

**Appendix 8-1
Reclamation Performance Bond**

Bonding Calculations

Direct Costs

Subtotal Demolition and Removal	\$66,578.00
Subtotal Backfilling and Grading	\$47,527.00
Subtotal Revegetation	\$57,198.00
Direct Costs	\$171,303.00

Indirect Costs

Mob/Demob	\$17,130.00	10.0%
Contingency	\$8,565.00	5.0%
Engineering Redesign	\$4,283.00	2.5%
Main Office Expense	\$11,649.00	6.8%
Project Mainagement Fee	\$4,283.00	2.5%
Subtotal Indirect Costs	\$45,910.00	26.8%

Total Cost \$217,213.00

Escalation factor 0.0444
 Number of years 3
 Escalation \$30,236.00

Reclamation Cost Escalated \$247,449.00

Bond Amount (rounded to nearest \$1,000) \$247,000.00

Ref.	Description	Materials	Measure Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Conveyor Structure 01																				
	Structure Demolition Cost	Steel Bid, Large	02220 110 0012	0.2/CF													0.1	60075 CF	12015		
	Structure's Vol. Demolished																	6008 CF			
	Structure's Weight (excludes 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	Truck dump 16 ton perforad	01560 200 5300	435.96 /day																	
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trmv	\$42.00 /HR																	
	Disposal Cost Steel																				
	Subtotal																				
	Equipment's Disposal Cost																				
	Demurrage 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																				
	Total																				

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Multi Plate Arches 02																				
	Structure's Demolition Cost	Steel Bld. Large	02220 110.0012	0.2 /CF														39150 CF		7830	
	Structure's Vol. Demolished																	3915 CF			
	Rubber's Weight (excludes 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	Truck dump 16 ton payload	01590 200 5300	435.96 /day																	
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trm	\$42.00 /HR																	
	Disposal Cost Steel																				
	Subtotal																				
	Equipment's Disposal Cost																				
	Demolition 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																				
	Total																				

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Tanks Bins Etc OS																				
	Structure's Demolition Cost	Steel Bld. Lame	02220 110 0012	0.2 /CF	CF													8910	CF	1782	
	Structure's Vol. Demolished																	0.1	891	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's Weight											489									
	Truck's Capacity											16									
	Haulage																				
	Transportation Cost Steel Truck	Truck dump 16 ton par/bad	01690 200 5300	435.98 /day	day																
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	T1H	\$42.00 /HR	HR																
	Disposal Cost Steel																				
	Subtotal																				3111
	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																				
	Total																				3111

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Building 04																				
	Structure's Demolition Cost	Steel Bld. Lame	02220 110.0012	0.2 /CF	/CF												0.35	4580 CF		918	
	Structure's Vol. Demolished																	80 CY			
	Rubber'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	City Services	City Service Price	4 /CY																	240
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Steel Truck																				
	Transportation Cost Steel Truck Drive																				
	Disposal Cost Steel																				
	Subtotal																				1199
	Equipment's Disposal Cost																				
	Demolition 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																				1199

Ref.	Description	Materials	Mears Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Fence 05																			
	Structure's Demolition Cost	Chain link remove 8-10'	02220 220 1700	2.92 /LF	LF	3900										FT		3900	FT	11388
	Structure's Vol. Demolished																			
	Rubble's Weight (excludes steel)																			
	Truck's Capacity																			
	Handage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Handage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment & Disposal Cost																			
	Demantling Cost																			
	Equipment & 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																			

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Concrete DB																				
	Structure's Demolition Cost																				
	Structure's Vol. Demolished																				
	Rubble's Weight (excludes 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																				
	Demurrage Cost																				
	Equipment's Vol. Demolished																				
	Loading Costs																				
	Transport Costs																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost	Concrete demolition	Concrete/Demo 1	3.07 /CY							290					CY					1151
	Concrete's Vol. Demolished																				
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39 /CY																	
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rd.	02315 490 0320	3.44 /CY																	
	Disposal Costs	On site disposal	02220 240 5550	7.6 /CY																	
	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																				

Ref.	Description	Materials	Measrs Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volumes	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Asphalt 07																				
	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																				
	Asphalt Demolition																				
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97 /CY	CY						983							983	CY	3823	
	Concrete's Vol. Demolished	Front end loader 3 CY	02315 424.1300	1.39 /CY														1252	CY	1740	
	Loading Cost	City Services	City Service Price	4 /CY														1252	CY	5008	
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				10571
	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																				10571

CANYON FUEL COMPANY, LLC

BANNING LOAD OUT

C/007/034

**June 1, 1998
June/September 2003
December 2004**

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
110 Minimum Requirements for Legal, Financial, Compliance and Related Information	1-1
111 Introduction	1-1
112 Identification of Interests	1-1
112.100 Business Entity	1-1
112.200 Applicant and Operator	1-1
112.300 Officers of Applicant	1-2
112.400 Coal Mining and Reclamation Operation Permit Applications Previous, Current or Pending	1-2
112.500 Legal or Equitable Owner of the Surface and Mineral Properties to be Mined	1-3
112.600 Owners of Record of Property Contiguous to Proposed Permit Area	1-4
112.700 MSHA Numbers	1-5
112.800 Interest in Contiguous Lands	1-5
112.900 Certification of Submitted Information	1-5
113 Violation Information	1-5
114 Right-of-Entry Information	1-6
115 Status of Unsuitability Claims	1-8
116 Permit Term	1-8
117 Insurance Certificate and Proof of Publication	1-9
118 Filing Fee	1-9
120 Permit Application Format and Contents	1-9
130 Reporting and Technical Data	1-9
140 Maps and Plans	1-10
150 Completeness	1-10

LIST OF APPENDICES

Appendix 1-1 Newspaper Advertisement of Application for Permit Renewal

Appendix 1-2 Copy of Newspaper Advertisement

Appendix 1-3 Notarized Verification Statement

Appendix 1-4 Certificates of Liability Insurance

Appendix 1-5 Right-of-Way and Use Agreements

CHAPTER 1
GENERAL CONTENTS

110 Minimum Requirements for Legal, Financial, Compliance and Related Information

111 Introduction

Canyon Fuel Company, LLC is authorized, as applicant and operator, to operate the Banning Loadout in Carbon County, Utah under Permit Number C/007/034 issued by the State of Utah, Division of Oil, Gas, and Mining.

112 Identification of Interests

The Banning Rail Loadout facilities are within sections 15, 16 and 22, Township 15 South, Range 12 East, SLBM, Carbon County, Utah. These locations are approximately eight miles east of Wellington, Utah.

112.100 Business Entity

For information pertaining to this section(s) refer to the General Chapter 1 binder for Canyon Fuel Company, LLC prepared for the Dugout Canyon Mine, Soldier Canyon Mine and Banning Loadout operations.

112.200 Applicant and Operator

Refer to the General Chapter 1 binder for Canyon Fuel Company, LLC prepared for the Dugout Canyon Mine, Soldier Canyon Mine and Banning Loadout operations.

112.300 Officers of the Applicant

Refer to the General Chapter 1 binder for Canyon Fuel Company, LLC prepared for the Dugout Canyon Mine, Soldier Canyon Mine and Banning Loadout operations.

112.400 Coal Mining and Reclamation Operation Permit Applications Previous, Current, or Pending

The following list describes permits held by Canyon Fuel Company, LLC for Banning Loadout, pending applications for permits, and any permit recognized as necessary in the future for which no application has been filed. Identification numbers of applications or permits are contained in the following list. Many of the agencies listed, however, have review responsibility only and may not have submitted a numbered permit.

<u>Permit</u>	<u>Issuing Authority</u>	<u>Approval Status</u>
Mining and Reclamation Permit C/007/034 Banning Rail Loadout	State of Utah Department of Natural Resources Division of Oil, Gas and mining	Approved
U.P.D.E.S. Permit UT-0040000 Banning Loadout	Environmental Protection Agency and Utah D.E.Q.	Approved
Business License	Carbon County	Approved
Mine Health and Safety Permits 42-00077	Mine Safety and Health Administration - Utah	Approved
Radio Permits	Federal Communications Commission	Approved
Certificate of Insurance and Authorization to do Business in State	State Industrial Development Commission	Approved
Air Quality Approval Order	State of Utah, Utah Air Conservation Committee, Department of Health Division of Environmental Health	Approved
Water Rights	State Engineer	Approved

The Canyon Coal Company, LLC mining permits and operations are:

Banning Loadout	C/007/034
Dugout Canyon Mine	C/007/039
SUFCO Mine	C/041/002
Skyline Mine	C/007/005
Soldier Canyon Mine	C/007/018

The issuing authority for the Canyon Fuel Company permits is the UDOGM. For addition information refer to the General Chapter 1 binder for Canyon Fuel Company, LLC prepared for the Dugout Canyon Mine, Soldier Canyon Mine and Banning Loadout operations.

The corporate structure is presented on Figure 1-1 in the General Chapter 1 binder.

**112.500 Legal or Equitable Owner of the Surface and Mineral Properties
to be Mined**

The legal or equitable owners of the areas to be affected by the surface operations and facilities are:

United States of America
BLM right-of-way Leases U-33855 and U-49763

State of Utah
State Lease 435

Union Pacific Railroad
Lease 16663

East Carbonics Inc

No area within the land to be affected by surface operations and facilities or within the area is under a real estate contract.

No coal is to be mined on or within the permit area.

The holders of record of any leasehold interest in areas to be affected by surface operations or facilities:

East Carbonics Inc.
P.O. Box 87
Manti, UT 84642

Canyon Fuel Company, LLC
Banning Loadout

Mining and Reclamation Plan
December 2004

Union Pacific Railroad
Post Office Box 1416
Omaha, NE 68179

United States of America
Department of Interior
Bureau of Land Management
Price Coal Office
125 South 600 West
Price, Utah 84501

State of Utah
School and Institutional Trust Lands Administration
675 East 500 South, Suite 500
Salt Lake City, Utah 84102-2818

The holders of record of leasehold interests in the area to be affected by surface coal handling operations are East Carbonics Inc, the United States of America, the State of Utah, and the Union Pacific Railroad

112.600 Owners of Record of Property Contiguous to Proposed Permit Area

Owners of record of surface and subsurface areas contiguous to the proposed permit area are shown on Exhibits 5-4 and 5-5 of the Mining and Reclamation Plan. Names and addresses of the owners are:

Surface: East Carbonics Inc.
P.O. Box 87
Manti, UT 84642

United States of America
Department of Interior
Bureau of Land Management
Price Coal Office
125 South 600 West
Price, Utah 84501

State of Utah
School and Institutional Trust Lands Administration
675 East 500 South, Suite 500
Salt Lake City, Utah 84102-2818

Subsurface: United States of America
Department of Interior
Bureau of Land Management
Price Coal Office
125 South 600 West
Price, Utah 84501

State of Utah
School and Institutional Trust Lands Administration
675 East 500 South, Suite 500
Salt Lake City, Utah 84102-2818

112.700 MSHA Numbers

Banning Rail Loadout Mine ID No. 42-01756.

112.800 Interest in Contiguous Lands

Canyon Fuel Company, LLC does not own or control, directly or indirectly, any legal or equitable interest in any lands contiguous to the permit area.

112.900 Certification of Submitted Information

Canyon Fuel Company, LLC hereby attests that the information contained in this permit document is true and correct to the best of their knowledge.

113 Violation Information

For violation information refer to Table 1-2 in the General Chapter 1 binder for Canyon Fuel Company, LLC prepared for the Dugout Canyon Mine, Soldier Canyon Mine and Banning Loadout operations.

114 Right-of-Entry Information

Canyon Fuel Company, LLC bases its right to enter and continue loadout activities on a number of documents pertaining to right-of-ways, lease agreements, and surface ownership within the permit area. The documents are summarized below and copies of all documents can be found in Appendix 1-5 of the unmodified Mining and Reclamation Plan. Canyon Fuel Company, LLC has acquired all the rights of entry previously held by Soldier Creek Coal Company, which are set forth in the following:

RIGHT-OF-WAYS

Federal Right-of-Way U-33855 - (Tramroad)

Dated: October 18, 1976
Grantee: Soldier Creek Coal Company
Lands Covered: T15S. R12E. SLB&M
 Secs: 15 and 22

Land within described tramroad Containing: 8.7 ac, more or less
Expiration: October 17, 2001

Supporting Documents:

1. Assignment of Right-of-Way from California Portland Cement Company to Sunedco Coal Co. on September 19, 1985, approved by the BLM.
2. Working agreement established between applicant and Sunedco Coal Co.

Federal Right-Of-Way U49763 (Operation and Maintenance of a Coal Loadout Facility)

Dated: January 17, 1984
Grantee: Soldier Creek Coal Company
Lands Covered: T15S. R12E. SLB&M
 Sec 15: W1/2 SW1/4

Land within described facility Containing: 15.4 ac, more or less
Expiration: January 16, 2014

Supporting Documents:

1. Assignment of Right-of-Way from California Portland Cement Company to Sunedco Coal Co. on September 19, 1985, approved by the BLM.
2. Working agreement established between applicant and Sunedco Coal Co.

LEASE AGREEMENTS

State of Utah Special Use Lease Agreement 435

(Road and Coal Storage Facility)

Dated: November 1, 1978
Grantee: Savage Coal Service Corporation
Lands Covered: T15S. R12E. SLB&M
Sec 16; E1/2 E1/2 NE1/4 SE1/4

Containing: 10.0 ac, more or less
Expiration: October 31, 1998

Supporting Document:

1. Working agreement established between applicant and Savage Coal Service Corporation.

Denver and Rio Grande Western Railroad Company (Union Pacific Railroad) Lease Agreement 16663

(Railroad Spur)

Dated: May 24, 1976
Grantee: California Portland Cement Company
Lands Covered: T15S. R12#. SLB&M
Secs. 15 and 22
Strip of Land 91.5 ft. wide,
8.5 ft. westerly of the
centerline of the main Sunny
Side Branch track

Containing: 155.6 ac, more or less

Supporting Documents:

1. Assignment of Lease Agreement 16663 from California Portland Cement Company to Soldier Creek Coal Company on November 26, 1985.

Surface Owner: East Carbonics Inc
Lands Covered: T15S, R12E, SLB&M
Sec. 16: SE1/4 SE1/4
Sec. 21: E1/2 NE1/4

Containing: 120 ac, more or less

Supporting Documents:

1. Deed for the purchase of property by and between Kaiser Coal Corporation ("Grantor") and Soldier Creek Coal Company ("Grantee").
2. Purchase and sale agreement between Canyon Fuel Company, LLC and East Carbonics Inc.

115 Status of Unsuitability Claims

The permit area is not within an area designated as unsuitable for coal mining and reclamation operations, or within an area under study for designation in an administrative proceeding under R645-103-300, R645-103-400 or 30 CFR Part 769.

Canyon Fuel Company, LLC does not propose to conduct coal mining and reclamation operations within 300 feet of an occupied dwelling.

Operations conducted at the loadout facility tram road are within 100 ft. of a public road. U.S. Highway 6-50 is the public road and the affected portion is a stretch within T15S, R12E, Sec. 15, Carbon County, Utah.

116 Permit Term

Operations at Banning Loadout began in 1976, when the Bureau of Land Management granted permission to receive, stockpile, and load coal at the facility. Construction of the site was initiated in 1977 and completed in 1979. Exhibit 5-2 shows the surface facilities and area affected by the operations.

The extent of surface disturbance at the loadout is confined to a portion of the proposed permit area shown on Exhibit 5-1. The operational plans presented in the permit application package represent the life-of-operation plans for Banning Loadout.

117 Insurance and Proof of Publication

For additional information refer to the General Chapter 1 binder for Canyon Fuel Company, LLC prepared for the Dugout Canyon Mine, Soldier Canyon Mine and Banning Loadout operations. The proof of publication and newspaper advertisements required in connection with the permit application are on file with the Utah Division of Oil Gas and Mining and in Appendices 1-1 and 1-3.

118 Filing Fee

Evidence of payment of the filing fee required in connection with the permit application is on file with the Utah Division of Oil Gas and Mining.

120 Permit Application Format and Contents

This permit application will be clear and concise, and will be filed in the format required by the Division. Referenced materials in this application will be readily available to the Division, or will be provided and presented briefly and concisely in the application by photocopying or abstracting and with explicit citations.

130 Reporting of Technical Data

Technical analyses will be planned by or under the direction of a qualified professional in the subject to be analyzed. Technical data submitted herein is accompanied by the names of companies, individuals and/or publications, with dates of the collection and analysis of the data, and descriptions of the methodology used to collect and analyze the data (when available).

140 Maps and Plans

To the best of the applicants knowledge the maps and plans in the Mining and Reclamation Plan correspond with the requirements in R645-301-140.

150 Completeness

CFC believes the information in the permit application to be complete and correct.

APPENDICES

APPENDIX 2-1 SCS DETERMINATION OF PRIME FARMLAND

APPENDIX 2-2 SOIL LABORATORY ANALYSIS RESULTS

APPENDIX 2-3 SOIL MAP UNIT DESCRIPTIONS

APPENDIX 2-4 SOIL SERIES DESCRIPTIONS

BANNING LOADOUT PERMIT
Canyon Fuel Company, LLC - SOLDIER CREEK

CHAPTER 2

SOILS

R645-301-200. Soils

The regulations in R645-301-200 present the minimum requirements for information on soil resources which will be included in each permit application.

R645-301-210. Introduction

The Banning Loadout Facility is located approximately 10 miles from the base of the Bookcliff Range. The area receives from 7" to 9" of precipitation annually, the majority in the form of snow or catastrophic summer storms. The result is a poorly formed soil that has been heavily eroded. It has a high pH and low nutrient value and as such, supports a sparse cover of vegetation edifice to these conditions.

R645-301-211. The applicant will present a description of the premining soil resources as specified under R645-301-221. Topsoil and subsoil to be saved under R645-301-232 will be separately removed and segregated from other material.

R645-301-212. After removal, topsoil will be immediately redistributed in accordance with R645-301-242, stockpiled pending redistribution under R645-301-234, or if demonstrated that an alternative procedure will provide equal or more protection for the topsoil, the Division may, on a case-by-case basis, approve an alternative.

R645-301-220. Environmental Description

R645-301-221. Prime Farmland Investigation

All permit application, whether or not Prime Farmland is present, will include the results of a reconnaissance inspection of the proposed permit area to indicate whether Prime Farmland exists as given under R645-302-313.

The Applicant requested the SCS to review the status of the soils within and adjacent to the permit area to determine if said lands qualify for prime farmland status. The SCS determined that no prime or important farmland occurs in the area. A copy of this letter of negative determination is included in Appendix 2-1.

R645-301-222. Soil Survey

The applicant will provide adequate soil survey information for those portions of the permit area to be affected by surface operations incident to UNDERGROUND COAL MINING and RECLAMATION ACTIVITIES and for the permit area of SURFACE COAL MINING and RECLAMATION ACTIVITIES consisting of the following:

R645-301-222.100. Delineating different soils;

A map provided by the Soil Conservation Service delineating different soils occurring in and around the permit area is included as Exhibit 3-1.

R645-301-222.200. Soil Identification

One soil complex, the Ravola-Slickspots complex, (Map Unit #93) has been mapped by the SCS as occurring within the permit boundary. However, because the surface of the area had been previously disturbed and a majority of the area is covered by coal, buildings, and/or roads, it was not possible to delineate the Ravola from the Slickspots. Data from the soil test pits and laboratory analysis (Appendix 2-2) indicates that the Ravola series underlies the site. The Slickspots series is not present within the confines of the permit area.

Other soil map units which occur in proximity to the permit area are the Billings-Gullied Land Complex (Map Unit #9), which occurs in the small riparian area located along the northwest boundary of the permit area, and the Moffat, Fine Sandy Loam (Map Unit #68), which occurs on the higher ground to the southeast of the permit area.

R645-301-222.300. Soil Description; and

SCS Map Unit descriptions of the Ravola-Slickspots Complex, the Billings-Gullied Land Complex, and the Moffat Fine Sandy Loam are included in Appendix 2-3. The SCS soil series descriptions of the Ravola, Billings and Moffat series are included in Appendix 2-4. Exhibit 3-1 indicates the general location of soil types present within the site.

R645-301-222.400. Present and Potential Productivity of Existing Soils.

The SCS has determined from field data that the normal productivity (air dried weight) for the Ravola series soil is 550 pounds per acre, 800 pounds per acre and 1,000 pounds per acre in dry, normal and wet years, respectively. These productivity data are for non-irrigated rangeland which are typical of the Banning Loadout area.

Field and laboratory data indicate that the soil resources have not been lost or otherwise destroyed. As can be seen from the physical and chemical data previously presented, the loadout has had little unalterable affect upon the soil resources. With the exception of compaction, which can be easily altered after the facility has been abandoned, the capability and potential productivity are equal to that of the contiguous Ravola soil which is located outside of the permit area.

The future potential productivity is not expected to change. The low moisture availability, high salt concentrations, and native plant species are not conducive to greater productivity. Nor is it practicable to install extensive remedial programs because of the severe limitations of the soils capability.

R645-301-223. Soil Characterization

The survey will meet the standards of the National Cooperative Soil Survey as incorporated by reference in R645-302-314.100.

The information present is a result of field investigations and a perusal of existing data obtained from the USDA-Soil Conservation Service (SCS). Soil studies were conducted in accordance with current guidelines issued by the Utah Division of Oil, Gas, and Mining (DOG M), and according to the standards of the National Cooperative Soil Survey and the procedures set forth by the USDA (Handbooks No. 436, Soil Taxonomy, 1975 and No. 18, Soil Survey Manual, 1951). Locations for

soil test pits were predetermined by DOGM and the Applicant (Exhibit 3-1).

This study was initiated by garnering all available, pertinent data including geologic, topographic, climatic, vegetative and edaphic information. SCS field sheets were compared to aerial photographs.

Delineated soils mapping units were field verified at the Banning Loadout and map unit boundaries modified where required to reflect on-site conditions.

This work was authorized by Soldier Creek Coal Company and completed by Randolph B. Gainer, EarthFax Engineering, Inc., Salt Lake City, Utah.

R645-301-224. *Substitute Topsoil*

Where the applicant proposes to use selected overburden materials as a supplement or substitute for topsoil, the application will include results of analyses, trials, and tests as described under R645-301-232.100 through R645-301-232.600, R645-301-234, R645-301-242, and R645-301-243. The Division may also require the results of field-site trials or greenhouse tests as required under R645-301-233.

The Soldier Creek Coal Company does not anticipate the need to use selected overburden materials as a supplement or substitute for topsoil. Should that need arise, Soldier Creek Coal Company will submit a Request for Permit Amendment to that effect, and will comply with all applicable Division regulations.

R645-301-230. *Operation Plan*

R645-301-231. *General Requirements.* Each permit application will include a:

R645-301-231.100. *Description of the methods for removing and storing topsoil, subsoil, and other materials;*

Regulations governing coal loadout facilities had not been promulgated when the Banning Loadout was constructed. Therefore, construction at Banning Loadout did not include the separating and segregation of

topsoil material. The soils were graded throughout the site to achieve desired elevations for specific needs or specific structure requirements. Analyses of the soils at the loadout (Appendix 2-2) indicate that the soil resources have not been lost or otherwise destroyed. Except for compaction, the capability and potential productivity are equal to that of the contiguous Ravola soil.

Soil that will be disturbed during the construction of drainage control structures will be used as part of the berms, dikes or sedimentation pond. Topsoil will be removed and used as the outslope material for the berms and dikes. The outslopes of the sedimentation pond and all disturbed area associated with pond construction will be revegetated as stated in Chapter 3. This will reduce the potential hazard of wind and water erosion, and lessen the chance of impairing the long-term productivity of the soil resource.

R645-301-231.200. Demonstration of the suitability of topsoil substitutes or supplements;

The typical structure for the Ravola soil series is in place within the Banning Loadout permit area. Therefore, no substitute topsoil is required or recommended. The values for the chemical parameters indicate that the site can be successfully revegetated with a seed mix of native plant species. Both nitrogen and the organic matter content will need to be supplemented to aid in sustaining the plants. While the pH, Sodium Absorption Ratio (SAR), and sodium values are relatively high, the recommended plant species are tolerant of these parameters. To ensure the success of the proposed reclamation plan, a test plot will be utilized.

The permittee will utilize these sediment materials from the Dugout Mine during final reclamation as top dressing over the sodic soils found in the vicinity of test pits TP-2 and TP-3 (Exhibit 3-1). Refer to Section R645-301-233 for additional information.

R645-301-231.300. Testing plan for evaluating the results of topsoil handling and reclamation procedures related to revegetation; and

DOGMA and the Applicant have agreed to a test plot area which will be located approximately 200 feet south of the fenced area along the railroad tracks. This area, underlain by the Ravola soil, was used as a loadout area several years ago. It has been subjected to surface disturbance and vehicular traffic. Therefore, it will serve as a model test plot to allow observation of the success of the proposed reclamation plan as set out by R645-301-240, R645-301-340, and R645-301-540. The efficacy of the program will be monitored on a regular basis.

The test plot will be prepared, fertilized, seeded and mulched in the same manner as called for in the previously mentioned reclamation plan. In particular, the soil will be ripped to a depth of 18 inches and then disced until the average clod size of the surface is less than 1 inch. The recommended seed mix and plant nutrients will be applied to the prepared seed bed. The entire area will then be covered by 2,000 pounds per acre of alfalfa or native grass hay and crimp-disced into the soil.

The test plot will be prepared, fertilized, seeded and mulched in the same manner as called for in the previously mentioned reclamation plan. In particular, the soil will be ripped to a depth of 18 inches and gouged leaving the surface in a roughened state. The recommended seed mix and plant nutrients will be applied to the prepared seed bed. The entire area will then be covered by 2,000 pounds per acre of alfalfa or native grass hay and incorporated into the soil.

