediment control. The berm shall be constructed with an interior retention basin sized to fully contain a 100-year/24-hour rainfall event. The non-topsoil material will be utilized in the reclamation of the portal entries, backfilling the boxcut excavation and airshaft.

Sediment Pond No. 9
Map Code: 4E10 Plate II-3
Status: Existing

This sediment pond (located in the northeast corner of the 4 East disturbance site) will be partially incised (0.2 ac-ft) of sediment volume. An embankment will be constructed along the west and north sides to provide required storage volume for runoff. This pond is designed to fully contain a 10-year/24-hour storm event. The dewatering of the pond following 24 hours will be through a 15-inch PVC pipe equipped with a slide gate. An emergency spillway has been designed to handle events in excess of a 10-year/24-hour storm.

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Coal Handling Facilities & Stockpiles
Map Code: 4E01, 4E02, 4E05, 4E14, 4E15, 4E16, 4E17, and 4E29 Plate II-3
Status: Existing

The coal handling facility at 4 East Portal is being demolished and reclaimed. Conveyor belts and radial stacker have been dismantled and moved to the Main Portal for reuse. The Transfer Point, Crusher/Screening, Recessed Feeder, and Truck Scale structures are partially disassembled and in the process of being relocated. The travel pad for the Radial Stacker and Truck Loadout facility will be removed in the near future. All areas will then be graded and revegetated.

Surface runoff from the 4 East facility is conveyed by berms, pumps, and culverts to Sediment Pond No. 9.

Temporary Stream Diversion - Unaffected Drainage
Map Code: 4E21 Plate II-3
Status: Existing – 3rd quarter 2002

This diversion is proposed as a temporary diversion. The diversion will intercept and divert natural drainage from the upstream watershed around the site. The natural stream is ephemeral.

Supply Yard
Map Code: 4E27 Plate II-3
Status: Existing

This supply yards are located adjacent to the portal ramp adjacent to the radial stacker and adjacent to Sed Pond 9.Supply yards contains parts and bulk supply items used on a continual basis for either the surface or underground operation. The yard is used to store inventory parts, machinery, and bulk items in a consistent and easily accessible manner. The supply yard is located within the proposed surface drainage control area and reports to Sediment Pond No. 9.

Ventilation Fan
Map Code: 4E20 Plate II-3
Status: Existing

The airshaft located in the southwest portion of the disturbance area has been sealed with a concrete cap. The associated exhaust fan and housing is being disassembled and moved to Main Portal for Emery 2 expansion.

Rock Dust Bin
Map Code: 4E13 Plate II-3
Status: Existing

This structure is being moved to Main Portal for Emery 2 expansion. Surface drainage from the bin area reports to Sediment Pond No. 9.

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Water Tank
Map Code: 4E19 Plate II-3
Status: Existing

The 100,000-gallon tank measures 25 feet high by 26 feet in diameter and sits upon a concrete base near the southwest corner of the topsoil stockpile. The tank is equipped with an overflow, level indicator, and a bank of valves to direct flow.

The water tank served as a surge tank for surface and underground water supplies. Water from underground was pumped to the tank through a bi-directional pipeline.

Surface drainage from the tank area flows into the northwest corner of the disturbed portal yard where it discharges through a silt fence. The tank is equipped with an automatic level control to eliminate any overflow discharge.

Truck Scale
Map Code: 4E14 Plate II-3
Status: Existing

The truck scale and associated control building are being moved to Main Portal for Emery 2 expansion. Surface runoff from the scale area will report to Sediment Pond No. 9.

Silt Fence
Map Code: identified on Plate II-3
Status: Existing

To treat surface runoff leaving the disturbance area. Provides alternate sediment control for small areas which do not report through Sediment Pond No. 9 or full containment retention basins. The silt fence (located along the north and northwest corner of the disturbance area) controls untreated drainage between the topsoil stockpile and outside slope of Sediment Pond No. 9 and the fence line. The silt fence located in the northwest corner treats drainage off the primary road leading to the ventilation fan site. A small section of silt fence will also be installed along the southern berm to provide a discharge point for the small watershed collected along the berm.

Ventilation Fan Road
Map Code: Identified at CH IV, Appendix IV-7
Status: Existing

Classified as a primary roadway. Light truck traffic will use the road to access the ventilation fan.

Coal Loadout Road
Map Code: Identified at CH IV, Appendix IV-7
Status: Existing

Classified as a primary road. The roadway will enter the loadout along the east fence line from County Road No. 915. Coal trucks will load from the loadout bin and proceed across the scales located near the northeast corner of the permit area. Trucks and other vehicles will exit onto Emery County Road No. 915 (referred to locally as "Cowboy Mine Road"). Drainage off the road will be conveyed to Sediment Pond No. 9.

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Jersey Barriers
Status: Existing

These barriers were placed along the perimeter of the stockpile to prevent encroachment of coal fines into the adjacent plant area. They will be moved and used as needed for other operations.

Wind Fence
Map Code: 4E32 Plate II-3
Status: Existing

Wind fences were constructed upstream of the stockpile. The wind fence disrupts the mechanism that causes dust particles to become airborne.

Cattle Guard
Map Code: 4E25 Plate II-3
Status: Existing

Used to assist in collecting solids which may dislodge from truck tires under overly wet or dry conditions. This collection sump makes it less likely for solids to be re-entrained.

Power Line
Map Code: 4E18, Plate II-3
Status: Existing

Approximately 2,100 feet of power and utility poles are located at 4 East within the disturbed area.

Oil Storage
Map Code: 4E28, Plate II-3
Status: Existing

Steel building used for storage of oil containers. The building is 60'x18'x8' with an 8-inch thick concrete floor. Drainage from this area is conveyed to Sediment Pond No. 9.

Substation Pad and Compressor Shed
Map Code: identified on Plate II-3
Status: Existing

Concrete pad for electric substation and wooden shed for compressor. Concrete pad volume is 104 cubic yards. The shed dimensions are 12'x16'x8'. Drainage from this area reports to Sediment Pond No. 9.

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Emery 2 Expansion Facilities

Mine Substation
Map Code: e1, Plate II-1
Status: Proposed 2016

Electric substation mounted on a concrete pad. The 20 MVA substation is located adjacent to the existing mine substation (Map Code 42). The pad contains 75 cubic yards of concrete. The substation area is within the approved surface drainage control area and disturbed area.

Conveyor 6/Truck Loadout
Map Code: e2, Plate II-1
Status: Proposed 2016

48-inch Conveyor from Screen/Crusher Building to Truck Loadout area. The conveyor is 217 feet long consisting of 122 feet of elevated structure and 95 feet on grade. Two concrete pads with dimensions 16'x12'x3' and 12'x9'x3' (33 cubic yards total) along with metal frame structure support the elevated portion of the belt. Suspended solids contributions will be minimized by utilizing covered conveyors (Plate II-I, photo log P5) and water sprays. The conveyor and loadout area is within the approved surface drainage control area and disturbed area.

Screening & Crushing Facility
Map Code: e3, Plate II-1
Status: Proposed 2016

Screening and crushing equipment with metal support structure mounted on a 46'x26'x3' concrete pad and 10 piers (143 cubic yards total). Equipment structure will have approximate dimensions of 40'x20'x55' high. The facility will receive coal from Conveyor 5 and discharge to Conveyor 6. The Screening & Crushing Facility is within the approved surface drainage control area and disturbed area.

Conveyor 5
Map Code: e4, Plate II-1
Status: Proposed 2016

54-inch conveyor partially elevated and supported by metal frame structure mounted on concrete pads with the remaining conveyor length constructed on grade and within a reclaim tunnel. Four concrete pads and piers with dimensions 20'x20'x3' pad with 8-foot diameter by 4.5-foot high pier, 34'x18'x3' pad with 10-foot diameter by 4.5-foot high pier, 36'x20'x3' pad with 10-foot diameter by 4.5-foot high pier, and 28'x8'x3' pad with 20'x3'x3' pad, for a total of 259 cubic yards.

Conveyor 5 will receive coal from feeders beneath the Conveyor 4/Radial Stacker stockpile and discharge to the Screening and Crushing Facility. Suspended solids contributions will be minimized by utilizing covered conveyors (Plate II-I, photo log P5) and water sprays. Conveyor 5 is within the approved surface drainage control area and disturbed area.

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Reclaim Tunnel
Map Code: e5, Plate II-1

Status: Proposed 2016

Corrugated metal tunnel to house a portion of Conveyor 5. The tunnel will be 320 feet long and consist of a 12-foot diameter corrugated metal pipe buried in a backfilled trench. Concrete (141 cubic yards) will be poured to a thickness of 2.7 feet to form a floor surface within the pipe for mounting the conveyor structure. Approximately half the tunnel length will be utilized under the current mine plan. The full length will be utilized during future mine expansion. A 3-foot diameter, 120-foot long escape tunnel is also included with this structure. Coal from the Radial Stacker stockpile will fall through feeders onto Conveyor 5. The Reclaim Tunnel is located within the approved surface drainage control area and disturbed area. Reclamation of the tunnels will consist of excavating cover soil, removing the tunnels, and backfilling the trenches. The cross sectional area of the excavation required for tunnel demolition is 666 square feet for the main tunnel and 232 square feet for the escape tunnel, resulting in 7,893 cubic yards and 1,031 cubic yards of excavation/backfill, respectively. Final surface reclamation costs are included in bond calculations for the entire portal area grading costs.

Conveyor 4/Radial Stacker
Map Code: e6, Plate II-1
Status: Proposed 2016

48-inch radial stacking conveyor supported by metal frame structure. The conveyor will receive coal from the drop chute at the end of Conveyor 2 and discharge to a stockpile. The stacker will travel on a compacted rock surface. The conveyor will be anchored to a concrete pad supporting the drop chute (concrete included with Conveyor 2). Suspended solids contributions will be minimized by utilizing covered conveyors (Plate II-I, photo log P5) and water sprays. Conveyor 4/Radial Stacker is located within the approved surface drainage control area and disturbed area.

Conveyor 2
Map Code: e7p1, Plate II-1
Status: Proposed 2016

60-inch conveyor supported by metal frame structure. A 260-foot portion of the conveyor will be located within the current permit area. The remaining conveyor length will be included in an expanded permit boundary.

The conveyor is elevated and supported by metal framework anchored to 2 concrete pads with dimensions of 36'x20'x3'. A 10-foot diameter, 4.5-foot high concrete pier is mounted on each pad for a total concrete volume (includes the 2 pad/piers) of 186 cubic yards. The drop chute at the end of Conveyor 2 is supported by a 22'x16'x3' concrete pad (39 cubic yards) that also anchors the Radial Stacker. Suspended solids contributions will be minimized by utilizing covered conveyors (Plate II-I, photo log P5) and water sprays. Conveyor 2 is located within the approved surface drainage control area and disturbed area.

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Road to Mine Substation
Map Code: Identified on Plate II-1
Status: Existing – prior to 1975

The road to the mine substation is on top of the canyon, north of the mine entrance and is used to access the substation.

This road will be used to access the proposed preparation plant facilities area. The design information to upgrade this structure for use as the plant access road is presented in Chapter IV.

Road to Borehole Pump Facility No. 1
Map Code: Shown on CH IV, Appendix IV-7 and Plate IV-8
Status: Existing – prior to 1975

The road to borehole pump no. 1 is located approximately 3/4 of a mile north of the mine entrance and branches off County Road 9-07. The road is used solely to access and maintain dewatering pump no. 1.

Road to Mine Discharge Sedimentation Pond No. 1
Map Code: Shown on Plate II-2
Status: Existing – 4th quarter 1976

This road (located about ½ mile north of the mine entrance) was used in the past to access Sedimentation Pond No. 1 but a culvert used for crossing Quitchupah Creek was washed out in a flood, thereby making the road impassable.

Upon construction of the preparation plant, the road will be constructed to access the plant waste disposal facilities. The design for rebuilding this road as a coal refuse haulage road is presented in Chapter IV.

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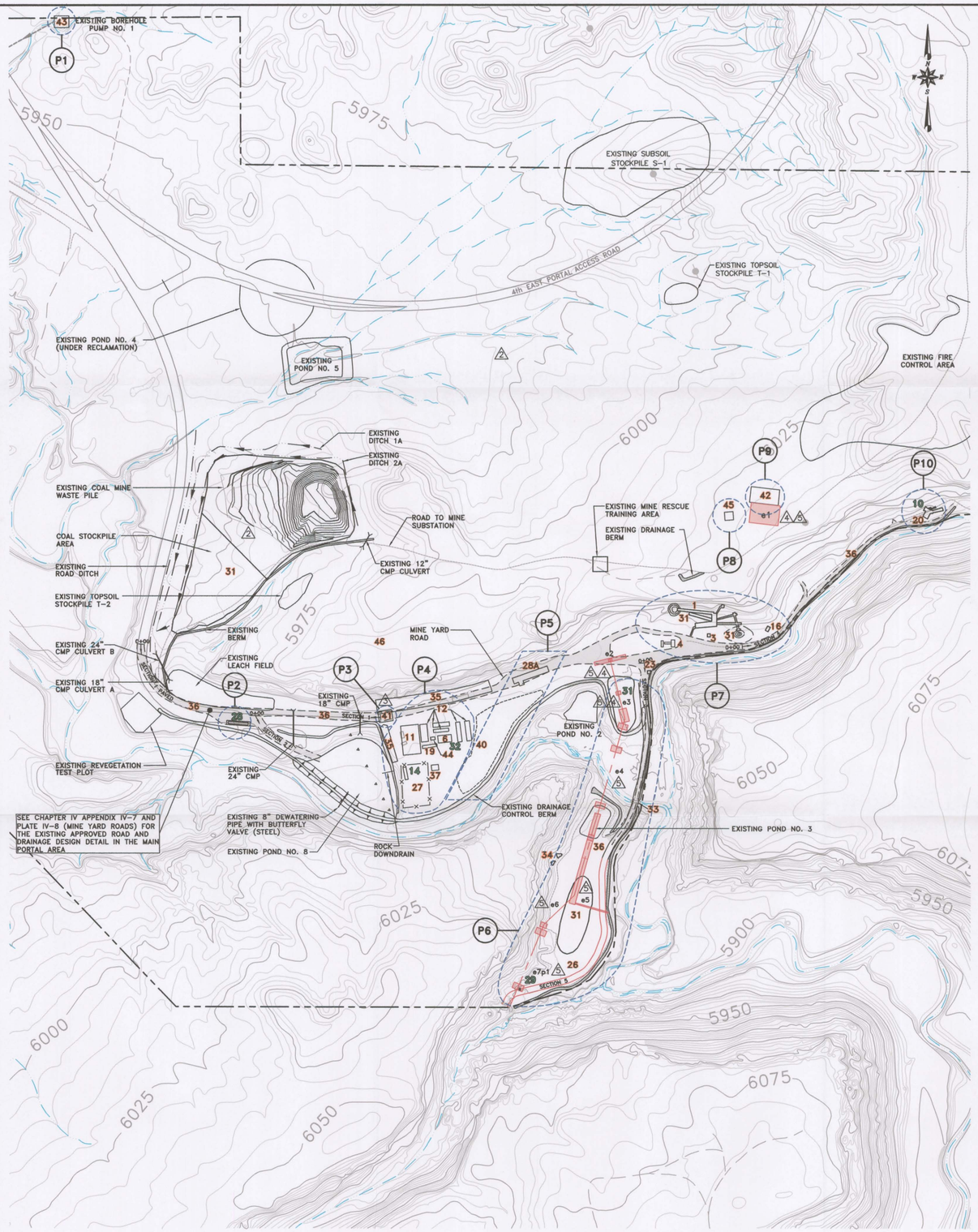
P1

P2

P3

P4

P5



P10

P9

P8

P7

P6

LEGEND

- EXISTING FACILITIES
- PROPOSED FACILITIES
- EXISTING BOREHOLE PUMP WATER LINE
- PERMIT AREA BOUNDARY
- ADJACENT AREA FOR NON-WATER RESOURCES. FOR THE AREA OF HYDROLOGIC EVALUATION, SEE PLATE VI-4
- P11 — PHOTOS TAKEN 9th-10th, JUNE 2016

EXISTING FACILITIES KEY

1	TIPPLE STACKER-RECLAIM SYSTEM
3	TIPPLE CONTROL STATION
4	SURFACE STORAGE TANK CONTAINMENT AREA
6	FOREMAN'S BATH HOUSE
10	RETURN AIR PORTAL
11	WAREHOUSE/OFFICE BUILDING
12	BATHHOUSES
14	STORAGE TRAILERS
16	TIPPLE TRANSFORMER BUILDING
19	FOREMAN'S/SHIFT CHANGE OFFICE
20	MINE FAN BUILDING
23	STEAM CLEANER BUILDING
26	SCRAP YARD
27	SUPPLY YARDS
28	OLD TRUCK SCALE FOUNDATION
28A	TRUCK SCALE
29	EXPLOSIVES STORAGE
31	COAL STOCKPILE AREA
32	SEWAGE TREATMENT SYSTEM
33	BRIDGE ON QUITCHUPAH CREEK
34	NON-COAL WASTE STORAGE AREA
35	PARKING AREA
36	MINE YARD ROADS
37	MINE RESCUE STORAGE AREA
40	MATERIAL STORAGE AREA
41	TRAINING SITE PAD
42	EXISTING MINE SUBSTATION
43	BOREHOLE PUMP FACILITY
44	SEWAGE PUMPING STATION
45	TRANSFORMER STORAGE PAD
46	POWER LINE

NOTE: FACILITIES SHOWN IN GREEN HAVE BEEN REMOVED.
FACILITIES SHOWN IN BLACK ARE EXISTING.