The test plot location is indicated on Exhibit 3-1.

R645-301-231.400. Narrative that describes the construction, modification, use and maintenance of topsoil handling and storage areas..

As noted in R645-301-231.100, construction at Banning Loadout did not include the separation, segregation and storage of topsoil. Instead, topsoil was graded throughout the site to achieve desired elevations for specific needs or specific structure requirements.

Soil that has been disturbed during the construction of drainage control structures will be used as part of the berms, dikes, or sedimentation pond.

Soils stored in this manner will be redistributed to achieve final reclamation contours and soil depths.

The locations of these in-place topsoil storage areas are not delineated. Construction plans for future topsoil storage areas are detailed in Chapter 5 (Engineering).

R645-301-232. Topsoil and Subsoil Removal

R645-301-232.100. All topsoil will be removed as a separate layer from the area to be disturbed, and segregated.

R645-301-232.200. Where the topsoil is of insufficient quantity or poor quality for sustaining vegetation;

No further surface disturbance is anticipated at the Banning Loadout. Should additional surface disturbance be required, Soldier Creek Coal Company will submit the appropriate application for permit change and will remove topsoil and subsoil as necessary in accordance with R645-301-232.100 through R645-301-232.700.

R645-301-232.300. *If topsoil is less than six inches thick, the operator may remove the topsoil and the unconsolidated materials immediately below the topsoil and treat the mixture as topsoil.*

R645-301-232.400. *The Division may not require the removal of topsoil for minor disturbances which:*

R645-301-232.410. *Occur at the site of small structures, such as power poles, signs, or fence lines; or*

R645-301-232.420. *Will not destroy the existing vegetation and will not cause erosion.*

R645-301-232.500. *Subsoil segregation.*

R645-301-232.600. *Timing.*

R645-301-232.700. *Topsoil and subsoil removal under adverse conditions. An exception to the requirements of R645-301-232 to remove topsoil or subsoils in a separate layer from an area to be disturbed by surface operations may be granted by the Division where the operator can demonstrate;*

R645-301-232.710. *The removal of soils in a separate layer from the area by the use of conventional machines would be unsafe or impractical because of the slope or other condition of the terrain or because of the rockiness or limited depth of the soils; and*

R645-301-232.720. *That the requirements of R645-301-233 have been or will be fulfilled with regard to the use of substitute soil materials unless no available substitute material can be made suitable for achieving the revegetation standards of R645-301-356, in which event the operator will, as a condition of the permit, be required to import soil material of the quality and quantity necessary to achieve such revegetation standards.*

Not applicable at this time. If future disturbance is implemented, all of the above will then be addressed.

R645-301-233. *Topsoil Substitutes and Supplements.*

R645-301-233.100. *Through R645-301-233.400 Selected overburden materials may be substituted for, or used as a supplement to topsoil if the operator demonstrates to the Division that the resulting soil medium is equal to, or more suitable for sustaining vegetation on nonprime farmland areas than the existing topsoil, has a greater productive capacity than that which existed prior to mining for prime farmland reconstruction, and results in a soil medium that is the best available in the permit area to support revegetation.*

The current approved reclamation plan for the Banning Loadout facility calls for the topsoil, some of which has been compacted and some of which has been graded throughout the site, to be ripped to a depth of 18 inches. The surface will then be roughened by pocking and gouging to

retain moisture, trap seeds and protect the soil surface from wind erosion. Some additional topsoil supplements are anticipated to be required, as set out by R645-301-231.200.

In the event that topsoil substitutes are found to be necessary, the Soldier Creek Coal Company will submit the appropriate application for permit change, and will conduct analyses of the thickness of soil horizons, total depth, texture, percent coarse fragments, pH, and areal extent of the different kinds of soils, and will submit the results of physical and chemical analyses to the Division to demonstrate to the Division that the resulting soil medium is equal to or more suitable for sustaining revegetation than the available topsoil, as required by R645-301-233.

All analyses, field-site trials, or greenhouse tests required by the Division will be certified by an approved laboratory in accordance with R645-301-233.300.

The permittee transported approximately 717 cubic yards of sediment from the Dugout Canyon Mine sediment pond to the Banning Loadout in August 2001. The material is stored in the equipment storage area (233 cu yds) and within the disturbed area of ASCA Area #2 (484 cu yds) (Exhibit 5-2). The vegetative test plot within this ASCA area was removed from this permit by amendment C/007/034-AM01B in June 2001. Prior to sediment placement, all coal was removed from the ground surface. A small berm was built in the area where the pond sediment is stored for protection of the material. Exhibit 5-2 was updated to depict the dimensions and features of the sediment storage sites.

A sample of the material stored in the Dugout Canyon Mine sedimentation pond was obtained in March, 2001 and analyzed for the parameters listed in Table 2 of the Division's "Guidelines for Management of Topsoil and

Overburden for Underground and Surface Coal Mining" (Leatherwood, 1988). Analysis results indicated the sediment from the pond would be acceptable for use as growth media. The results of the analysis are included in Appendix 2-2 of this permit. An additional composite sample of the sediment was obtained and analyzed in accordance with the above referenced guidelines after placement at the loadout to affirm the material is suitable for use as growth media. The results of the composite sample analysis are included in Appendix 2-2 of this permit. Analysis results indicated the sediment rated fair to good in all of the parameters listed in Table 2 (referenced above) and had a TOC of 7.4%. The permittee will utilize these sediment materials during final reclamation as top dressing over the sodic soils found in the vicinity of test pits TP-2 and TP-3.

The sediment is stored in piles no greater than 2 feet thick. Additionally, the surface of the stock pile shall be roughened by deep gouging and seeded with the reclamation seed mix presented in Table 3-3 of Chapter 3 of this permit.

In the future, the permittee will not bring any additional sedimentation pond material to the loadout.

R645-301.234 Topsoil Storage

R645-301-234.100 Through R645-301-234.320

The Banning site was constructed pre-law and as such no original topsoil was stockpiled.

Maps showing the location of soil resources are Exhibits 3-1 and 5-2. Any further stockpiling or other distribution of topsoils will be in accordance with R645-301-234.100 through R645-301-320.

R645-301-240. Reclamation Plan

R645-301-241. General Requirements

Each permit application will include plans for redistribution of soils, use of soil nutrients and amendments and stabilization of soils.

The first step in the reclamation plan is removal of loose coal material. This will begin a year prior to the closure of the operation. The operator will start to scrape the outlying areas removing as much coal as possible and will continue inward toward the area above the vibrating feeders. The coal will be loaded out and the surface will be left relatively free of debris. The soil will then be ripped to a depth of 18 inches to eliminate the deleterious effects of compaction. The resulting mixture of coal to soil will not exceed 50% coal. The tillage will continue until the average soil clods on the surface are less than one inch in size.

Soils previously used in grading to achieve desired elevations for specific needs and/or structure requirements, along with soils stored as noted in R645-301-231.400 and detailed in Chapter 5, will be redistributed to achieve final reclamation contours (Exhibit 5-6).

All areas affected by the loadout facilities within the permit area, except the designated portion of the haulage road, will be returned to a final surface configuration that closely resembles premining conditions. This configuration will conform to the drainage pattern of the surrounding terrain. The final contours will be achieved by backfilling and grading existing soils and any future stored soil. All minor amounts of coal and debris left on site will be covered with soil during the grading. Any rills or gullies deeper than 9 inches will be filled, graded or otherwise stabilized and the affected area will be reseeded.

The final grading and shaping of the affected areas will produce as many depressions or moisture retention surfaces as possible with slopes of a moderate grade. All grading will be completed in a controlled manner to suppress or eliminate erosion and sedimentation problems. Grading will take place along the contour as long as safety consideration and areal conditions permit. Graded surfaces will be left in shape and will be ripped to produce the proper seedbed conditions. Smooth compacted surfaces will be avoided throughout the process.

Material will be taken first from the truck ramp and used to build up the higher relief areas. Following this, the central drainage channel will be roughed in and the soil distributed to the higher relief areas. Next, the drainage channels and associated road will be regraded to final contours. The road will be built to closely approximate the need of right-of-way specifications. Last, the area will be graded to final contours and inspected and certified by the engineer-in-charge.

The soil structure for the Ravola soil series is in place within the Banning Loadout permit area. Therefore, no substitute topsoil is required or recommended. Remedial measures will be required to rehabilitate the insitu soil. At present the data indicate that 40 pounds per acre of sulfur coated urea (45-0-0) will need to be added as a nutrient. However, immediately Prior to reclaiming the area a soil test will be conducted to determine the current requirements for soil nutrients and amendments.

Soil stabilization will be accomplished through contouring and revegetation.

Revegetation will be as described in the revegetation reclamation plan in Chapter 5.

R645-301-242. Soil Redistribution

R645-301-242.100. *Topsoil materials removed under R645-301-232.100, R645-301-232.200, and R645-301-232.300 and stored under R645-301-234 will be redistributed in a manner that:*

R645-301-242.110. *Achieves an approximately uniform, stable thickness consistent with the approved postmining land use, contours, and surface-waters drainage systems;*

R645-301-242.120. *Prevents excess compaction of the materials; and*

R645-301-242.130. *Protects the materials from wind and water erosion before and after seeding and planting.*

Any future topsoil materials removed under R645-301-232.100, R645-301-232.200, and R645-301-232.300 and stored under R645-301-234 will be redistributed as indicated in R645-301-241, and in a manner consistent with R645-301-242.100 through R645-301-242.130.

This will incorporate 1500 pounds of wood fiber with 60 pounds of tac per acre oversprayed on an interim seed mix. The tac and mulch will minimize soil and water erosion until intermediate vegetation becomes established. An earthen berm will be constructed around the storage area, so as to prevent any soil loss during construction.

R645-301-242.200. *Before redistribution of the materials removed under R645-301-232 the regraded land will be treated if necessary to reduce potential slippage of the redistributed material and to promote root penetration. If no harm will be caused to the redistributed material and reestablished vegetation, such treatment may be conducted after such material is replaced.*

Redistribution of any materials removed under R645-301-232 will be in accordance with the provisions of R645-301-242.200. Current plans call for the ripping of the compacted soil to a depth of 18 inches and subsequent tillage until the average soil clods on the surface are less than 1 inch in size. Materials stored as berms, dikes, and sedimentation pond embankments will be mixed with this soil and redistributed to final reclamation contours and soil depths.

R645-301-242.300. *The Division may not require the redistribution of topsoil or topsoil substitutes on the approved postmining embankments of permanent impoundments or roads if it determines that:*

R645-302-242.310. *Placement of topsoil or topsoil substitutes on such embankments is inconsistent with the requirement to use the best technology currently available to prevent sedimentation, and*

R645-301-242.320. *Such embankments will be otherwise stabilized.*

Soldier Creek Coal Company will comply with the recommendations of the appropriate agencies relative to the best technology currently available in regard to the pond embankments. At present, this will be accomplished through intermediate revegetation.

R645-301-243. Soil Nutrients and Amendments.

Nutrients and soil amendments will be applied to the initially redistributed material when necessary to establish the vegetative cover.

Soil nutrients and amendments will be applied to the initially redistributed material as shown to be necessary by a soil analysis to be performed by a qualified laboratory at the onset of final reclamation.

R645-301-244. Soil Stabilization.

R645-301-244.100. *All exposed surface areas will be protected and stabilized to effectively control erosion and air pollution attendant to erosion.*

R645-301-244.200. *Suitable mulch and other soil stabilizing practices will be used on all areas that have been regraded and covered by topsoil or topsoil substitutes. The Division may waive this requirement if seasonal, soil, or slope factors result in a condition where mulch and other soil stabilizing practices are not necessary to control erosion and to promptly establish an effective vegetative cover.*

The requirements of R645-301-244.100 and R645-301-244.200 will be met by revegetation, mulching, and tacking as indicated in R645-301-340, and contouring as indicated in R645-301-241.

R645-301-244.300. Rills and gullies, which form in areas that have been regraded and topsoiled and which either:

R645-301-244.310. Disrupt the approved postmining land use or the reestablishment of the vegetative cover, or

R645-301-244.320. Cause or contribute to a violation of water quality standards for receiving streams will be filled, regraded, or otherwise stabilized; topsoil will be replaced; and the areas will be reseeded or replanted.

Soldier Creek Coal Company will fill, regrade, or otherwise stabilize, replace topsoil, and reseed or replant any rills and gullies in excess of 6 inches in depth which form in areas that have been regraded and topsoiled and which either disrupt the approved postmining land use or the reestablishment of the vegetative cover, or cause or contribute to a violation of water quality standards for receiving streams for the duration of its reclamation bond liability period.

645-301-250. Performance Standards

645-301-251. All topsoil, subsoil and topsoil substitutes or supplements will be removed, maintained and redistributed according to the plan given under R645-301-230 and R645-301-240.

Soldier Creek Coal Company will remove, maintain, and redistribute all future topsoil subsoil, and topsoil substitutes or supplements according to the plan given under R645-301-230 and R645-301-240.

R645-301-252. All stockpiled topsoil, subsoil and topsoil substitutes or supplements will be located, maintained and redistributed according to plans given under R645-301-230 and R645-301-240.

Soldier Creek Coal Company will locate, maintain, and redistribute all future stockpiled topsoil, subsoil, and topsoil substitutes or supplements according to plans given under R645-301-230 and R645-301-240.

BANNING LOADOUT PERMIT
Canyon Fuel Co., LLC - Soldier Canyon

CHAPTER 3
BIOLOGY

R645-301-300. Biology.

R645-301-310. Introduction.

Each permit application will include descriptions of the :

R645-301-311. Vegetative, fish, and wildlife resources of the permit area and adjacent areas as described under R645-301-320;

R645-301-312. Potential impacts to vegetative, fish and wildlife resources and methods proposed to minimize these impacts during coal mining and reclamation operations as described under R645-301-330 and R645-301-340; and

R645-301-313. Proposed reclamation designed to restore or enhance vegetative, fish and wildlife resources to a condition suitable for the designated postmining land use as described under R645-301-340.

R645-301-320. Environmental Description.

R645-301-321. Vegetation Information.

The permit application will contain descriptions as follows:

R645-301-321.100. If required by the Division, plant communities within the proposed permit area and any reference area for SURFACE COAL MINING AND RECLAMATION ACTIVITIES and areas affected by surface operations incident to an underground mine for UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES. This description will include information adequate to predict the potential for reestablishing vegetation; and

Part R645-301-321.100. of this document presents a discussion of vegetation in the Banning Loadout permit and adjacent areas. This work was authorized by Soldier Canyon Coal Company and completed by Franklin K. Anderson, Phd., of Salt Lake City, Utah, and is included in Appendix 3-2.

R645-301-321.200. The productivity of the land before mining within the proposed permit area for SURFACE COAL MINING AND RECLAMATION ACTIVITIES and areas affected by surface operations incident to an underground mine for UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, expressed as average yield of food, fiber, forage, or wood products from such lands obtained under high levels of management. The productivity will be determined by yield data or estimates for similar sites based on current data from the U.S. Department of Agriculture, state agricultural universities, or appropriate state natural resource or agricultural agencies.

A determination of the productivity of the land within and around the permit area was made by George S. Cook, Range Conservationist for the U.S.D.A. Soil Conservation Service in 1987. The productivity and condition of the reference area of the 1987 study was checked again in 1992, and was shown not to have changed in the five years that elapsed between the two studies. This information was stated in the Soil Conservation Service letter pertaining to the 1992 annual report and appears in Appendix 3-1.

R645-301-322. Fish and Wildlife Information.

Each application will include fish and wildlife resource information for the permit area and adjacent areas.

R645-301-322.100. *The scope and level of detail for such information will be determined by the Division in consultation with state and federal agencies with responsibilities for fish and wildlife and will be sufficient to design the protection and enhancement plan required under R645-301-333.*

R645-301-322.200. *Site-specific resource information necessary to address the respective species or habitats will be required when the permit area or adjacent area is likely to include:*

R645-301-322.210. *Listed or proposed endangered or threatened species of plants or animals or their critical habitats listed by the Secretary under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.), or those species or habitats protected by similar state statutes;*

The United States Fish and Wildlife Service publish yearly, in the Federal Register, lists of endangered and threatened species. Three species listed are potential inhabitants of the general area of Banning Loadout; the black-footed ferret, bald eagle and peregrine falcon. None of these species have been observed within or adjacent to the permit area.

Banning Loadout does have above ground electrical power lines that were constructed to minimize potential hazards to eagles or other large birds. These lines, and any new lines, have been and will be designed and constructed in accordance with the guidelines set forth in Environmental Criteria for Electric Transmission Systems or as approved by DOGM.

TABLE 3-1

The U.S. Fish and Wildlife Service (Service) advises that the following listed threatened or endangered species could occur in the area of influence of the Banning Loadout:

Bald eagle	<u>Haliaeetus leucocephalus</u>
Colorado squawfish	<u>Ptychocheilus lucius</u>
Bonytail Chub	<u>Gila elegans</u>
Humpback Chub	<u>Gila cypha</u>
Razorback sucker	<u>Xyrauchen texanus</u>

See Appendix 3-5

R645-301-322.220. Habitats of unusually high value for fish and wildlife such as important streams, wetlands, riparian area, cliffs supporting raptors, areas offering special shelter or protection, migration routes, or reproduction and wintering areas; or

R645-301-322.230. Other species or habitats identified through agency consultation is requiring special protection under state or federal law.

The permit area for Banning Loadout is located within the Price River Resource Area. Surface water in the adjacent areas drains into Grassy Trail Creek and Cottonwood Wash, both tributaries of the Price River. The environment around the 30 acre permit site is within the cold desert-upper Sonoran life zone. Vegetation within the area is associated with the Greasewood-Shadscale desert shrub community.

The upper Sonoran life zone can provide habitat for approximately one hundred and forty-two species of wildlife. Appendix 3-3 provides two separate reports by the Utah Division of Wildlife Resources (DWR) which identify species having potential to inhabit the region. The species that is considered to be of high interest in the local area is the Pronghorn. Pronghorns are found as year-long residents within and adjacent to the permit area. These animals were transplanted to this site by the DWR in 1972 and are part of the Icelander Antelope Herd Unit II. Pronghorn prefer open sagebrush-desert and shrub-grassland habitats in areas of the Western United States. They are primarily browsers but are known to forage on grasses and forbs during spring and summer (FWS, 1978).

R645-301-322.300. Fish and Wildlife Service review.
Upon request, the Division will provide the resource information required under R645.301.322 and the protection and enhancement plan required under R645.301-333 to the U.S. Fish and Wildlife Service Regional or Field Office for their review. This information will be provided within 10 days of receipt of the request from the Service.

R645-301-323. Maps and Aerial Photographs.
Maps or aerial photographs of the permit area and adjacent areas will be provided which delineate:

See Exhibit 3-1

Revised December 2005

3-4

R645-301-323.100. *The location and boundary of any proposed reference area for determining the success of revegetation;*

See Exhibit 3-1

R645-301-323.200 *Elevation and locations of monitoring stations used to gather data for fish and wildlife, and any special habitat features;*

See Exhibit 3-1

R645-301-323.300 *Each facility to be used to protect and enhance fish and wildlife and related environmental values; and*

See Exhibit 3-1

R645-301-323.400 *If required, each vegetative type and plant community, including sample locations. Sufficient adjacent areas will be included to allow evaluation of vegetation as important habitat for fish and wildlife for those species identified under R645.301.322.*

See Exhibit 3-1

R645-301-330 **Operation Plan.**

Each application will contain a plan for protection of vegetation, fish and wildlife resources throughout the life of the mine. The plan will provide:

R645-301-331 *A description of the measures taken to disturb the smallest practicable area at any one time and through prompt establishment and maintenance of vegetation for interim stabilization of disturbed areas to minimize surface erosion. This may include part or all of the plan for final revegetation as described in R645-301-341.100 and R645-301-341.200;*

Soldier Creek has disturbed only those areas deemed necessary for the handling of coal. All available support facilities (example: sediment pond, embankments, berms,) have been hydroseeded and mulched with an interim seed mix. Interim reclamation will use the seed mix shown on Table 3-3 and the basic seeding and mulching techniques outlined in Section R645-301-341 of this M&RP. Changes in interim seeding may be submitted to the Division for approval on an "as needed basis".

R645-301-332. *For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES a description of the anticipated impacts of subsidence or renewable resource lands identified in R645-301-320, and how such impact will be mitigated;*

Subsidence on this facility will not be a factor, as no underground mining will be conducted at this coal preparation and loadout facility.

R645-301-333. *A description of how, to the extent possible, using the best technology currently available, the operator will minimize disturbances and adverse impacts to fish*

and wildlife and related environmental values during coal mining and reclamation operations, including compliance with the Endangered Species Act of 1973 during coal mining and reclamation operations, including the location and operation of haul and access roads and support facilities so as to avoid or minimize impacts on important fish and wildlife species or other species protected by state or federal law; and how enhancement of these resources will be achieved, where practicable. This Description will:

R645-301-333.100. Be consistent with the requirements of R645-301-358;

R645-301-333.200. Apply, at a minimum, to species and habitats identified under R645-301-322; and

R645-301-333.300. Include protective measures that will be used during the active mining phase of operation. Such measures may include the establishment of buffer zones, and selective location and special design of haul roads and powerlines, and the monitoring of surface water quality and quantity.

The major impact to the wildlife in and around Banning Loadout, loss of habitat, occurred during the construction of the site. The operational activities at the site impact the wildlife slightly, but most of the wildlife in the area have either accepted or adjusted their behavior to coexist with the operation.

Construction at the loadout to upgrade drainage controls and to resurface the road will have a minor impact on wildlife in the area. The impact will mainly be increased human activity associated with the construction and a small, less than 1.0 acre, loss of habitat for the sedimentation pond. These impacts will have little or no affect on the wildlife because they will be completed in an environmentally sound manner.

The Applicant does not plan to monitor any wildlife species during the life of the operation. An education program aimed at minimizing potential negative impacts by employees is presented during the Applicant annual retraining programs. This type of program has been adopted by the operator and will continue throughout the operation. All threatened or endangered wildlife sighted within or adjacent to the permit area will be reported to the appropriate state and/or federal agency.

The location and construction of the haulage road, as well as measures for the protection of Grassy Trail Creek, from sedimentation, including the sedimentation pond and other drainage control structures, are discussed in Chapter 7, Hydrology.

Any waters discharged from the facility will be monitored in accordance with UPDES Permit No. UTG040011 (See Appendix 7-4).

Timing any major disturbances during May and June will be so that blasting or major earthwork is avoided, whenever possible, from one hour before and two hours after sunrise or sunset.

Regulation of the use of pesticides or chemicals that have serious consequences to plants or wildlife will be initiated.

Prevention of fires and their spreading outside the permit area will be accomplished by on-site water sources and fire extinguishers.

Operation and reclamation activities will be done in compliance with the Endangered Species Act of 1973. As instructed by the Bureau of Land Management and the Utah Division of Wildlife Resources, fencing will be removed when DOGM determines that all reclamation standards have been met. Further measures taken to enhance wildlife habitat during reclamation are discussed under the "Reclamation Plans" section of this chapter.

R645-301-340. Reclamation Plan.

R645-301-341. Revegetation.

Each application will contain a reclamation plan for final revegetation of all lands disturbed by coal mining and reclamation operations, except water areas and the surface of roads approved as part of the postmining land use, as required in R645-301-353 through R645-301-357, showing how the applicant will comply with the biological protection performance standards of the State Program. The plan will include, at a minimum:

R645-301-341.100. A detailed schedule and timetable for the completion of each major step in the revegetation plan;

Table 3-2 illustrates the fall revegetation schedule to be followed for final reclamation. All seeding will be completed by the Applicant during the fall planting season, prior to the first snowfall.

TABLE 3-2

VEGETATION SCHEDULE

Year 1

First available planting season following demolition and recontouring.

Seedbed preparation, ripping, discing and amendment application (if required).

Hydroseeding and/or drill seeding

Hydromulching

Year 2

Occular estimates of success - follow up seeding where applicable after September 1.

Year 4

Quantitative determination of species diversity, woody species density and vegetative cover.

Year 6

Comparison of Reference area and reclaimed area - Both quantitative and qualitative. (Corrective measures implemented years 7 & 8).

Year 8

Sample woody species density.

Year 9

Comparison for bond release - Quantitative, qualitative and productivity - reference area and reclaimed site.

LIST OF FIGURES

FIGURE 4-1 MAP SHOWING CULTURAL AND HISTORIC RESOURCES
 (Confidential Folder - CF)

APPENDICES

APPENDIX 4-1 CARBON COUNTY ZONING DESIGNATIONS
APPENDIX 4-2 ARCHEOLOGICAL RECONNAISSANCE REPORT (CF)
APPENDIX 4-3 ARCHEOLOGICAL SURVEY CONDUCTED BY ARCHEOLOGICAL
 ENVIRONMENTAL RESEARCH CORPORATION (CF)
APPENDIX 4-4 ARCHEOLOGICAL INFORMATION OBTAINED FROM THE STATE
 HISTORICAL PRESERVATION OFFICER (CF)
APPENDIX 4-5 LETTERS CONCERNING POST-MINING LAND USE
APPENDIX 4-6 LETTER FROM UTAH BUREAU OF AIR QUALITY
APPENDIX 4-7 AIR QUALITY MONITORING PLAN
APPENDIX 4-8 FUGITIVE DUST CONTROL PLAN

EXHIBITS

EXHIBIT 4-1 LAND USE MAP

BANNING LOADOUT PERMIT
Canyon Fuel Co., LLC - Soldier Canyon

CHAPTER 4

LAND USE AND AIR QUALITY

R645-301-400. Land Use and Air Quality

The Rules in R614-301-400 present the requirements for information related to Land Use and Air Quality which are to be included in each permit application.