NEW FACILITIES KEY

e1	MINE SUBSTATION
e2	CONVEYOR 6/TRUCK LOADOUT
e3	SCREENING AND CRUSHING FACILITY
e4	CONVEYOR 5
e5	RECLAIM TUNNEL
e6	CONVEYOR 4/RADIAL STACKER
e7p1	CONVEYOR 2

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REGISTERED PROFESSIONAL ENGINEER
No. 168246
RICHARD B. WHITE
STATE OF UTAH

EarthFax

BASE MAP:

COORDINATE SYSTEM:
STATE PLANE COORDINATES.
NAD 83 CONUS
ZONE 4302-UTAH, CENTRAL - US FEET
VERTICAL DATUM - NAVD 88-US FEET

EXTERNAL REFERENCE:

REVISIONS

NO.	DATE	BY	DESCRIPTION	NO.	DATE	BY	DESCRIPTION
1	09/07	JAG	UPDATED MAP	5	06/16	JAG	e2 PHASE I PERMITTED (TSK 5198)
2	01/08	JAG	N.O.V. 10005				
3	07/08	JAG	TRAINING SITE PAD				
4	05/16	JAG	e2-CONCRETE PAD (Tsk 5197)				

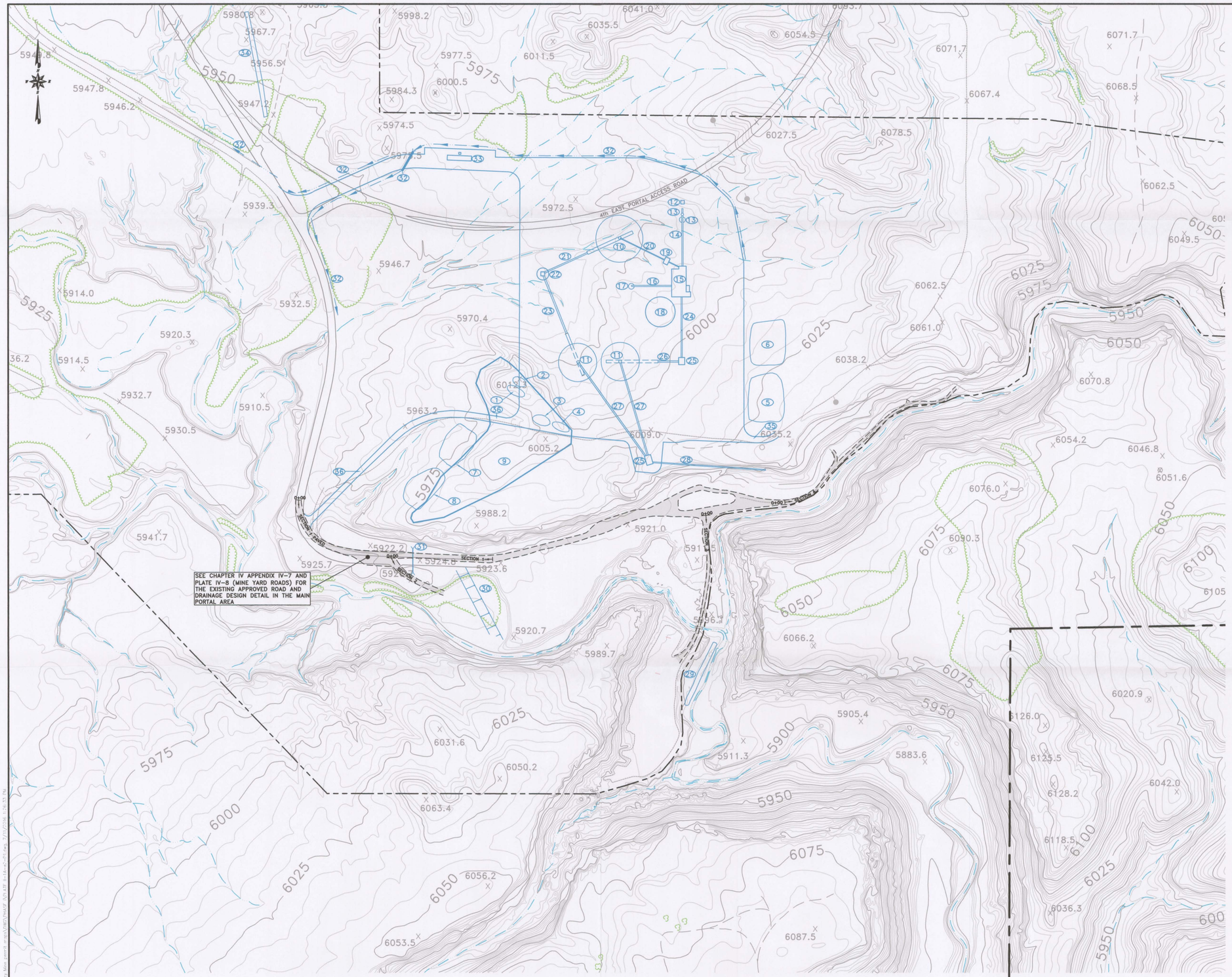
0' 200'
SCALE: 1" = 200'

DRAWN BY: SWF
CHECKED BY: JAG
ORIGINAL DATE: 8/90
RE-DRAWN DATE: 9/07
APPROVED BY: JAG
DWG DATA: G:\UC982\15\PLATE II-1-JULY08 .DWG 07-23-08

EMERY MINE
EMERY COUNTY, UTAH
PERMIT NO.
ACT015/015

BRONCO UTAH OPERATIONS, LLC
P.O. BOX 1
PRICE, UT 84501

PLATE II-1
STRUCTURES AND FACILITIES
MAIN PORTAL AREA



LEGEND

- PROPOSED FACILITIES
- PERMIT AREA BOUNDARY
- ADJACENT AREA FOR NON-WATER RESOURCES. FOR THE AREA OF HYDROLOGIC EVALUATION, SEE PLATE VI-4

PROPOSED FACILITIES KEY

1. PROPOSED SUBSOIL STOCKPILE T-8
2. PROPOSED SUBSOIL STOCKPILE S-9
3. PROPOSED SUBSOIL STOCKPILE T-9
4. PROPOSED SUBSOIL STOCKPILE T-10
5. PROPOSED SUBSOIL STOCKPILE S-8
6. PROPOSED SUBSOIL STOCKPILE T-7
7. PROPOSED SUBSOIL STOCKPILE S-7
8. PROPOSED SUBSOIL STOCKPILE T-6
9. PROPOSED PERMANENT DEVELOPMENT WASTE DISPOSAL SITE
10. PROPOSED CLEAN COAL STORAGE AREA
11. PROPOSED RAW COAL STORAGE AREA
12. PROPOSED STOKER OIL BUILDING
13. PROPOSED STOKER COAL BINS
14. PROPOSED STOKER COAL BELT
15. PROPOSED PREPARATION PLANT
16. PROPOSED REFUSE BELT
17. PROPOSED 200T REFUSE BIN
18. PROPOSED 120' DIA. THICKENER
19. PROPOSED SAMPLE BUILDING
20. PROPOSED CLEAN COAL STORAGE BELT
21. PROPOSED CLEAN COAL LOADOUT BELT
22. PROPOSED 2000T LOADOUT SILO
23. PROPOSED RAW COAL LOADOUT BELT
24. PROPOSED PLANT FEED BELT
25. PROPOSED TRANSFER BUILDING
26. PROPOSED RAW COAL RECLAIM BELT
27. PROPOSED RAW COAL STORAGE BELT
28. PROPOSED ROM BELT
29. PROPOSED REVEGETATION TEST PLOT FLUME SITE
30. PROPOSED EXCESS CUT MATERIAL DISPOSAL SITE
31. PROPOSED 18" CMP CULVERT
32. PROPOSED PREPARATION PLANT DIVERSION
33. PROPOSED TRUCK SCALE
34. PROPOSED REVEGETATION TEST PLOT BOREHOLE SITE
35. PROPOSED TANK ROAD EXTENSION
36. PROPOSED PREP. PLANT ACCESS ROAD

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RICHARD B. WHITE
STATE OF UTAH

EarthFax

BASE MAP:

COORDINATE SYSTEM:
STATE PLANE COORDINATES.
NAD 83 CONUS
ZONE: 4302-UTAH, CENTRAL -- US FEET
VERTICAL DATUM -- NAVD 88-US FEET

EXTERNAL REFERENCE:

REVISIONS NO.	DATE	BY	DESCRIPTION	NO.	DATE	BY	DESCRIPTION
1	06/16	JAG	62 PHASE I PERMITTED (TSK 5198)				

0' 200'
SCALE: 1" = 200'

DRAWN BY: SWF
CHECKED BY: JAG
ORIGINAL DATE: 06/16
RE-DRAWN DATE:
APPROVED BY: JAG
DWG DATA: G:\UC1665\05\PHSE I\ PLATE II-1A.DWG

EMERY MINE
EMERY COUNTY, UTAH
PERMIT NO.
ACT015/015

BRONCO UTAH OPERATIONS, LLC
P.O. BOX 1
PRICE, UT 84501

PLATE II-1A
PROPOSED STRUCTURES AND FACILITIES
MAIN PORTAL AREA

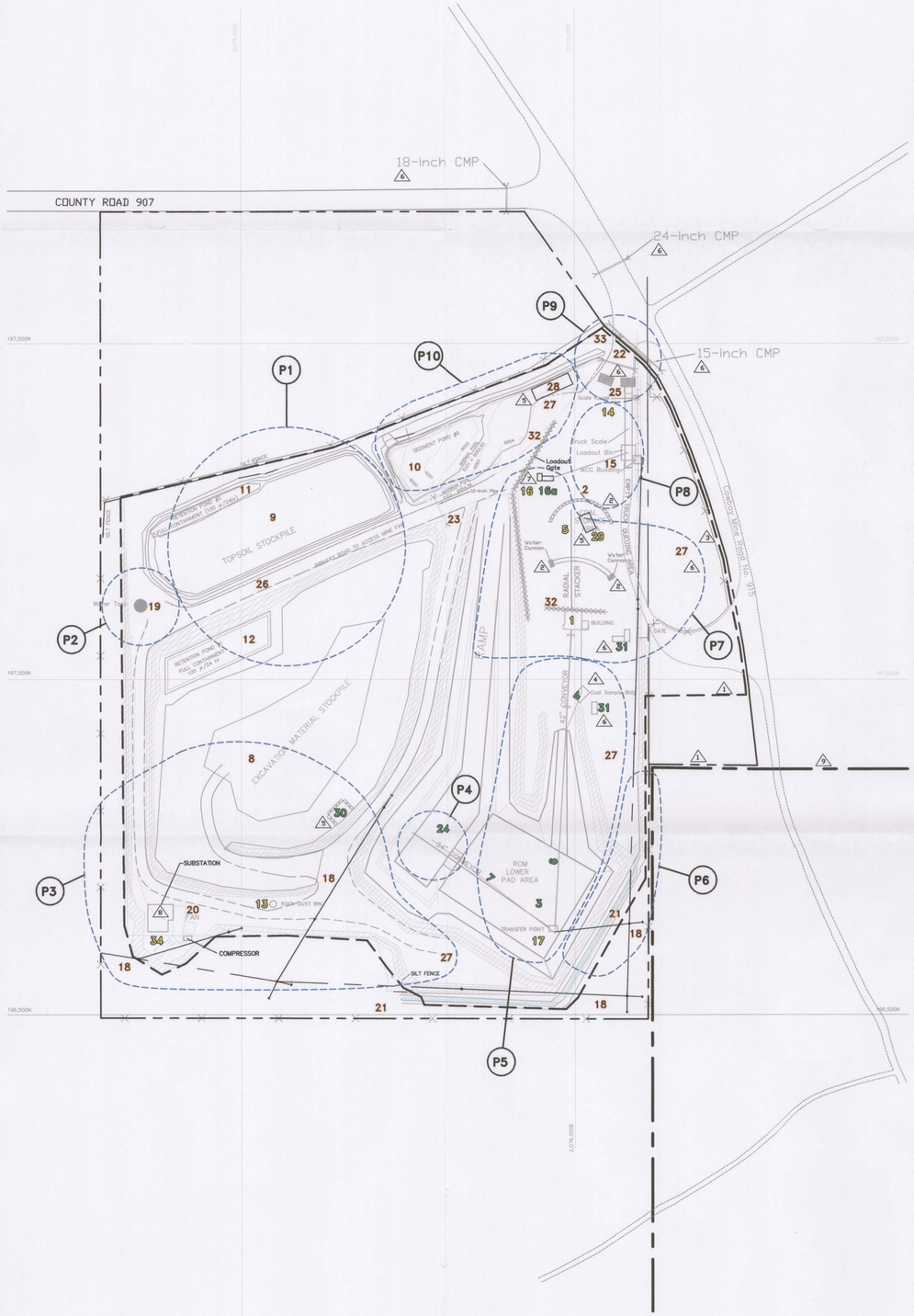
P1

P2

P3

P4

P5



P10

P9

P8

P7

P6

4 EAST PORTAL FACILITIES KEY

BOND SPREADSHEET ID No.	DRAWING ID No. AND NAME
4E01	1 CRUSHER/SCREEN BUILDING
4E02	2 10,000 TON COAL STOCKPILE
4E03	3 2,600 TON COAL STOCKPILE
4E04	4 COAL SAMPLE BUILDING AND CONVEYOR BELT
4E05	5 RADIAL STACKER
4E06	6 42-inch CONVEYOR
4E07	7 54-inch CONVEYOR
4E08	8 EXCAVATION MATERIAL STOCKPILE
4E09	9 TOPSOIL STOCKPILE
4E10	10 SEDIMENT POND #9
4E11	11 RETENTION BASIN #2
4E12	12 RETENTION BASIN #1
4E13	13 ROCK DUST BIN
4E14	14 TRUCK SCALE
4E15	15 TRUCK LOADOUT
4E16	16 COAL FEED HOPPER
4E16a	16a LUMP COAL PAD
4E17	17 BELTLINE TRANSFER POINT
4E18	18 POWERLINE
4E19	19 WATER TANK
4E20	20 VENTILATION FAN
4E21	21 TEMPORARY STREAM DIVERSION
4E22	22 CORRUGATED METAL PIPE (18-inch diam.)
4E23	23 CORRUGATED METAL PIPE (12-inch diam.)
4E24	24 3- ENTRY PORTALS
4E25	25 CATTLE GUARD
4E26	26 PRIMARY ACCESS ROAD TO FAN
4E27	27 SUPPLY YARD
4E28	28 OIL STORAGE
4E29	29 RECESSED FEEDER
4E30	30 TRASH PIT
4E31	31 SKID-MOUNTED SHED
4E32	32 WIND FENCE
4E33	33 EXISTING FENCE
4E34	34 SUBSTATION PAD AND COMPRESSOR SHED

NOTE: FACILITIES SHOWN IN GREY HAVE BEEN REMOVED. FACILITIES SHOWN IN YELLOW ARE PARTIALLY REMOVED. FACILITIES SHOWN IN BLACK ARE EXISTING.

LEGEND

- PERMIT AREA BOUNDARY
- ADJACENT AREA FOR NON-WATER RESOURCES. FOR THE AREA OF HYDROLOGIC EVALUATION, SEE PLATE VI-4
- STREAM DIVERSION (UNAFFECTED DRAINAGE)
- BERM
- DISTURBED AREA (SURFACE AFFECTED)
- EXISTING FENCE
- SILT FENCE
- STRAW/HAY BALES
- WIND FENCE (APPROXIMATE)
- CONCRETE BARRIERS (MOVABLE)
- P8 PHOTOS TAKEN 9th-10th, JUNE 2016

SCALE: 1" = 100'

100 0 100 200 300

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REGISTERED PROFESSIONAL ENGINEER
No. 168246
RICHARD B. WHITE
STATE OF UTAH
7/12/2016

THIS STAMP ATTESTS TO THE COMPLETION OF REVISIONS 5-10

REV.	DATE	COMMENTS
10	06/16	#2 PHASE I PERMITTED (TSK 5198)
9	05/09	ZZ NORTH, ADJ. VS. PERMIT DEF. 3099
8	12/08	NEW SUBSTATION
7	09/08	LUMP COAL LOADOUT PAD AND GATE
6	02/08	FENCE AND STORAGE AREA, AND MAP UPDATE AND 1/28/08 DEF. RESPONSE
5	10/06	ADDED OIL STORAGE, RECESSED FEEDER AND TRASH PIT
4	02/06	INSIGNIFICANT REVISION (COAL SAMPLE BUILDING)
3	01/04	MODIFICATION RESPONSE TO DOGM DEFICIENCIES 12/10/03
2	10/03	MODIFICATION RESPONSE TO DOGM DEFICIENCIES 10-08-03
1	8/03	ADD 1.5 AC. OF PERMIT AREA OF WHICH 1.0 AC. IS SURFACE DISTURBED AMEND 4th EAST PORTAL CONFIGURATION & STRUCTURES WITH AS-BUILT DRAWING

BRONCO UTAH OPERATIONS, LLC
P.O. BOX 1
PRICE, UT 84501

4 EAST PORTAL SURFACE FACILITIES

MINE EMERY MINE		DATE 10-16-02	REV. 2-16-06
CHKD. TDK		SCALE AS NOTED	
APPD.		DRAWING NO. PLATE II-3	FILE II-3_4EPortalFacilities Footprint
DRAWN TDK	SHEET 1 OF 1		

S:\UC16825 - Bronco Utah Operations\US - Emery Mine permit mgr\DWG\NAGF NOAF II-3-4E.dwg 7/11/2016 2:35:42 PM

CHAPTER IV - ENGINEERING DESIGNS

APPENDICES

IV-1 MAXIMUM ECONOMIC RECOVERY FEDERAL LEASE U-5287

IV-2 STABILITY ANALYSIS REPORT - ROADS AND REFUSE WASTE BANK

IV-3 FOUNDATION AND MATERIALS, INVESTIGATION, SLURRY IMPOUNDMENT PONDS

IV-4 STABILITY ANALYSIS OF SLURRY IMPOUNDMENT SLOPES

IV-5 GEOMECHANICS CONSIDERATION FOR THE STABILITY OF PROPOSED SLURRY IMPOUNDMENT

IV-6 SEEPAGE ANALYSIS OF SLURRY IMPOUNDMENT

IV-7 ROAD DESIGNS

- IV-7-A MINE YARD ROADS
- IV-7-B BOREHOLE PUMP ROAD
- IV-7-C PLANT ACCESS ROAD
- IV-7-D MAIN ENTRANCE ROAD PREPARATION PLANT
- IV-7-E POND ROAD AND COARSE REFUSE HAULAGE ROAD
- IV-7-F BOREHOLE PUMP NO. 3 ACCESS ROAD
- IV-7-G 4th EAST PORTAL ROADS

IV-8 QUITCHUPAH CREEK DESIGN FLOW REPORT

IV-9 BOND DELETION SUPPORT

IV-10 R.S. MEANS COMPETITIVE BID SUPPORT (CONFIDENTIAL Folder)

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Revised 7/2016

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CHAPTER IV - ENGINEERING DESIGNS

PLATES (In Map Pockets)

PLATE IV-2	UG OPERATIONS PLAN (scale 1"=1000')
PLATE IV-3	4 EAST PORTAL DESIGN
PLATE IV-4	UNDERGROUND DEVELOPMENT WASTES DISPOSAL SITE CROSS SECTIONS
PLATE IV-5	EXCESS CUT MATERIAL SITE PROJECTED FINAL CONTOURS, PLAN VIEW & CROSS SECTIONS
PLATE IV-6	COARSE REFUSE DISPOSAL AREA PLAN VIEW TYPICAL SECTIONS
PLATE IV-7	SLURRY IMPOUNDMENT
PLATE IV-8	MINE YARD ROADS - ROAD SECTION
PLATE IV-8a	EMERY 2 PHASE I EXPANSION ROADS AND CONVEYOR
PLATE IV-9	BOREHOLE PUMP ROAD - EXISTING PLAN, PROFILE & CROSS SECTION
PLATE IV-10	PLANT ACCESS & TANK EXTENSION ROADS, PLAN, PROFILE & TYPICAL CROSS SECTION
PLATE IV-11	MAIN ENTRANCE ROAD PREPARATION PLANT SITES, PROPOSED PLAN, PROFILE & SECTIONS
PLATE IV-12	COARSE REFUSE HAULAGE ROAD
FIGURE IV-13	4TH EAST COAL LOADOUT ROAD
FIGURE IV-14	4TH EAST VENTILATION FAN ROAD
FIGURE IV-15	4TH EAST PORTAL TOPSOIL STOCKPILE

Revised 10/2002
Revised 9/2003
Revised 7/2016

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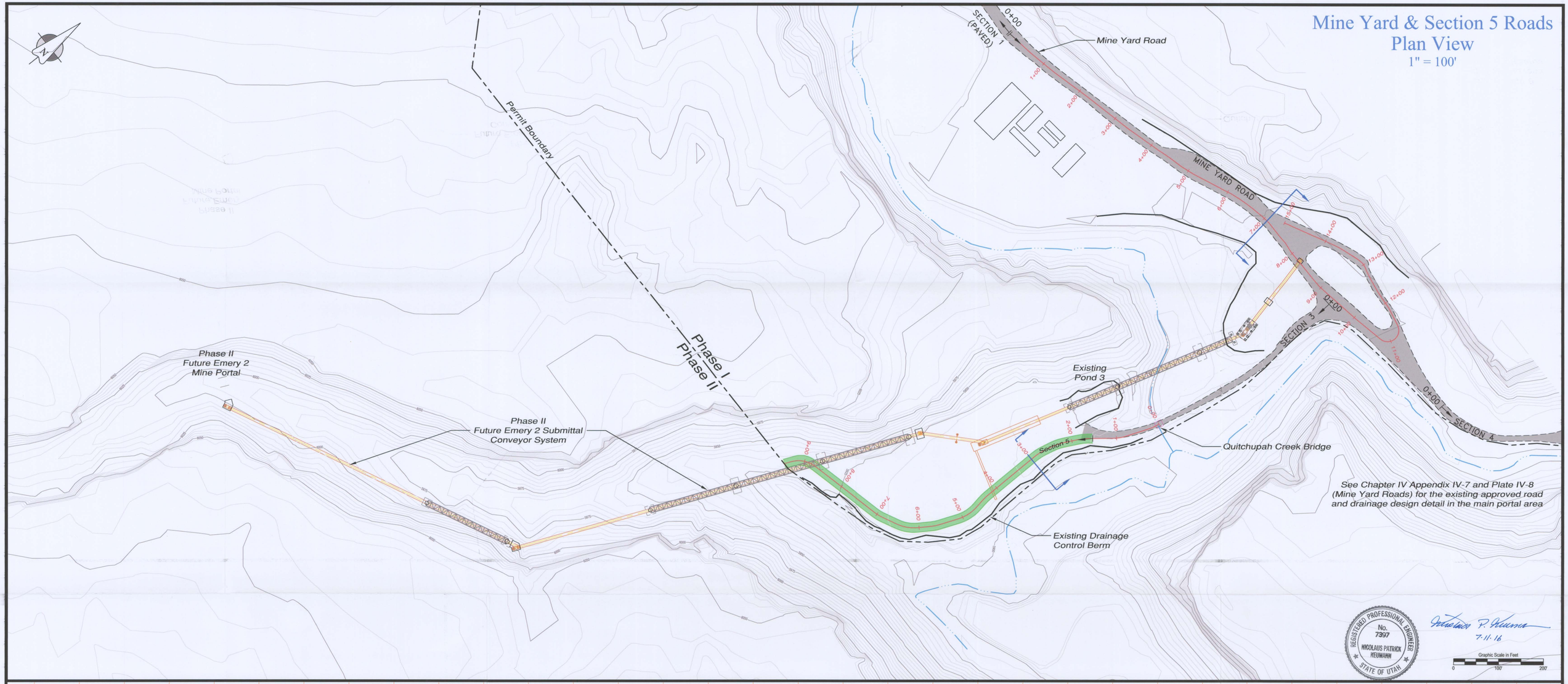
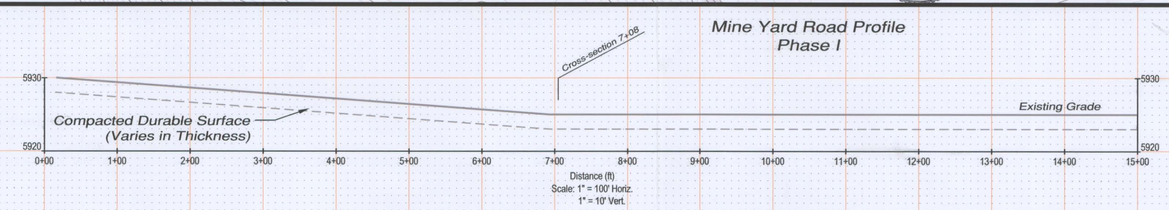
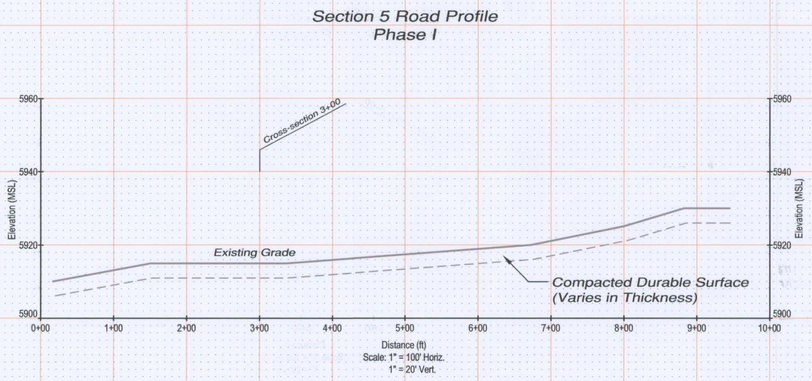
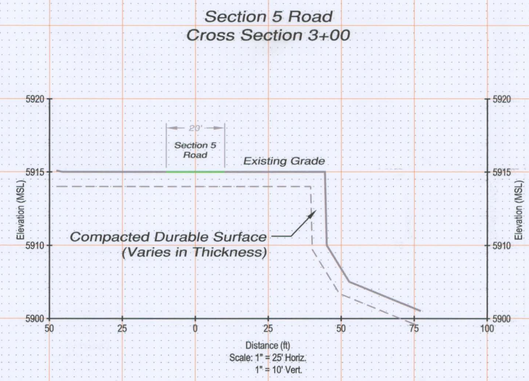
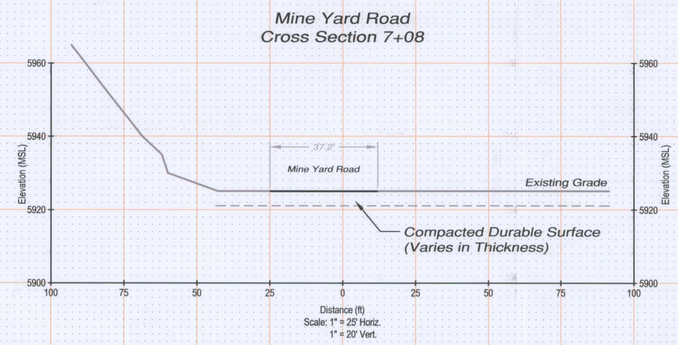
Mine Yard & Section 5 Roads
Plan View
1" = 100'











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Drawing Revisions			
NO.	DATE	BY	DESCRIPTION

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NPN ENVIRONMENTAL

Emery 2 Phase I Expansion
Roads & Conveyor
Plan, Profile & Cross-Sections

SITE:	EMERY MINE	DATE:	JUNE 2016
LOCATION:	EMERY, UTAH	SCALE:	AS SHOWN
PROJECT NO:	C-16141	FILE:	Road Profile - Cross Sections.dwg
DRAWN BY:	SRR	SHEET	1 OF 1
PLATE NO.	IV-8a		

CHAPTER IV, APPENDIX IV-9
Bond Deletion Support

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JUL 14 2010

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CHAPTER IV, APPENDIX
Bond Deletion Support
Facilities (Tabs) Removed From Bond Sheets

The following structures and areas have been removed from bond calculations due to demolition, relocation, reclamation, or duplication. Items that have been relocated have or will be added to the bond calculations under a different name. DEMO TAB refers to the bond calculation spreadsheet tab name for cross referencing purposes. These spreadsheets have been removed from the bond calculation excel file.

Earthwork and re-vegetation costs remain in the respective bond amounts where applicable.

Italicized text represents the test from the approved MRP or an older version of MRP to identify the structure or area. Photographs and portions of MRP maps are included to assist in locating the deleted items and documenting the removal of the structures.

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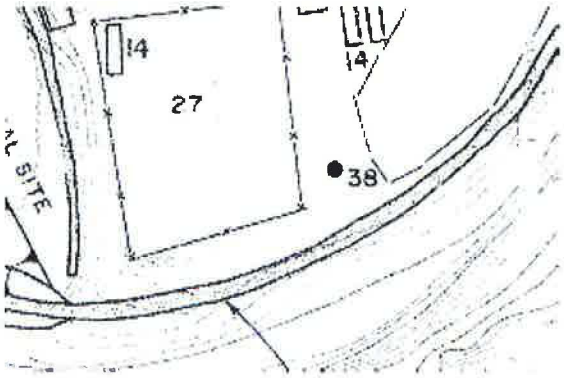
DEMO TAB: Rock Dust Silo 07

This rock dust silo (*Map Code 38, Original Plate II-1, August 1990*) was originally located near the southeast corner of the main portal supply yard. The silo was moved to the 4th East Portal.

Original Plate II-1 8/90



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DEMO TAB: Rock Dust Silo 07 (cont.)

Rock Dust Silo (CH II, pg 12 Revised 7/91)

Map Code: 38, Plate II-1
Status: existing - 3rd quarter 1982

This structure is a supported steel bin 11 ft. in diameter and 38 ft. high. It is used for bulk storage and delivery of rock dust and has a capacity of 100 tons. Located in the mine yard, it is within the approved drainage control system.

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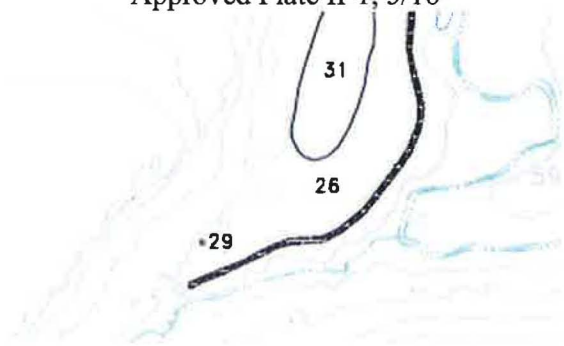
DEMO TAB: Explosive Storage Building 12

The Explosive storage building *(Map Code 29, Approved Plate II-1, May 2016)* was a portable container and has been removed for the permit.

Approved Plate II-1, 5/16



Explosives Storage (CH II, pg 9 Revised 2/08)
Map Code: 29, Plate II-1
Status: existing - prior to 1975

The explosives storage consists of a prefabricated, skid-mounted sheet metal box measuring approximately 6 feet on a side. It is equipped with a heavy steel door and a lock guard. The explosives magazine is presently located near the scrap yard.

The Emery Mine does not currently use explosives for coal production: however, explosives are used from time to time for special projects. Therefore, only a minimal amount is in storage at a given time.

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The explosives storage meets MSHA guidelines and is contained within the surface drainage control area.

JUL 1 4 2016

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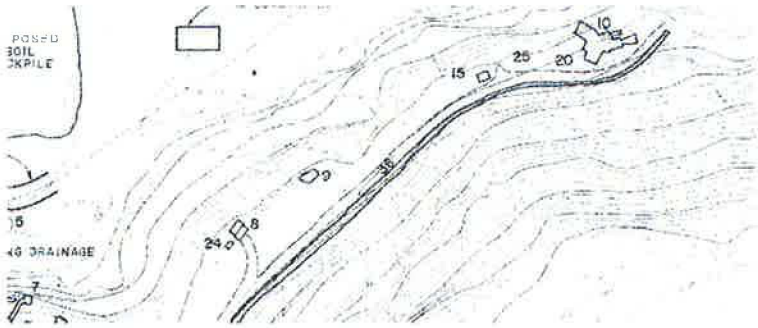
DEMO TAB: Seal Portals 27

Seal Portals 27 bond calculation spreadsheet originally contained costs for 4 entries at the Main Portal as identified on Original Plate II-1, August 1990:

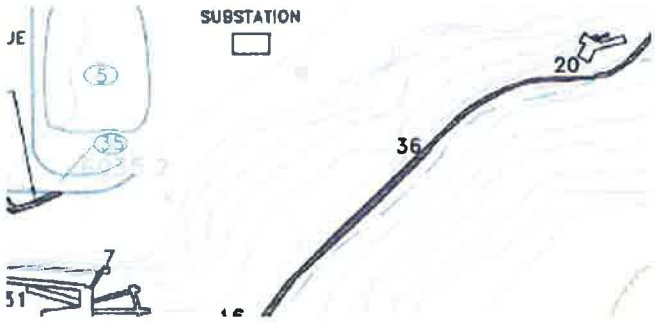
Map Code 7 – Coal Haulage Portal
Map Code 8 – Mine Access Portal
Map Code 9 – Auxiliary Intake Portal
Map Code 10 – Return Air Portal

All portals have been sealed. Final grading against the seals has been completed for all portals except Coal Haulage Portal. Demolition costs for all portals have been removed from bond calculations. Grading and re-vegetation costs remain in bond calculations. Return Air Portal was left off Approved Plate II-1, May 2016, but has been added to Plate II-1, July 2016.

Original Plate II-1 8/90



Approved Plate II-1, May 2016



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DEMO TAB: Seal Portals 27 (cont.)

Return Air Portal (CH II, pg 5 Revised November 2009)

Map Code 10, Plate II-1
Status: Existing – 3rd Quarter 1978

The return air portal is about 600 feet east of the mine access portal at the outcrop of the I zone. The opening is heavily supported with steel beams. Located at the return air portal is an 8-foot axial flow fan. The fan is slightly offset from the portal for explosion protection and provides the negative ventilating pressure for the mine. The ventilating air current is drawn into the mine through the intake portals and is discharged via the return air portal after circulating the required areas of the mine.

The fan and the immediate area around the portal are graded to provide drainage away from both structures.

Return Air portal

Mine Access Portal, Main Facilities Area (CH II, pg 3, Revised August 1995)

Map Code 8, Plate II-1
Status: Existing – Prior to 1975

The mine access portal is approximately 300 feet east of the tipple at the outcrop of the I zone. The portal is equipped with a flood door to hold back possible flood waters and to protect the immediate opening from float rock which might fall from the canyon wall.

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JUL 14 2016
Div. of Oil, Gas & Mining

DEMO TAB: Seal Portals 27 (cont.)

The mine access portal serves two purposes:
To allow access of rubber-tired vehicles for transportation of people and supplies into mine.
To serve as a primary intake airway.
Drainage around this portal is controlled by the approved drainage control system. Surface runoff from areas adjacent to the access portal flows into the mine portal.

Mine Access Portal

Coal Haulage Portal (CH II, pg 4, Revised October 2002*)*

Map Code 7, Plate II-1
Status: Existing – Prior to 1975

The coal haulage portal is located at the tipple and enters the canyon wall about 20 feet above the I zone. This portal and its associated entries are provided with box checks and man doors so the opening is isolated from the mine ventilation current. The coal haulage portal and mainline haulage entries are equipped with 48-inch conveyor systems, usually hung from the roof by chains. Coal is transported from the working sections by 42-inch conveyors and is transferred to the mainline conveyors at appropriate intersection. Coal leaving the haulage portal is dumped into the reclaim system and is then processed through the tipple.

The area around this opening is graded so the surface water flows away from the portal and is diverted to Sedimentation Pond 2.

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DEMO TAB: Seal Portals 27 (cont.)

Coal Haulage Portal

Auxiliary Intake Portal (CH II, pg 4, Revised October 2002)

Map Code 9, Plate II-1
Status: Existing – 3rd Quarter 1978

The auxiliary intake portal (about 100 feet east of the mine access portal at the outcrop of the I zone) is fenced in to prevent entrance of people or wildlife and is provided with warning signs. This portal serves as an additional intake airway for the mine and joins with mine access entries about 400 feet in by the surface.

Except for the area immediately surrounding this opening, the surface is graded away from the portal so surface drainage can be diverted to Pond 2.

Auxiliary Intake Portal

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DEMO TAB Storage Trailers Three 25 (CH II, pg 6, Revised July 1991)

The mobile storage trailers *(Map Code 14, Approved Plate II-1, May 2016)* originally located in the northwest corner of the main portal supply yard have been removed.