R645-301-410. Land Use.

Each permit application will include descriptions of the premining and proposed postmining land use(s).

R645-301-411. Environmental Description

R645-301-411.100. Premining Land-Use Information. The application will contain a statement of the condition and capability of the land which will be affected by coal mining and reclamation operations within the proposed permit area, including:

R645-301-411.110. A map and supporting narrative of the uses of the land existing at the time of the filing of the application. If the premining use of the land was changed within five years before the anticipated date of beginning the proposed operations, the historic use of the land will be described;

The facilities are located within the Mud Springs grazing allotment as designated by the BLM (A small portion extends into the east pasture of the Mounds Allotment). Within the Mud Springs grazing allotment, there are 27,859 acres of federal land, 4,800 acres of state land and 1,220 acres of private land. Banning Loadout is situated in the western most part of the allotment and the period of use is from October 20 to June 10. The Mounds allotment contains 22,352 acres of federal land, 2,646 acres of state land and 280 acres of private land, the period of use is from November 16 through April 30 each year.

The proposed permit area for Banning Loadout is within 100 ft. of the Right-Of-Way for U.S. Highway 6-50, which is north of the facilities. State Highway 123 is also within the general area of the facilities, but neither road will be affected by Banning Loadout. Union Pacific Railroad have a main line railroad which runs along the eastern boundary of Banning Loadout. The Applicant holds a lease agreement

with the railroad to use a portion of their land and to load on a spur adjacent to the main line.

The land uses in this area are mining, railroad, industrial (CO² Plant, ECDC, etc.) roads, grazing and wildlife habitat. These land uses (except industrial) were present for a period of at least 5 years prior to the Applicant's operation and will continue to be present after the closure and reclamation of Banning Loadout. See Exhibits 4-1 and 5-2 for maps detailing described land use at and adjacent to the site .

R645-301-411.120 *A narrative of land capability which analyzes the land-use description in conjunction with other environmental resources information required under R645-301-411.100, and R645-301 and R645-302. The narrative will provide analyses of the capability of the land before any coal mining and reclamation operation to support a variety of uses, giving consideration to soil and foundation characteristics, topography, vegetative cover and the hydrology of the area proposed to be affected by coal mining and reclamation operations;*

The condition and capability of the land within the permit area is addressed in a letter from George S. Cook of the SCS, which documents the condition and productivity of the site, in Appendix 3-1

R645-301-411.130. *A description of the existing land uses and land-use classifications under local law, if any, of the proposed permit and adjacent areas.*

Carbon County zone designations for the area within and adjacent to the Banning Loadout is M&G-1 Zone (Mining and Grazing). A letter confirming this zone designation is included in Appendix 4-1.

R645-301-411.140. Cultural and Historic Resources Information.
The application will contain maps as described under R645-301-411.141 and a supporting narrative which describe the nature of cultural and historic resources listed or eligible for listing in the National Register of Historic Places and known archeological sites within the permit and adjacent areas. The description will be based on all available information, including, but not limited to information from the State Historic Preservation Officer and from local archeological, historic, and cultural preservation agencies.

Information regarding archeological sites within the permit and adjacent areas was obtained from Liz Manion, Archeological Data Manager

for the Division of State History of the Utah State Historical Society, and is shown in Appendix 4-4.

Further information was obtained by a study contracted by Soldier Creek Coal Company, and performed by the Archeological Environmental Research Corporation. A narrative statement describing the results of that study is included in Appendix 4-3.

R645-301-411.141. Cultural and Historic Resources Maps. *These maps will clearly show:*

A map showing cultural and historic resources is included as Figure 4-1.

R645-301-411.141.1. *The boundaries of any public park and locations of any cultural or historical resources listed or eligible for listing in the National Register of Historic Places and known archeological sites within the permit and adjacent areas;*

There are no public parks or cultural or historical resources listed or eligible for listing in the National Register of Historic Places within the permit or adjacent area. The locations of the two archeological sites found are shown in Figure 4-1.

R645-301-411.141.2. *Each cemetery that is located in or within 100 feet of the proposed permit area; and*

There are no cemeteries located in or within 100 feet of the proposed permit area.

R645.301.411.141.3. *Any land within the proposed permit area which is within the boundaries of any units of the National System of Trails or the Wild and Scenic Rivers System, including study rivers designated under section 5(a) of the Wild and Scenic Rivers Act.*

There is no land within the permit area which is within the boundaries of any units of the National system of Trails or the Wild and Scenic Rivers System, including study rivers designated under section 5(a) of the Wild and Scenic Rivers Act.

R645-301-411.142. *Coordination with the State Historic Preservation Officer (SHPO). The narrative presented under R645-301-411.140 will also describe coordination efforts with and*

present evidence of clearances by the SHPO. For any publicly owned parks or places listed on the National Register of Historic Places that may be adversely affected by the proposed coal mining and reclamation operations, each plan will describe the measures to be used:

The results of the archeological survey performed by Archeological-Environmental Research Corporation, as described above, were provided to; the BLM office in Price, Utah; the State Archeologist in Salt Lake City, Utah; the BLM State Archeologist in Salt Lake City, Utah; the BLM District Manager in Moab, Utah; and the BLM District Archeologist in Moab, Utah, in a report shown in Appendix 4-2.

R645-301-411.142.1. To prevent adverse impacts; or

R645-301-411.142.2. If valid existing rights exist or joint agency approval is to be obtained under R645-103-236, to minimize adverse impacts.

No publicly owned parks or places listed on the National Register of Historic Places exists within the permit or adjacent areas.

R645-301-411.143. The Division may require the applicant to identify and evaluate important historic and archeological resources that may be eligible for listing on the National Register of Historic Places through:

R645-301-411.143.1. Collection of additional information;

R645-301-411.143.2. Conducting field investigations; or

R645-301-411.143.3. Other appropriate analyses.

The results of the archeological survey conducted by the Archeological-Environmental Research Corporation are given in Appendix 4-3.

R645-301-411.144. The Division may require the applicant to protect historic or archeological properties listed on or eligible for listing on the National Register of Historic Places through appropriate mitigation and treatment measures. Appropriate mitigation and treatment measures may be required to be taken after permit issuance provided that the required measures are completed before the properties are affected by any mining operation.

Recommendations regarding the protection of archeological properties found on or adjacent to the permit area have been made and forwarded to federal and state archeologists as noted in Appendix 4-2.

The Soldier Creek Coal Company has agreed to adhere to those recommendations and stipulations, as noted, as concerns on archeological sites.

R645-301-411.200. Previous Mining Activity. The application will state whether the proposed permit area has been previously mine, and, if so, the following information, if available:

R645-301-411.210. The type of mining method used;

R645-301-411.220. The coal seams or other mineral strata mined;

R645-301-411.230. The extent of coal or other minerals removed;

R645-301-411.240. The approximate dates of past mining; and

R645-301-411.250. The uses of the land preceding mining.

The permit area has not been used for coal mining activities other than the use as a loadout. Previous to use by the Soldier Creek Coal Company, it was operated as a coal loadout facility in adherence to DOGM standards.

R645-301-412. Reclamation Plan.

R645-301-412.100. Postmining Land-Use Plan. Each application will contain a detailed description of the proposed use, following reclamation, of the land within the proposed permit area, including a discussion of the utility and capacity of the reclaimed land to support a variety of alternative uses, and the relationship of the proposed use to existing land-use policies and plans. The plan will explain:

The land uses within and adjacent to the permit area include mining, roads, railroads, rangeland and wildlife habitat. The operation of Banning Loadout will have no effect on these land uses or any other uses, except for the rangeland and wildlife uses.

Following final reclamation of the site, the affected lands will be returned to a state similar to that of the premining environment. This will be accomplished by adherence to the reclamation plan contained within Sections R645-301-240, 340, 540, and 760. The postmining land

use within what was the permit area will return to rangeland, wildlife and road uses with the exception of the area purchased by East Carbonic Inc. for a CO² plant (Exhibits 5-2 and 5-4). All other land uses in the area will not be affected by the operation and will remain as they now exist.

A portion of the Banning permit and disturbed area have been sold to East Carbonic Inc., a Utah corporation. The sales agreement describes the land as SE1/4SE1/4 of Section 16, and E1/2NE1/4 of Section 21 Township 15 South, Range 12 East in Carbon County, Utah (Appendix 1-5, Exhibit A). The sale of this land compels a change in post mining land use for the area. East Carbonic plans to construct and operate a CO² plant. In the operation of the CO² plant East Carbonics plans to use the substation previously used to operate the Banning Loadout. The substation resides in SE1/4SE1/4 of Section 16 on land belonging to East Carbonics (Exhibits 5-4 and 5-2).

Canyon Fuel Company, LLC has reserved (Purchase and Sales Agreement, Appendix 1-5, Section 2.2 and Exhibit B) a tract of land in SE1/4SE1/4 of Section 16 for the purpose of conducting reclamation activities. Excluding the substation and associated pad, reclamation activities will be performed as described in Chapter 2 and 3 of the M&RP on the remainder of the disturbed area in Section 16 (see Exhibit 5-4). The reclaimed area will meet the success standards outlined under regulation R645-301-356.240 prior to being released from the bond. Upon approval for change in post mining land use of the substation and it's associated pad area, area will be excluded from the disturbed area (approximately 0.41 acres). The permit area has been reduced by approximately 0.83 acres, which included the 0.41 acres in the disturbed area.

The SCS has determined that there are no prime or important farmlands within or adjacent to the permit area, so no special contingency will be made during reclamation. Soils within the reclaimed land will be redistributed, regraded and revegetated. This will insure the stability and productivity of the land along with maintaining all of the land uses within the area. All reclamation plans will be certified by a professional engineer.

R645-301-412.110. *How the proposed postmining land use is to be achieved and the necessary support activities which may be needed to achieve the proposed land use;*

Plans for the restoration of land to the pre-mining uses of rangeland and wildlife uses, along with the necessary support activities, are detailed in sections R645-301-240, 340, 540, and 760, which are, the Soils Reclamation Plan, the Biology Reclamation Plan, the Engineering Reclamation Plan, and the Hydrology Reclamation Plan.

R645-301-412.120. *For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, where range or grazing is the proposed postmining use, the detailed management plans to be implemented;*

Banning Loadout is a coal loading facility and as such, this regulation is non applicable.

R645-301-412.130. *Where a land use different from the premining land use is proposed, all materials needed for approval of the alternative use under R645-301-413.100 through R645-301-413.334, R645-302-270, R645-302-271.100 through R645-302-271.400, R645-302-271.600, R645-302-271.800, and R645-302-271.900; and*

R645-301-412.140. *The consideration which has been given to making all of the proposed coal mining and reclamation operations consistent with surface owner plans and applicable Utah and local land-use plans and programs.*

With the exception of the area purchased by East Carbonic Inc. for a CO² plant (Exhibits 5-2 and 5-4), the proposed post-mining land use is rangeland, wildlife and roads which is identical to the pre-mining land use and consistent with the use of land adjacent to the permit area,

and consistent with surface owner plans and applicable Utah and local land-use plans and programs.

R645-301-412.200. *Land Owner of Surface Manager Comments.* The description will be accompanied by a copy of the comments concerning the proposed use by the legal or equitable owner of record of the surface of the proposed permit area and Utah and local government agencies which would have to initiate, implement, approve, or authorize the proposed use of the land following reclamation.

Appendix 4-5, contains a letter from BLM stating Post-Mining Land Use. Appendix 1-5, contains information pertaining to the purchase and intended use of the land purchased by East Carbonics Inc.

R645-301-412.300. *Suitability and Compatibility.* Assure that final fills containing excess spoil are suitable for reclamation and revegetation and are compatible with the natural surroundings and the approved postmining land use.

Refer to Section R645-301-512.210. The Soldier Creek Coal Company will insure, through testing prior to final reclamation, of fills containing excess spoils, that are suitable for reclamation and are compatible with the natural surroundings and the postmining land use.

R645-301-413. *Performance Standards.*

Soldier Creek Coal agrees to implement and abide by all performance standards; R645-301-413.110 through R645-301-413.334.

R645-301-414. *Interpretation of R645-301-412 and R645-301-413.100 through R645-301-413.334, R645-302-207, R645-302-271.100 through R645-302-271.400, R645-302-271.600, R645-302-271.800, and R645-302-271.900 for the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, Reclamation Plan: Postmining Land Use.* The requirements of R645-301-412-130, for approval of an alternative postmining land use, may be met by requesting approval through the permit revision procedures of R645-303-220 rather than requesting such approval in the original permit application. The original permit application, however, must demonstrate that the land will be returned to its premining land-use capability as required by R645-301-413.100. An application for a permit revision of this type:

Requests for alternate post-mining land-use will be through permit revision procedures of R645-303-220 and the R645-301 regulations.

R645-301-420. **Air Quality**

R645-301-421. Coal mining and reclamation operations will be conducted in compliance with the requirements of the Clean Air Act (42 U.S.C. Sec. 7401 et seq.) and any other applicable Utah or federal statutes and regulations containing air quality standards.

The Soldier Creek Coal Company will conduct coal mining and reclamation operations at the Banning Loadout facility in compliance with the requirements of the Clean Air Act and any other applicable Utah or federal statutes and regulations containing air quality standards.

R645-301-422. The application will contain a description of coordination and compliance efforts which have been undertaken by the applicant with the Utah Bureau of Air Quality.

An Air Quality Approval Order has been obtained by the Applicant for Banning Loadout from the Utah Department of Health, Division of Environmental Health, Bureau of Air Quality (see Appendix 4-6, DEH letter dated 07/16/80). Operations at the loadout have not changed since the acquisition of the approval order and will continue to comply with the order.

R645-301-423. For all SURFACE COAL MINING AND RECLAMATION ACTIVITIES with projected production rates exceeding 1,000,000 tons of coal per year, the application will contain an air pollution control plan which includes the following:

R645-301-423.100. An air quality monitoring program to provide sufficient data to evaluate the effectiveness of the fugitive dust control practices proposed under R645-301-423.200 to comply with federal and Utah air quality standards; and

See Appendix 4-7 Air Quality Monitoring Plan

R645-301-423.200. A plan for fugitive dust control practices as required under R645-301-244.100 and R645-301-244.300.

See Appendix 4-8 Fugitive Dust Control Plan

R645-301-424. All plans for SURFACE COAL MINING AND RECLAMATION ACTIVITIES with projected production rates of 1,000,000 tons of coal per year or less, will include a plan for fugitive dust control practices as required under R645-301-244 and R645-301.244.300.

The Applicant applied for and received an Air Quality Approval Order for Banning Loadout on July 16, 1980. The facilities are operated in

accordance to the approval order given in Appendix 4-6. While active, the emission inventory for the operation is submitted to the Utah Division of Environmental Health, Bureau of Air Quality. A copy of this emission inventory will be included in the annual report.

The only significant emission to be produced by the operation is particulates. In accordance with the Air Quality approval Order, the emission is partially controlled by the following means:

1. Enclosed truck dump area;
2. Enclosed crusher and water sprays;
3. Water sprays on conveyor belts;
4. Covered conveyor belts;
5. Compaction of long-term coal storage.

Additional fugitive dust control measures are outlined in the Fugitive Dust Control Plan, Appendix 4-8.

CHAPTER 5

LIST OF EXHIBITS

EXHIBIT	5-1	PERMIT AREA MAP
EXHIBIT	5-2	BANNING LOADOUT - SURFACE FACILITIES
EXHIBIT	5-3	CROSS SECTIONS - BANNING LOADOUT
EXHIBIT	5-4	SURFACE OWNERSHIP
EXHIBIT	5-5	SUBSURFACE OWNERSHIP
EXHIBIT	5-6	FINAL CONTOUR MAP W/SUBSTATION
EXHIBIT	5-6A	FINAL CONTOUR MAP WO/SUBSTATION
EXHIBIT	5-7	TRANSPORTATION FACILITIES MAP - ROAD DESIGN DETAILS

LIST OF APPENDICES

APPENDIX	5-1	SURFACE FACILITIES
APPENDIX	5-2	SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN
APPENDIX	5-3	CULVERT SIZING CALCULATIONS
APPENDIX	5-4	DISTURBED AREA DESCRIPTION

BANNING LOADOUT PERMIT
Canyon Fuel Co., LLC - Soldier Canyon

CHAPTER 5
ENGINEERING

R645-301-500 Engineering

The rules in R645-301-500 present the requirements for engineering information which is to be included in a permit application.

This chapter will provide engineering information as required to be included in a permit application.

R645-301-510 Introduction

The engineering section of the permit application is divided into the operation plan, reclamation plan, design criteria, and performance standards. All of the activities associated with the coal mining and reclamation operations must be designed, located, constructed, maintained and reclaimed in accordance with the operation and reclamation plan. All of the design criteria associated with the operation and reclamation plan must be met.

This engineering chapter is divided into the following sections: Introduction; Operation Plan; Operational Design Criteria and Plans; Reclamation Plan; Reclamation Design Criteria and Plans; and Performance Standards. All of the activities associated with this operation will be designed, located, constructed, maintained and reclaimed in accordance with the approved plan. All of the design criteria associated with the operation and reclamation plan will also be met.

R645-301-511 General Requirements

Each permit application will include descriptions of:

The following sections will provide descriptions of the proposed operation, potential impacts and reclamation.

R645-301-511.100 Proposed Operation

The proposed coal mining and reclamation operations with attendant maps, plans, and cross sections;

The proposed operations are described in detail under Section R645-301-520 of this chapter. Proposed reclamation is described in detail under Section R645-301-540 of this chapter.

R645-301-511.200 Potential Impacts

The proposed mining operation and its potential impacts to the environment as well as methods and calculation utilized to achieve compliance with design criteria; and

The proposed operation and its potential impacts to the environment as well as methods and calculations utilized to achieve compliance with design criteria are described in detail under Section R645-301-520 and R645-301-530 of this chapter.

R645-301-511.300 Reclamation

Reclamation is described under Section R645-301-540 of this chapter.

R645-301-512 Certification

R645-301-512.100 Cross Sections and Maps

Certain cross sections and maps required to be included in a permit application will be prepared by, or under the direction of, and certified by a qualified, registered, professional engineer or land surveyor, with assistance from experts in related fields such as hydrology, geology and landscape architecture, and will be updated as required by the Division. The following cross sections and maps will be certified:

All maps requiring certification will be prepared by, or under the direction of and certified by a qualified, registered professional engineer or land surveyor. The following is a description of the cross-sections and maps to be certified.

R645-301-512.110 Mine Workings

Mine workings to the extent known as described under R645-301-521.110

N/A This is a surface loadout facility;

R645-301-512.120 Surface Facilities and Operations

Surface facilities and operations as described under R645-301-521.124, R645-301--521.164, R645-301-521.165 and R645-301-521.167;

Exhibits 5-1, 5-2 and 5-3 of this chapter.

R645-301-512.130 Surface Configurations

Surface configurations as described under R645-301-542.300 and R645-302-200;

Exhibit 5-6 and 5-6A of this chapter.

R645-301-512.140 Hydrology

Hydrology as described under R645-301-722, and as appropriate, R645-301-731.700 through R645-301-731.740; and

Exhibits 7-1, 7-2 and 7-3 of Chapter 7.

R645-301-512.150 Geologic Cross Sections and Maps

Geologic cross section and maps as described under R645-301-622.

N/A This is a surface loadout facility only. No mining will be done here.

R645-301-512.200 Plans and Engineering Designs

Excess spoil, durable rock fills, coal mine waste, impoundments, primary roads and variances from approximate original contour require certification by a qualified registered professional engineer.

The following sections will describe specific maps to be certified under this section.

R645-301-512.210 Excess Spoil

The professional engineer experienced in the design of earth and rock fills will certify the design according to R645-301-535.100.

N/A There are no plans to dispose of excess spoil at this site.

R645-301-512.220 Durable Rock Fills

The professional engineer experienced in the design of earth and rock fills must certify that the durable rock fill design will ensure the stability of the fill and meet design requirements according to R645-301-535.100 and R645-301-535.300.

N/A There are no plans for durable rock fills at this site.

R645-301-512.230 Coal Mine Waste

The professional engineer experienced in the design of similar earth and waste structures must certify the design of the disposal facility according to R645-301-536.

N/A There are no plans to dispose of coal mine waste at this site. Any coal mine waste will be blended with the coal and shipped as product. (See Section R645-301-513.300).

R645-301-512.240 Impoundments

The professional engineer will use current, prudent, engineering practices and will be experienced in the design and construction of impoundments and certify the design of the impoundments according to R645-301-743.

Exhibits 7-2 and 7-3 of Chapter 7.

R645-301-512.250 Primary Roads

The professional engineer will certify the design and construction or reconstruction of primary roads as meeting the requirements of R645-301-534.200 and R645-301-742.420.

Exhibits 5-2 and 5-7 of this chapter.

R645-301-512.260 Variance from Approximate Original Contour

The professional engineer will certify the design for the proposed variance from the approximate original contour, as described under R645-301-270, in conformance with professional standards established to assure the stability, drainage and configuration necessary for the intended use of the site.

N/A As shown on Exhibit 5-6/5-6A and described in Section R645-301-540, the area will be returned to Approximate Original Contour.

R645-301-513 Compliance with MSHA Regulations and MSHA Approvals

R645-301-513.100 Coal Processing Waste Dams and Embankments

will comply with MSHA, 30 CFR 77.216-1 and 30 CFR 77.216-2 (see R645-301-528.400 and R645-301-536.820).

N/A There will be no coal processing waste dams or embankments at this site.

R645-301-513.200 Impoundments and sedimentation ponds meeting the size or other qualifying criteria of MSHA, 30 CFR 77.216(a) will comply with the requirements of MSHA, 30 CFR 77.216 (see R645-301-533.600, R645-301-742.222, and R645-301-742.223).

N/A There are no sediment ponds or impoundments at this site which meet the requirements of MSHA 30 CFR 77.216(a).

R645-310-513.300 Underground development waste, coal processing waste and excess spoil may be disposed of in underground mine workings, but only in accordance with a plan approved by MSHA and the Division (see R645-301-528.321).

N/A There are no plans to return underground development waste or excess spoil to underground mine workings. Coal processing waste is not being produced at the present time or foreseeable future; however, should it be produced, it would be disposed by blending back into the product for retail sale. It would only be returned to underground mine workings if it met all MSHA and other requirements, and the above alternatives were no longer available.

R645-301-513.400 Refuse Piles

Refuse piles will meet the requirements of MSHA, 30 CFR 77.214 and 30 CFR 77.215 (see R645-301-536.900).

N/A There are no plans for refuse piles at this site.

R645-310-513.500 Each shaft, drift, adit, tunnel, exploratory hole, entryway or other opening to the surface from the underground will be capped, sealed, backfilled or otherwise properly managed consistent with MSHA, 30 CFR 75.1771 (see R645-301-551).

N/A This is a surface loadout operation with no underground mining or openings.

R645-301-513.600 Discharges into an underground mine are prohibited, unless specifically approved by the Division after a demonstration that the discharge will meet the approval of MSHA (see R645-301-731.511.4).

N/A This is a surface operation. There are no plans to discharge into an underground mine.

R645-301-513.700 The nature, timing and sequence of the SURFACE COAL MINING AND RECLAMATION ACTIVITIES that propose to mine closer than 500 feet to an active underground mine are jointly approved by the Division and MSHA (see R645-301-523.220).

N/A There are no plans to conduct activities within 500 feet of an active coal mine.

R645-301-513.800 Coal mine waste fires will be extinguished in accordance with a plan approved by MSHA and the Division (see R645-301-528.323.1).

N/A Although a fire fighting plan is in effect at this site, per MSHA regulations, there are no plans to store coal mine waste on this site.

R645-301-514 Inspections. All engineering inspections, excepting those described under R645-301-514.330, will be conducted by a qualified, registered professional engineer or other qualified professional specialist under the direction of the professional engineer.

All engineering inspections, excepting those described under R645-301-514.330, will be conducted by a qualified, registered professional engineer or other qualified professional specialist under the direction of the professional engineer.

R645-310-514.100 Excess Spoil The professional engineer or specialist will be experienced in the construction of earth and rock fills and will periodically inspect the fill during construction. Regular inspections will also be conducted during placement and compaction of fill materials.

N/A There are no plans to construct earth or rock fills at this operation.

R645-301-514.110, R645-301-514.111, R645-301-514.112, R645-301-514.113, R645-301-514.114, R645-301-514.120, R645-301-514.130, R645-301-514.131, R645-301-514.132, R645-301-514.133 and R645-301-514.140

N/A There are no plans to construct earth or rock fills at this operation.

R645-301-514.200 Refuse Piles

N/A There are no plans for refuse piles at this operation.

R645-301-514.210, R645-301-514.220, R645-301-514.221, R645-301-514.222, R645-301-514.223, R645-301-514.224, R645-301-514.230, R645-301-514.240 and R645-301-514.250

N/A

R645-301-514.300 Impoundments

The only impoundment associated with this operation is the sediment pond.

R645-301-514.310 Certified Inspection

The professional engineer or specialist experienced in the construction of impoundments will inspect the impoundment.

All impoundment inspections will be made by a professional engineer or specialist experienced in the construction of impoundments.

R645-301-514.311 *Inspections will be made regularly during construction, upon completion of construction, and at least yearly until removal of the structure or release of the performance bond.*

Inspections will be made regularly during construction, upon completion of construction, and at least yearly until removal of the structure or release of the performance bond.