Approved Plate II-1, May 2016

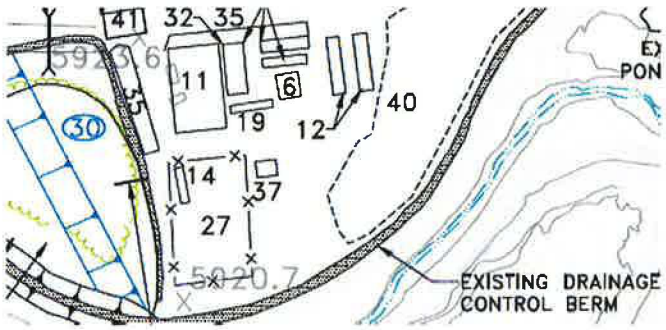

Photo looking north

Storage Trailers (CH II, pg 6, Revised July 1991)

Map Code 14, Plate II-1
Status: Existing – Prior to 1975

The 3 storage trailers are surplus highway units semi-permanently stationed near the warehouse. One unit is located within the fenced supply yard. These trailers provide covered storage for electric motors and large parts outside the warehouse and are located within the approved drainage control system.

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DEMO TAB Metal Storage Building 20 (CH II, pg 6, Revised July 1991)

The metal storage building *(Map Code 15, Original Plate II-1, 8/90)* previously located near the Return Air Portal has been removed.

Original Plate II-1 8/90

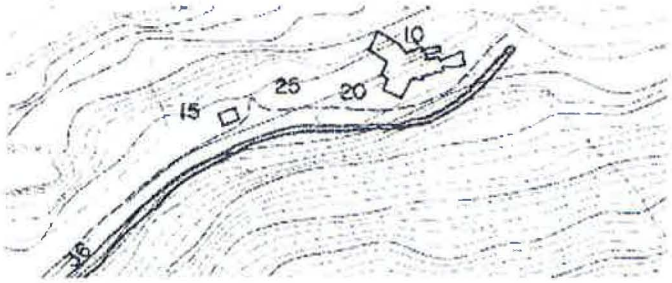

Photo looking NE

Google Earth 7/2016

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DEMO TAB Metal Storage Building 20 (CH II, pg 6, Revised July 1991) (cont.)

Storage Building (CH II, pg 6, Revised July 1991)

Map Code 15, Plate II-1
Status: Existing – Prior to 1975

The spare storage building constructed of cement block was once used as an explosives magazine. It is now used to store miscellaneous supplies, usually associated with mine safety (i.e., signs, reflectors, fire hose, etc.). This building is located within the approved drainage control area.

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DEMO TAB Truck Scale Old 14 (CH II, pg 9, Revised February 2008)

The old truck scale foundation *(Approved Plate II-1 Map Code 28 dated 5/16)* was located on the south side of the entrance road near Pond 8. It has been dismantled.

Approved Plate II-1, May 2016

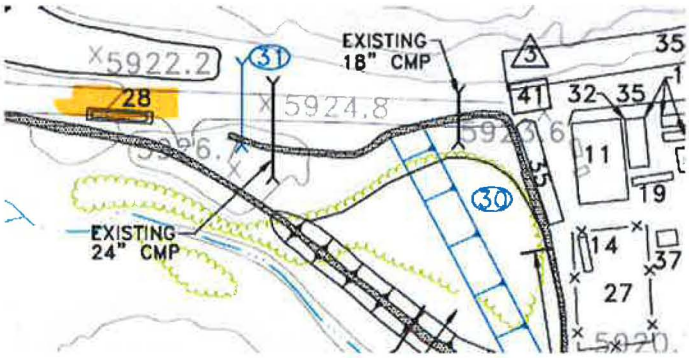

Photo looking East

Truck Scales (CH II, pg 9, Revised February 2008)

Map Codes 28 and 28A, Plate II-1
Status: Existing – Map Code 28: 3rd Quarter 1976
Map Code 28A: 4th Quarter 1989

Both truck scales consist of a standard highway scale unit of a size and capacity suitable for weighing medium duty highway coal trucks. Also associated with each scale is a small metal building in which the controls and read-out are located. The scales weigh the trucks before and after loading to determine the tonnage of coal being sold and are calibrated and certified by the State at least once each year. The truck scales are located within the approved surface drainage control area.

Note: This language is referred to both the old and new truck scales. Cost remains in bond calculations for the new truck scale, Map Code 28A

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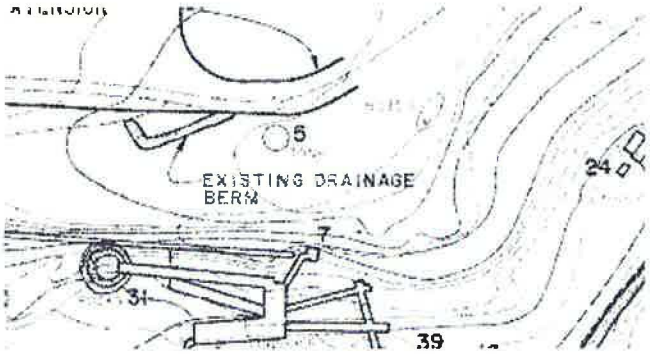
Inserted 7/2016

DEMO TAB Water Tank, 100,000-Gallon 22

The 100,000-gallon water tank *(Map Code 5, Original Plate II-1, August 1990)* was moved to the 4th East Portal. This Main Portal area has been reclaimed.



Google Earth Photo 7/2015

100,000-Gallon Water Tank (CH II, pg 2)

Map Code 5, Plate II-1
Status: Existing – 4th Quarter 1975

The 100,000-gallon tank measures 25 feet high by 26 feet in diameter and is located on the canyon wall above the tipple. The tank sits upon a concrete base and is equipped with an overflow, level indicator, and a bank of valves to direct water flow.

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DEMO TAB Water Tank, 100,000-Gallon 22 (cont.)

The 100,000-gallon tank serves as a surge tank for both surface and underground water supplies. Water from underground is pumped to the tank through a bi-directional pipeline. Water may be drawn from the bi-directional pipeline for surface use (bathhouses, wash down hoses, fire hydrants, etc.) or may be allowed to return to the mine via the feedline if the water demand from the underground machinery is greater than that of the tank feed.

Surface drainage from the tank area flows into the mine yard where it is diverted to Sedimentation Pond 2. The tank is also equipped with an automated level control to eliminate any overflow discharge.

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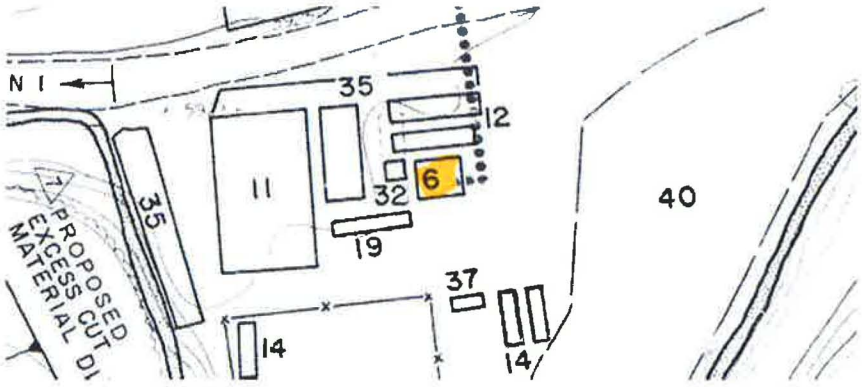
DEMO TAB Fresh Water Treatment Bldg 11 (CH II, pg 3, Revised August 1995)

The Fresh Water Treatment system *(Reverse Osmosis System, Map Code 6, Original Plate II-1, August 1990)* was reclaimed when the mine began using city water. The equipment was removed and the building refitted as the Forman Bath House, Map Code 6, Approved Plate II-1, May 2016. A Foreman's Bath House spreadsheet has been added to the Demo bond calculations.

Original Plate II-1, August 1990



Fresh Water Treatment Building (CH II, pg 3, Revised August 1995)

Map Code 6, Plate II-1
Status: Existing – 1st Quarter 1976

The fresh water treatment building located near the office/warehouse houses a reverse osmosis machine and a 5,000-gallon fresh water surge tank. The structure is a prefabricated metal building sitting on a concrete foundation. Water drawn from the 100,000-gallon tank is processed through the reverse osmosis (R/O) at the rate of 24 gallons per minute. The R/O produces two products on a 60% to 40% basis – clean water to brine (reject). The clean water is chlorinated and pumped to a 5,000-gallon holding tank and is distributed to the bathhouses and offices. The brine is pumped to a lagoon for evaporation.

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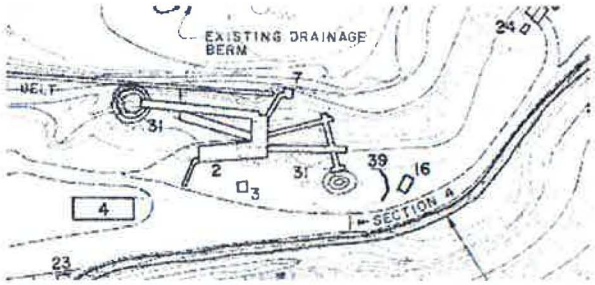
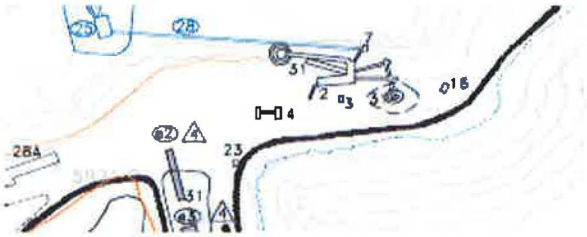
DEMO TAB Coal Stockpile Feeder 34

The Coal Stockpile Feeder 34 is part of the Tipple Stacker – Reclaim System 01 costs at the Main Portal. Coal Stockpile Feeder 34 was labeled as Stacker-Reclaim system *(Map Code 1, Original Plate II-1, August 1990)*. Map Code 1 was inadvertently left out of Approved Plate II-1, May 2016. Map Code 1 has been placed on Plate II-1.

Original Plate II-1, August 1990



Approved Plate II-1, May 2016



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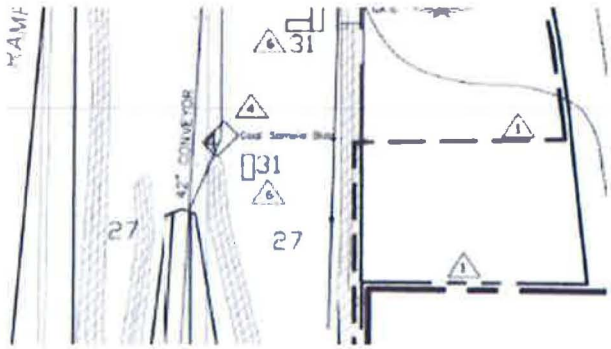
TAB Sampler Building 41

The Coal Sample Building and Conveyor Belt *(Map Code 4, Approved Plate II-3, May 2009)* was constructed at the 4th East Portal and has been dismantled and removed.

Approved Plate II-3, May 2009



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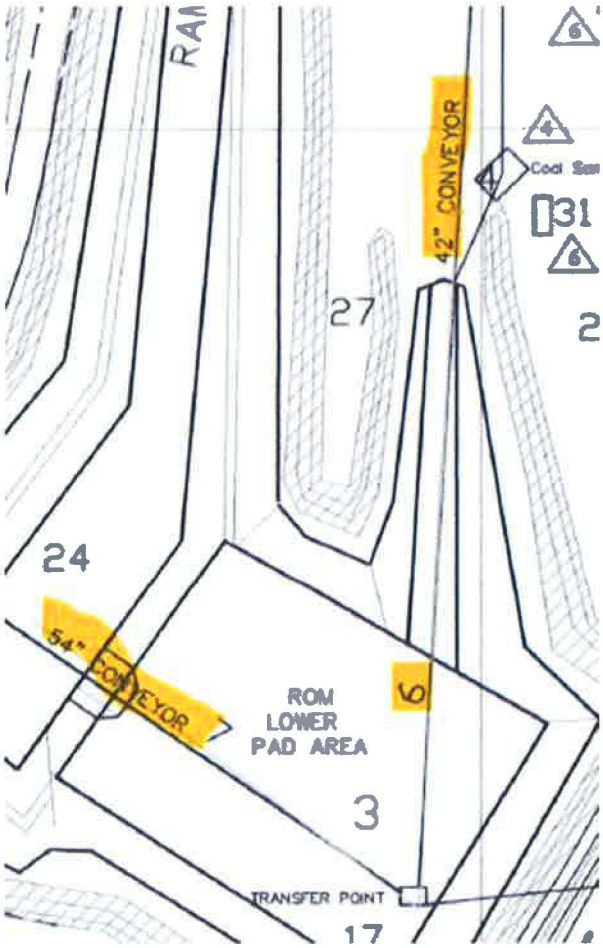
DEMO TAB Conveyor System 29

The 42-inch and 54-inch conveyors *(Map Codes 6 and 7, Approved Plate II-3 dated 5/16)* constructed at the 4th East Portal have been dismantled, will be reused in the Main Portal area, and are included in the Emery 2 bond calculations. They are not being reconstructed in kind but various parts are used in the Emery 2 conveyor system and the demolition cost is captured in several of the new Emery 2 bond calculation spreadsheets.

Approved Plate II-3, May 2009



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DEMO TAB Conveyor System 29 (cont.)

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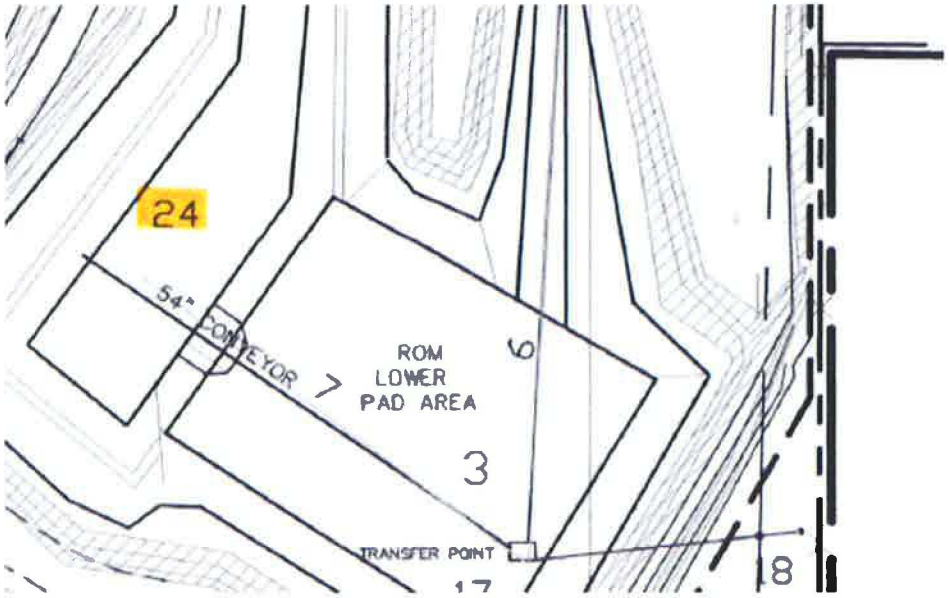
DEMO TAB Entrances 4th East 37 (CH II, pg 4, Revised October 2002)

The 3 entry portals at the 4th East Portal *(Map Code 24, Approved Plate II-3)* have been sealed.

Approved Plate II-3, May 2009



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DEMO TAB Entrances 4th East 37 (CH II, pg 4, Revised October 2002) (cont.)

4 East Mine Access Portal (CH II, pg 4, Revised October 2002)

Map Code: Plate II-3 (plan view)
Status: Proposed – 3rd Quarter 2002

This 3-entry portal is designed to provide access to the 4 East operating sections of the mine and for future development of the northern part of the mine. The entries will be established at the bottom of an open cut located at the eastern edge of the permit area, near the center of Section 27. A ramp on a grade of 10% will lead to the bottom of the portal cut. Each entry will be 8 feet high by 14 feet wide and will be driven on 45-foot centers. Once established, the portal will be utilized for two purposes:

1. *To allow access of rubber-tired vehicles for transportation of people and supplies into the mine*
2. *To serve as a coal haulage portal...*

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DEMO TAB Trash Pit 44 (CH II, pg 17f, Revised September 2008)

The Trash Pit *(Map Code 30, Approved Plate II-3, May 2009)* was never constructed.

Approved Plate II-3, May 2009

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DEMO TAB Trash Pit 44 (CH II, pg 17f, Revised September 2008) (cont.)

Google Earth 7/2016

Trash Pit (CH II, pg 17f, Revised September 2008)

Map Code: Identified on Map II-3
Status: Proposed – 4th Quarter 2006

The trash pit consists of a concrete floor with moveable concrete side barriers and is used as a temporary storage location for trash generated at the site.

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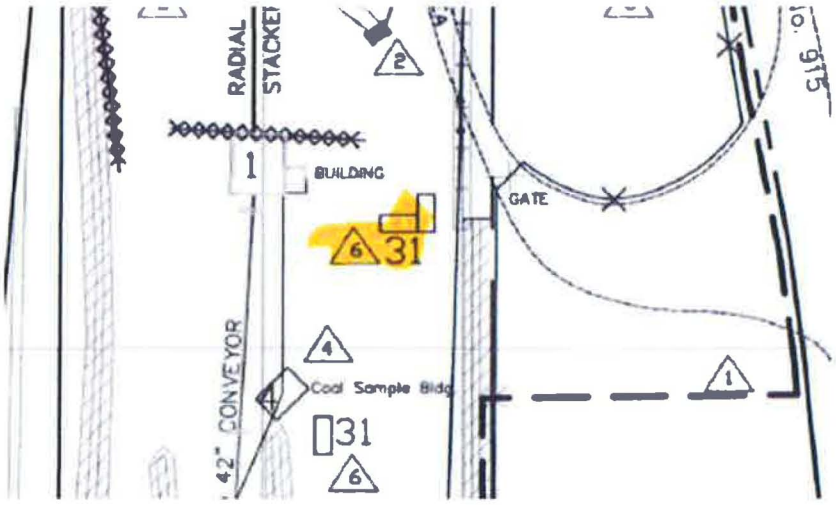
DEMO TAB Skid Mounted Sheds 46 (CH II, pg 17f, Revised September 2008)

The Skid-Mounted Sheds *(Map Code 31, Approved Plate II-3, May 2016)* have been removed.

Approved Plate II-3, May 2016



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DEMO TAB (cont.) **Skid Mounted Sheds 46 (CH II, pg 17f, Revised September 2008)**

Skid-Mounted Sheds (CH II, pg 17f, Revised September 2008)

Map Code: Identified on Map II-3
Status: Existing - 4th Quarter of 2007

The portable skid-mounted sheds are used for tool storage, lunchrooms, and equipment storage.