R645-301-514.312 *The qualified registered professional engineer will promptly, after each inspection, provide to the Division, a certified report that the impoundment has been constructed and maintained as designed and in accordance with the approved plan and the R645 rules. The report will include discussion of any appearances of instability, structural weakness or other hazardous conditions, depth and elevation of any impounded waters, existing storage capacity, any existing or required monitoring procedures and instrumentation and any other aspects of the structure affecting stability.*

The qualified registered professional engineer will promptly, after each inspection, provide to the Division, a certified report that the impoundment has been constructed and maintained as designed and in accordance with the approved plan and the R645 rules. The report will include discussion of any appearances of instability, structural

weakness or other hazardous conditions, depth and elevation of any impounded waters, existing storage capacity, any existing or required monitoring procedures and instrumentation and any other aspects of the structure affecting stability. Pond inspection reports are further discussed in Chapter 7.

R645-301-514.313 A copy of the report will be retained at or near the mine site.

A copy of the report will be retained at or near the site.

R645-301-514.320 Weekly Inspections

Impoundments subject to MSHA, 30 CFR 77.216 must be examined in accordance with 30 CFR 77.216-3.

N/A There are no impoundments subject to MSHA, 30 CFR 77.216 at this site.

R645-301-514.330 Quarterly Inspections

Other impoundments, not subject to MSHA, 30 CFR 77.216, will be examined at least quarterly by a qualified person designated by the operator for appearance of structural weakness and other hazardous conditions.

Impoundments will be examined at least quarterly by a qualified person designated by the operator for appearance of structural weakness and other hazardous conditions. A copy of the inspection report will be retained at or near the site.

R645-301-515 Reporting and Emergency Procedure

R645-301-515.100 The permit application will incorporate a description of the procedure for reporting a slide. The requirements for the description are: At any time a slide occurs which may have a potential adverse effect on public, property, health, safety, or the environment, the permittee who conducts the coal mining and reclamation operations will notify the Division by the fastest available means and comply with any remedial measures required by the Division.

At any time a slide occurs which may have a potential adverse effect on public, property, health, safety or the environment, the permittee will notify the Division by the fastest available means. If the slide is determined to be the result of activities of the permittee, the permittee will work with the Division to comply with any reasonable remedial measures required by the Division.

R645-301-515.200 Impoundment Hazards

The permit application will incorporate a description of notification when potential impoundment hazards exist. The requirements for the description are: If any examination or inspection discloses that a potential hazard exists, the person who examined the impoundment will promptly inform the Division of the finding and of the emergency procedures formulated for the public protection and remedial action. If adequate procedures cannot be formulated or implemented, the Division will be notified immediately. The Division will then notify the appropriate agencies that other emergency procedures are required to protect the public.

If any examination or inspection of an impoundment discloses a potential hazard exists, the permittee will promptly inform the Division of the finding and of the emergency procedures formulated for public protection and remedial action. If adequate procedures cannot be formulated or implemented, the Division will be notified immediately.

R645-301-515.300 The permit application will incorporate a description of procedures for temporary cessation of operations as follows:

The following procedures will be taken for a temporary cessation of operations:

R645-301-515.310 Temporary abandonment will not relieve a person of his or her obligation to comply with any provisions of the approved permit.

The conditions of the approved permit will continue to be met during the period of temporary cessation;

R645-301-515.311 Each person who conducts UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES will effectively support and maintain all surface access openings to underground operations, and secure surface facilities in areas in which there are no current operations, but operations are to be resumed under an approved permit.

There are no underground operations associated with this facility.

R645-301-515.312 Each person who conducts SURFACE COAL MINING AND RECLAMATION ACTIVITIES will effectively secure surface facilities in areas in which there are no current operations, but in which operations are to be resumed under an approved permit.

The surface area of the site will be secured and maintained during the period of temporary cessation.

R645-301-515.320 Before temporary cessation of coal mining and reclamation operations for a period of 30 days or more, or as soon as it is known that a temporary cessation will extend beyond 30 days, each person who conducts coal mining and reclamation operations will submit to the Division a notice of intention to cease or abandon operations. This notice will include;

Before temporary cessation of operations for a period of 30 days or more, or as soon as it is known that a temporary cessation will extend beyond 30 days, the permittee will submit to the Division a notice of intention to cease or abandon operations. This notice will include the following:

R645-301-515.321 For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, a statement of the exact number of surface acres and the horizontal and vertical extent of subsurface strata which have been in the permit area prior to cessation or abandonment, the extent and kind of reclamation of surface area which will have been accomplished, and identification of the backfilling, regrading, revegetation, environmental monitoring, underground opening closures and water treatment activities that will continue during the temporary cessation.

N/A There are no underground operations associated with this facility.

R645-301-515.322 For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, a statement of the exact number of acres which will have been affected in the permit area prior to such temporary cessation, the extent and kind of reclamation of those areas which will have been accomplished, and identification of the backfilling, regrading, revegetation, environmental monitoring, and water treatment activities that will continue during the temporary cessation.

A statement of the exact number of acres which have been affected in the permit area prior to such temporary cessation, the extent and kind of reclamation of those areas which will have been accomplished; and identification of the backfilling, regrading, revegetation, environmental monitoring and water treatment activities that will continue during the temporary cessation.

R645-301-516 Prevention of Slides in SURFACE COAL MINING AND RECLAMATION ACTIVITIES. An undisturbed natural barrier will be provided beginning at the elevation of the lowest coal seam to be mined and extending from the outslope for such distance as may be determined by the Division as is needed to assure stability. The barrier will be retained in place to prevent slides and erosion.

N/A This is a surface loadout facility only. There are no surface or underground mines at this site.

R645-301-520 Operation Plan

R645-301-521 General. The applicant will include a plan, with maps, cross sections, narrative, descriptions, and calculations indicating how the relevant requirements are met. The permit application will describe and identify the lands subject to coal mining and reclamation operations over the estimated life of the operations and the size, sequence, and timing of the subareas for which it is anticipated that individual permits for mining will be sought.

Banning Loadout began operations in 1976 when the Applicant received permission from the BLM to upgrade the existing road and to receive, stockpile and load coal at the site. The total area of surface disturbance at the site is approximately 26.3 acres. This area includes the loadout facilities (21.6 acres) and the haulage road (4.7 acres) within sections 15 and 16, T 15S, R12E (Exhibit 5-1). The total permit area is approximately 36.0 acres and is also illustrated on Exhibit 5-1. Surface disturbance area will be marked by perimeter markers, red reflectors attached to fence posts and/or steel pins securely set into the ground. Identification signs will be placed at access points from public

Exhibit 5-2 details the surface facilities at Banning Loadout. Coal is shipped from the loadout by rail cars, using a spur adjacent to the Railroad Company's main line track, and by trucks.

Bonding for the facilities is described in Section R645-301-800 (Chapter 8, Appendix 8-1) and plans and associated costs are given in Section R645-301-540 of this Chapter. The permit area and adjacent area are in the Price River drainage system which is not within the boundaries of any Wild or Scenic Rivers System. Also, the permit area and adjacent area are not within or adjacent to the boundaries of any public park, NRHP site, cemetery, burial ground or units of the National System of Trails.

The permit area is shown on Exhibit 5-1. It is not anticipated that this area will require enlargement during the life of the operation.

Materials Handling

Construction at Banning Loadout did not include the separating and segregation of topsoil material. The soils were graded throughout the site to achieve desired elevations for specific needs or specific structure requirements. Analyses of the soils at the loadout indicate that the soil resources have not been lost or otherwise destroyed. Except for compaction, the capability and potential productivity are equal to that of the contiguous Ravola soil.

Soil that will be disturbed during the construction of drainage control structures will be used as part of the berms, dikes or sedimentation pond. Topsoil will be removed and used as the outslope material for the berms and dikes. The outslopes of the sedimentation pond and all disturbed area associated with pond construction will be revegetated as stated in Section R645-301-540. This will protect the soils from wind and water erosion and lessen the chance of deterioration.

Coal processing wastes are not being produced by the Applicant's Banning Loadout at the present or, foreseeable, future time. Coal processing wastes that could be produced at the site would be a screen rock-coal mixture. Disposal of this type of waste would be by blending it back into the coal for retail sale, or if the waste meets MSHA's and other requirements, returning the waste to underground mine workings. There are no plans to use any coal processing waste as construction material at the site, although some coal and/or rock may be mixed into the berms, dikes or pond during construction. The reasons for this are because it would be virtually impossible to exclude all of this material due to the existing soil environment at Banning Loadout. All sediment removed from the sedimentation pond will be blended into the coal for retail sale.

The Applicant will provide DOGM with a 30 day notice prior to transporting coal waste or sedimentation pond waste to Soldier Canyon Mine. The notification will include the estimated quantity and the final location and disposition of the material. Coal that is transported to the mine site for final disposal will be reported to DOGM, but coal for retail sale will not be reported.

Disposal methods for noncoal wastes will depend upon the specific type of noncoal waste. All salvageable equipment will be sold to local scrap dealers, along with all tramp iron recovered from the belt magnets. Garbage and paper products will be collected in large trash "dumpsters" and disposed of by a licensed contractor. The contract garbage hauling service will collect the trash and haul it to a licensed disposal facility.

Petroleum by-products, such as oil and grease wastes, will be collected in barrels at the site by the operator and sold or returned for recycling to the distributors. Use of any by-product wastes on site is per state and federal regulations (50 CFR 49164; 11/29/85). Spills will be hauled as stated in the spill control plan. (See Appendix 5-2, Spill Prevention Control and Countermeasure Plan).

Temporary storage locations for waste disposal are shown on Exhibit 5-2.

Environmental Impacts and Mitigations

Environmental impacts caused by the Applicant's operation will be kept to a minimum by following environmentally sound practices. The major effect on the environment will be the loss of ground to surface disturbance. This loss will be mitigated at the end of the operation, when the Applicant reclaims the lands as stated in Section R645-301-540. Additional impacts to the environment will be avoided through careful planning and adherence to this Permit Application Package.

Impacts to the wildlife in the area will be minimized by maintaining the small disturbance area and by avoiding contact with all wildlife. Since there are no perennial streams within or adjacent to the permit area, there will be little if any impact to fisheries. Banning Loadout does have above the ground electrical power lines which could become potential contacts with eagles or other large birds. These lines, however, are designed and constructed in accordance with the guidelines set forth in Environmental Criteria for Electric Transmission Systems or as approved by DOGM.

There are no prime or important farmlands that occur within or adjacent to the permit area. A copy of the SCS's investigation for prime farmlands included in Appendix 2-1. No special provisions for prime or important farmlands were made in the application.

The Applicant will notify DOGM of any slide within the permit area that may have a potential adverse effect on public property, health, safety or the environment. Also, the Applicant will comply with all remedial measures by DOGM. (See Section R645-301-515).

Operational Monitoring Plans

Water monitoring at Banning Loadout will consist of sampling for UPDES parameters monthly when we discharge from the sedimentation pond or directly from our discharge pipe into the unnamed wash. Exhibit 5-2 which contains a complete copy of the Applicant's UPDES permit UTG-040011.

There will be no surface water monitoring plan for Banning Loadout. The Applicant will try, when an occurrence event allows, to sample water discharging through straw bale dikes and/or silt fences. Information from analyses of this water will be used to determine the effectiveness of the control structures and the need for any design change.

Monitoring for possible groundwater contaminates will consist of testing coal for possible toxic contaminants (Chapter 7). Testing will be done quarterly for one year, 1989, and annually after 1989 or if the

general location of the mining operations change and this change drastically affects the quality of the coal. All water monitoring data will be summarized and submitted to DOGM on an annual basis. Raw data received from the laboratories will be included with the annual report.

Vegetation monitoring at Banning Loadout will consist of qualitative observations of the reference area every two years by the SCS. The SCS will be requested to provide the estimated range condition of the reference area and to provide qualitative information on the reclamation progress of the test plot. The test plot area will be monitored in first, second, third and fifth years as stated in Section R645-301-540. This information and all miscellaneous vegetative information and/or data will be included in the annual report sent to DOGM.

The Applicant applied for and received an Air Quality Approval Order for Banning Loadout on July 16, 1980. The facilities are operated in accordance to the approval order. Each year, the emission inventory for the operation is submitted to the Division of Environmental Quality, Division of Air Quality. A copy of this emission inventory will be included in the annual report. Also, a copy of the approval order is shown in Chapter 1.

The sedimentation pond for Banning Loadout, along with all berms and embankments, will be constructed in accordance to the design criterion in Chapter 7 and Appendices. Inspections of the pond will be done quarterly for structure weakness, erosion and any other hazardous conditions. Also, following the construction, the pond embankment was inspected and certified by a registered professional engineer. The first inspection was the first quarter following construction of the pond. These inspection will be submitted to DOGM as a part of the annual report. Along with the inspections, a general report on the condition of all runoff control structures and any repairs to them will be sent yearly to DOGM (See Section R645-301-514.300).

DOGM will be notified within 30 days or as soon as it is known that Banning Loadout will temporary cease operations for more than 30 days. The notice will include a statement of the exact number of effected surface acres in the permit area and all activities that will cease and those that will continue during the temporary cessation. (See Section R645-301-515.300).

The intent of all monitoring programs for Banning Loadout is to insure that no additional degradation of the environment occurs due to the Applicant's operation. As stated throughout this section, all monitoring information will be submitted to DOGM in the annual report.

Any additional observation or information on environmental concerns will also be included in the report.

Control Plans

Oil Spill Prevention and Countermeasure Plan (SPCC)

In the event of an oil spill, immediate steps will be taken to contain the spill. Available equipment will be deployed to clean up the spill and arrangements will be made for any special equipment that may be needed during clean-up operations. The following measures will be implemented to prevent contamination of surface waters if an accidental oil spill should occur.

1. Oil absorbent materials are available to be deployed in case of an accidental spill.
2. Wastewater that contain oil will be treated by settling pond before any such water is discharged.
3. Oil changing on vehicles is performed only in designated areas that are properly equipped to prevent spills.
4. All personnel are briefed on the SPCC Plan and spill prevention is discussed at regular safety meetings.

The chances of an oil spill entering surface waters from loadout operations are minimal since surface run-off will be contained in the sedimentation pond; however, any oil spills not contained by the sedimentation pond will be reported to the Environmental Protection Agency immediately. All discharges at the Banning Loadout will be reported to:

EPA Region 8
1860 Lincoln Street
Denver, CO 80295
(303) 837-3880 (24-hour number)

and

State of Utah, Division of Health
150 W. North Temple
Salt Lake City, Utah 84103
(801) 533-6145 (24-hour number)

The SCC Plan will be amended whenever there is a change in facility design.

Air Pollution Control Plan

The only significant emission to be produced by the operation is particulates. This emission is partially controlled by the following means:

1. Enclosed truck dump area;
2. Enclosed crusher and water sprays;
3. Water sprays on conveyor belts;
4. Covered conveyor belts;
5. Compaction of long-term coal storage.

Fish and Wildlife Control Plan (FWCP)

Potentially adverse impacts on wildlife and related environmental values will be avoided or minimized through the implementation of mitigation measures. Also, the operation and maintenance of all transportation systems and support facilities under the Applicant's control will be accomplished in a manner that minimizes impacts to the fish and wildlife. The Applicant reserves the right to amend the fish and wildlife plan.

The major emphasis of the FWCP is the restoration of the wildlife habitat destroyed by Banning Loadout. Reclamation of the area will be as outlined in Chapter 3 and will return the land to an environment similar to the premining condition. This environment will be capable of supporting the approved postmining land uses. Other measures included in the FWCP are:

1. Employee education program to minimize the potential negative impact of employees upon wildlife (See Chapter 3).
2. Reporting of threatened or endangered plant or wildlife species.
3. Timing any major disturbances during May and June so that blasting or major earthwork is avoided, whenever possible, from one hour before and two hours after sunrise or sunset.
4. Regulation of the use of pesticides or chemicals that have serious consequences to plants or wildlife.
5. Prevention of fires and their spreading outside the permit area.

R645-301-521.100 *Cross Sections and Maps*

The application will include cross sections, maps and plans showing all the relevant information required by the Division, to include, but not be limited to:

Required maps and cross-sections are included in this Chapter as Exhibits. The following information is shown on these maps:

R645-301-521.110 *Previously Mined Areas*

These maps will clearly show:

N/A There are no mining areas associated with this site. Original disturbance did take place in 1976 as indicated in Section R645-301-521.

R645-301-521.111 *The location and extent of known workings of active, inactive, or abandoned underground mines, including mine openings to the surface within the proposed permit and adjacent areas. The map will be prepared and certified according to R645-301-512; and*

N/A

R645-301-521.112 *The location and extent of existing or previously surface-mined areas within the proposed permit area. The maps will be prepared and certified according to R645-301-512.*

N/A

R645-301-521.120 *Existing Surface and Subsurface Facilities and Features. These maps will clearly show:*

Surface facilities are shown on Exhibit 5-2. Permit Area and surrounding features are shown on Exhibit 5-1.

R645-301-521.121 *The location of buildings in and within 1,000 feet of proposed permit area, with identification of the current use of the buildings;*

Buildings within the permit area are shown on Exhibit 5-2. There are no other buildings within 1,000 feet of the permit area.

R645-301-521.122 *The location of surface and subsurface man-made features within, passing through, or passing over the proposed permit area, including but not limited to, major electric transmission lines, pipelines, and agricultural drainage tile fields;*

All surface man-made features within, passing through, or passing over the permit area are shown on Exhibits 5-1 and 5-2. There are no wells or pipelines within or adjacent to the permit area.

R645-301-521.123 Each public road located in or within 100 feet of the proposed permit area;

The haulage road used to transport coal to the site splits off of U.S. Highway 6-50 just after the Sunnyside Junction. The road parallels the highway for approximately 1200 feet, then curves toward the loadout facilities. Parts of the permit area lie within 100 feet of the U.S. Highway 6-50 Right-of-Way. Location of the permit and U.S. Highway 6-50 are shown on Exhibit 5-1. There are no other public roads within 100 feet of the permit area.

R645-301-521.124 The location and size of existing areas of spoil, waste, coal development waste, and noncoal waste disposal, dams, embankments, other impoundments, and water treatment and air pollution control facilities within the proposed permit area. The map will be prepared and certified according to R645-301-512; and

All other facilities are shown on Exhibit 5-2. This map is prepared and certified according to R645-301-512.

R645-301-521.125 The location of each sedimentation pond, permanent water impoundment, coal processing waste bank and coal processing waste dam and embankment in accordance with R645-301-512.100, R645-301-512.230, R645-301-521.143, R645-301-521.169, R645-301-528.340, R645-301-531, R645-301-533.600, R645-301-533.700, R645-301-535.140 through R645-301-535.152, R645-301-536.600, R645-301-536.800, R645-301-542.500, R645-301-732.210, and R645-301-733.100.

The location of the sediment pond is shown on Exhibit 7-1 and 5-2.

There are no permanent water impoundment, coal processing waste banks or coal processing waste dams or embankments associated with this operation.

R645-301-521.130 *Landowners and Right-of-Entry and Public Interest Maps.* These maps and cross sections will clearly show:

Surface and Subsurface Ownership Maps are shown on Exhibits 5-4 and 5-5, respectively.

R645-301-521.131 All boundaries of lands and names of present owners of record of those lands, both surface and subsurface, included in or contiguous to the permit area;

Surface ownership is shown on Exhibit 5-4. Sub-surface ownership is shown on Exhibit 5-5. Ownership is shown within and contiguous to the permit area.

R645-301-521.132 *The boundaries of land within the proposed permit area upon which the applicant has the legal right to enter and begin coal mining and reclamation operations; and*

The boundaries of land within the permit area upon which the applicant has the legal right to enter are clearly shown on Exhibits 5-2, 5-4 and 5-5.

R645-301-521.133 *The measures to be used to ensure that the interests of the public and landowners affected are protected if, under R645-301-234, the applicant seeks to have the Division approve:*

R645-301-521.133.1 *Conducting the proposed coal mining and reclamation operations within 100 feet of the right-of-way line of any public road, except where mine access or haul roads join that right-of-way; or*

As indicated under Section R645-301-521.123, a portion of the haul road lies within 100 feet of the U.S. Highway 6-50 Right-of-Way. The haul road was constructed in this manner as a "Frontage Road" as required and approved by the Utah Department of Transportation, to provide a safe location for highway ingress and egress. The road is located outside of the highway right-of-way fence and has no effect on the highway after leaving the turnout. This area within 100 feet of the highway right-of-way is for the haul road only. The facilities operation is not conducted within 100 feet of this right-of-way.

This road, although permitted as a haul road, also provided access to lands south of the facilities. The public is protected by proper signing of the road, strict adherence to speed limits and maintenance of access to the lands south of the facility.

R645-301-521.133.2 Relocating a Public Road

N/A There are no plans to relocate any public road in connection with this operation.

R645-301-521.140 Mine Maps and Permit Area Maps

These maps and/or cross-section drawings will clearly indicate:

The permit area is shown on Exhibit 5-1. Surface Facilities are shown on Exhibit 5-2.

R645-301-521.141 The boundaries of all areas proposed to be affected over the estimated total life of the coal mining and reclamation operations, with a description of size, sequence and timing of the mining of subareas for which it is anticipated that additional permits will be sought; the coal mining and reclamation operations to be conducted, the lands to be affected throughout the operation, and any change in a facility or feature to be caused by the proposed operations;

The boundaries of all areas proposed to be affected over the life of the operation are shown on Exhibits 5-1 and 5-2. There are presently no plans to enlarge or otherwise modify the disturbed area or affected areas at the site over the life of the operation. A legal description of the disturbed area is provided in Appendix 5-4.

R645-301-521.142 For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, the underground workings and the location and extent of areas in which planned-subsidence mining methods will be used and which includes all areas where the measures will be taken to prevent, control, or minimize subsidence and subsidence-related damage (refer to R645-301-525); and

N/A This is a surface loadout facility. There are no underground mines here.

R645-301-521.143 The proposed disposal sites for placing underground mine development waste and excess spoil generated at surface areas affected by surface operations and facilities for the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES and the proposed disposal site and design of the spoil disposal structures for purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES according to R645-301-211, R645-301-212, R645-301-412.300, R645-301-512.210, R645-301-512.220, R645-301-514.100, R645-301-528.310, R645-301-535.100 through R645-301-535.130, R645-301-535.300 through R645-301-535.500, R645-301-536.300, R645-301-542.720, R645-301-553.240, R645-301-745.100, R645-301-745.300, and R645-301-745.400.

N/A There are no plans to dispose of underground development waste or excess spoil at this site.

R645-301-521.150 Land Surface Configuration Maps

These maps will clearly indicate sufficient slope measurements or surface contours to adequately represent the existing land surface configuration of the proposed permit area for the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES and the area affected by surface operations and facilities for the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES measured and recorded according to the following:

The land surface configuration, both existing and proposed, is shown on Exhibits 5-1, 5-2 and 5-3.

R645-301-521.151 Each measurement will consist of an angle of inclination along the prevailing slope extending 100 linear feet above and below or beyond the coal outcrop or the area to be disturbed, or, where this is impractical, at locations specified by the Division. Maps will be prepared and certified according to R645-301-512; and

Cross sections are shown on Exhibit 5-3. Maps are prepared and certified according to R645-301-512.

R645-301-521.152 Where the area has been previously mined, the measurements will extend at least 100 feet beyond the limits of mining disturbances, or any other distance determined by the Division to be representative of the premining configuration of the land. Maps will be prepared and certified according to R645-301-512.

The area was originally disturbed in 1976 and this original permit area is shown on Exhibit 5-1. Additional permit areas added for the sub-station construction (0.54 acres) and an incidental boundary change (0.83 acres) were added in 1989 as shown on Exhibit 5-1.

R645-301-521.160 Maps and Cross Sections of the Proposed Features for the Proposed Permit Area. These maps and cross sections will clearly show:

All constructed and proposed features are shown on Exhibits 5-1, 5-2 and 5-6.

R645-301-521.161 Buildings, utility corridors, and facilities to be used;

See Exhibits 5-2 and 5-6.

R645-301-521.162 The area of land to be affected within the proposed permit area, according to the sequence of mining and reclamation.

See Exhibits 5-2 and 5-6.

R645-301-521.163 Each area of land for which a performance bond or other equivalent guarantee will be posted under R645-301-800;

See Exhibits 5-2 and 5-6.

R645-301-521.164 Each coal storage, cleaning and loading area. The map will be prepared and certified according to R645-301-512;

See Exhibit 5-2. The map has been prepared and certified according to R645-301-512.

R645-301-521.165 *Each topsoil, spoil, coal preparation waste, underground development waste, and noncoal waste storage area. The map will be prepared and certified according to R645-301-512;*

There are no spoil piles, coal preparation waste or underground development waste storage areas associated with this site. Temporary storage areas for both coal and noncoal waste is shown on Exhibit 5-2.

R645-301-521.166 *Each source of waste and each disposal facility relating to coal processing or pollution control;*

N/A There are no facilities on this site relating to coal processing waste disposal or pollution control. Any coal processing waste is stored only temporarily until removal or reloading as shown on Exhibit 5-2.

R645-301-521.167 *Each explosive storage and handling facility;*

N/A There are no explosives stored on this site.

R645-301-521.168 *For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, each air pollution collection and control facility; and*

N/A No air pollution collection or control facility is required at this site.

R645-301-521.169 *Each proposed coal processing waste bank, dam, or embankment. The map will be prepared and certified according to R645-301-512.*

N/A There are no coal processing waste banks, dams or embankments associated with this site.

R645-301-521.170 *Transportation Facilities Maps*

Each permit application will describe each road, conveyor, and rail system to be constructed, used, or maintained within the proposed permit area. The description will include a map, appropriate cross sections, and specifications for each road width, road gradient, road surface, road cut, fill embankment, culvert, bridge, drainage ditch, drainage structure, and each stream ford that is used as a temporary route.

Transportation facilities are described under Section R645-301-527. Required maps and cross sections are shown on Exhibits 5-2 and 5-7.

R645-301-521.180 Support Facilities

Each permit applicant will submit a description , plans and drawings for each support facility to be constructed, used, or maintained within the proposed permit area. The plans and drawings will include a map, appropriate cross sections, design drawings, and specifications to demonstrate compliance with R645-301-526.220 through R645-301-526.222 for each facility.

Support facilities are described under Section R645-301-526. All facilities are shown on Exhibit 5-2.

R645-301-521.190 Other relevant information required by the Division.

R645-301-521.200 Signs and Markers Specifications. Signs and markers will:

R645-301-521.210 Be posted, maintained and removed by the person who conducts the coal mining and reclamation operations.

Signs and markers will be posted, maintained and removed by the permittee.

R645-301-521.220 Be a uniform design that can be easily seen and read; be made of durable material; and conform to local laws and regulations;

Signs and markers will be of a uniform design that can easily be seen and read. They will be made of durable material and conform to local laws and regulations.

R645-301-521.230 Be maintained during all activities to which they pertain;

Sign and markers will be maintained during all activities to which they pertain.

R645-301-521.240 Mine and Permit Identification Signs

R645-301-521.241 For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, identification signs will be displayed at each point of access from public roads to areas of surface operations and facilities on permit areas;

Mine I.D. signs will be displayed at each point of access from public roads to the permit area. Locations are shown on Exhibit 5-1.

R645-301-521.242 For purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, identification signs will be displayed at each point of access to the permit area from public roads;

N/A This is a surface loadout operation for underground and mining.

R645-301-521.243 Show the name, business address, and telephone number of the permittee who conducts coal mining and reclamation operations and the identification number of the permanent program permit authorizing coal mining and reclamation operations; and

Mine I.D. signs will show the name, business address, and telephone number of the permittee and the identification number of the permanent program permit authorizing coal mining and reclamation operations.

R645-301-521.244 Be retained and maintained until after the release of all bonds for the permit area;

Mine I.D. signs will be retained and maintained until after the release of all bonds for the permit area.

R645-301-521.250 Perimeter Markers

R645-301-521.251 For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, the perimeter of all areas affected by surface operations or facilities before beginning mining activities will be clearly marked; or

The surface disturbance area will be clearly marked by perimeter markers, consisting of red reflectors attached to fence posts and/or steel pins securely set into the ground. Locations are shown on Exhibit 5-1.

R645-301-521.252 For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, the perimeter of a permit area will be clearly marked before the beginning of surface mining activities;

N/A This is a surface loadout facility for underground coal mining.

R645-301-521.260 Buffer Zone Markers

N/A There are no perennial or intermittent streams associated with this operation.

R645-301-521.261 For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, signs will be erected to mark buffer zones as required under R645-301-731.600 and will be clearly marked to prevent disturbance by surface operations and facilities; or

N/A

R645-301-521.262 For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, buffer zones will be marked along their boundaries as required under R645-301-731.600; and

N/A

R645-301-521.270 *Topsoil Markers. Markers will be erected to mark where topsoil or other vegetation-supporting material is physically segregated and stockpiled as required under R645-301-234.*

N/A Disturbance of this site took place in 1976. No topsoil was saved or stockpiled.

R645-301-522 *Coal Recovery. The permit application will include a description of the measures to be used to maximize the use and conservation of the coal resource. The description will assure that coal mining and reclamation operations are conducted so as to maximize the utilization and conservation of the coal, while utilizing the best technology currently available to maintain environmental integrity, so that re-affecting the land in the future through coal mining and reclamation operations is minimized.*

N/A This is a surface loadout facility. No coal extraction takes place here.

R645-301-523 *Mining Method(s). Each application will include a description of the mining operation proposed to be conducted during the life of the mine within the proposed permit area, including, at a minimum, a narrative description of the type and method of coal mining procedures and proposed engineering techniques, anticipated annual and total production of coal, by tonnage and the major equipment to be used for all aspects of those operations.*

N/A No mining takes place here.

R645-301-523.100 *SURFACE COAL MINING AND RECLAMATION ACTIVITIES proposed to be conducted within the permit area within 500 feet of an underground mine will be described to indicate compliance with R645-301-523.200.*

N/A

R645-301-523.200 *No SURFACE COAL MINING AND RECLAMATION ACTIVITIES will be conducted closer than 500 feet to any point of either an active or abandoned underground mine, except to the extent that:*

N/A

R645-301-523.210 *The operations result in improved resource recovery, abatement of water pollution, or elimination of hazards to the health and safety of the public; and*

N/A

R645-301-523.220 *The nature, timing, and sequence of the activities that propose to mine closer than 500 feet to an active underground mine are jointly approved by the Division and MSHA.*

N/A

R645-301-524 *Blasting and Explosives.* For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, each permit application will contain a blasting plan for the proposed permit area explaining how the applicant will comply with R645-301-524. This plan will include, at a minimum, information setting forth the limitations the operator will meet with regard to ground vibration and airblast, the bases for those limitations, and the methods to be applied in controlling the adverse effects of blasting operations. Each blasting plan will also contain a description of any system to be used to monitor compliance with the standards of R645-301-524.600 including the type, capability, and sensitivity of any blast-monitoring equipment and proposed procedures and locations of monitoring. Blasting operations conducted within 500 feet of active underground mines require approval of MSHA. Blasts that use more than five pounds of explosive or blasting agent will be conducted according to the schedule required under R645-301-524.400. For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, R645-301-524.100 through R645-301-524.700 apply to surface blasting activities incident to underground coal mining, including, but not limited to, initial rounds of slopes and shafts.

The Applicant will comply with all applicable state and federal laws in the use of explosives at Banning Loadout. A certified blaster will direct all blasting operations with the help of at least one other person. The Applicant will instruct the operator on these procedures but cannot foresee any use of explosives at the loadout facilities.

No explosives are stored or used at this site, and there are no plans for use in the future.

Regulations R645-301-524.100 through R645-301-524.800 are not applicable to this operation and have therefore been omitted.

R645-301-525 *Subsidence.* The requirements of R645-301-525 pertain to permit applications for UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES.

There is no underground mining at this site.

Regulations R645-301-525.100 through R645-301-525.300 are not applicable to this operation and have therefore been omitted.

R645-301-526 *Mine Facilities.* The permit application will include a narrative explaining the construction, modification, use, maintenance and removal of the following facilities (unless retention of such facility is necessary for the postmining land use as specified under R645-301-413.100 through R645-301-413.334, R645-302-270, R645-302-271.100 through R645-302-271.400, R645-302-271.600, R645-302-271.800, and R645-302-271.900:

The following sections will explain the construction, modification, use, maintenance and removal of the Banning Loadout Facilities.

R645-301-526.100 *Mine Structures and Facilities*

R645-301-526.110 *Existing Structures.* A description of each existing structure proposed to be used in connection with or to facilitate the coal mining and reclamation operation. The description will include:

The structures and facilities that are used in connection with or to facilitate the Banning Loadout activities are located off U.S. Highway 6-50 near Sunnyside Junction, Carbon County, Utah. Table 5-1 lists and Exhibit 5-2 show all the structures and facilities.

There are five buildings at the Banning Loadout (Exhibit 5-2). Two primary and three support buildings. The two primary buildings are the main control building and the silo control building. The main control building houses items necessary for operations of the site along with the electrical controls which distribute power to the site. The silo control building controls the vibrating feeders and conveyor belt system that feed the coal silo.

The three support facilities are the fiberglass shack, wooden shack and the temporary scale house. The fiberglass shack houses the controls and equipment used in discharging a dust suppressing agent from the 2000 gallon underground storage tank. This dust suppressing agent, when in use, will be sprayed upon the coal once loaded into the train car. The wooden shack houses the controls and equipment used in discharging a deicing agent from the 8500 and 6400 gallon above ground storage tanks. The deicing agent, also when in use, will be sprayed within an empty train car and prior to loading. All chemicals used at the site are non-hazardous.

The Applicant reserves the right to relocate the support facilities in the future to better accommodate planned improvements. The temporary scale house operates the scales used when coal quality conditions deem it necessary to facilitate a coal blending procedure. To assist in the monitoring of Soldier Creek Coal Company's coal quality, an ash analyzer was installed at a point along the 60 inch conveyor belt (Exhibit 5-2). Power to the site is supplied by a substation and all power lines at the site are run underground. The remaining structures (Table 5-1) serve self explanatory purposes associated with the operation.

Water for dust suppression and fire fighting needs is collected from the water well and stored in the 8,000 gal. storage tank. The excess water that collects under the truck dump, the reclaim tunnel and the main control building is settled and then discharged into the sediment pond or an unnamed wash under UPDES permit UTG-040011. Culinary water

is supplied by the operator in bottles and stored in the main control building.

There are two separate communication systems provided at Banning Loadout. The first is a mobile two-way radio set installed in the large equipment and in communication with Coal Service's main office. The second is a hand held telephone with its base located within the main control building. Sanitary wastes are collected for disposal by a licensed disposal company.

The haulage road used to transport coal to the site, splits off of U.S. Highway 6-50 just after Sunnyside Junction. The road parallels the highway for approximately 1,200 feet then curves toward the loadout facilities. Parts of the permit area lie within 100 feet of U.S. Highway 6-50 right-of-way. There are no plans to relocate any road in the area and access to the lands south of the facilities by landowners and interest holding parties will be maintained.

The Applicant plans to use all existing structures to facilitate operations and to replace or repair the structures with items of similar performance standards throughout the life-of-operations. All existing structures are shown on Exhibit 5-2. The structures meet the performance standards of the ACT and provide adequate compliance so that no significant harm to the environment, public health or the safety will result from the use of the structures.

The design and construction of the haulage road was submitted to and approved by the BLM prior to construction. The road was constructed as per BLM requirements and preconstruction conference between Authorized Officer and Applicant. The road was resurfaced during 1988 as part of the regular maintenance to insure adherence to the original design. All drainage control devices originally installed during construction are being maintained free from debris that could impair the functions of the devices.

All drainage from the railroad company's main line and the spur are kept separate from the surface disturbance drainage. This drainage flows parallel to the main line and toward the south end of the loadout facility (Exhibit 5-2). All other support facilities are maintained and used in a manner which prevents, to the extent possible, damage to the environment.

All facilities will be removed upon final reclamation, except the main line track, substation, sediment pond and a portion of the haul road as shown on Exhibit 5-6/5-6A. A post-mining land-use change leaving the substation for use by the current land owner is being proposed by the operator. If approved by UDOGM, the substation will be removed for the

permit and disturbed area and remain intact for use by the land owner. If the post mining land use change is not approved the reclamation contours reflecting the removal of the substation are provided on Exhibit 5-6A.

R645-310-526.111 *Location*

Facilities are shown on Exhibit 5-2

R645-301-526.112 *Plans or photographs of the structure which describe or show its current condition;*

Table 5-1

R645-301-526.113 *Approximate dates on which construction of the existing structure was begun and completed;*

Table 5-1

R645-301-526.114 *A showing, including relevant monitoring data or other evidence, how the structure meets the requirements of R645-301;*

Table 5-1

R645-301-526.115 *A compliance plan for each existing structure proposed to be modified or reconstructed for use in connection with or to facilitate coal mining and reclamation operations. The compliance plan will include:*

N/A There are no plans to modify or reconstruct these facilities.

R645-301-526.115.1, R645-301-526.115.2, R645-301-526.115.3, and R645-301-526.115.4 are not applicable to this operation and have therefore been omitted.

N/A

R645-301-526.116 *The measures to be used to ensure that the interests of the public and landowners affected are protected if the applicant seeks to have the Division approve:*

Refer to Section R645-301-521.133.1

R645-301-526.116.1 *Conducting the proposed coal mining and reclamation operations within 100 feet of the right-of-way line of any public road, except where mine ccess or haul roads join that right-of-way; or*

Refer to Section R645-301-521.133.1

R645-301-526.116.2 Relocating a public road

N/A There are no plans to relocate a public road in connection with this operation.

R645-301-526.200 Utility Installation and Support Facilities

Utility installation and Support Facilities are described under Section R645-301-526.110 and Table 5-1 and shown on Exhibit 5-2.

R645-301-526.210 The utility installations description must state that all coal mining and reclamation operations will be conducted in a manner which minimizes damage, destruction, or disruption of services provided by oil, gas, and water wells; oil, gas, and coal-slurry pipelines, railroads; electric and telephone lines; and water and sewage lines which pass over, under, or through the permit area, unless otherwise approved by the owner of those facilities and the Division.

All operations will be conducted in a manner which minimizes damage, destruction, or disruption of services provided by oil, gas and water wells; oil, gas and coal-slurry pipelines, railroads; electric and telephone lines; and water and sewage lines which pass over, under or through the permit area, unless otherwise approved by the owner of those facilities and the Division.

R645-301-526.220 The support facilities description must state that support facilities will be operated in accordance with a permit issued for the mine or coal preparation plant to which it is incident or from which its operation results. Plans and drawings for each support facility to be constructed, used, or maintained within the proposed permit area will include a map, appropriate cross sections, design drawings, and specifications sufficient to demonstrate how each facility will comply with applicable performance standards. In addition to the other provisions of R645-301, support facilities will be located, maintained, and used in a manner that:

Support facilities will be operated in accordance with a permit issued for the loadout facility.

Facilities are described under Section R645-301-526.110 and Table 5-1 and are shown on Exhibits 5-1 and 5-2.

Compliance with applicable performance standards is explained in Section R645-301-521.

R645-301-526.221 Prevents or controls erosion and siltation, water pollution, and damage to public or private property; and

Support facilities will be located maintained and used in a manner that prevents or controls erosion and siltation; water pollution, and damage to public or private property. (See Section R645-301-521).

R645-301-526.222 To the extent possible using the best technology currently available - minimizes damage to fish, wildlife, and related environmental values; and minimizes additional contributions of suspended solids to streamflow or runoff outside the permit area. Any such contributions will not be in excess of limitations of Utah or Federal law;

Support facilities will be located, maintained and used in a manner that, to the extent possible using the best technology currently available - minimizes damage to fish, wildlife and related environmental values; and minimizes additional contributions of suspended solids to streamflow or runoff outside the permit area. Any such contributions will not be in excess of limitations of Utah or Federal law. (See Section R645-301-521).

R645-301-526.300 Water pollution control facilities; and

The drainage control structures for Banning Loadout will consist of original structures, upgraded or improved structures and structures that have been constructed during 1988 following permit approval by DOGM. Chapter 7 of this permit application package details the exact measures that will be incorporated into the Applicant's permit to bring the site into compliance with federal and state regulations (Exhibits 7-1, 7-2 and 7-3). Appendices of Chapter 7 detail the calculations for the proper size of the sedimentation pond and riprap splash apron.

Drainage control devices at the loadout will be maintained as fully intact as possible during construction to prevent, to the extent possible, any additional contribution of sediment to streamflow or runoff outside the permit area. There may be times during construction when it is impracticable to control all the surface runoff during an isolated storm event. In order to alleviate this problem, the Applicant will try to schedule construction in such a manner as to expedite the process.

The sedimentation pond and other drainage control structures at Banning Loadout have been prepared by or under the direction of a professional engineer. Maps, cross-sections and details of the structures are contained in Chapter 7.

Each designed structure meets or exceeds all regulatory criteria. The drainage control structures will be inspected routinely throughout the life of the operation.

R645-301-526.400 For SURFACE COAL MINING AND RECLAMATION ACTIVITIES, air pollution control facilities.

N/A This is a surface loadout for an underground coal mine. Air pollution control facilities are not required. An air pollution control plan is discussed under Section R645-301-521.

R645-301-527 Transportation Facilities

Transportation Facilities are shown on Exhibits 5-1, 5-2 and 5-7.

R645-301-527.100 The plan must classify each road.

All roads at the site are classified as Primary Roads. Location and classification is shown on Exhibit 5-2.

R645-301-527.110 Each road will be classified as either a primary road or an ancillary road.

All roads at the site are primary roads.

R645-301-527.120 A primary road is any road which is:

R645-301-527.121 Used for transporting coal or spoil;

All roads on the site are used for transporting coal.

R645-301-527.122 Frequently used for access or other purposes for a period in excess of six months; or

All roads on site are used on a year-around basis.

R645-301-527.123 To be retained for an approved postmining land use.

A portion of the haulage road will remain in place after final reclamation as shown on Exhibits 5-1 and 5-6. This is a primary road and will provide access to lands south of the facility.

R645-301-527.130 An ancillary road is any road not classified as a primary road.

N/A There are no roads classified as ancillary roads at this site.

R645-301-527.200 The plan must include a detailed description of each road, conveyor, and rail system to be constructed, used, or maintained within the proposed permit area. The description will include a map, appropriate cross sections, and the following:

Detailed descriptions of all surface facilities, including transportation facilities are given in Section R645-310-526.100 and on

Table 5-1. Locations are shown on Exhibits 5-1 and 5-2. Cross sections and details are shown on Exhibit 5-7.

R645-301-527.210 Specifications for each road width, road gradient, road surface, road cut, fill embankment, culvert, bridge, drainage ditch, and drainage structure;

Specifications are described in Section R645-301-526.100 and on Table 5-1, and construction details are shown on Exhibit 5-7.

R645-301-527.220 Measures to be taken to obtain Division approval for alteration or relocation of a natural drainageway under R645-301-358, R645-301-512.250, R645-301-527.100, R645-301-527.230, R645-301-527.240, R645-301-534.100, R645-301-534.300, R645-301-542.600, R645-301-742.410, R645-301-742.420, and R645-301-752.200;

N/A There are no plans to alter or relocate a natural drainageway in connection with this operation.

R645-301-527.230 A maintenance plan describing how roads will be maintained throughout their life to meet the design standards throughout their use.

The haulage road at Banning Loadout was built as per the BLM specifications within the Right-of-Way 33855. The road was approved by the BLM and has been used by the Applicant without degradation to the surrounding environment. The Applicant has maintained the road and associated controls as they were designed and constructed. As part of the maintenance of the road, the Applicant resurfaced the haulage road during 1988.

The roads will continue to be maintained throughout their life to meet the design standards throughout their use. Maintenance will include regrading/resurfacing as necessary, cleaning of culverts as needed and maintenance of drainage controls such as slope, ditches and silt fences.

R645-301-527.240 A commitment that if a road is damaged by a catastrophic event, such as a flood or earthquake, the road will be repaired as soon as practical after the damage has occurred.

If a road is damaged by a catastrophic event, such as a flood or earthquake, the road will be repaired as soon as practical after the damage has occurred.

R645-301-527.250 A report of appropriate geotechnical analysis, where approval of the Division is required for alternative specifications, or for steep cut slopes.

N/A There are no plans requiring Division approval for alternative specifications or for steep cut slopes.

R645-301-528 Handling and Disposal of Coal Overburden, Excess Spoil and Coal Mine Waste. The permit application will include a narrative explaining the construction, modification, use, maintenance, and removal of the following facilities (unless retention of such facility is necessary for the postmining land use as specified under R645-301-413.100 through R645-301-413.334, R645-302-270, R645-302-271.100 through R645-302-271.400, R645-302-271.600, R645-302-271.800, and R645-302-271.900):

The construction, modification, use, maintenance and removal of relevant facilities are discussed in the following sections.

R645-301-528.100 Coal removal, handling, storage, cleaning, and transportation areas and structures;

There are no coal removal operations at this site. Coal handling facilities are described under Section R645-301-526 of this chapter.

R645-301-528.200 Overburden

N/A There is no overburden removal associated with this operation.

R645-301-528.300 Spoil, coal processing waste, mine development waste, and noncoal waste removal, handling, storage, transportation, and disposal areas and structures;

Waste handling and disposal are described in detail under the Materials Handling portion of Section R645-301-521 of this chapter.

R645-301-528.310 **Excess Spoil.** Excess spoil will be placed in designated disposal areas within the permit area, in a controlled manner to ensure mass stability and prevent mass movement during and after construction. Excess spoil will meet the design criteria of R645-301-535. For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, the permit application must include a description of the proposed disposal site and the design of the spoil disposal structures according to R645-301-211, R645-301-212, R645-301-412.300, R645-301-512.210, R645-301-512.220, R645-301-514.100, R645-301-528.310, R645-301-535.100 through R645-301-535.130, R645-301-535.300 through R645-301-535.500, R645-301-536.300, R645-301-542.720, R645-301-553.240, R645-301-745.100, R645-301-745.300, and R645-301-745.400.

N/A There is no excess spoil generated by this operation.

R645-301-528.320 Coal Mine Waste

All coal mine waste will be placed in new or existing disposal areas within a permit area which are approved by the Division for this purpose. Coal mine waste will meet the design criteria of R645-301-536, however, placement of coal mine waste by end or side dumping is prohibited.

See the Materials Handling portion of Section R645-301-521.

R645-301-528.321 Return of Coal Processing Waste to Abandoned Underground Workings. For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, each plan will describe the design, operation and maintenance of any proposed coal processing waste

disposal facility, including flow diagrams and any other necessary drawings and maps, for the approval of the Division and MSHA under R645-301-536.520 and meet the design criteria of R645-301-536.700.

See Sections R645-301-513.300 and R645-301-521.

R645-301-528.322 Refuse Piles

Each pile will meet the requirements of MSHA, 30 CFR 77.214 and 30 CFR 77.215, meet the design criteria of R645-301-210, R645-301-512.230, R645-301-513.400, R645-301-514.200, R645-301-515.200, R645-301-528.320, R645-301-536 through R645-301-536.200, R645-301-536.500, R645-301-536.900, R645-301-542.730, R645-301-553.250, R645-301-746.100, R645-301-746.200, and any other applicable requirement.

N/A There are no plans for refuse piles at this site.

R645-301-528.323 Burning and Burned Waste Utilization

There are no plans for long term storage of coal mine waste on this site. Any waste will only be stored temporarily for loadout and disposal. A fire-fighting plan for the facility has been filed with M.S.H.A. and approved.

R645-301-528.323.1 Coal mine waste fires will be extinguished by the person who conducts coal mining and reclamation operations, in accordance with a plan approved by the Division and MSHA. The plan will contain, at a minimum, provisions to ensure that only those persons authorized by the operator, and who have an understanding of the procedures to be used, will be involved in the extinguishing operations.

N/A

R645-301-528.323.2 No burning or burned coal mine waste will be removed from a permitted disposal area without a removal plan approved by the Division. Consideration will be given to potential hazards to persons working or living in the vicinity of the structure.

N/A

R645-301-528.330 Noncoal Mine Waste

Noncoal mine waste disposal is discussed in the Materials Handling portion of Section R645-301-521.

R645-301-528.331 Noncoal mine wastes including, but not limited to, grease, lubricants, paints, flammable liquids, garbage, abandoned machinery, lumber and other combustible materials generated during mining activities will be placed and stored in a controlled manner in a designated portion of the permit area.

Noncoal mine wastes including, but not limited to, grease, lubricants, paints, flammable liquids, garbage, abandoned machinery, lumber and

other combustible materials generated during processing/loading activities will be placed and stored in a controlled manner in a designated portion of the permit area. Storage areas will include dumpsters and fuel storage areas as described in Section R645-301-521 and shown on Exhibit 5-2.

R645-301-528.332 *Final disposal of noncoal mine wastes will be in a designated disposal site in the permit area or a State approved solid waste disposal area. Disposal sites in the permit area will be designed and constructed to ensure that leachate and drainage from the noncoal mine waste area does not degrade surface or underground water. Wastes will be routinely compacted and covered to prevent combustion and wind-borne waste. When the disposal is completed, a minimum of two feet of soil cover will be placed over the site, slopes, stabilized, and revegetation accomplished in accordance with R645-301-244.200 and R645-301-353 through R645-301-357. Operation of the disposal site will be conducted in accordance with all local, Utah, and Federal requirements.*

Final disposal of noncoal mine wastes will be in a State-approved solid waste disposal area (i.e. - Carbon County Landfill). There will be no on-site disposal.

R645-301-528.333 *At no time will any noncoal mine waste be deposited in a refuse pile or impounding structure, nor will any excavation for a noncoal mine waste disposal site be located within eight feet of any coal outcrop or coal storage area.*

N/A There will be no on-site disposal of noncoal wastes.

R645-301-528.334 *Notwithstanding any other provision to the R645 Rules, any noncoal mine waste defined as "hazardous" under 3001 of the Resource Conservation and Recovery Act (RCRA) (Pub. L. 94-580, as amended) and 40 CFR Part 261 will be handled in accordance with the requirements of Subtitle C of RCRA and any implementing regulations.*

Noncoal mine waste defined as "hazardous" under 3001 of the Resource Conservation and Recovery Act (RCRA) and 40 CFR Part 261 will be handled in accordance with Subtitle C of RCRA and any implementing regulations. Such material will be recycled or re-used as possible as described in Section R645-301-521.

R645-301-528.340 **Underground Development Waste**

For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, the permit application must include a description of the proposed disposal methods for placing underground development waste and excess spoil generated at surface areas affected by surface operations and facilities according to R645-301-211, R645-301-212, R645-301-412.300, R645-301-512.210, R645-301-512.220, R645-301-514.100, R645-301-528.310, R645-301-535.100 through R645-301-535.500, R645-301-536.300, R645-301-536.600, R645-301-542.720, R645-301-553.240, R645-301-745.100, R645-301-745.300, and R645-301-745.400.