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CHAPTER IV, APPENDIX IV-10
Bond Release R.S. Means Competitive Bids

CONFIDENTIAL FOLDER

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Bonding Calculations

Direct Costs		
Subtotal Demolition and Removal	$304,970.00	
Subtotal Backfilling and Grading	$2,166,952.00	
Subtotal Revegetation	$489,926.00	
Direct Costs	$2,961,848.00	
Indirect Costs		
Mob/Demob	$296,185.00	10.0%
Contingency	$148,092.00	5.0%
Engineering Redesign	$74,046.00	2.5%
Main Office Expense	$201,406.00	6.8%
Project Mainagement Fee	$74,046.00	2.5%
Subtotal Indirect Costs	$793,775.00	26.8%
Total Cost	$3,755,623.00	
Escalation factor		0.007
Number of years (Mid-Term Review 2018)		2
Escalation	$52,763.00	
Reclamation Cost Escalated	$3,808,386.00	
Bond Amount (rounded to nearest $1,000) 2016 Dollars	$3,808,000.00	
Bond Posted 2009 dollars	$3,510,000.00	
Difference Between Cost Estimate and Bond	-$298,000.00	
Percent Difference	-7.83%	

APP IV pg 12
Inserted 11/03
Revised 11/06
Revised 2/09
Revised 10/13
Revised 5/16
Revised 7/16

File Name Total.e2p1.07112016.cln.xlsx, Spreadsheet Total

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Map Ref.	Description	Cost
1	Tipple Stacker-Reclaim System 01	$ 26,725
3	Tipple Control Station 03	$ 314
4	Surface Storage Tank Containment Area 04	$ 1,429
6	Foreman's Bath House 06	$ 3,815
11	Warehouse/Office Building 11	$ 44,924
12	Bathhouses 12	$ 8,465
16	Tipple Transformer Building 16	$ 651
19	Foreman's/Shift Change Office 19	$ 1,922
20	Mine Fan Building 20	$ 5,123
23	Steam Cleaner Building 23	$ 464
27	Supply Yards 27	$ 2,219
28A	Truck Scale 28A	$ 3,751
33	Bridge On Quitchupah Creek 33	$ 1,837
37	Mine Rescue Storage Area 37	$ 2,107
41	Training Site Pad 41	$ 557
42	Existing Mine Substation 42	$ 5,549
43	Borehole Pump Facility 43	$ 24,699
44	Sewage Pumping Station 44	$ 384
45	Transformer Storage Pad 45	$ 512
46	Power Line 46	$ 3,739
e1	e2 Mine Substation e1	$ 7,293
e2	e2 Conveyor6-Truck Loadout_e2	$ 4,449
e3	e2 Screening&CrushFacility_e3	$ 16,073
e4	e2 Conveyor 5_e4	$ 30,163
e5	e2 Reclaim Tunnel_e5	$ 34,875
e6	e2 Conveyor4-Radial Stacker_e6	$ 1,243
e7p1	e2 Conveyor2 P1_e7p1	$ 19,079
4E01	Crusher/Screen Building 4E01	$ 1,808
4E05	Radial Stacker 4E05	$ 1,232
4E10	Sediment Basin #9_4E10	$ 493
4E13	Rock Dust Bin 4E13	$ 111
4E15	Truck Scale 4E14 & Truck Loadout 4E15	$ 7,870
4E16	Coal Feed Hopper_4E16	$ 1,604
4E17	Beltline Transfer Point_4E17	$ 1,069
4E18	Powerline_4E18	$ 5,299
4E19	Water Tank_4E19	$ 5,359
4E20	VentilationFan_4E20	$ 9,227
4E22	Corrugated Metal Pipe Culvert_4E22	$ 249
4E23	Corrugated Metal Pipe Culvert_4E23	$ 143
4E25	CattleGuard_4E25	$ 247
4E28	Oil Storage Building_4E28	$ 3,083
4E29	RecessedFeeder_4E29	$ 87
4E32	Wind Fence 4E32	$ 2,641
4E33	Perimeter Fence_4E33	$ 8,673
4E34	Substation Pad & Compressor Shed_4E34	$ 3,414
	Total	$ 304,970

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Work Description	Materials	Means Reference Number	Unit Cost	Unit	Comments
Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	Chapter IV, Appendix IV-10
Demolition Cost	Concrete Demolition-Footer/Foundation	Confidential Bid	$ 20.00	/CY	Chapter IV, Appendix IV-10
Dismantling Cost	Mechanical equipment heavy	25 05 05 10 3600	$ 795.00	/ton	Use DOGM
Dismantling Cost	Powerpole	02 41 13 80 0100	$ 184.64	EA	
Dismantling Cost	Wire Removal	26 05 05 10 1900	$ 14.95	CLF	
Demolition Cost	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%	Reduction to total volume of building
Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	Includes dem, loading, 20-mile haul per RS Means
Structure's Demolition Cost	Wood Bldg Small	02 41 16 13 0700	$ 0.28	/CF	Includes dem, loading, 20-mile haul per RS Means
Structure's Demolition Cost	Plug Well	Nevada Mine Cost Estimate	$ 8,200.00	EA.	
Structure's Demolition Cost	Reclaim Tunnel Demolition	02 41 13 40 0200	$ 31.20	LF	
Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY	1.57
Culvert Removal	CMP - 12-inch	02 41 13 40 0150	$ 1.69	/LF	
Culvert Removal Excavate & Backfill	Machine Excavation 3/4 CY	31 23 16 16 6035	$ 14.02	/BCY	
Tunnel Removal Excavate & Backfill	Machine Excavation 1.5 CY	31 23 16 42 0250	$ 1.62	/BCY	
Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31 23 23 20 1014	$ 2.87	/CY	3.60
Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01 54 33 20 5300	$ 690.80	/day	Used DOGM
Disposal Costs	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY	At Emery CO Landfill, Castle Dale, UT
Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY	8.43
Pipe Removal	PVC Pipe 18 inch	33 31 13 25 2300	21.68	LF	
Supply Yard Fence	Chain link remove 8'-10'	02 41 13 60 1700	$ 2.79	/LF	2.79
Silt Fence	Silt fence	31 25 14 16 1000	$ 1.07	LF	1.07
		Look Up Table Limits			

Using Bare Labor + Equipment rates from RS Means, 2nd Qtr. 2016

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Ref. ORIG:	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 Stacker Reclaim 01																			
	Tipple Stacker-Reclaim System 01																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF						996					CY		26892	CF	$ 4,894
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30%	%						697					CY		18824	CF	
	Rubble's Weight (exclude steel)															Ton/CY		0		
	Truck's Capacity															Ton				
	Haulage																			
	Transportation Cost Non Steel Truck															HR			Day	
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 2,531
	Steel's Weight															Ton/CY		0	Ton/CY	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck															HR				
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 7,425
	Equipment 's Disposal Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	754	5	3			419							11310	CF	$ 2,941
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30%	%						293					CY		7917	CF	
	Equipment 's Vol. Demolished																			
	Loading Costs															HR			DAY	
	Transport Costs	Truck dump 16 ton payload	01 54 33 20 5300	$ 690.80	/day											TON		0	TON	
	Disposal Costs	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 1,064
	Subtotal																			$ 4,005
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						305					CY		305	CY	$ 3,050
	Concrete's Vol. Demolished																1.3	397	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													397	CY	$ 623
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31 23 23 20 1014	$ 2.87	/CY													397	CY	$ 1,139
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													397	CY	$ 3,347
	Subtotal																			$ 8,159
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						150					CY		150	CY	$ 1,500
	Concrete's Vol. Demolished																1.3	195	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													195	CY	$ 306
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31 23 23 20 1014	$ 2.87	/CY													195	CY	$ 560
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													195	CY	$ 1,644
	Subtotal																			$ 4,010
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						117					CY		117	CY	$ 1,170
	Concrete's Vol. Demolished																1.3	152	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													152	CY	$ 239
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31 23 23 20 1014	$ 2.87	/CY													152	CY	$ 436
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													152	CY	$ 1,281
	Subtotal																			$ 3,126
	Total																			$ 26,725

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Ref. ORIG:	Description Tipple Control Station 02	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Tipple Control Station 03																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF						23					CY		621	CF	$ 113
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30%	%						16					CY		435	CF	
	Rubble's Weight (exclude steel)												1.4			TON/CY				
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck															HR			Day	
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY											CY				$ 58
	Steel's Weight																	0	0	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 171
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						5.25					CY		5.25	CY	$ 53
	Concrete's Vol. Demolished																1.3	7	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													7	CY	$ 11
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31 23 23 20 1014	$ 2.87	/CY													7	CY	$ 20
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													7	CY	$ 59
	Subtotal																			$ 143
	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																			$ 314

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Ref. ORIG:	Description Storage Tank Containment Area 21	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Surface Storage Tank Containment Area 04																			
	Structure's Demolition Cost	Steel Bld, Large	02 41 16 13 0020	$ 0.26	/CF						106					CY		2862	CF	$ 521
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30%	%						74					CY		2003	CF	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63																$ 269
	Steel's Weight															TON				
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck															HR				
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 790
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						24					CY		24	CY	$ 240
	Concrete's Vol. Demolished																1.3	31	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													31	CY	$ 49
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd, trip	31 23 23 20 1014	$ 2.87	/CY													31	CY	$ 89
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													31	CY	$ 261
	Subtotal																			$ 639
	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																			$ 1,429

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Ref. ORIG:	Description No Spreadsheet	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Foreman's Bath House 06																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	48.375	24	9			387.0					CY		10449	CF	$ 1,902
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30%	%						271					CY		7314	CF	
	Rubble's Weight (exclude steel)															TON/CY		0	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck															HR			Day	
	Transportation Cost Non Steel Drive																	0	TON	$ -
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63																$ 983
	Steel's Weight															TON		0	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck															HR				
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 2,885
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Light Floor's																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	48	28	0.33			16.4					CY		16.4	CY	$ 164
	Concrete's Vol. Demolished																1.3	21	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													21	CY	$ 33
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													21	CY	$ 60
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													21	CY	$ 177
	Subtotal																			$ 434
	Heavy Wall's																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	2.5	1.4	144			18.7					CY		18.7	CY	$ 187
	Concrete's Vol. Demolished																1.3	24	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													24	CY	$ 38
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													24	CY	$ 69
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													24	CY	$ 202
	Subtotal																			$ 496
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			$ 3,815

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Ref. ORIG:	Description Warehouse Office Bld 10	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Warehouse/Office Building 11																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	120	60	20			5333					CY		144000	CF	$ 26,208
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						3733					CY		100800	CF	
	Rubble's Weight (exclude steel)															TON/CY		0	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck													0		HR			Day	
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 13,552
	Steel's Weight															TON		0	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck													0		HR				
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 39,760
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Light Floor's																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	120	60	0.5			133.3					CY		133.3	CY	$ 1,333
	Concrete's Vol. Demolished																1.3	173	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													173	CY	$ 272
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31 23 23 20 1014	$ 2.87	/CY													173	CY	$ 497
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													173	CY	$ 1,458
	Subtotal																			$ 3,560
	Heavy Wall's																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	360	1.5	3			60					CY		60	CY	$ 600
	Concrete's Vol. Demolished																1.3	78	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													78	CY	$ 122
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31 23 23 20 1014	$ 2.87	/CY													78	CY	$ 224
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													78	CY	$ 658
	Subtotal																			$ 1,604
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			$ 44,924

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Ref. ORIG:	Description Bathhouse 6 Trailers 13	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Bathhouses 12																			
	Structure's Demolition Cost	Steel Bld, Large	02 41 16 13 0020	$ 0.26	/CF	50	12	10			222				5	CF		30000	CF	$ 5,460
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						156					CY		21000	CF	
	Rubble's Weight (exclude steel)															TON/CY		0	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck															HR			Day	
	Transportation Cost Non Steel Drive																	0	TON	$ -
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 2,823
	Steel's Weight															TON		0	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 8,283
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	60	9	0.33			6.6				1	CY		7	CY	$ 66
	Concrete's Vol. Demolished																1.3	9		
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													9	CY	$ 14
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													9	CY	$ 26
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													9	CY	$ 76
	Subtotal																			$ 182
	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																			$ 8,465

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Ref. ORIG:	Description Tipple Transformer Bld 03	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Tipple Transformer Building 16																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	20	10	8			59.3					CY		1600	CF	$ 291
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						41					CY		1120	CF	
	Rubble's Weight (exclude steel)												1.4			TON/CY				
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck															HR			Day	
	Transportation Cost Non Steel Drive																		TON	$ -
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 151
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 442
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						8					CY		8	CY	$ 80
	Concrete's Vol. Demolished																1.3	10	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													10	CY	$ 16
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													10	CY	$ 29
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													10	CY	$ 84
	Subtotal																			$ 209
	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																			$ 651

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Ref. ORIG:	Description Foreman Office Trailer 09	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Foreman's/Shift Change Office 19																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	58	12	10			258					CY		6960	CF	$ 1,287
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						180					CY		4872	CF	
	Rubble's Weight (exclude steel)															TON/CY			TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck															HR			Day	
	Transportation Cost Non Steel Drive																	0	TON	$ -
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 655
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 1,922
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	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																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			$ 1,922

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Ref. ORIG:	Description Mine Fan Bld 08	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Mine Fan Building 20																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF						525					CY		14175	CF	$ 2,580
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						368					CY		9923	CF	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 1,334
	Steel's Weight															TON				
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck															HR				
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 3,914
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						45					CY		45	CY	$ 450
	Concrete's Vol. Demolished																1.3	59	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													59	CY	$ 93
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													59	CY	$ 169
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													59	CY	$ 497
	Subtotal																			$ 1,209
	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																			$ 5,123

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Ref. ORIG:	Description Steam Cleaner Bld 04	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Steam Cleaner Building 23																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	8	10	10			29.6					CY		800	CF	$ 146
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						21					CY		560	CF	
	Rubble's Weight (exclude steel)															TON/CY				
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck															HR				
	Transportation Cost Non Steel Drive																		TON	$ -
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 75
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 221
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	8	10	3			8.9					CY		8.9	CY	$ 89
	Concrete's Vol. Demolished																1.3	12	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													12	CY	$ 19
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													12	CY	$ 34
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													12	CY	$ 101
	Subtotal																			$ 243
	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																			$ 464

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Ref. ORIG:	Description Fence 26	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Supply Yards 27																			
	Structure's Demolition Cost																			
	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																			
	Silt Fence Disposal Cost																			
	Silt Fence	Silt fence	31 25 14 16 1000	$ 1.07	LF	575										FT		575	FT	$ 615
	Supply Yard Fence	Chain link remove 8'-10'	02 41 13 60 1700	$ 2.79	/LF	575										FT		575	FT	$ 1,604
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			$ 2,219
	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																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			$ 2,219

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Ref. ORIG:	Description Truck Scale New 15	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Truck Scale 28A																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	8	6	8			14.2					CY		384	CF	$ 70
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						10					CY		269	CF	
	Rubble's Weight (exclude steel)															TON/CY		0	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck															HR				
	Transportation Cost Non Steel Drive																	0	TON	$ -
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 36
	Steel's Weight															TON		0	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck															HR				
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 106
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	130	12	0.67			38.5					CY		38.5	CY	$ 385
	Concrete's Vol. Demolished																1.3	50	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													50	CY	$ 79
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													50	CY	$ 144
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													50	CY	$ 422
	Subtotal																			$ 1,030
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	12	12	0.33			1.8					CY		1.8	CY	$ 18
	Concrete's Vol. Demolished																1.3	2	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													2	CY	$ 3
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													2	CY	$ 6
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													2	CY	$ 17
	Subtotal																			$ 44
	Footer's Demolition																			
	Demolition Cost	Concrete Demolition-Footer/Foundation	Confidential Bid	$ 20.00	/CY						70					CY		70.0	CY	$ 1,400
	Footer's Vol. Demolished																1.3	91	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													91	CY	$ 143
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													91	CY	$ 261
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													91	CY	$ 767
	Subtotal																			$ 2,571
	Total																			$ 3,751

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Ref. ORIG:	Description Bridge Quitchupah Creek 16	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Bridge On Quitchupah Creek 33																			
	Structure's Demolition Cost																			
	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																			
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Footer/Foundation	Confidential Bid	$ 20.00	/CY						50					CY		50	CY	$ 1,000
	Concrete's Vol. Demolished																1.3	65	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													65	CY	$ 102
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. Inp	31 23 23 20 1014	$ 2.87	/CY													65	CY	$ 187
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													65	CY	$ 548
	Subtotal																			$ 1,837
	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																			$ 1,837

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Ref. ORIG:	Description No Spreadsheet	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Mine Rescue Storage Area 37																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	24	20	12			213					CY		5760	CF	$ 1,048
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						149					CY		4032	CF	
	Rubble's Weight (exclude steel)															TON/CY		0	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck															HR				
	Transportation Cost Non Steel Drive																	0	TON	$ -
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 542
	Steel's Weight															TON		0	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck															HR				
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 1,590
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Light Floor's																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	24	18	0.5			8.0					CY		8.0	CY	$ 80
	Concrete's Vol. Demolished																1.3	10	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													10	CY	$ 16
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													10	CY	$ 29
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													10	CY	$ 84
	Subtotal																			$ 209
	Heavy Wall's																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Footer/Foundation	Confidential Bid	$ 20.00	/CY	64	1.5	2.33			8.3					CY		8.3	CY	$ 166
	Concrete's Vol. Demolished																1.3	11	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													11	CY	$ 17
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													11	CY	$ 32
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													11	CY	$ 93
	Subtotal																			$ 308
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			$ 2,107

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Ref. ORIG:	Description Rescue Training Pad 47	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Training Site Pad 41																			
	Structure's Demolition Cost																			
	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																			
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	37	47	0.33								ft		21	CY	$ 210
	Concrete's Vol. Demolished																1.3	27	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													27	CY	$ 42
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi, rnd, trip	31 23 23 20 1014	$ 2.87	/CY													27	CY	$ 77
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													27	CY	$ 228
	Subtotal																			$ 557
	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																			$ 557