N/A This is a surface loadout facility. There are no plans to bring underground development waste to this site.

R645-301-528.350 The permit application will include a description of measures to be employed to ensure that all debris, acid-forming and toxic-forming materials, and materials constituting a fire hazard are disposed of in accordance with R645-301-528.330, R645-301-537.200, R645-301-542.740, R645-301-553.100 through R645-301-553.600, R645-301-553.900, and R645-301-747 and a description of the contingency plans which have been developed to preclude sustained combustion of such materials; and

Acid and toxic forming materials will be disposed of in accordance with applicable regulations. Such materials will be removed from site and placed in State-approved disposal locations where they can be buried beneath a minimum of 4' of incombustible non-acid and non-toxic material. Such materials may be disposed on-site during final reclamation only if they can be buried beneath 4' of incombustible, non-acid and non-toxic material.

R645-301-528.400 *Dams, Embankments and Other Impoundments*

Dams, embankments and impoundments are described in Section R645-301-531 and in Chapter 7.

R645-301-529 *Management of Mine Openings*

The permit application will include a description of the measures to be used to seal or manage mine openings within the proposed permit area.

N/A There are no mine openings at this site.

R645-301-529.100 Each shaft or other exposed underground opening will be cased, lined, or otherwise managed as approved by the Division. If these openings are uncovered or exposed by coal mining and reclamation operations within the permit area they will be permanently closed unless approved for water monitoring or otherwise managed in a manner approved by the Division.

N/A

R645-301-529.200 For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES:

N/A

R645-301-529.210 Each mine entry which is temporarily inactive, but has a further projected useful service under the approved permit application, will be protected by barricades or other covering devices, fenced, and posted with signs, to prevent access into the entry and to identify the hazardous nature of the opening. These devices will be periodically inspected and maintained in good operating condition by the person who conducts the activity.

N/A

R645-301-529.220 Each shaft and underground opening which has been identified in the approved permit application for use to return underground development waste, coal processing waste or water to underground workings will be temporarily sealed until actual use.

N/A

R645-301-529.300 R645-301-529 does not apply to holes drilled and used for blasting, in the area affected by surface operations.

N/A

R645-301-529.400 For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, each exposed underground opening which has been identified in the approved permit application for use to return coal processing waste to underground workings will be temporarily sealed before use and protected during use by barricades, fences, or other protective devices approved by the Division. These devices will be periodically inspected and maintained in good operating condition by the person who conducts the activity.

N/A

R645-301-530 Operational Design Criteria and Plans

R645-301-531 General. Each permit application will include a general plan for each proposed sediment pond, water impoundment, and coal processing waste bank, dam or embankment within the proposed permit area. Each general plan will describe the potential effect on the structure from subsidence of the subsurface strata resulting from past underground mining operations, if underground mining has occurred.

Plans for sediment pond are described in Sections R645-301-732 and 733 of Chapter 7. There are no coal processing waste banks, dams or embankments within the permit area. No underground mining has occurred at this site; therefore, no subsidence effects are anticipated.

R645-301-532 Sediment Control. The permit application will describe designs for sediment control. Sediment control measures include practices carried out within and adjacent to the disturbed area. The sedimentation storage capacity of practices in and downstream from the disturbed areas will reflect the degree to which successful mining and reclamation techniques are applied to reduce erosion and control sediment. Sediment control measures consist of the utilization of proper mining and sediment control practices, singly or in combination. Sediment control methods include but are not limited to:

Sediment control is described in detail in Section R645-301-732 of Chapter 7.

R645-301-532.100 Disturbing the smallest practicable area at any one time during the mining operation through progressive backfilling, grading, and prompt revegetation as required in R645-301-353.200; and

Reclamation efforts of all lands disturbed by the Applicant's operation will occur as contemporaneously as practical with the operations. This will minimize the amount of disturbed area at any one time during the operation.

R645-301-532.200 Stabilizing the backfilled material to promote a reduction of the rate and volume of runoff in accordance with the requirements of R645-301-537.200, R645-301-552 through R645-301-553.230, R645-301-553.260, through R645-301-553.420, R645-301-553.600, and R645-301-553.900.

N/A There are no plans for contemporaneous backfilling during operations. Backfilling and regrading will occur during final reclamation as described under Section R645-301-540.

R645-301-533 Impoundments

There is only one sediment pond associated with this operation.

R645-301-533.100 An impoundment meeting the size or other criteria of 30 CFR 77.216(a) or located where failure would be expected to cause loss of life or serious property damage will have a minimum static safety factor of 1.5 for a normal pool with steady state seepage saturation conditions, and a seismic safety factor of at least 1.2. Impoundments not meeting the size or other criteria of 30 FCR 77.216(a), except for coal mine waste impounding structure, and located where failure would not be expected to cause loss of life or serious property damage will have a minimum static safety factor of 1.3 for normal pool with steady state seepage saturation conditions or meet the requirements of R645-301-733.210.

There are no impoundments meeting the size or other criteria of 30 CFR 77.216(a) or located where failure would expected to cause loss of life or serious property damage.

Impoundments are designed to meet the requirements of R645-301-733.210, as described in that section of Chapter 7.

R645-301-533.200 Foundation for temporary and permanent impoundments must be designed so that:

All impoundments are temporary, and will be removed upon final reclamation.

R645-301-533.210 Foundation and abutments for the impounding structure will be stable under all conditions of construction and operation of the impoundment. Sufficient foundation investigations and laboratory testing will be performed in order to determine the design requirements for foundation stability; and

Due to the low relief of the area, the sediment pond is mostly incised. The foundation is therefore very stable, and no stability investigation was required.

R645-301-533.220 All vegetative and organic materials will be removed and foundations excavated and prepared to resist failure. Cutoff trenches will be installed if necessary to ensure stability.

All vegetative and organic materials were removed from the pond area prior to construction.

R645-301-533.300 Slope protection will be provided to protect against surface erosion at the site and protect against sudden drawdown.

The pond is mostly incised with 3h:1v interior slopes. Slopes have adequate protection against erosion and sudden drawdown.

R645-301-533.400 Faces of embankments and surrounding areas will be vegetated except that faces where water is impounded may be riprapped or otherwise stabilized in accordance with accepted design practices.

The pond is mostly incised, with only a small embankment. The embankment faces have been vegetated for protection.

R645-301-533.500 The vertical portion of any remaining highwall will be located far enough below the low-water line along the full extent of highwall to provide adequate safety and access for the proposed water users.

N/A There are no highwalls associated with impoundments at this site.

R645-301-533.600 Impoundments meeting the criteria of MSHA, 30 CFR 77.246(a) will comply with the requirements of MSHA, 30 CFR 77.216 and R645-301-512.240, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301-733.220 through R645-301-733.224, and R645-301-743. The plan required to be submitted to the District Manager of MSHA under 30 CFR 77.216 will also be submitted to the Division as part of the permit application.

N/A There are no impoundments meeting the size or other criteria of MSHA 30 CFR 77.216(a) at this site.

R645-301-533.610 Each detailed design plan for a structure that meets or exceeds the size or other criteria of MSHA, 30 CFR 77.216 (a) will include any geotechnical investigation, design, and construction requirements for the structure. The operation and maintenance requirements for each structure will be described.

N/A

R645-301-533.620 If the structure is 20 feet or higher or impounds more than 20 acre-feet, each plan under R645-301-536.800, R645-301-732.210, and R645-301-733.210 will include a stability analysis of each structure. The stability analysis will include, but not be limited to, strength parameters, pore pressures, and long-term seepage conditions. The plan will also contain a description of each engineering design assumption and calculation with a discussion of each alternative considered in selecting the specific design parameters and construction methods.

N/A

R645-301-533.700 Each detailed design plan for a structure that does not meet the size or other criteria of MSHA, 30 CFR 77.216(a) will include any design and construction requirements for the structure, including any required geotechnical information. The operation and maintenance requirements for each structure will be described.

Complete design plans for the impoundments are provided in Section R645-301-733 of Chapter 7.

R645-301-534 Roads. The permit application will describe designs for roads.

Roads are discussed in detail under Section R645-301-527 of this Chapter.

R645-301-534.100 Roads will be located, designed, constructed, reconstructed, used, maintained, and reclaimed so as to:

Roads are located, designed, constructed, reconstructed, used, maintained and will be reclaimed so as to:

R645-301-534.110 Prevent or control damage to public or private property;

R645-301-534.120 Use non-acid or non-toxic forming substances in road surfacing;

R645-301-534.130 Have, at a minimum, a static safety factor of 1.3 for all embankments;

R645-301-534.140 Have a schedule and plan to remove and reclaim each road that will not be retained under approved postmining land use;

R645-301-534.150 Control or prevent erosion, siltation and the air pollution attendant to erosion by vegetating or otherwise stabilizing all exposed surfaces in accordance with current, prudent engineering practices.

See Section R645-301-527 for details.

R645-301-534.200 To ensure environmental protection and safety appropriate for their planned duration and use, including consideration of the type and size of equipment used, the design and reconstruction of roads will incorporate appropriate limits for grade, width, surface materials, and any necessary design criteria established by the Division.

All roads on site are designed and constructed within appropriate limits for grade, width, surface materials and other necessary design criteria. The haul road was constructed per BLM specification. (See Exhibit 5-7 for design details).

R645-301-534.300 Primary Roads. Primary roads will meet the requirements of R645-301-358, R645-301-527.100, R645-301-527.230, R645-301-534.100, R645-301-534.200, R645-301-542.600, R645-301-542.600, and R645-301-762, any necessary design criteria established by the Division, and the following requirements. Primary roads will:

All roads on site are classified as Primary Roads and meet the requirements of the regulations (See R645-301-527).

R645-301-534.310 Be located, insofar as practical, on the most stable available surfaces;

This is a low relief area, and all roads are located on the most stable, available surfaces as shown on Exhibits 5-1 and 5-2.

R645-301-534.320 Be surfaced with rock, crushed gravel, asphalt, or other material approved by the Division as being sufficiently durable for the anticipated volume of traffic and the weight and speed of vehicles using the road;

All roads are surfaced with gravel or asphalt as shown on Exhibit 5-7.

R645-301-534.330 Be routinely maintained to include repairs to the road surface, blading, filling potholes and adding replacement gravel or asphalt. It will also include revegetation, brush removal, and minor reconstruction of road segments as necessary; and

Roads are routinely maintained by blading or resurfacing as necessary. Drainage and drainage controls along the road are also routinely maintained by cleaning or replacement as needed.

R645-301-534.340 Have culverts that are designed, installed, and maintained to sustain the vertical soil pressure, the passive resistance of the foundation, and the weight of vehicles using the road.

Culverts are designed, installed and maintained to sustain the vertical soil pressure, the passive resistance of the foundation and the weight of vehicles using the road. Culvert installation on the haulage road was done per BLM specifications. Culvert sizing calculations are shown in Appendix 5-3.

R645-301-535 Spoil. The permit application will describe designs for spoil placement and disposal.

N/A This is an area of low relief, and no excess spoil has been, or will be, generated by this operation. There are no plans for spoil placement or disposal.

R645-301-535.100 Through R645-301-535.500

N/A This is an area of low relief, and no excess spoil has been, or will be, generated by this operation. There are no plans for spoil placement or disposal, therefore R645-301-535.100 through R645-301-535.500 have been omitted.

R645-301-536 Coal Mine Waste. The permit application will include designs for placement of coal mine waste in new or existing disposal areas within approved portions of the permit area. Coal mine waste will be placed in a controlled manner and have a design certification as described under R645-301-512.

N/A This is a coal processing loadout facility only and no coal mine waste is produced or brought here. Coal processing wastes are described under Section R645-301-536.700.

R645-301-536.100 through R645-301-536.600

N/A

Note: Sections R645-301-536.100 through R645-301-536.600 are not applicable to this operation and are therefore omitted.

R645-301-536.700 Coal Processing Waste

For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, each plan for returning coal processing waste to abandoned underground workings will describe the source and quality of waste to be stowed, area to be backfilled, percent of the mine void to be filled, method of constructing underground retaining walls, influence of the backfilling operation on active underground mine operations, surface area to be supported by the backfill, and the anticipated occurrence of surface effects following backfilling.

Coal processing wastes are not being produced at the Banning Loadout at the present, or foreseeable future time. Coal processing waste that could be produced at the site would be a screen rock-coal mixture. Disposal of this type of waste would be by blending it back into the coal for retail sale, or if the waste meets MSHA's and other requirements, returning the waste to underground mine workings. There are no plans to use any coal processing waste as construction material at the site, and no disposal will occur on site.

R645-301-536.800 *Coal processing waste banks, and embankments will be designed to comply with:*

N/A There are no plans to construct coal processing waste banks, dams or embankments at this site, therefore R645-301-536.810 through R645-301-536.824 will not be listed.

R645-301-536.900 *Refuse Piles. Refuse piles will meet the requirements of R645-301-210, R645-301-512.230, R645-301-513.400, R645-301-528.320, R645-301-536 through R645-301-536.200, R645-301-536.500, R645-301-536.900, R645-301-542.730, R645-301-553.250, R645-301-746.100 through R645-301-746.200, and the requirements of MSHA, 30 CFR 77.214 and 30 CFR 77.215.*

N/A There are no plans for refuse piles at this site.

R645-301-537 Regraded Slopes

Regrading is described under the Reclamation Plan Section R645-301-540 of this Chapter. It should be noted that there are no steep slopes at this site, and the reclamation is planned to return the area to Approximate Original Contour.

R645-301-537.100 *Each application will contain a report of appropriate geotechnical analysis, where approval of the Division is required for alternative specifications or for steep cut slopes under R645-301-358, R645-301-512.250, R645-301-527.100, R645-301-527.230, R645-301-534.100, R645-301-534.200, R645-301-534.300, R645-301-542.600, R645-301-742.410, R645-301-742.420, R645-301-752.200, R645-301-762.*

N/A There are no approvals requested for alternative specifications or steep cut slopes at this site.

R645-301-537.200 *For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, regrading of settled and revegetated fills to achieve approximate original contour at the conclusion of mining operations will not be required if the following conditions are met.*

The reclamation plan is designed to return the area to Approximate Original Contour. There are no settled or revegetated fills composed of spoil or underground development waste proposed to be left on site.

R645-301-537.210 through R645-301-537.250

N/A There are no settled or revegetated fills composed of spoil or underground development waste proposed to be left on site, therefore R645-301-537.210 through R645-301-537.250 will not be listed.

R645-301-540 Reclamation Plan

This section will describe the Reclamation Plan for the Banning Loadout site.

R645-301-541 General

The land uses within and adjacent to the permit area are listed in Chapter 4. An operating oil field, Grassy Trails, and an inactive carbon dioxide field, Farnham Dome, are located within the region. The operation of Banning Loadout will have no effect of these land uses or any other uses, except for the rangeland and wildlife uses.

Following final reclamation of the site, the affected lands will be returned to a state similar to that of the premining environment. This will be accomplished by adherence to the reclamation plan contained within this section.

The road from U.S. Highway 6-50 to the entrance of the loadout facilities will remain following final reclamation of the site. This is as per the Applicant's BLM Right-of-Way 33855. Ownership of the road shall revert to the United States following reclamation activities at the site. The road from the entrance of the facilities to the truck dump will be removed and the lands will be reclaimed (Exhibit 5-6 and 5-6A).

The SCS determined that there are no prime or important farmlands within or adjacent to the permit area, so no special contingency will be made during reclamation. Soils within the reclaimed land will be redistributed, regraded and revegetated. This will insure the stability and productivity of the land.

R645-301-541.100 Persons who crease coal mining and reclamation operations permanently will close or backfill or otherwise permanently reclaim all affected areas, in accordance with the R645-301- Rules and the permit approved by the Division.

As noted above, upon final cessation of operations, the area will be permanently reclaimed in accordance with the R645 Rules and the permit approved by the Division.

R645-301-541.200 For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, all underground openings, equipment, structures, or other facilities not required for monitoring, unless approved by the Division as suitable for the postmining land use or environmental monitoring, will be removed and the affected land reclaimed.

N/A This is a surface loadout for an underground coal mine.

R645-301-541.300 For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, all surface equipment, structures, or other facilities not required for continued underground mining activities and monitoring, unless approved by the Division as suitable for the postmining land use or environmental monitoring will be removed and the affected lands reclaimed.

The existing structures are illustrated on Exhibits 5-1, 5-2 and 7-1. At the conclusion of the operation, all equipment will be removed by the operator to other projects, sold as used equipment or sold to a local scrap dealer. No support structures will be abandoned following final bond release. Refer to Chapter 4 Section R645-301-412.100 for information pertaining to the land purchased by East Carbonics Inc. and the associated post mining land use change. A detailed timetable for the completion of each major reclamation step is given on Table 5-2.

The first step in the reclamation plan is removal of all loose coal material. This will begin a year prior to the closure of the operation. The operator will start to scrape the outlying areas removing as much coal as possible and will continue inward toward the area above the vibrating feeders. This coal-soil mixture will be blended into the raw coal product and sold to customers. This process will continue until all of the area is devoid of the surface layer of coal. At this point in time, the operation will cease to exist as a loadout and the reclamation of the area will begin and will return the land to a premining condition.

The second step in the reclamation process will be the dismantling and removal of all support facilities, except the drainage controls. The conveyor structures will be the first to be dismantled and removed, either to be used by the operator for other projects or to be sold as scrap to local dealers. During the demolition of the conveyor structures, the reclaim tunnel will be uncovered and the vibrating feeders will be dismantled and removed from the site. All scrap metal from the reclaim tunnel and vibrating feeder will be sold to local dealers.

The next step will be the demolition of both buildings and the coal silo. The diesel motor generating units, along with all other usable equipment, will be removed for use by the operator, will be sold as used equipment or will be sold to a local scrap dealer. Both buildings

and the silo will then be dismantled or demolished and all parts removed for use or sold for scrap.

All concrete footers and pads associated with the facilities will be demolished and hauled to the reclaim tunnel areas for deposition. The underground water tank will then be removed along with the diesel storage tank. Also, during this step the escape tunnel, fan, electrical cables, underground piping and the water well will be demolished. The material from this demolition will be disposed in a manner similar to all other structures.

The haulage road, from the facilities entrance to the truck dump and back, will be the final item removed from the site during this stage of the reclamation process. The asphalt road will be ripped into small pieces and hauled to the reclaim tunnel area for deposition. The truck dump will be demolished and disposed of off site. Following this process, a general site cleanup will occur with any excess, non-metal, debris to be disposed of in the reclaim tunnel area.

All costs associated with the above steps are provided in Appendix 8-1. The drainage controls for the site will remain intact during this process to control any potential runoff. Signs, markers and the fence lines will remain during this period of the reclamation process. No underground opening will be left nor will there be any use of coal processing waste for reclamation of the site. The haulage road from U.S. Highway 6-50 to the facilities area will remain following final reclamation and bond release, but the fence line will be removed.

R645-301-541.400 Each application will include a plan for the reclamation of the lands within the proposed permit area which shows how the applicant will comply with R645-301, and the environmental protection performance standards of the State Program.

The Banning Loadout will be abandoned and permanently closed when the Applicant has no further use of the area. Final reclamation will begin with the abandonment and closure. Closure will be timed so that revegetation can take place in the early fall of the same year. All surface structures will be removed and disposed of, except the road belonging to the BLM, at the conclusion of the operation.

Table 5-2 is a detailed timetable for the completion of each major reclamation step. Appendix 8-1 presents bond calculations for the disturbed areas, which include a breakdown of labor, equipment and material costs. No equipment salvage values were taken into consideration for this bond calculation.

The following sections will further describe each of the various reclamation activities.

R645-301-542 Narratives, Maps and Plans. The reclamation plan for the proposed permit area will include:

R645-301-542.100 A detailed timetable for the completion of each major step in the reclamation plan;

Table 5-2 is a detailed timetable for the completion of each major step of reclamation.

R645-301-542.200 A plan for backfilling, soil stabilization, compacting and grading, with contour maps or cross sections that show the anticipated final surface configuration of the proposed permit area, in accordance with R645-301-537.200, T645-301-552 through R645-301-553.230, R645-301-553.260 through R645-301-553.900, and R645-302-234.

Backfilling and Grading Plan

All areas affected by the loadout facilities within the permit area, except the designated portion of the haulage road, will be returned to a final surface configuration that closely resembles premining conditions. This configuration will conform to the drainage pattern of the surrounding terrain (Exhibit 5-6 and 5-6A). The final contours will be achieved by backfilling and grading existing soils.

The final grading and shaping of the affected areas will produce many flat or relatively flat surfaces with slopes of a moderate grade. All grading will be completed in a controlled manner to suppress or eliminate erosion and sedimentation problems. Grading will take place along the contour as long as safety considerations and areal conditions permit. Graded surfaces will be left in rough shape and will be ripped to produce the proper seedbed conditions. Smooth compacted surfaces will be avoided throughout the process.

Material will be taken first from the truck ramp and used to build up the higher relief areas. Following this, the central drainage channel will be roughed in and the soil distributed to the higher relief areas. Next, the drainage channels and associated road will be regraded to final contours. The road will be built to closely approximate the need of right-of-way specifications. Last, the area will be graded as close to final contours and inspected and certified by the engineer-in-charge.

Drainage controls, except for the sediment pond, will be removed during the final contouring of the site. This is necessary to insure proper configuration of the site and so that future disturbance at the site, to remove the controls, is not required. (The decision on whether to leave the fence up or take it down will be made during the operation after reviewing the data obtained from the test plot area). If the

fence is to be taken down it will be done along with final grading of the area. If the fence is to be left up, it will be taken down when the site meets bond release requirements.

All signs and markers associated with the operation will remain intact, until the final grading of the site. After final grading, if the fence is taken down, the perimeter signs will be placed on steel pins clearly marking the outline of the reclaimed area. All minor amounts of coal and debris left on site will be covered with soil during the grading. Any rills or gullies deeper than 9 inches will be filled, graded or otherwise stabilized and the affected area will be reseeded as per the plan.

Topsoil redistribution and revegetation of the site are discussed under Sections R645-301-240 (Chapter 2) and R645-301-340 (Chapter 3), respectively.

The final surface configuration is shown on Exhibit 5-6 and 5-6A and cross sections are shown on Exhibit 5-3.

R645-301-542.300 For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, final surface configuration maps with cross sections (at internals specified by the Division) that indicate:

The final surface configuration is shown on Exhibit 5-6 and 5-6A. Cross sections are shown on Exhibit 5-3.

R645-301-542.310 The anticipated final surface configuration to be achieved for the affected areas. The maps and cross sections will be prepared and certified as described under R645-301-512; and

All final surface configuration maps and cross sections are prepared under the direction of, and certified by, a registered professional engineer as required.

R645-301-542.320 Location of each facility that will remain on the proposed permit area as a permanent feature, after the completion of coal mining and reclamation operations;

A portion of the haul road will remain as a permanent feature, this road is left as a provision of the B.L.M. Right-of-Way. See section R645-301-526.110 for additional information.

R645-301-542.400 Before abandoning a permit area or seeking bond release, a description ensuring all temporary structures are removed and reclaimed, and all permanent sedimentation ponds, impoundments and treatment facilities that meet the requirements of the R645 Rules for permanent structures, have been maintained properly and meet the requirements of the approved reclamation plan for permanent structures and impoundments. The operator will renovate such structures if necessary to meet the requirements of the R645 Rules and to conform to the approved reclamation plan;

Prior to bond release, all temporary structures will be removed and reclaimed.

The Applicant will request Phase I bond release, 60% of the bonded amount, following successful completion of backfilling, regrading, soil dispersement and drainage control of the bonded area. Release of an additional 25% will be requested at the end of the responsibility period, completion of Phase II, when the revegetated area exhibits statistical adequacy with the approved reference area. The remaining 15% of the bond will be released at the completion of Phase III, the removal of all remaining sediment controls and revegetation of these small areas.

R645-301-542.500 A timetable, and plans to remove each proposed sedimentation pond, water impoundment, and coal processing waste bank, dam, or embankment, if appropriate.

The sediment pond will not be removed.

R645-301-542.600 Roads. A road not to be retained for use under an approved postmining land use will be reclaimed immediately after it is no longer needed for mining and reclamation operations, including;

All roads will be removed and reclaimed, except for a portion of the haulage road which will be left as a permanent structure per requirements of the B.L.M. Right-of-Way.

R645-301-542.610 Closing the road to traffic;

All roads to be reclaimed will be closed to traffic prior to reclamation activities

R645-301-542.620 Removing all bridges and culverts; unless approved as part of the postmining land use.

All drainage controls will be removed on reclaimed roads. The culverts along the permanent portion of the haul road will be left in place and maintained throughout the bond liability period.

R645-301-542.630 Scarifying or ripping of the roadbed and replacing topsoil and revegetating disturbed surfaces in accordance with R645-301-232.100 through R645-301-232.600, R645-301-234, R645-301-242, R645-301-243, R645-301-244.200 and R645-301-353 through R645-301-357.

All reclaimed road beds will be ripped. The asphalt haul road around the truck dump will be ripped into small pieces and hauled to the reclaim tunnel area for deposition. The areas will then be regraded and topsoiled and revegetated according to the approved plan.

R645-301-542.640 Removing or otherwise disposing of road-surfacing materials that are incompatible with the postmining land use and revegetation requirements.

Gravel road surfacing will be ripped and blended with existing soils. Gravel will not be detrimental to revegetation or the postmining land use. The asphalt surface of reclaimed roads will be placed in the reclaim tunnel area and buried beneath a minimum of 4' of non-acid, non-toxic material.