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Ref. ORIG:	Description Mine Substation 06	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Existing Mine Substation 42																			
	Structure's Demolition Cost																			
	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																			
	Remove Substation																			
	Equipment 's Disposal Cost	300 H. P. (D8)	01 54 33 20 4310	$ 1,708.20	/day									2		HR		0.3	Day	$ 512
	Dismantling Cost	Mechanical equipment heavy	25 05 05 10 3600	$ 795.00	/ton							2			3	TON		6	TON	$ 4,770
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			$ 5,282
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						10					CY		10	CY	$ 100
	Footer's Vol. Demolished																1.3	13	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													13	CY	$ 20
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi, md, trip	31 23 23 20 1014	$ 2.87	/CY													13	CY	$ 37
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													13	CY	$ 110
	Subtotal																			$ 267
	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																			$ 5,549

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Ref. ORIG:	Description Borehole Pump Facility 18	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Borehole Pump Facility 43																			
	Structure's Demolition Cost																			
	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																			
	Equipment 's Disposal Cost	Plug Well	Nevada Mine Cost E	$ 8,200	EA.										3	EA		3	EA	$ 24,600
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			$ 24,600
	Footer's Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						3.5					CY		3.5	CY	$ 35
	Footer's Vol. Demolished																1.3	5	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													5	CY	$ 8
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													5	CY	$ 14
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													5	CY	$ 42
	Subtotal																			$ 99
	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																			$ 24,699

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Ref. ORIG:	Description Sewage Pumping Station 17	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Sewage Pumping Station 44																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	8	8	9			21.3					CY		578	CF	$ 105
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						15					CY		403	CF	
	Rubble's Weight (exclude steel)															TON/CY				
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck															HR				
	Transportation Cost Non Steel Drive																		TON	$ -
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 54
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 159
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	8	8	3.5			8.3					CY		8.3	CY	$ 83
	Concrete's Vol. Demolished																1.3	11	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													11	CY	$ 17
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													11	CY	$ 32
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													11	CY	$ 93
	Subtotal																			$ 225
	Wall's 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																			$ 384

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Ref. ORIG:	Description Transformer Storage Pad 05	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Transformer Storage Pad 45																			
	Structure's Demolition Cost																			
	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																			
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	32	32	0.5			19.0					CY		18.96296	CY	$ 190
	Concrete's Vol. Demolished																1.3	25	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													25	CY	$ 39
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													25	CY	$ 72
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													25	CY	$ 211
	Subtotal																			$ 512
	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																			$ 512

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Ref. ORIG:	Description Power Line 19	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Power Line 46																			
	Structure's Demolition Cost																			
	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																			
	Equipment 's Disposal Cost																			
	Dismantling Cost	Powerpole	02 41 13 80 0100	$ 184.64	EA										17	EA		17	EA	$ 3,139
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			$ 3,139
	Equipment 's Disposal Cost	Wire Removal	26 05 05 10 1900	$ 14.95	CLF	4012										feet		40.12	CLF	$ 600
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			$ 600
	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																			$ 3,739

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Ref.	Description **e2 Mine Substation e1**	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Structure's Demolition Cost																			
	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																			
	Equipment 's Disposal Cost	300 H. P. (D8)	01 54 33 20 4310	$ 1,708.20	/day									2		HR		0.3	Day	$ 512
	Dismantling Cost	Mechanical equipment heavy	25 05 05 10 3600	$ 795.00	/ton							2			3	TON		6	TON	$ 4,770
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			$ 5,282
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						75					CY		75	CY	$ 750
	Concrete's Vol. Demolished																1.3	98	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													98	CY	$ 154
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi, md. trip	31 23 23 20 1014	$ 2.87	/CY													98	CY	$ 281
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													98	CY	$ 826
	Subtotal																			$ 2,011
	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																			$ 7,293

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Ref.	Description **e2 Conveyor6-Truck Loadout_e2**	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	217	6	9			434.0					CY		11718	CF	$ 2,133
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						304							8203	CF	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 1,103
	Steel's Weight															TON		0	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck															HR				
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 3,236
	Equipment 's Disposal Cost																	0	CF	$ -
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																		DY	
	Transport Costs																	0	0	$ -
	Disposal Costs																			
	Subtotal																			$ -
	Pier C6-1																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Footer/Foundation	Confidential Bid	$ 20.00	/CY	16	12	3			21					CY		21	CY	$ 420
	Concrete's Vol. Demolished																1.3	27	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													27	CY	$ 42
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31 23 23 20 1014	$ 2.87	/CY													27	CY	$ 77
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													27	CY	$ 228
	Subtotal																			$ 767
	Pier C6-2																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Footer/Foundation	Confidential Bid	$ 20.00	/CY	12	9	3			12					CY		12	CY	$ 240
	Concrete's Vol. Demolished																1.3	16	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													16	CY	$ 25
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31 23 23 20 1014	$ 2.87	/CY													16	CY	$ 46
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													16	CY	$ 135
	Subtotal																			$ 446
	Concrete Demolition																			
	Demolition Cost				/CY											CY		0	CY	$ -
	Concrete's Vol. Demolished																	0	CY	
	Loading Cost				/CY													0	CY	$ -
	Transportation Cost				/CY													0	CY	$ -
	Disposal Costs				/CF													0	CY	$ -
	Subtotal																			$ -
	Total																			$ 4,449

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Ref.	Description e2 Screening&CrushFacility_e3	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	40	20	55			1629.6					CY		44000	CF	$ 8,008
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						1141							30800		
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 4,141
	Steel's Weight															TON		0	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck															HR				
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 12,149
	Equipment 's Disposal Cost																	0	CF	$ -
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																		DY	
	Transport Costs																	0	0	$ -
	Disposal Costs																			
	Subtotal																			$ -
	Pad																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	46	26	3			133					CY		133	CY	$ 1,330
	Concrete's Vol. Demolished																1.3	173	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													173	CY	$ 272
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31 23 23 20 1014	$ 2.87	/CY													173	CY	$ 497
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													173	CY	$ 1,458
	Subtotal																			$ 3,557
	Piers - 10																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Footer/Foundation	Confidential Bid	$ 20.00	/CY	3	3	3			10					CY		10	CY	$ 200
	Concrete's Vol. Demolished																1.3	13	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													13	CY	$ 20
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31 23 23 20 1014	$ 2.87	/CY													13	CY	$ 37
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													13	CY	$ 110
	Subtotal																			$ 367
	Concrete Demolition																			
	Demolition Cost				/CY											CY		0	CY	$ -
	Concrete's Vol. Demolished																	0	CY	
	Loading Cost				/CY													0	CY	$ -
	Transportation Cost				/CY													0	CY	$ -
	Disposal Costs				/CF													0	CY	$ -
	Subtotal																			$ -
	Total																			$ 16,073

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Ref.	Description e2 Conveyor 5_e4	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Elevated Belt																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	420	14	12			2613.3					CY		70560	CF	$ 12,842
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						1829							49392		
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 6,640
	Steel's Weight															TON		0	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck															HR				
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 19,482
	On-grade Belt																			
	Equipment 's Disposal Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	213	6	5			236.7					CY		6390	CF	$ 1,163
	Dismantling Cost	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						166							4473		
	Equipment 's Vol. Demolished																			
	Loading Costs															HR			DY	
	Transport Costs															TON		0	TON	$ -
	Disposal Costs																			
	Subtotal																			$ 1,163
	Pier C5-1																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Footer/Foundation	Confidential Bid	$ 20.00	/CY	20	20	3			53					CY		53	CY	$ 1,060
	Concrete's Vol. Demolished							4.5	8								1.3	69	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													69	CY	$ 108
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi, rnd, trip	31 23 23 20 1014	$ 2.87	/CY													69	CY	$ 198
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													69	CY	$ 582
	Subtotal																			$ 1,948
	Piers C5-2, 5-3																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Footer/Foundation	Confidential Bid	$ 20.00	/CY	35	19	3			174					CY		174	CY	$ 3,480
	Concrete's Vol. Demolished							4.5	10								1.3	226	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													226	CY	$ 355
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi, rnd, trip	31 23 23 20 1014	$ 2.87	/CY													226	CY	$ 649
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													226	CY	$ 1,905
	Subtotal																			$ 6,389
	Pier C5-4																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Footer/Foundation	Confidential Bid	$ 20.00	/CY						32					CY		32	CY	$ 640
	Concrete's Vol. Demolished																1.3	42	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													42	CY	$ 66
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi, rnd, trip	31 23 23 20 1014	$ 2.87	/CY													42	CY	$ 121
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													42	CY	$ 354
	Subtotal																			$ 1,181
	Total																			$ 30,163

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Ref.	Description e2 Reclaim Tunnel_e5	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Structure's Demolition Cost	Reclaim Tunnel Demolition	02 41 13 40 0200	$ 31.20	LF	440			12		1842.1					LF		440	LF	$ 13,728
	Structure's Vol. Demolished	Reduction in Volume	Estimate	10%	%						184					CY		4974	CF	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 669
	Steel's Weight															TON		0	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck															HR				
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 14,397
	Tunnel																			
	Equipment 's Disposal Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF						0.0							0	CF	$ -
	Dismantling Cost	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						0									
	Equipment 's Vol. Demolished																			
	Loading Costs															HR			DY	
	Transport Costs															TON		0	TON	$ -
	Disposal Costs																			
	Subtotal																			$ -
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	320				19	225					CY		225	CY	$ 2,250
	Concrete's Vol. Demolished																1.3	293	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													293	CY	$ 460
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31 23 23 20 1014	$ 2.87	/CY													293	CY	$ 841
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													293	CY	$ 2,470
	Subtotal																			$ 6,021
	Tunnel Cover Excavation																			
	Main Tunnel Excavation Cost	Machine Excavation 1.5 CY	31 23 16 42 0250	$ 1.62	/BCY	320				666	7893					CY		7893	CY	$ 12,787
	Escape Tunnel Excavation Cost	Machine Excavation 1.5 CY	31 23 16 42 0250	$ 1.62	/BCY	120				232	1031					CY		1031	CY	$ 1,670
	Loading Cost																		CY	$ -
	Transportation Cost																		CY	$ -
	Disposal Costs																		CY	$ -
	Subtotal																			$ 14,457
	Concrete Demolition																			
	Demolition Cost															CY		0	CY	$ -
	Concrete's Vol. Demolished																	0	CY	
	Loading Cost																	0	CY	$ -
	Transportation Cost																	0	CY	$ -
	Disposal Costs																	0	CY	$ -
	Subtotal																			$ -
	Total																			$ 34,875

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Ref.	Description e2 Conveyor4-Radial Stacker_e6	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	150	6	5			166.7					CY		4500	CF	$ 819
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						117							3150		
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 424
	Steel's Weight															TON		0	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck															HR				
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 1,243
	Equipment 's Disposal Cost																	0	CF	$ -
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs															HR			DY	
	Transport Costs															TON		0	TON	$ -
	Disposal Costs																			
	Subtotal																			$ -
	Travel Pad																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Footer/Foundation	Confidential Bid	$ 20.00	/CY											CY		0	CY	$ -
	Concrete's Vol. Demolished																1.3	0	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													0	CY	$ -
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi, rnd, trip	31 23 23 20 1014	$ 2.87	/CY													0	CY	$ -
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													0	CY	$ -
	Subtotal																			$ -
	Concrete Demolition																			
	Demolition Cost				/CY											CY		0	CY	$ -
	Concrete's Vol. Demolished																	0	CY	
	Loading Cost				/CY													0	CY	$ -
	Transportation Cost				/CY													0	CY	$ -
	Disposal Costs				/CF													0	CY	$ -
	Subtotal																			$ -
	Concrete Demolition																			
	Demolition Cost				/CY											CY		0	CY	$ -
	Concrete's Vol. Demolished																	0	CY	
	Loading Cost				/CY													0	CY	$ -
	Transportation Cost				/CY													0	CY	$ -
	Disposal Costs				/CF													0	CY	$ -
	Subtotal																			$ -
	Total																			$ 1,243

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Ref.	Description e2 Conveyor2 P1_e7p1	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	260	13	12			1502.2					CY		40560	CF	$ 7,382
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						1052							28392		
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 3,817
	Steel's Weight															TON		0	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck															HR				
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 11,199
	Equipment 's Disposal Cost																	0	CF	$ -
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs															HR			DY	
	Transport Costs															TON		0	TON	$ -
	Disposal Costs																			
	Subtotal																			$ -
	Pier C2-3																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Footer/Foundation	Confidential Bid	$ 20.00	/CY	36	20	3			93					CY		93	CY	$ 1,860
	Concrete's Vol. Demolished							4.5	10								1.3	121	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													121	CY	$ 190
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31 23 23 20 1014	$ 2.87	/CY													121	CY	$ 347
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CY													121	CY	$ 1,020
	Subtotal																			$ 3,417
	Pier C2-4																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Footer/Foundation	Confidential Bid	$ 20.00	/CY	36	20	3			93					CY		93	CY	$ 1,860
	Concrete's Vol. Demolished							4.5	10								1.3	121	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													121	CY	$ 190
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31 23 23 20 1014	$ 2.87	/CY													121	CY	$ 347
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													121	CY	$ 1,020
	Subtotal																			$ 3,417
	Drop Chute Pad																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	22	16	3			39					CY		39	CY	$ 390
	Concrete's Vol. Demolished																1.3	51	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													51	CY	$ 80
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31 23 23 20 1014	$ 2.87	/CY													51	CY	$ 146
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													51	CY	$ 430
	Subtotal																			$ 1,046
	Total																			$ 19,079

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Ref. ORIG:	Description Crusher Screen Building 28	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
28	Crusher/Screen Building 4E01																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	10	12	10			44.4					CY		1200	CF	$ 218
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						31					CY		840	CY	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 113
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 331
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						55					CY		55	CY	$ 550
	Concrete's Vol. Demolished																1.3	72	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													72	CY	$ 113
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31 23 23 20 1014	$ 2.87	/CY													72	CY	$ 207
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													72	CY	$ 607
	Subtotal																			$ 1,477
	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																			$ 1,808

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Ref. ORIG:	Description Radial Stacker 30	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Radial Stacker 4E05																			
	Structure's Demolition Cost																			
	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																			
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						46					CY		46	CY	$ 460
	Concrete's Vol. Demolished																1.3	60	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													60	CY	$ 94
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													60	CY	$ 172
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													60	CY	$ 506
	Subtotal																			$ 1,232
	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																			$ 1,232

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Ref. ORIG:	Description NPDES Outfalls 24	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Sediment Basin #9_4E10																			
	Structure's Demolition Cost																			
	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																			
	Equipment 's Disposal Cost	PVC Pipe 18 inch	33 31 13 25 2300	$ 21.68	/LF	20												20	LF	$ 434
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			$ 434
	Footer's Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						2					CY		2	CY	$ 20
	Footer's Vol. Demolished																1.3	3	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													3	CY	$ 5
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													3	CY	$ 9
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													3	CY	$ 25
	Subtotal																			$ 59
	Wall's Demolition																			
	Demolition Cost																			
	Wall'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																			$ 493

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Ref. ORIG:	Description Rock Dust Bin 32	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 Bin 4E13																			
	Structure's Demolition Cost															CF		0	CF	$ -
	Structure's Vol. Demolished																	0	CY	
	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															HR		0	Day	$ -
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ -
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Footer/Foundation	Confidential Bid	$ 20.00	/CY						3					CY		3	CY	$ 60
	Concrete's Vol. Demolished																1.3	4	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													4	CY	$ 6
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. Trip	31 23 23 20 1014	$ 2.87	/CY													4	CY	$ 11
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													4	CY	$ 34
	Subtotal																			$ 111
	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																			$ 111

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Ref. ORIG:	Description Loadout 35	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Truck Scale 4E14 & Truck Loadout 4E15																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF						23660					CF		23660	CF	$ 4,306
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						613					CY		16562	CY	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 2,227
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 6,533
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						50					CY		50	CY	$ 500
	Concrete's Vol. Demolished																1.3	65	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													65	CY	$ 102
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													65	CY	$ 187
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													65	CY	$ 548
	Subtotal																			$ 1,337
	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																			$ 7,870

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Ref. ORIG:	Description Concrete Barriers 40	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Coal Feed Hopper_4E16																			
	Structure's Demolition Cost																			
	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																			$ -
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						60.0					CY		60.0	CY	$ 600
	Concrete's Vol. Demolished																1.3	78	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													78	CY	$ 122
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi, rnd. trip	31 23 23 20 1014	$ 2.87	/CY													78	CY	$ 224
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													78	CY	$ 658
	Subtotal																			$ 1,604
	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																			$ 1,604

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Ref. ORIG:	Description No Spreadsheet	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Beltline Transfer Point_4E17																			
	Structure's Demolition Cost																			
	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																			$ -
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	10	8	1.5			4.4				9	CY		40.0	CY	$ 400
	Concrete's Vol. Demolished																1.3	52	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													52	CY	$ 82
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													52	CY	$ 149
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													52	CY	$ 438
	Subtotal																			$ 1,069
	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																			$ 1,069

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Ref. ORIG:	Description Powerline 36	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Powerline_4E18																			
	Structure's Demolition Cost																			
	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																			
	Equipment 's Disposal Cost																			
	Dismantling Cost	Powerpole	02 41 13 80 0100	$ 184.64	EA										27	EA		27	EA	$ 4,985
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			$ 4,985
	Equipment 's Disposal Cost																			
	Dismantling Cost	Wire Removal	26 05 05 10 1900	$ 14.95	CLF	2132										LF		21	CLF	$ 314
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			$ 314
	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																			$ 5,299

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Ref. ORIG:	Description Water Tank 31	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Water Tank_4E19																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF						17177					CF		17177	CF	$ 3,126
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						445							12024	CF	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 1,617
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 4,743
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						23					CY		23	CY	$ 230
	Concrete's Vol. Demolished																1.3	30	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													30	CY	$ 47
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi, md. trip	31 23 23 20 1014	$ 2.87	/CY													30	CY	$ 86
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													30	CY	$ 253
	Subtotal																			$ 616
	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																			$ 5,359

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Ref. ORIG:	Description Ventilation Fan 33	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	VentilationFan_4E20																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF						29167					CF		29167	CF	$ 5,308
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						756							20417	CY	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 2,745
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 8,053
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						44					CY		44	CY	$ 440
	Concrete's Vol. Demolished																1.3	57	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													57	CY	$ 89
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													57	CY	$ 164
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													57	CY	$ 481
	Subtotal																			$ 1,174
	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																			$ 9,227

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Ref. ORIG:	Description Corrugated Metal Pipe Culvert_4E22	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Corrugated Metal Pipe Culvert_4E22																			
	Structure's Demolition Cost	Machine Excavation 3/4 CY	31 23 16 16 6035	$ 14.02	/BCY	63	3	2			14					BCY		14	LF	$ 196
	Structure's Vol. Demolished																	0	CY	
	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																			$ 196
	Equipment 's Disposal Cost	CMP - 12-inch	02 41 13 40 0150	$ 1.69	/LF	63										LF		63	LF	$ 106
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	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																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			$ 249

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Ref. ORIG:	Description Corrugated Metal Pipe Culvert_4E23	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Corrugated Metal Pipe Culvert_4E23																			
	Structure's Demolition Cost	Machine Excavation 3/4 CY	31 23 16 16 6035	$ 14.02	/BCY	36	3	2			8					BCY		8	LF	$ 112
	Structure's Vol. Demolished																	0	CY	
	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																			$ 112
	Equipment 's Disposal Cost	CMP - 12-inch	02 41 13 40 0150	$ 1.69	/LF	36										LF		36	LF	$ 61
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	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																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			$ 143

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Ref. ORIG:	Description Cattle Guard 39	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	CattleGuard_4E25																			
	Structure's Demolition Cost	Steel Bld, Large	02 41 16 13 0020	$ 0.26	/CF						96					CF		96	CF	$ 17
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						67					CF		2.00	CY	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 7
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 24
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Footer/Foundation	Confidential Bid	$ 20.00	/CY						6					CY		6	CY	$ 120
	Concrete's Vol. Demolished																1.3	8	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													8	CY	$ 13
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													8	CY	$ 23
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													8	CY	$ 67
	Subtotal																			$ 223
	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																			$ 247

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Ref. ORIG:	Description Oil Storage Building 42	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Oil Storage Building_4E28																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF	60	18	8			320					CY		8640	CF	$ 1,572
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						224					CY		6048	CF	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 813
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 2,385
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY	60	18	0.66								CY		26	CY	$ 260
	Concrete's Vol. Demolished																1.3	34	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													34	CY	$ 53
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													34	CY	$ 98
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													34	CY	$ 287
	Subtotal																			$ 698
	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																			$ 3,083

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Ref. ORIG:	Description Recessed Feeder 43	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	RecessedFeeder_4E29																			
	Structure's Demolition Cost																			
	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																			
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Footer/Foundation	Confidential Bid	$ 20.00	/CY	8	1	8			2.4					CY		2.4	CY	$ 48
	Concrete's Vol. Demolished																1.3	3	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													3	CY	$ 5
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													3	CY	$ 9
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													3	CY	$ 25
	Subtotal																			$ 87
	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																			$ 87

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Ref. ORIG:	Description Wind Fence 38	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Wind Fence 4E32																			
	Structure's Demolition Cost	Steel Bld. Large	02 41 16 13 0020	$ 0.26	/CF						48					CY		1300	CF	$ 237
	Structure's Vol. Demolished	Reduction due to no interior walls	02 41 16 13 0750	30.00%	%						34					CY		910	CY	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 122
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 359
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Footer/Foundation	Confidential Bid	$ 20.00	/CY						62					CY		62	CY	$ 1,240
	Concrete's Vol. Demolished																1.3	81	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													81	CY	$ 127
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													81	CY	$ 232
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													81	CY	$ 683
	Subtotal																			$ 2,282
	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																			$ 2,641

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Ref. ORIG:	Description Task2929 Forth East Fence 45	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Perimeter Fence_4E33																			
	Structure's Demolition Cost																			
	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																			
	Equipment 's Disposal Cost	Chain link remove 6'-10'	02 41 13 60 1700	$ 2.79	/LF	3068										FT		3068	FT	$ 8,560
	Dismantling Cost																			
	Equipment 's Vol. Demolished												100			FT/CY				
	Loading Costs																			
	Transport Costs																			
	Disposal Cost, Non Steel & Steel	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY						31					CY		31	CY	$ 113
	Subtotal																			$ 8,673
	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																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			$ 8,673

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Ref. ORIG:	Description Task3103 Substation concrete and compressor shed 48	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Substation Pad & Compressor Shed_4E34																			
	Structure's Demolition Cost	Wood Bldg Small	02 41 16 13 0700	$ 0.28	/CF	12	16	8			57					CY		1536	CF	$ 430
	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	Disposal at Landfill	Emery CO Landfill	$ 3.63	/CY															$ 207
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			$ 637
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete Demolition-Floor	Confidential Bid	$ 10.00	/CY						104					CY		104	CY	$ 1,040
	Concrete's Vol. Demolished																1.3	135	CY	
	Loading Cost	Front end loader 3 CY	31 23 16 42 1300	$ 1.57	/CY													135	CY	$ 212
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. trip	31 23 23 20 1014	$ 2.87	/CY													135	CY	$ 387
	Disposal Costs	Disposal on site	02 41 16 17 4200	$ 8.43	/CF													135	CY	$ 1,138
	Subtotal																			$ 2,777
	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																			$ 3,414

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Map Ref.	Description	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
	Backfill and Grade Portal Area 01															$ 248,478
	Coal Fines Removal 02															$ 182,794
	Coal Mine Waste 03															$ 270,045
	Coal Mine Waste 03a															$ 459,141
	Roadside Berms 04															$ 10,947
	Dike Improvements 05															$ 21,232
	Pond No One 06															$ 125,734
	Pond No Two 07															$ 21,232
	Pond No Three 08															$ 2,324
	Pond No Four 09															$ 24,550
	Pond No Five 10															$ 10,284
	Pond No Six 11															$ 61,375
	Pond No 1 Road 12															$ 996
	Pump No 1 Road 13															$ 1,327
	Tank Road 14															$ 1,327
	MineYardRoads15															$ 12,606
	The 4th East Portal 16															$ 712,560
	Total															$ 2,166,952

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	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
Emery Deep Mine Backfilling and Grading Backfill and Grade Portal Area 01															
627G EROPS (9-49) (2nd2007)	$ 26,220	$ 164.55	10%	$ 51.10	$ 395.98	6	$ 2,375.88	$/HR	52600	CY	702	CY/HR	74.9	HR	$ 177,953
D7N DS XR Series II (9-51) (2nd 2007)	$ 12,455	$ 69.65	10%	$ 51.10	$ 205.56	1	$ 205.56	$/HR					74.9	HR	$ 15,396
D8T (9-52)(2nd2007)	$ 16,865	$ 89.55	10%	$ 51.10	$ 255.01	1	$ 255.01	$/HR					74.9	HR	$ 19,100
12H EROPS (9-11)(2H2007)	$ 13,110	$ 64.30	10%	$ 51.10	$ 203.77	1	$ 203.77	$/HR					74.9	HR	$ 15,262
5,000 gal H2O truck Diesel (20-17) (2nd2006)	$ 5,280	$ 45.80	10%	$ 43.20	$ 126.58	1	$ 126.58	$/HR					74.9	HR	$ 9,481
Pickup Crew 4x4 1 ton 340 hp (20-17) (2nd2007)	$ 1,080	$ 20.35	10%	$ 37.90	$ 67.04	1	$ 67.04	$/HR					74.9	HR	$ 5,021
CLAB				$ 37.90	$ 35.45	1	$ 35.45	$/HR					74.9	HR	$ 2,655
Foreman Average, Outside				$ 51.90	$ 48.20	1	$ 48.20	$/HR					74.9	HR	$ 3,610
Subtotal															$ 248,478

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	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
Emery Deep Mine Backfilling and Grading Coal Fines Removal 02															
627G EROPS (9-49) (2nd2007)	$ 26,220	$ 164.55	10%	$ 51.10	$ 395.98	6	$ 2,375.88	$/HR	38700	CY	702	CY/HR	55.1	HR	$ 130,911
D7N DS XR Series II (9-51) (2nd 2007)	$ 12,455	$ 69.65	10%	$ 51.10	$ 205.56	1	$ 205.56	$/HR					55.1	HR	$ 11,326
D8T (9-52)(2nd2007)	$ 16,865	$ 89.55	10%	$ 51.10	$ 255.01	1	$ 255.01	$/HR					55.1	HR	$ 14,051
12H EROPS (9-11)(2H2007)	$ 13,110	$ 64.30	10%	$ 51.10	$ 203.77	1	$ 203.77	$/HR					55.1	HR	$ 11,228
5,000 gal H2O truck Diesel (20-17) (2nd2006)	$ 5,280	$ 45.80	10%	$ 43.20	$ 126.58	1	$ 126.58	$/HR					55.1	HR	$ 6,975
Pickup Crew 4x4 1 ton 340 hp (20-17) (2nd2007)	$ 1,080	$ 20.35	10%	$ 37.90	$ 67.04	1	$ 67.04	$/HR					55.1	HR	$ 3,694
CLAB				$ 37.90	$ 35.45	1	$ 35.45	$/HR					55.1	HR	$ 1,953
Foreman Average, Outside				$ 51.90	$ 48.20	1	$ 48.20	$/HR					55.1	HR	$ 2,656
Subtotal															$ 182,794

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	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
Backfilling and Regrading															
Coal Mine Waste 03															
Task 2929															
627G EROPS (9-49) (2nd2007)	$ 26,220	$ 164.55	10%	$ 51.10	$ 395.98	6	$ 2,375.88	$/HR	57110	CY	702	CY/HR	81.4	HR	$ 193,397
D7N DS XR Series II (9-51) (2nd 2007)	$ 12,455	$ 69.65	10%	$ 51.10	$ 205.56	1	$ 205.56	$/HR					81.4	HR	$ 16,733
D8T (9-52)(2nd2007)	$ 16,865	$ 89.55	10%	$ 51.10	$ 255.01	1	$ 255.01	$/HR					81.4	HR	$ 20,758
12H EROPS (9-11)(2H2007)	$ 13,110	$ 64.30	10%	$ 51.10	$ 203.77	1	$ 203.77	$/HR					81.4	HR	$ 16,587
5,000 gal H2O truck Diesel (20-17) (2nd2006)	$ 5,280	$ 45.80	10%	$ 43.20	$ 126.58	1	$ 126.58	$/HR					81.4	HR	$ 10,304
Pickup Crew 4x4 1 ton 340 hp (20-17) (2nd2007)	$ 1,080	$ 20.35	10%	$ 37.90	$ 67.04	1	$ 67.04	$/HR					81.4	HR	$ 5,457
CLAB				$ 37.90	$ 35.45	1	$ 35.45	$/HR					81.4	HR	$ 2,886
Foreman Average, Outside				$ 51.90	$ 48.20	1	$ 48.20	$/HR					81.4	HR	$ 3,923
Subtotal															$ 270,045

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	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
Excavate Coal Mine Waste Site															
Coal Mine Waste 03a															
Task 2929															
627G EROPS (9-49) (2nd2007)	$ 26,220	$ 164.55	10%	$ 51.10	$ 395.98	6	$ 2,375.88	$/HR	97130	CY	702	CY/HR	138.4	HR	$ 328,822
D7N DS XR Series II (9-51) (2nd 2007)	$ 12,455	$ 69.65	10%	$ 51.10	$ 205.56	1	$ 205.56	$/HR					138.4	HR	$ 28,450
D8T (9-52)(2nd2007)	$ 16,865	$ 89.55	10%	$ 51.10	$ 255.01	1	$ 255.01	$/HR					138.4	HR	$ 35,293
12H EROPS (9-11)(2H2007)	$ 13,110	$ 64.30	10%	$ 51.10	$ 203.77	1	$ 203.77	$/HR					138.4	HR	$ 28,202
5,000 gal H2O truck Diesel (20-17) (2nd2006)	$ 5,280	$ 45.80	10%	$ 43.20	$ 126.58	1	$ 126.58	$/HR					138.4	HR	$ 17,519
Pickup Crew 4x4 1 ton 340 hp (20-17) (2nd2007)	$ 1,080	$ 20.35	10%	$ 37.90	$ 67.04	1	$ 67.04	$/HR					138.4	HR	$ 9,278
CLAB				$ 37.90	$ 35.45	1	$ 35.45	$/HR					138.4	HR	$ 4,906
Foreman Average, Outside				$ 51.90	$ 48.20	1	$ 48.20	$/HR					138.4	HR	$ 6,671
Subtotal															$ 459,141

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	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
Emery Deep Mine Backfilling and Grading Roadside Berms 04															
627G EROPS (9-49) (2nd2007)	$ 26,220	$ 164.55	10%	$ 51.10	$ 395.98	6	$ 2,375.88	$/HR	2300	CY	702	CY/HR	3.3	HR	$ 7,840
D7N DS XR Series II (9-51) (2nd 2007)	$ 12,455	$ 69.65	10%	$ 51.10	$ 205.56	1	$ 205.56	$/HR					3.3	HR	$ 678
D8T (9-52)(2nd2007)	$ 16,865	$ 89.55	10%	$ 51.10	$ 255.01	1	$ 255.01	$/HR					3.3	HR	$ 842
12H EROPS (9-11)(2H2007)	$ 13,110	$ 64.30	10%	$ 51.10	$ 203.77	1	$ 203.77	$/HR					3.3	HR	$ 672
5,000 gal H2O truck Diesel (20-17) (2nd2006)	$ 5,280	$ 45.80	10%	$ 43.20	$ 126.58	1	$ 126.58	$/HR					3.3	HR	$ 418
Pickup Crew 4x4 1 ton 340 hp (20-17) (2nd2007)	$ 1,080	$ 20.35	10%	$ 37.90	$ 67.04	1	$ 67.04	$/HR					3.3	HR	$ 221
CLAB				$ 37.90	$ 35.45	1	$ 35.45	$/HR					3.3	HR	$ 117
Foreman Average, Outside				$ 51.90	$ 48.20	1	$ 48.20	$/HR					3.3	HR	$ 159
Subtotal															$ 10,947

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	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
Emery Deep Mine Backfilling and Grading Dike Improvements 05															
627G EROPS (9-49) (2nd2007)	$ 26,220	$ 164.55	10%	$ 51.10	$ 395.98	6	$ 2,375.88	$/HR	4500	CY	702	CY/HR	6.4	HR	$ 15,206
D7N DS XR Series II (9-51) (2nd 2007)	$ 12,455	$ 69.65	10%	$ 51.10	$ 205.56	1	$ 205.56	$/HR					6.4	HR	$ 1,316
D8T (9-52)(2nd2007)	$ 16,865	$ 89.55	10%	$ 51.10	$ 255.01	1	$ 255.01	$/HR					6.4	HR	$ 1,632
12H EROPS (9-11)(2H2007)	$ 13,110	$ 64.30	10%	$ 51.10	$ 203.77	1	$ 203.77	$/HR					6.4	HR	$ 1,304
5,000 gal H2O truck Diesel (20-17) (2nd2006)	$ 5,280	$ 45.80	10%	$ 43.20	$ 126.58	1	$ 126.58	$/HR					6.4	HR	$ 810
Pickup Crew 4x4 1 ton 340 hp (20-17) (2nd2007)	$ 1,080	$ 20.35	10%	$ 37.90	$ 67.04	1	$ 67.04	$/HR					6.4	HR	$ 429
CLAB				$ 37.90	$ 35.45	1	$ 35.45	$/HR					6.4	HR	$ 227
Foreman Average, Outside				$ 51.90	$ 48.20	1	$ 48.20	$/HR					6.4	HR	$ 308
Subtotal															$ 21,232

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	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
Emery Deep Mine Backfilling and Grading Pond No One 06															
627G EROPS (9-49) (2nd2007)	$ 26,220	$ 164.55	10%	$ 51.10	$ 395.98	6	$ 2,375.88	$/HR	26600	CY	702	CY/HR	37.9	HR	$ 90,046
D7N DS XR Series II (9-51) (2nd 2007)	$ 12,455	$ 69.65	10%	$ 51.10	$ 205.56	1	$ 205.56	$/HR					37.9	HR	$ 7,791
D8T (9-52)(2nd2007)	$ 16,865	$ 89.55	10%	$ 51.10	$ 255.01	1	$ 255.01	$/HR					37.9	HR	$ 9,665
12H EROPS (9-11)(2H2007)	$ 13,110	$ 64.30	10%	$ 51.10	$ 203.77	1	$ 203.77	$/HR					37.9	HR	$ 7,723
5,000 gal H2O truck Diesel (20-17) (2nd2006)	$ 5,280	$ 45.80	10%	$ 43.20	$ 126.58	1	$ 126.58	$/HR					37.9	HR	$ 4,797
Pickup Crew 4x4 1 ton 340 hp (20-17) (2nd2007)	$ 1,080	$ 20.35	10%	$ 37.90	$ 67.04	1	$ 67.04	$/HR					37.9	HR	$ 2,541
CLAB				$ 37.90	$ 35.45	1	$ 35.45	$/HR					37.9	HR	$ 1,344
Foreman Average, Outside				$ 51.90	$ 48.20	1	$ 48.20	$/HR					37.9	HR	$ 1,827
Subtotal															$ 125,734

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	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
Emery Deep Mine Backfilling and Grading Pond No Two 07															
627G EROPS (9-49) (2nd2007)	$ 26,220	$ 164.55	10%	$ 51.10	$ 395.98	6	$ 2,375.88	$/HR	4500	CY	702	CY/HR	6.4	HR	$ 15,206
D7N DS XR Series II (9-51) (2nd 2007)	$ 12,455	$ 69.65	10%	$ 51.10	$ 205.56	1	$ 205.56	$/HR					6.4	HR	$ 1,316
D8T (9-52)(2nd2007)	$ 16,865	$ 89.55	10%	$ 51.10	$ 255.01	1	$ 255.01	$/HR					6.4	HR	$ 1,632
12H EROPS (9-11)(2H2007)	$ 13,110	$ 64.30	10%	$ 51.10	$ 203.77	1	$ 203.77	$/HR					6.4	HR	$ 1,304
5,000 gal H2O truck Diesel (20-17) (2nd2006)	$ 5,280	$ 45.80	10%	$ 43.20	$ 126.58	1	$ 126.58	$/HR					6.4	HR	$ 810
Pickup Crew 4x4 1 ton 340 hp (20-17) (2nd2007)	$ 1,080	$ 20.35	10%	$ 37.90	$ 67.04	1	$ 67.04	$/HR					6.4	HR	$ 429
CLAB				$ 37.90	$ 35.45	1	$ 35.45	$/HR					6.4	HR	$ 227
Foreman Average, Outside				$ 51.90	$ 48.20	1	$ 48.20	$/HR					6.4	HR	$ 308
Subtotal															$ 21,232