R645-301-542.700 *Final Abandonment of Mine Openings and Disposal Area*

There are no mine openings at this site.

R645-301-542.710 *A description, including appropriate cross sections and maps, of the measures to be used to seal or manage mine openings, and to plug, case or manage other openings within the proposed permit area, in accordance with R645-301-529, R645-301-551, R645-301-631, R645-301-738, and R645-301-765.*

N/A There are no mine openings at this site.

R645-301-542.720 *Disposal of Excess Spoil. Excess spoil will be placed in designated disposal areas within the permit area, in a controlled manner to ensure that the final fill is suitable for reclamation and revegetation compatible with the natural surroundings and the approved postmining land use. Excess spoil that is combustible will be adequately covered with noncombustible material to prevent sustained combustion. The reclamation of excess spoil will comply with the design criteria under R645-301-553.240.*

N/A There are no plans for excess spoil at this site.

R645-301-542.730 *Disposal of Coal Mine Waste. Coal mine waste will be placed in a controlled manner to ensure that the final disposal facility will be suitable for reclamation and revegetation compatible with the natural surroundings and the approved postmining land use.*

N/A The only coal waste at this site will be coal processing waste. This material will be cleaned up and shipped as product during the year prior to reclamation. There are no plans to dispose of coal processing waste on site.

R645-301-542.740 Disposal of Non-Coal Mine Wastes

Noncoal mine wastes will be placed and stored in a controlled area prior to disposal. Materials such as scrap machinery and metal will be salvaged and recycled as possible. Flammable liquids, paints, lubricants and other combustible or hazardous material will be stored and disposed of in accordance with RCRA and other applicable requirements for hazardous materials. Recycling will be used whenever possible. Normal garbage and scrap which can be taken to a landfill will be stored in dumpsters and hauled to the Carbon County Landfill.

The only material expected to be buried on site is the ripped asphalt surface from the haul road. As indicated, this will be placed in the reclaim tunnel area and covered with a minimum of 4' of non-acid, non-toxic material.

R645-301-542.741 Noncoal mine wastes including, but not limited to grease, lubricants, paints, flammable liquids, garbage, abandoned mining machinery, lumber and other combustible materials generated during mining activities will be placed and stored in a controlled manner in a designated portion of the permit area. Placement and storage will ensure that fires are prevented, and that the area remains stable and suitable for reclamation and revegetation compatible with the natural surroundings.

Addressed under R645-301-542.740

R645-301-542.742 Final disposal of noncoal mine wastes will be in a designated disposal site in the permit area or a state approved solid waste disposal area. Wastes will be routinely compacted and covered to prevent combustion and wind-borne waste. When the disposal is completed, a minimum of two feet of suitable cover will be placed over the site, slopes stabilized, and revegetation accomplished in accordance with R645-301-244.200 and R645-301-353 through R645-301-357, inclusive. Operation of the disposal site will be conducted in accordance with all local, Utah, and federal requirements.

Addressed under R645-301-542.740

R645-301-542-800 The reclamation plan for the proposed coal mining and reclamation operations will also include a detailed estimate of reclamation costs as described in R645-301-830.100 through R645-301-830.300.

Refer to Appendix 8-1 for a detailed estimate of reclamation costs.

R645-301-550 Reclamation Design Criteria and Plans

Each permit application will include site specific plans that incorporate the following design criteria for reclamation activities.

R645-301-551 Casing and Sealing of Underground Openings. When no longer needed for monitoring or other use approved by the Division upon a finding of no adverse environmental or health and safety effects, each shaft, drift, adit, tunnel, or other opening to the surface from underground will be capped, sealed and backfilled, or otherwise properly managed, as required by the Division and consistent with MSHA, 30 CFR 75.1771. Permanent closure measures will be designed to prevent access to the mine workings by people, livestock, fish and wildlife, machinery and to keep acid or other toxic drainage from entering ground or surface waters.

N/A There are no underground openings at this site.

R645-301-552 Permanent Features

The only permanent features proposed to left is the portion of the haul road on the B.L.M. Right-of-Way as shown on Exhibit 5-6A. Refer to Chapter 4 Section R645-301-412.100 for information pertaining to the land purchased by East Carbonics Inc. and the associated post mining land use change pertaining to the substation. In addition refer to Section R645-301-526.110 concerning permanent features.

R645-301-552.100 Small depressions may be constructed if they are needed to retain moisture, minimize erosion, create and enhance wildlife habitat, or assist revegetation.

The final surface will be roughened to promote water retention and assist vegetation. This roughening will create small pockets or depressions.

R645-301-552.200 Permanent impoundments may be approved if they meet the requirements of R645-301-512.240, R645-301-514.300, R645-301-515.200, R645-301-533.100 through R645-301-533.600, R645-301-542.400, R645-301-733.220 through R645-301-733.224, R645-301-743, and if they are suitable for the approved postmining land use.

N/A There are no plans for permanent impoundments at this site.

R645-301-553 Backfilling and Grading. Backfilling and grading design criteria must be described in the permit application. For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES nothing in R645-301-553 will prohibit the placement of material in road and portal pad embankments located on the downslope, so long as the material used and the embankment design comply with the applicable requirements of R645-301-500 and R645-301-700 and the material is moved and placed in a controlled manner. For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES rough backfilling and grading will follow coal removal by not more than 60 days or 1500 linear feet. The Division may grant additional time for rough backfilling and grading if the permittee can demonstrate, through a detailed written analysis under R645-301-542.200, that additional time is necessary.

Backfilling and grading plans are discussed under Section R645-301-542.200.

R645-301-553.100 *Disturbed areas will be backfilled and graded to:*

The disturbed area will be backfilled and graded to the following:

R645-301-553.110 *Achieve the approximate original contour, except as provided in R645-301-553.600 through R645-301-553.642;*

R645-301-553.120 *Eliminate all highwalls, spoil piles, and depressions, except as provided in R645-301-552.100 (small depressions); R645-301-553.620 (previously mined highwalls); and in R645-301-553.650 (retention of highwalls);*

Eliminate all depressions, except small depressions as described above. (There are no highwalls or spoil piles at this site);

R645-301-553.130 *Achieve a postmining slope that does not exceed either the angle of repose or such lesser slope as is necessary to achieve a minimum long-term static safety factor of 1.3 and to prevent slides*

Achieve a postmining slope that does not exceed either the angle of repose or such lesser slope as is necessary to achieve a minimum long-term static safety factor of 1.3 and to prevent slides (See Exhibit 5-6);

R645-301-553.140 *Minimize erosion and water pollution both on and off the site; and*

R645-301-553.150 *Support the postmining land use. (See Section R645-301-541).*

R645-301-553.200 *Spoil and Waste. Spoil and waste materials will be compacted where advisable to ensure stability or to prevent leaching or toxic materials.*

There will be no disposal of spoil at this site. The only waste material proposed to be left on site is the ripped asphalt surface of the haul road. This material will be placed in the reclaim tunnel area and buried beneath a minimum of 4' of non-acid, non-toxic material.

R645-301-553.210 Through R645-301-240

Note:N/A There will be no disposal of spoil at this site, therefore R645-301-553.210 through R645-301-553.240 will be omitted.

R645-30-553.250 *Refuse Piles*

N/A There are no plans for refuse piles at this site.

R645-301-553.251 The final configuration for the refuse pile will be suitable for the approved postmining land use. Terraces may be constructed on the outslope of the refuse pile if required for stability, control of erosion, conservation of soil moisture, or facilitation of the approved postmining land use. The grade of the outslope between terrace benches will not be steeper than 2h:1v (50 percent).

N/A

R645-301-553.252 Following final grading of the refuse pile, the coal mine waste will be covered with a minimum of four feet of the best available, nontoxic and noncombustible material, in a manner that does not impede drainage from the underdrains. The Division may allow less than four feet of cover material based on physical and chemical analyses which show that the requirements of R645-301-244.200 and R645-301-353 through R645-301-357.

N/A

R645-301-533.260 Disposal of coal processing waste and underground development waste in the mined-out surface area (UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES) or mined-out area (SURFACE COAL MINING AND RECLAMATION ACTIVITIES) will be in accordance with R645-301-210, R645-301-512.230, R645-301-513.400, R645-301-514.200, R645-301-515.200, R645-301-528.322, R645-301-528.320, R645-301-536 through R645-301-536.200, R645-301-536.500, R645-301-536.900, R645-301-542.730, R645-301-553.250, and R645-301-746.100 through R645-301-746.200, except that a long-term static safety factor of 1.3 will be achieved.

Any coal processing waste will be disposed of during the year preceding reclamation, by blending with the coal and shipped as retail product. There are no plans to dispose of coal processing waste on site.

There are also no plans to have or dispose of underground development waste on site.

R645-301-553.300 Exposed coal seams, acid and toxic forming materials, and combustible materials exposed, used or produced during mining will be adequately covered with nontoxic and noncombustible materials, or treated, to control the impact on surface and ground water in accordance with R645-301-731.100 through R645-301-731.522 and R645-301-731.800, to prevent sustained combustion, and to minimize adverse effects on plant growth and the approved postmining land use.

There are no coal seams on this site. It is anticipated that all combustible materials will be shipped, recycled or otherwise properly disposed of off-site prior to reclamation. The only material expected to be buried on-site is the ripped asphalt surface from the haul road.

No acid or toxic forming materials are expected to be present during reclamation; however, should such materials be found, they would be placed in the reclaim tunnel area (along with the asphalt) and buried beneath a minimum of 4' of non-toxic and non-combustible material.

R645-301-553.400 *Cut-and-fill terraces may be allowed by the Division where:*

N/A There are no plans for cut and fill terraces at this site.

R645-301-553.410 *Needed to conserve soil moisture, ensure stability, and control erosion on final-graded slopes, if the terraces are compatible with the approved postmining land use; or*

N/A

R645-301-553.420 *Special grading, foundation conditions, or roads are required for the approved postmining land use, in which case the final grading may include a terrace of adequate width to ensure the safety, stability, and erosion control necessary to implement the postmining land-use plan.*

N/A

R645-301-553.500 *Previously Mined Areas*

Operations began at Banning Loadout in 1976 under permission from the B.L.M. to upgrade the existing road and to receive, stockpile and load coal at the site.

R645-301-553.510 *Remaining operations on previously mined areas that contain a preexisting highwall will comply with the requirements of R645-301-537.200, R645-301-552 through R645-301-553.230, R645-301-553.260 through R645-301-553.900, and R645-302-234, except as provided in R645-301-553.500.*

N/A There are no highwalls associated with this operation.

R645-301-553.520 through R645-301-524

N/A There are no highwalls associated with this operation, therefore R645-301-553.520 through R645-301-524 will not be listed.

R645-301-553.600 *Approximate Original Contour. Postmining slopes may vary from the approximate original contour when:*

The proposed reclamation plan is designed to restore the area to the Approximate Original Contour as discussed under Section R645-301-542.200.

R645-301-553.610 through R645-301-553.653

N/A The area will be totally restored to the approximate original contour as discussed under Section R645-301-542.200, therefore R645-301-553.620 through R645-301-553.653 will not be listed.

R645-301-553.700 Backfilling and Grading: Thin Overburden: For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, this section applies only where the final thickness is less than 0.8 of the initial thickness. Initial thickness is the sum of the overburden thickness and coal thickness prior to removal of coal. Final thickness is the product of the overburden thickness prior to removal of coal, times the bulking factor to be determined for each permit area. The provisions of this section apply only when SURFACE COAL MINING AND RECLAMATION ACTIVITIES cannot be carried out to comply with the requirements of R645-301-537.200, R645-301-552 through R645-301-553.230, R645-301-553.260 through R645-301-553.420, R645-301-553.600, and R645-301-553.900 to achieve the approximate original contour. The operator will, at a minimum:

N/A This is a surface loadout facility for an underground coal mine. No mining is done at this site.

R645-301-553.710 Use all available spoil and waste materials to attain the lowest practicable grade, but not more than the angle of repose; and

N/A

R645-301-553.720 Meet the requirements of R645-301-211, R645-301-212, R645-301-412.300, R645-301-512.210, R645-301-514.100, R645-301-535.100, R645-301-535.112 through R645-301-535.130, R645-301-536.300, R645-301-542.720, R645-301-553.240, and R645-301-745.100.

N/A

R645-301-553.800 Backfilling and Grading: Thick Overburden. For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES, this section applies only where the final thickness is greater than 1.2 of the initial thickness. Initial thickness is the sum of the overburden thickness and coal thickness prior to removal of coal. Final thickness is the product of the overburden thickness prior to removal of coal, times the bulking factor to be determined for each permit area. The provisions of this section apply only when SURFACE COAL MINING AND RECLAMATION ACTIVITIES cannot be carried out to comply with the requirement of R645-301-537.200, R645-301-552 through R645-301-553.230, R645-301-553.260 through R645-301-553.420, R645-301-553.600, and R645-301-553.900 to achieve the approximate original contour. In addition the operator will, at a minimum:

N/A No mining is done at this site.

R645-301-553.810, R645-301-553.820, and R645-301-553.830

N/A

R645-301-553.900 For the purposes of UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES, regrading of settled and revegetated fills at the conclusion of coal mining and reclamation operations will not be required if the conditions of R645-301-537.200 are met;

N/A There are no plans or requests to leave settled and revegetated fills at this site.

R645-301-560 Performance Standards

Coal mining and reclamation operations will be conducted in accordance with the approved permit and requirements of R645-301-510 through R645-301-553.

Coal processing and loading and reclamation operations will be conducted in accordance with the approved permit and requirements of R645-301-510 through R645-301-553. The methods by which the performance standards will be met are described in the applicable sections from R645-301-510 through R645-301-553.

REFERENCES

- Allgood, Ferris P., SCS 1987. Prime farmland investigation for the Banning Loadout.
- Blue Book Equipment Rates, 1987.
- Cook, George, SCS 1987. Productivity estimates and Range condition.
- Cressy, Dan, BLM 1987. Personal Communication concerning oil, gas and carbon dioxide fields within and around Banning Loadout.
- Franks, Carol D., BLM 1987. Soil mapping unit description and profile description for Banning Loadout.
- Hardin, Randy, DOGM 1987. Personal Communication concerning reclamation costs.
- Kunzler, Lynn, DOGM 1987. Meeting at Banning Loadout to choose reference area.
- Bailey, Mark E., BLM 1989. Letter concerning post-mining land use and fence lines.
- Dalton, Larry B., DWR 1989. Letter concerning fences at Banning Loadout following reclamation.

TABLE 5-1

EXISTING STRUCTURES AND FACILITIES
TO BE USED AT BANNING LOADOUT FOR PERMITTED OPERATIONS

<u>STRUCTURES</u>	<u>DATE OF CONSTRUCTION</u>	<u>TYPE OF CONSTRUCTION</u>	<u>PRESENT CONDITION</u>	<u>LOCATION</u>	<u>PERFORMANCE STANDARDS</u>
Truck Dump	1978	Steel Frame and Asphalt Over Compacted Soil Ramp	Fair	Shown on Exhibit 5-2	Meets Standards of UMC R645-301-526
#1 Conveyor	1978	30" Belt, Covered Steel Structure	Excellent	"	"
Belt Magnet	1978	Prefabricated Street Structure	"	"	"
#2 Conveyor	1978	30" Belt, Covered Steel Structure	"	"	"
Screen	1982	Vibrating Screen	"	"	"
Crusher	1978	Prefabricated Enclosed Impact Mill (Cedar Rapids)	"	"	"
#3 Conveyor	1978	36" Belt, Covered Steel Structure	"	"	"
#4 Conveyor	1978	Prefabricated 36" Radial Stacker Covered Steel Structure (Pemco)	"	"	"

TABLE 5-1 (Continued)

EXISTING STRUCTURES AND FACILITIES
TO BE USED AT BANNING LOADOUT FOR PERMITTED OPERATIONS

<u>STRUCTURES</u>	<u>DATE OF CONSTRUCTION</u>	<u>TYPE OF CONSTRUCTION</u>	<u>PRESENT CONDITION</u>	<u>LOCATION</u>	<u>PERFORMANCE STANDARDS</u>
Reclaim Tunnel	1978	Concrete Floor and Walls with a Multi-Plate Arch	"	"	"
Feeders	1978	Electro-Mechanical Steel Feeders	Excellent	Shown on Exhibit	Meets Standards of UMC R645-301-526
#5 Conveyor	1978	46" Belt, Steel Structure	"	"	"
#6 Conveyor	1978	60" Belt, Covered Steel Structure	"	"	"
Belt Scales	1978	Prefabricated Weighing System	"	"	"
Silo-Control Building	1978	Enclosed Steel Silo and Concrete-Block Building	"	"	"
Escape Tunnel & Fan	1978	24" CMP with Fan	"	"	"
Diesel Tank	1978	Steel Tank	"	"	"
Water Tank	1978	Steel Tank	"	"	"

TABLE 5-1 (Continued)

EXISTING STRUCTURES AND FACILITIES
TO BE USED AT BANNING LOADOUT FOR PERMITTED OPERATIONS

<u>STRUCTURES</u>	<u>DATE OF CONSTRUCTION</u>	<u>TYPE OF CONSTRUCTION</u>	<u>PRESENT CONDITION</u>	<u>LOCATION</u>	<u>PERFORMANCE STANDARDS</u>
Dust Control Tank	1983	Steel Tank	"	"	"
2 Deicing Tanks	1990	Cross Link Polyethylene	"	"	"
Shack	1990	Wood and Concrete	"	"	"
Ash Analyzers	1990	Steel	Excellent	Shown on Exhibit 5-2	Meets Standards of UMC R645-301-526
Scale House	Temporary	Wood	"	"	"
Main Control Building	1977-78	Concrete and Block	"	"	"
Fence	1977-78	Chain-Link	"	"	"
Shack	1983	Fiberglass	"	"	"
Tramroad (Resurfaced)	1976-77 1988	Asphalt	"	"	"

TABLE 5-1 (Continued)

EXISTING STRUCTURES AND FACILITIES
TO BE USED AT BANNING LOADOUT FOR PERMITTED OPERATIONS

<u>STRUCTURES</u>	<u>DATE OF CONSTRUCTION</u>	<u>TYPE OF CONSTRUCTION</u>	<u>PRESENT CONDITION</u>	<u>LOCATION</u>	<u>PERFORMANCE STANDARDS</u>
*Main Line Track	Predates Operation	Track	"	"	"
**Loading Spur	1976	Track	"	"	"
Berms, Embankment and Sedimentation Pond	1988	Soil	"	"	"
Substation	1989	Steel and Concrete	"	"	"
Sampling System	1994	Conveyor	"	"	"

(See Appendix 5-1)

* Denver and Rio Grande Western Railroad owns this line.
**Denver and Rio Grande Western Railroad will own spur at the completion of the operation.

TABLE 5-3

Refer to Appendix 8-1 for bonding estimates associated with reclamation of the Banning Loadout.

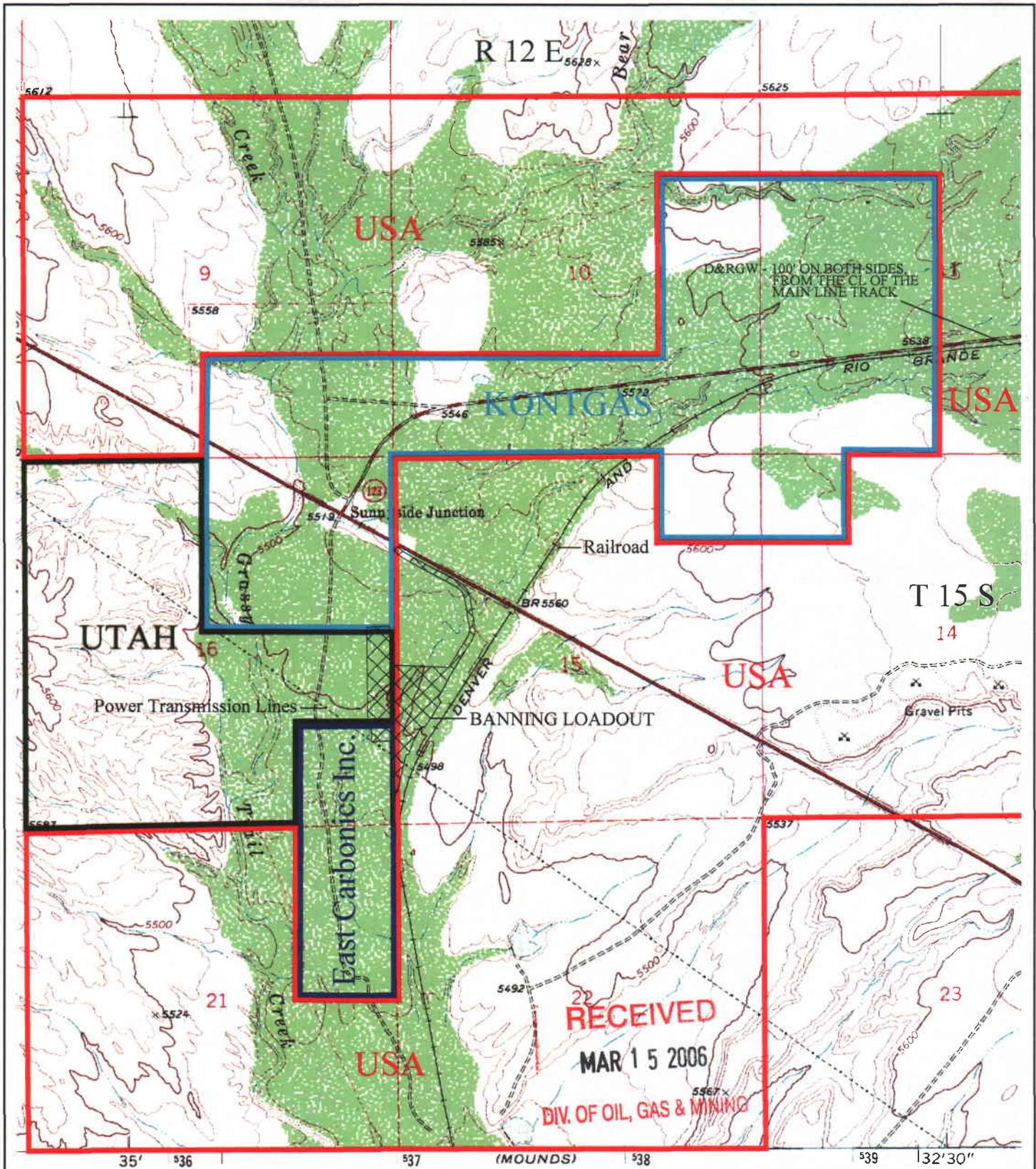
APPENDIX 5-4

DISTURBED AREA DESCRIPTION

Banning Loadout
Disturbed Area Legal Description
T.15S., R.12E., SLB&M, Utah (Approximately 26.3 acres)

- Section 15: Portion of the NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$
 Portion of the S $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$
 Portion of the N $\frac{1}{2}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$
 Portion of the SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$
 Portion of the NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$
 Portion of the S $\frac{1}{2}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$
 Portion of the S $\frac{1}{2}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$
 Portion of the SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$
 Portion of the W $\frac{1}{2}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$
 Portion of the NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$
- Section 16: Portion of the SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$
 Portion of the E $\frac{1}{2}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$
 Portion of the E $\frac{1}{2}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$

December 2004 (DS)



35' 36' 37' (MOUNDS) 38' 39' 32' 30"



REVISIONS OR UP-DATES			DATE: 4/20/04	
NO.	DATE	BY	DESIGNED BY:	
1	5/19/04	DGS	DRAWN BY:	JKS
			CHECKED BY:	
SCALE: 1"=2000'				
FILENAME: Banning Surface.dwg				



Canyon Fuel Company, LLC
Dugout Canyon Mine

Banning Loadout
Surface Ownership

P.O BOX 1029
WELLINGTON, UTAH 84542

DRAWING OR
MAP NUMBER

EXHIBIT 5-4

CHAPTER 7

LIST OF APPENDICES

- APPENDIX 7-1 GROUND WATER INFORMATION
- APPENDIX 7-2 SURFACE WATER INFORMATION
- APPENDIX 7-3 CLIMATOLOGICAL INFORMATION AND AIR QUALITY APPROVAL
- APPENDIX 7-4 UPDES PERMIT
- APPENDIX 7-5 DISCHARGE DATA
- APPENDIX 7-6 SEDIMENTATION POND CALCULATIONS
- APPENDIX 7-7 RIP RAP SPLASH APRON CALCULATIONS
- APPENDIX 7-8 AS-BUILT REPORT - HAUL ROAD AND SEDIMENTATION
POND CERTIFICATIONS
- APPENDIX 7-9 SEDCAD ANALYSIS (SAE & ASCA'S)

LIST OF EXHIBITS

- EXHIBIT 7-1 BANNING LOADOUT RUNOFF CONTROL MEASURES
- EXHIBIT 7-2 SEDIMENTATION POND PLAN AND SECTIONS
- EXHIBIT 7-3 SEDIMENTATION POND DETAILS

BANNING LOADOUT PERMIT

Canyon Fuel Co., LLC - Soldier Canyon

CHAPTER 7

HYDROLOGY

R645-301-700 Hydrology

This chapter will provide hydrologic information as required for the permit application.

R645-301-710 Introduction

Chapter 7 of this document presents a discussion of hydrologic conditions in the Banning Loadout permit and adjacent areas. Conclusions drawn herein are based upon a field reconnaissance of the area, published literature, and design calculations as described subsequently. This work was authorized by Soldier Creek Coal Company and completed by Richard B. White, P.E. of EarthFax Engineering, Inc., Salt Lake City, Utah.