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	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
Emery Deep Mine Backfilling and Grading Pond No Three 08															
627G EROPS (9-49) (2nd2007)	$ 26,220	$ 164.55	10%	$ 51.10	$ 395.98	6	$ 2,375.88	$/HR	500	CY	702	CY/HR	0.7	HR	$ 1,663
D7N DS XR Series II (9-51) (2nd 2007)	$ 12,455	$ 69.65	10%	$ 51.10	$ 205.56	1	$ 205.56	$/HR					0.7	HR	$ 144
D8T (9-52)(2nd2007)	$ 16,865	$ 89.55	10%	$ 51.10	$ 255.01	1	$ 255.01	$/HR					0.7	HR	$ 179
12H EROPS (9-11)(2H2007)	$ 13,110	$ 64.30	10%	$ 51.10	$ 203.77	1	$ 203.77	$/HR					0.7	HR	$ 143
5,000 gal H2O truck Diesel (20-17) (2nd2006)	$ 5,280	$ 45.80	10%	$ 43.20	$ 126.58	1	$ 126.58	$/HR					0.7	HR	$ 89
Pickup Crew 4x4 1 ton 340 hp (20-17) (2nd2007)	$ 1,080	$ 20.35	10%	$ 37.90	$ 67.04	1	$ 67.04	$/HR					0.7	HR	$ 47
CLAB				$ 37.90	$ 35.45	1	$ 35.45	$/HR					0.7	HR	$ 25
Foreman Average, Outside				$ 51.90	$ 48.20	1	$ 48.20	$/HR					0.7	HR	$ 34
Subtotal															$ 2,324

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	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
Emery Deep Mine Backfilling and Grading Pond No Four 09															
627G EROPS (9-49) (2nd2007)	$ 26,220	$ 164.55	10%	$ 51.10	$ 395.98	6	$ 2,375.88	$/HR	5200	CY	702	CY/HR	7.4	HR	$ 17,582
D7N DS XR Series II (9-51) (2nd 2007)	$ 12,455	$ 69.65	10%	$ 51.10	$ 205.56	1	$ 205.56	$/HR					7.4	HR	$ 1,521
D8T (9-52)(2nd2007)	$ 16,865	$ 89.55	10%	$ 51.10	$ 255.01	1	$ 255.01	$/HR					7.4	HR	$ 1,887
12H EROPS (9-11)(2H2007)	$ 13,110	$ 64.30	10%	$ 51.10	$ 203.77	1	$ 203.77	$/HR					7.4	HR	$ 1,508
5,000 gal H2O truck Diesel (20-17) (2nd2006)	$ 5,280	$ 45.80	10%	$ 43.20	$ 126.58	1	$ 126.58	$/HR					7.4	HR	$ 937
Pickup Crew 4x4 1 ton 340 hp (20-17) (2nd2007)	$ 1,080	$ 20.35	10%	$ 37.90	$ 67.04	1	$ 67.04	$/HR					7.4	HR	$ 496
CLAB				$ 37.90	$ 35.45	1	$ 35.45	$/HR					7.4	HR	$ 262
Foreman Average, Outside				$ 51.90	$ 48.20	1	$ 48.20	$/HR					7.4	HR	$ 357
Subtotal															$ 24,550

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	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
Emery Deep Mine Backfilling and Grading Pond No Five 10															
627G EROPS (9-49) (2nd2007)	$ 26,220	$ 164.55	10%	$ 51.10	$ 395.98	6	$ 2,375.88	$/HR	2200	CY	702	CY/HR	3.1	HR	$ 7,365
D7N DS XR Series II (9-51) (2nd 2007)	$ 12,455	$ 69.65	10%	$ 51.10	$ 205.56	1	$ 205.56	$/HR					3.1	HR	$ 637
D8T (9-52)(2nd2007)	$ 16,865	$ 89.55	10%	$ 51.10	$ 255.01	1	$ 255.01	$/HR					3.1	HR	$ 791
12H EROPS (9-11)(2H2007)	$ 13,110	$ 64.30	10%	$ 51.10	$ 203.77	1	$ 203.77	$/HR					3.1	HR	$ 632
5,000 gal H2O truck Diesel (20-17) (2nd2006)	$ 5,280	$ 45.80	10%	$ 43.20	$ 126.58	1	$ 126.58	$/HR					3.1	HR	$ 392
Pickup Crew 4x4 1 ton 340 hp (20-17) (2nd2007)	$ 1,080	$ 20.35	10%	$ 37.90	$ 67.04	1	$ 67.04	$/HR					3.1	HR	$ 208
CLAB				$ 37.90	$ 35.45	1	$ 35.45	$/HR					3.1	HR	$ 110
Foreman Average, Outside				$ 51.90	$ 48.20	1	$ 48.20	$/HR					3.1	HR	$ 149
Subtotal															$ 10,284

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	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
Emery Deep Mine Backfilling and Grading Pond No Six 11															
627G EROPS (9-49) (2nd2007)	$ 26,220	$ 164.55	10%	$ 51.10	$ 395.98	6	$ 2,375.88	$/HR	13000	CY	702	CY/HR	18.5	HR	$ 43,954
D7N DS XR Series II (9-51) (2nd 2007)	$ 12,455	$ 69.65	10%	$ 51.10	$ 205.56	1	$ 205.56	$/HR					18.5	HR	$ 3,803
D8T (9-52)(2nd2007)	$ 16,865	$ 89.55	10%	$ 51.10	$ 255.01	1	$ 255.01	$/HR					18.5	HR	$ 4,718
12H EROPS (9-11)(2H2007)	$ 13,110	$ 64.30	10%	$ 51.10	$ 203.77	1	$ 203.77	$/HR					18.5	HR	$ 3,770
5,000 gal H2O truck Diesel (20-17) (2nd2006)	$ 5,280	$ 45.80	10%	$ 43.20	$ 126.58	1	$ 126.58	$/HR					18.5	HR	$ 2,342
Pickup Crew 4x4 1 ton 340 hp (20-17) (2nd2007)	$ 1,080	$ 20.35	10%	$ 37.90	$ 67.04	1	$ 67.04	$/HR					18.5	HR	$ 1,240
CLAB				$ 37.90	$ 35.45	1	$ 35.45	$/HR					18.5	HR	$ 656
Foreman Average, Outside				$ 51.90	$ 48.20	1	$ 48.20	$/HR					18.5	HR	$ 892
Subtotal															$ 61,375

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	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
Emery Deep Mine Backfilling and Grading Pond No 1 Road 12															
627G EROPS (9-49) (2nd2007)	$ 26,220	$ 164.55	10%	$ 51.10	$ 395.98	6	$ 2,375.88	$/HR	200	CY	702	CY/HR	0.3	HR	$ 713
D7N DS XR Series II (9-51) (2nd 2007)	$ 12,455	$ 69.65	10%	$ 51.10	$ 205.56	1	$ 205.56	$/HR					0.3	HR	$ 62
D8T (9-52)(2nd2007)	$ 16,865	$ 89.55	10%	$ 51.10	$ 255.01	1	$ 255.01	$/HR					0.3	HR	$ 77
12H EROPS (9-11)(2H2007)	$ 13,110	$ 64.30	10%	$ 51.10	$ 203.77	1	$ 203.77	$/HR					0.3	HR	$ 61
5,000 gal H2O truck Diesel (20-17) (2nd2006)	$ 5,280	$ 45.80	10%	$ 43.20	$ 126.58	1	$ 126.58	$/HR					0.3	HR	$ 38
Pickup Crew 4x4 1 ton 340 hp (20-17) (2nd2007)	$ 1,080	$ 20.35	10%	$ 37.90	$ 67.04	1	$ 67.04	$/HR					0.3	HR	$ 20
CLAB				$ 37.90	$ 35.45	1	$ 35.45	$/HR					0.3	HR	$ 11
Foreman Average, Outside				$ 51.90	$ 48.20	1	$ 48.20	$/HR					0.3	HR	$ 14
Subtotal															$ 996

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	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
Emery Deep Mine Backfilling and Grading Pump No 1 Road 13															
627G EROPS (9-49) (2nd2007)	$ 26,220	$ 164.55	10%	$ 51.10	$ 395.98	6	$ 2,375.88	$/HR	300	CY	702	CY/HR	0.4	HR	$ 950
D7N DS XR Series II (9-51) (2nd 2007)	$ 12,455	$ 69.65	10%	$ 51.10	$ 205.56	1	$ 205.56	$/HR					0.4	HR	$ 82
D8T (9-52)(2nd2007)	$ 16,865	$ 89.55	10%	$ 51.10	$ 255.01	1	$ 255.01	$/HR					0.4	HR	$ 102
12H EROPS (9-11)(2H2007)	$ 13,110	$ 64.30	10%	$ 51.10	$ 203.77	1	$ 203.77	$/HR					0.4	HR	$ 82
5,000 gal H2O truck Diesel (20-17) (2nd2006)	$ 5,280	$ 45.80	10%	$ 43.20	$ 126.58	1	$ 126.58	$/HR					0.4	HR	$ 51
Pickup Crew 4x4 1 ton 340 hp (20-17) (2nd2007)	$ 1,080	$ 20.35	10%	$ 37.90	$ 67.04	1	$ 67.04	$/HR					0.4	HR	$ 27
CLAB				$ 37.90	$ 35.45	1	$ 35.45	$/HR					0.4	HR	$ 14
Foreman Average, Outside				$ 51.90	$ 48.20	1	$ 48.20	$/HR					0.4	HR	$ 19
Subtotal															$ 1,327

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	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
Emery Deep Mine Backfilling and Grading Tank Road 14															
627G EROPS (9-49) (2nd2007)	$ 26,220	$ 164.55	10%	$ 51.10	$ 395.98	6	$ 2,375.88	$/HR	300	CY	702	CY/HR	0.4	HR	$ 950
D7N DS XR Series II (9-51) (2nd 2007)	$ 12,455	$ 69.65	10%	$ 51.10	$ 205.56	1	$ 205.56	$/HR					0.4	HR	$ 82
D8T (9-52)(2nd2007)	$ 16,865	$ 89.55	10%	$ 51.10	$ 255.01	1	$ 255.01	$/HR					0.4	HR	$ 102
12H EROPS (9-11)(2H2007)	$ 13,110	$ 64.30	10%	$ 51.10	$ 203.77	1	$ 203.77	$/HR					0.4	HR	$ 82
5,000 gal H2O truck Diesel (20-17) (2nd2006)	$ 5,280	$ 45.80	10%	$ 43.20	$ 126.58	1	$ 126.58	$/HR					0.4	HR	$ 51
Pickup Crew 4x4 1 ton 340 hp (20-17) (2nd2007)	$ 1,080	$ 20.35	10%	$ 37.90	$ 67.04	1	$ 67.04	$/HR					0.4	HR	$ 27
CLAB				$ 37.90	$ 35.45	1	$ 35.45	$/HR					0.4	HR	$ 14
Foreman Average, Outside				$ 51.90	$ 48.20	1	$ 48.20	$/HR					0.4	HR	$ 19
Subtotal															$ 1,327

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	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
Emery Deep Mine Backfilling and Grading MineYardRoads15															
627G EROPS (9-49) (2nd2007)	$ 26,220	$ 164.55	10%	$ 51.10	$ 395.98	6	$ 2,375.88	$/HR	2700	CY	702	CY/HR	3.8	HR	$ 9,028
D7N DS XR Series II (9-51) (2nd 2007)	$ 12,455	$ 69.65	10%	$ 51.10	$ 205.56	1	$ 205.56	$/HR					3.8	HR	$ 781
D8T (9-52)(2nd2007)	$ 16,865	$ 89.55	10%	$ 51.10	$ 255.01	1	$ 255.01	$/HR					3.8	HR	$ 969
12H EROPS (9-11)(2H2007)	$ 13,110	$ 64.30	10%	$ 51.10	$ 203.77	1	$ 203.77	$/HR					3.8	HR	$ 774
5,000 gal H2O truck Diesel (20-17) (2nd2006)	$ 5,280	$ 45.80	10%	$ 43.20	$ 126.58	1	$ 126.58	$/HR					3.8	HR	$ 481
Pickup Crew 4x4 1 ton 340 hp (20-17) (2nd2007)	$ 1,080	$ 20.35	10%	$ 37.90	$ 67.04	1	$ 67.04	$/HR					3.8	HR	$ 255
CLAB				$ 37.90	$ 35.45	1	$ 35.45	$/HR					3.8	HR	$ 135
Foreman Average, Outside				$ 51.90	$ 48.20	1	$ 48.20	$/HR					3.8	HR	$ 183
Subtotal															$ 12,606

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	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
The 4th East Portal 16															
Grade berm into surrounding area															
D6R XL Series III (9-51) (2nd 2007)	$ 7,570	$ 46.20	10%	$ 51.10	$ 149.23	1	$ 149.23	$/HR	3721	CY	189	CY/HR	19.7	HR	$ 2,940
Partial Backfilling of Portal Boxcut															
D8T (9-52)(2nd2007)	$ 16,865	$ 89.55	10%	$ 51.10	$ 255.01	1	$ 255.01	$/HR	34277	CY	287	CY/HR	119.4	HR	$ 30,448
Reclamation of In Place Topsoil															
D6R XL Series III (9-51) (2nd 2007)	$ 7,570	$ 46.20	10%	$ 51.10	$ 149.23	1	$ 149.23	$/HR	12100	CY	1455	CY/HR	8.3	HR	$ 1,239
Multi-Shank Ripper 190-259 P (9-58) (2nd2007)	$ 1,970	$ 6.90	10%	$ 51.10	$ 71.00	1	$ 71.00	$/HR					8.3	HR	$ 589
Materail Stock Pile															
988H EROPS (9-35) (2nd2007)	$ 35,440	$ 154.85	10%	$ 51.10	$ 442.94	1	$ 442.94	$/HR	113711	CY	349	CY/HR	325.8	HR	$ 144,310
769D (20-11) (2nd2007)	$ 25,000	$ 162.65	10%	$ 51.10	$ 386.27	2	$ 772.53	$/HR					325.8	HR	$ 251,690
Topsoil															
988H EROPS (9-35) (2nd2007)	$ 35,440	$ 154.85	10%	$ 51.10	$ 442.94	1	$ 442.94	$/HR	100911	CY	465	CY/HR	217	HR	$ 96,118
6X4 40,000lbs 8-10 CY (20-11) (2nd2007)	$ 3,405	$ 46.10	10%	$ 37.90	$ 109.89	3	$ 329.67	$/HR					217	HR	$ 71,538
Pocking															
446D 4WD (9-27) (2nd 2007)	$ 6,850	$ 37.35	10%	$ 51.10	$ 135.00	1	$ 135.00	$/HR	8873	CY	192	CY/HR	46.2	HR	$ 6,237
Support Personel and Equipment															
Foreman Average, Outside				$ 51.90	$ 48.20	1	$ 48.20	$/HR					353	HR	$ 17,015
CLAB				$ 37.90	$ 35.45	2	$ 70.90	$/HR					353	HR	$ 25,028
Pickup Crew 4x4 1 ton 340 hp (20-17) (2nd2007)	$ 1,080	$ 20.35	10%	$ 37.90	$ 67.04	1	$ 67.04	$/HR					353	HR	$ 23,665
5,000 gal H2O truck Diesel (20-17) (2nd2006)	$ 5,280	$ 45.80	10%	$ 43.20	$ 126.58	1	$ 126.58	$/HR					353	HR	$ 44,683
Subtotal															$ 712,560

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Ref.	Description	Cost
	Vegetation	
	Main Facilities 01	$ 400,260
	The 4th East Portals 02	$ 89,666
	Total	$ 489,926

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Ref.	Description **Main Facilities 01**	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Main Facilities 01																			
	Vegeation																			
	Spread Topsoil	Backfill structural 200 HP 300' Dirt	31 23 23 14 5420	$ 1.70	/CY						43300					CY		43300	CY	$ 73,610
	Till Soil	75 HP Dozerw/scarifiers	32 91 13 23 3100	$ 3.87	MSF						53.7					AC		2339	MSF	$ 9,052
	Seeding	Wildflower Seed Mix	32 92 19 14 5800	$ 28.81	MSF						53.7					AC		2339	MSF	$ 67,387
	Mulch	Hay 1 inch small power mulcher	32 91 13 16 0250	$ 54.33	/MSF						53.7					AC		2339	MSF	$ 127,078
	Fertilizer	Fetilizer Hydro Spread	32 01 90 13 0180	$ 3.96	/MSF						53.7					AC		2339	MSF	$ 9,262
	Erosion Control	Hay bale	31 25 14 16 1200	$ 626.27	/ton							53.7				Ton		54	TON	$ 33,819
	Subtotal																			$ 320,208
	Reseeding																			
	25% of Vegetation Cost																			$ 80,052
	Subtotal																			$ 80,052
	Total																			$ 400,260

Hay coverage based on Chapter III, page 4b.

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Ref.	Description **The 4th East Portals 02**	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	The 4th East Portals 02																			
	Vegeation																			
	Seeding	Wildflower Seed Mix	32 92 19 14 5800	$ 28.81	MSF						16					AC		697	MSF	$ 20,081
	Mulch	Hay 1 inch small power mulcher	32 91 13 16 0250	$ 54.33	/MSF						16					AC		697	MSF	$ 37,668
	Fertilizer	Fetilizer Hydro Spread	32 01 90 13 0180	$ 3.96	/MSF						16					AC		697	MSF	$ 2,760
	Erosion Control	Hay bale	31 25 14 16 1200	$ 626.27	/ton							16				Ton		16	TON	$ 10,020
		Revegetation mat, webbed	31 25 14 16 0120	$ 2.15	SY	300	14									FT		467	SY	$ 1,004
	Subtotal																			$ 71,733
	Reseeding																			
	25% of Vegetation Cost																			$ 17,933
	Subtotal																			$ 17,933
	Total																			$ 89,666

Hay coverage based on Chapter III, page 4b.

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