R645-301-711 General Requirements. Each permit application will include descriptions of:

The following sections will provide descriptions of the hydrologic resources, proposed operations and potential impacts to the hydrologic balance and methods and calculations utilized to achieve compliance with hydrologic design criteria and plans.

R645-301-711.100 Existing hydrologic resources as given under R645-301-720.

Existing hydrologic resources are discussed under Section R645-301-720.

R645-301-711.200 Proposed operations and potential impacts to the hydrologic balance as given under R645-301-730.

Proposed operations and potential impacts to the hydrologic balance are detailed under Section R645-301-730.

R645-301-711.300 The methods and calculations utilized to achieve compliance with hydrologic design criteria and plans given under R645-301-740.

Methods and calculations utilized to achieve compliance with hydrologic design criteria and plan are discussed under Section R645-301-740.

R645-301-711.400 Applicable hydrologic performance standards as given under R654-301-750.

Compliance with performance standards is discussed in relevant sections of this Chapter and reiterated in Section R645-301-750.

R645-301-711.500 Reclamation activities as given under R645-301-760.

Reclamation hydrology is discussed under Section R645-301-760 of this Chapter.

R645-301-712 Certification. All cross sections, maps and plans required by R645-301-722 as appropriate, and R645-301-731.700 will be prepared and certified according to R645-301-512.

All cross sections, maps and plans required by R645-301-722 as appropriate, and R645-301-731.700 will be prepared under the direction of, and certified by, a qualified, registered professional engineer.

R645-301-713 Inspection

Impoundment inspections are made as described in Section R645-301-514.300 of Chapter 3.

R645-301-720 Environmental Description

R645-301-721 General Requirements

Surface Water

The Banning Loadout is located within the watershed of Grassy Trail Creek, a tributary of the Price River. Waddell et al. (1981) estimated that the average flow of Grassy Trail Creek at Highway 6 (i.e. within

one mile of the site) is approximately 560 acre-feet per year. With an upstream drainage area of 113.0 square miles (Waddell, 1981), this results in a yield of less than 0.10 inch per year. Of the limited quantity of surface water that is yielded by the creek, most originates at high elevations within the watershed (Mundorff, 1972). The general lack of runoff being contributed in the lower elevations of the watershed (such as the area occupied by the Banning Loadout) is the result of:

1. Limited precipitation. Average annual precipitation at the Banning Loadout adjacent areas is less than eight inches (Waddell et al., 1981). Most of this amount is required to satisfy soil moisture deficits, thus allowing only limited runoff.

2. Geologic conditions. The loadout is situated on the Mancos Shale, a relatively impermeable formation that occurs at the surface in most of the region surrounding the loadout. Due to the impermeable nature of this formation, it is a poor recharge source and does not transmit water readily. Thus, baseflow contributions to Grassy Trail Creek origination in the area of the loadout are very limited.

Due to the typically low flow of Grassy Trail Creek, no continuous gauging records have been maintained for the stream. Personal observation indicates that the stream can be classified as ephemeral, flowing in the early spring as a result of snowmelt from higher elevations. Stream flow other than the end of spring is normally limited to occasional thunderstorms.

Mundorff (1972) reported the results of analyses of five water samples collected from Grassy Trail Creek immediately upstream from U.S. Highway 6. The total dissolved solids concentrations of these samples

ranged from 872 to 2510 milligrams per liter, with the concentrations generally being inversely related to the flow rate (i.e., the higher the flow rate, the lower the concentration). This water was of mixed cationic type but was strongly sulfitic (as is typical of water crossing the Mancos Shale).

Waddell et al. (1981) indicates that the total dissolved solids concentrations of water in Grassy Trail Creek can be expected to reach maximums in excess of 6000 milligrams per liter downstream from the loadout and upstream from the confluence with the Price River. Due to the poor quality of the water in Grassy Trail Creek and elsewhere in the lower Price River Basin, no extensive development or use of surface water has occurred in the region surrounding the loadout facility.

Little information is available concerning suspended sediment concentrations in surface water adjacent to the loadout facility. Waddell et al. (1981) estimated the average annual sediment yield of undisturbed land in the vicinity of the loadout to be between 0.5 and 1.0 acre-foot per square mile per year. This yield was estimated to increase to between 1.0 and 3.0 acre-feet per square mile per year in most of the area downstream from the loadout and upstream from the confluence with the Price River.

Groundwater

According to Hood and Patterson (1984), the shaley units of the Mancos Shale have a very low permeability and serve as confining beds for underlying formations rather than as aquifers. The relatively non-transmissive character of the Mancos Shale was also borne out by the research of Jobin (1962).

As a result of the low permeability of the Mancos Shale, this formation has not been developed in the region of the loadout facility for beneficial use except the Applicant for use in dust suppression and fire protection at the facility. Drillhole data from petroleum exploration holes in the region suggest that the Mancos Shale, where saturated, contains water that is moderately to very saline (Waddell et al., 1981). This further limits the desirability of the Mancos as a source of groundwater. Given the mineralogy of the formation (which, according to Waddell et al. [1981], includes large quantities of the soluble salts, gypsum [CaSO₄·2H₂O], mirabilite [Na₂SO₄·10H₂O], and thenardite [Na₂SO₄]), it is probable that groundwater in the Mancos Shale contains a predominance of sodium, calcium, and sulfate.

R645301-722 Cross Sections and Maps

The application contains maps showing the following relevant data:

R645-301-722.100 Subsurface Water

N/A The only subsurface water encountered is in the sump located by the truck dump as shown on Exhibit 7-1.

R645-301-722.200 Surface Water

Surface water bodies are shown on Exhibits 5-1 and 7-1 of this application.

R645-301-722.300 Water Monitoring Stations

The only established surface water monitoring station is at the outlet of the sediment pond as shown on Exhibits 7-1 and 7-2.

R645-301-722.400 Water Wells

N/A There are no water wells in the permit or adjacent areas. A sump does exist near the truck dump as shown on Exhibit 7-1.

R645-301-722.500 Contour Maps

Existing land configuration is shown on Exhibits 5-1 and 7-1.

R645-301-723 Sampling and Analysis

All water quality sampling and analysis will be conducted according to the methodology in the current edition of "Standard Methods for the Examination of Water and Wastewater" or the methodology in 40 CFR Parts 136 and 434.

R645-301-724 Baseline Information

R645-301-724.100 Ground Water Information

Ground water information and water users claims are provided in Appendix 7-1.

R645-301-724.200 Surface Water Information

Surface water information, including analyses and U.P.D.E.S. Reports on the Sediment Pond Discharge are provided in Appendix 7-2.

R645-301-724.300 Geologic Information

Relevant geologic information is provided in Chapter 6 and in Section R645-301-721 of this Chapter.

R645-301-724.310

See Chapter 6 and Section R645-301-728.

R645-301-724.320

See Chapters 5 and 6 and Section R645-301-760.

R645-301-724.400 Climatological Information

Complete climatological information is provided in Appendix 7-3 of this Chapter.

R645-301-724.410

See Appendix 7-3

R645-301-724.411

See Appendix 7-3

R645-301-724.412

See Appendix 7-3

R645-301-724.413

See Appendix 7-3

R645-301-724.420 *Additional Data*

To be provided at the request of the Division.

R645-301-724.500 *Supplemental Information*

The PHC determination does not indicate that adverse impacts will occur to the hydrologic balance on or off the permit area, or that acid-forming or toxic-forming material is present that may result in the contamination of ground-water or surface-water supplies (See Section R645-301-728.

R645-301-724.600 *Survey of Renewable Resource Lands*

N/A There will be no mining here; therefore, no subsidence or impacts to renewable resources from subsidence will occur.

R645-301-725 *Baseline Cumulative Impact Area Information*

R645-301-725.100 *Hydrologic & Geologic Information*

The hydrologic information provided in this Chapter and the geologic information provided in Chapter 6 are assumed adequate to assess the probable cumulative hydrologic impacts of the operation on surface and

ground water systems. This is an on-going and permitted operation, and this information has been previously provided as required.

R645-301-725.200 Information not Available

N/A Relevant information is available, and has been provided.

R645-301-725.300

N/A

R645-301-726 Modeling

N/A No modeling is planned for this site.

R645-301-727 Alternative Water Source Information

N/A This is not a surface coal mine.

R645-301-728 Probable Hydrologic Consequences (PHC) Determination

R645-301-728.100 PHC Determination

Surface Water

Runoff- and sediment-control facilities have been designed for the Banning Loadout in accordance with applicable Division regulations. These facilities were designed to safely convey and control runoff from the appropriate design storm events. Straw-bale dikes and/or silt-fence check dams will also be installed adjacent to the haulage road to minimize the erosive impacts of this feature.

The ephemeral nature of streamflow in the vicinity of the Banning Loadout and the naturally high salinity of the Mancos Shale on which the site is situated suggests that local streamflow has the potential of containing high suspended sediment and total dissolved solids

concentrations. As a result, background surface-water quality is considered poor and beneficial use of the water is non-existent. With the existence of poor background water quality, lack of beneficial use, and the proposed runoff- and sediment-control facilities, surface-water impacts to adjacent areas will be minimized.

Groundwater

The primary potential for impacts to groundwater from the Banning Loadout will be from leaching of the coal. Metals which leach from the coal are normally most mobile in acidic environments. The alkaline nature of the soil at the site will preclude significant migration of metals to groundwater.

The potential also exists for leaching of some hydrocarbons from the coal. Although the magnitude of this potential cannot be quantified, natural biologic degradation of the hydrocarbons should minimize potential impacts.

Data presented in Section R645-301-721 indicate that groundwater in the vicinity of the loadout is naturally saline. In addition, the formation that underlies the site is negligibly transmissive. Thus, development of the uppermost saturated zone beneath the site has not occurred. This will further limit potential impacts to groundwater from the loadout area.

R645-301-728.200 Basis for Determination

The PHC determination is based on soils, geologic and hydrologic data provided in Chapters 2, 6, and 7 respectively.

R645-301-728.300 PHC Findings

The PHC Determination provided in Section R645-301-728.100 provides the following findings:

R645-301-728.310

No adverse impacts will occur to the hydrologic balance;

R645-301-728.320

No acid-forming or toxic-forming materials are present which could result in the contamination of surface or ground water supplies;

R645-301-728.330 Possible impacts of the operation on:

R645-301-728.331 Sediment yield;

R645-301-728.332 Water quality;

R645-301-728.333 Flooding or stream flow alteration;

R645-301-728.334 Ground water and surface water availability;

R645-301-728.335 N/A

R645-301-728.340 N/A

R645301-728.400 Division Review

The requirement for a new or updated PHC determination is to be determined by the Division.

R645-301-729 Cumulative Hydrologic Impact Assessment (CHIA)

R645-301-729.100

Provided by the Division.

R645-201-729.200

To be reviewed by the Division.

R645-301-730 Operation Plan

R645-301-731 General Requirements

Runoff from the permit area at Banning Loadout will be controlled through the use of berms, embankments, channels, straw bale dikes, silt fence dams and a sedimentation pond. The area that contains the loadout facilities will be enclosed by berms, embankments and channels that direct the runoff around the site into the sedimentation pond (Exhibit 7-1). A small portion of the site located in the extreme southeast corner will pass runoff through a straw bale dike or silt fence. Runoff from the haulage road will be directed toward the closest natural drainage point.

R645-302-731.100 Hydrologic-Balance Protection

R645-301-731.110 Ground-Water Protection

The primary potential for effects to groundwater from the Banning Loadout facility will come from potential leaching of constituents from the coal to the groundwater. To determine the potential for this to occur, a grab sample of coal was collected from the mine and submitted for analysis. To determine the potential for this to occur, this sample was collected from the mine and submitted for analysis for the following parameters: acid-base potential; total non-sulfate sulfur; total organic sulfur; percent calcium carbonate; pH, sodium absorption ratio; nitrate-nitrogen; electrical conductivity; and water extractable boron, selenium, copper, molybdenum, arsenic, barium, cadmium, lead, mercury, and zinc. The analysis will follow the "Standard Methods of Analysis", American Society of Agronomy, Mono. No. 9, 1982, except for the acid-base potential. The acid-base potential will be calculated

according to the U.S. EPA document 600/2-78-054, Method 3.2. The Applicant reserves the right to exclude any of the water extractable items if testing shows that they are not presenting potentially harmful amounts.

Coal samples will be collected and tested quarterly for one year, 1989, and annually from the mine after 1989 or when the general location of mining operations drastically change the coal quality.

On an annual basis, all coal-quality monitoring data collected from the site during the previous year will be summarized and submitted to the Division. Raw data received from the laboratories will also be included, along with an interpretation of the analytical results and any proposals for changes in the monitoring plan. These data and interpretations will be included with the annual report that presents the surface-water data.

R645-301-731.111

See previous Section R645-301-731.110.

R645-301-731.112

N/A

R645-301-731.120 Surface Water Protection

During discharge of water from the dewatering device and (where possible) from the spillway of the sedimentation pond, at least one sample will be collected from the discharge point. Samples thus collected will be submitted to an independent laboratory for analyses of total suspended solids, settleable solids, total dissolved solids, oil and grease, total iron, total manganese, and pH. Analytical results will be submitted to the Regulatory Authority in accordance

with the UPDES permit (See Appendix 7-4).

Due to the ephemeral nature of the area in which the Banning Loadout is situated (with its resulting low flow and high natural variability), monitoring of surface-water in natural stream channels in the area is infeasible. Hence, routine surface-water monitoring at the site will be in accordance with the UPDES permit for the sedimentation pond. Data thus collected will be submitted to the Regulatory Authority in accordance with the UPDES permit (Appendix 7-4).

On an annual basis, all surface-water monitoring data collected from the site during the previous year will be summarized and submitted to the Regulatory Authority. Raw data received from the laboratories will also be included, along with an interpretation of the analytical results and any proposals for changes in the monitoring plan.

R645-301-731.121

See previous Section R645-301-731.120

R645-301-731.122

See Section R645-301-731.120.

R645-301-731.200 *Water Monitoring*

R645-301-731.210 *Ground Water Monitoring*

A sample of the groundwater in the underlying aquifer was collected and analyzed for the complete groundwater parameter list. A copy of the results is located in Appendix 7-1. The sample was collected in the sump adjacent to the truck dump that was mistakenly called a water well. The applicant will continue to sample the sump on an annual basis and submit these results to the Regulatory Authority. The sampling will be done during the late fall. The operational analyses

will be as follows:

FIELD MEASUREMENTS

Ph	pH units
Specific Conductivity	us/cm@25°
Temperature	°C

R645-301-731.211 through R645-301-731.215

N/A

R645-301-731.220 Surface Water Monitoring

As indicated in Section R645-301-731.120, the only surface water monitoring proposed is sampling of the straw bale dikes or silt fences along the haulage road (when possible) and collection of UPDES Discharge samples from the pond. No other surface water monitoring is proposed. See Appendix 7-2, 7-4 and 7-5.

R645-301-731.221

See previous Section R645-301-731.220.

R645-301-731.222 Monitoring Plan

When the occurrence of runoff events allows, samples of the water discharging through the straw-bale dikes and/or silt fences adjacent to the haulage road will be collected and analyzed for total suspended solids, settleable solids, total dissolved solids, oil and grease, total iron, total manganese, and pH. The discharge rate from each structure will be estimated at the time of sample collection. These data will be interpreted upon receipt from the laboratory to determine the effectiveness of the control structures and the need for design changes.

During discharge of water from the dewatering device and (where possible) from the spillway of the sedimentation pond, at least one sample will be collected from the discharge point. Samples thus collected will be submitted to an independent laboratory for analyses of total suspended solids, settleable solids, total dissolved solids, oil and grease, total iron, total manganese, and pH. Analytical results will be submitted to the Regulatory Authority in accordance with the UPDES permit.

Due to the ephemeral nature of the area in which the Banning Loadout is situated (with its resulting low flow and high natural variability), monitoring of surface-water in natural stream channels in the area is infeasible. Hence, routine surface-water monitoring at the site will be in accordance with the UPDES permit for the sedimentation pond. Data thus collected will be submitted to the Regulatory Authority in accordance with the UPDES permit (See Appendix 7-4).

R645-301-731.222.1

See previous Section R645-301-731.222.

R645-301-731.222.2

See Section R645-301-731-222.

R645-301-731.223 Submittal of Data

Surface water monitoring data will be submitted on a quarterly basis. When analyses indicate non-compliance with permit conditions, the operator will promptly notify the Division and immediately take remedial actions.

R645-301-731.224 Duration of Monitoring

Surface water monitoring will continue through the operations period and through the reclamation period until requirements for Phase II Bond Release are met.

R645-301-731.224.1

N/A

R645-301-731.224.2

N/A

R645-301-731.225 Monitoring Devices

All equipment, structures and other devices used in conjunction with water monitoring will be properly installed, maintained and operated, and will be removed when no longer required.

R645-301-731.300 Acid-Forming and Toxic-Forming Materials

R645-301-731.310 Drainage

There are no known acid or toxic forming materials on this site; however, should such materials be identified, drainage from the material will be protected by:

R645-301-731.311

Burial of the materials beneath a minimum of 4' of non-acid, non-toxic materials (See Section R645-301-528.350);

R645-301-731.312

Storing materials in a bermed area until such time as they can be buried.

R645-301-731.320 Storage, Burial or Treatment

Storage, burial or treatment of acid or toxic forming materials will be

in accordance with the Material Handling Plan in Section R645-301-521 and Section R645-301-528.350 on Chapter 5.

R645-301-731.400 Transfer of Wells

N/A There are no wells or exploratory holes on this site.

R645-301-731.500 Discharges

The only planned discharges from this property will be in the form of water and potentially, coal processing waste.

R645-301-731.510 Discharges into an Underground Mine

N/A There are no mines at this location.

R645-301-731.511 through R645-301-731.511.4

N/A There are no mines at this location.

R645-301-731.512 Discharges

The only proposed discharges from this site are:

R645-301-731.512.1 Water;

R645-301-731.512.2 Coal Processing Waste.

R645-301-731.512.3 through R645-301-731.512.7

N/A

R645-301-731.513 Water From Underground Workings

N/A There are no underground workings at this site.

R645-301-731.520 Gravity Discharges

N/A There are no gravity discharges from underground coal mining at this site.

R645-301-731.521

N/A

R645-301-731.522

N/A

R645-301-731.600 *Stream Buffer Zones*

N/A There are no perennial or intermittent streams associated with this site. All drainage is considered ephemeral.

R645-301-731.611 through R645-301-731.620

N/A

R645-301-731.700 *Cross Sections and Maps*

The following maps are provided in this application (All maps are prepared and certified according to R645-301-512):

R645-301-731.710 *Water Intakes and Discharges*

Exhibit 7-1;

R645-301-731.720 *Hydrologic Facilities*

Exhibit 7-1;

R645-301-731.730 *Water Monitoring*

Exhibit 7-1;

R645-301-731.740 *Sediment Pond - Location*

Exhibit 7-1;

R645-301-731.750 *Sediment Pond - Details*

Exhibits 7-2 and 7-3.

R645-301-731.760 Other Maps Required by Division

N/A

R645-301-731.800 Water Rights and Replacement

N/A This is not a surface mining operation.

R645-301-732 Sediment Control Measures

The following sections will describe sediment control measures used at this site:

R465-301-732.100 Siltation Structures

There is one sediment pond on the site. Sediment pond design and other run off control criteria are provided in Appendices 7-6 and 7-7.

R645-301-732.200 Sedimentation Ponds

As noted in Exhibit 7-1, a sedimentation pond has been constructed at the loadout site. Calculations performed to design the pond and its appurtenant structures are contained in Appendix 7-6. Plans, sections, and details of the pond facilities are provided in Exhibits 7-2 and 7-3.

Runoff to the sedimentation pond from the 10-year, 24-hour storm was determined to be 1.18 acre-feet. Required sediment storage for the pond was calculated to be 0.27 acre-foot. Hence, the pond was designed with a total storage volume of 1.45 acre-feet.

The pond is designed with interior slopes of 3h:1v and exterior slopes (where constructed) of 2h:1v. Due to the low relief of the area, the pond will be primarily excavated, with an embankment constructed only in those areas required to bring the elevation of the top of the embankment to 5496.5 feet.

The stage-capacity curve for the sedimentation pond is presented in Figure 7-4. According to this figure, the new pond will provide sediment storage to an elevation of 5488.8 feet and total storage to an elevation of 5495.2 feet. Sediment will be cleaned out of the pond when it reaches an elevation of 5487.6 feet (the elevation sediment storage volume). Two steel stakes will be placed at the locations shown on Exhibit 7-2 to mark the sediment cleanout elevation.

The dewatering device for the sedimentation pond consists of 2-inch pipe extending into the pond and valved near its outlet at the adjacent ephemeral stream channel (see Exhibit 7-3). The valve box will be locked to prevent unauthorized dewatering of the pond. A riprapped splash apron has been constructed at the outlet of the principal spillway and dewatering pipe to prevent excessive erosion. Details concerning the design of this apron are contained in Appendix 7-7.

No anti-vortex device will be provided on the dewatering pipe since flow rates (and, hence vortex conditions) can be manually regulated by the gate valve. However, a downturned 90° elbow has been installed at the inlet end of the pipe to minimize skimming from the surface of the pond during dewatering.

During passage of the peak flow resulting from the 25-year, 24-hour precipitation event, the peak stage in the pond will be 0.9 foot above the crest of the principal spillway and the emergency spillway this depth of flow will not cause outflow from the emergency spillway during the design event. Nonetheless, an emergency spillway has been installed to provide a bypass for water during events larger than those for which the pond was designed.

The pond has been designed with a minimum top width equivalent to $(H+35)/5$, where H is the height of the embankment above natural ground

surface. The embankment portion was constructed in 6-inch lifts and compacted by repeated passes of grader/loader equipment. Compaction continued until the density of the material was at least 90 percent of maximum Proctor density. With a 6-foot maximum embankment height, the embankment was constructed to an initial top elevation of 5498.0 feet, allowing for settlement to a final elevation of 5497.2 feet.

Anti-seep collars were installed on the spillway conduit to increase the flow path and reduce the potential for piping of the soil. The collars were designed in accordance with the U.S. Environmental Protection Agency (1976) as indicated in Appendix 7-6. Two anti-seep collars were installed.

All construction on the pond was supervised by a registered Professional Engineer who is licensed in the State of Utah. An as-built report will be prepared and certified by the supervisory Professional Engineer for submittal to the Regulatory Authority following completion of construction activities. This as-built report will include a discussion of problems encountered during construction and will present plans and sections of the constructed pond and appurtenant structures.

Following construction of the sedimentation pond, all disturbed areas associated with pond construction (with the exception of the interior of the pond) were revegetated with the approved seed mixture. Mulching, fertilizing, and other reclamation procedures outlined in Chapter 5 of this PAP (except initial soil ripping to a depth of 18 inches) were followed where appropriate during reclamation of the areas disturbed by pond construction.

Sediment Pond calculations are provided in Appendix 7-6

R645-301-732.210

The sediment pond will not be removed according to the reclamation schedule shown in Table 5.2 of this permit.

R645-301-732.220

N/A There are no coal processing waste dams or embankments at this site. The pond does not meet the size or other criteria of 30 CFR 77.216(a).

R645-301-732.300 Diversions

Runoff control at the loadout site will be provided primarily by maintenance and construction of existing and new berms and the sedimentation pond. A plan view of the site and the proposed runoff-control measures is provided in Exhibit 7-1.

Berms currently exist around most of the periphery of the loadout site except those portions of the south and west fences where diversion channels exist. Where berms exist, they will be repaired where necessary to meet the minimum design criteria of the "compact berm" shown in Figure 7-3. Where berms do not exist around the periphery, they will be so constructed.

The drive-through shown in Figure 7-3 will be constructed in areas subject to vehicular traffic. These areas include the two exit gates adjacent to the coaling tower and the exit gate along the south fence. An embankment shown in Figure 7-3 will be constructed in the southeast corner of the site. This embankment will direct runoff toward the drainage channel and sedimentation pond.

The runoff originating between the embankment and the fence line, including the test plot area, will not be directed toward the sedimentation pond. This runoff will be directed toward a silt fence on the southern portion of the property. Locations for the embankment

and silt fence are shown on Exhibit 7-1. SCCC is requesting a small area exception for this area.

The substation pad area shown in Exhibit 7-1 is graveled to enhance stability. The outslope of the substation area is also graveled. However, runoff flow from the outslope area will not be directed toward the sedimentation pond. Sufficient thickness of gravel will be applied to the outslope area. This will meet the minimum effluent specifications for all drainage flow from the outslope area. SCCC has classified this as a small area exemption for the outslope area. The substation and pad area were removed from the disturbed and permitted area in 2004, when the substation was sold to East Carbonics Inc. The land on which the substation sits was also sold to East Carbonics.

All berms and embankments will be inspected at routinely for damage and deterioration. Any repairs that are necessary to maintain the integrity of the structure will be made as soon as possible.

Calculations contained in Appendix 7-6 indicate that the ditches leading to the sedimentation pond have sufficient capacity to safely pass the peak flow resulting from the 25 year, 24-hour precipitation event (i.e., the spillway design event). These ditches will be regraded where necessary to ensure that they maintain the cross section noted in Figure 7-5. Excess material from grading of the ditches will be sidecast to the outer slope away from the loadout site, thus permitting free drainage from the site into the ditches and providing additional control against spillage out of the ditches to uncontrolled areas.

R645-301-732.400 Road Drainage

Road drainage is discussed under Section R645-301-732.100

R645-301-732.410 Alteration or Relocation of Natural Drainageway

N/A There are no plans to alter or relocate a natural drainageway.

R645-301-732.420 Ditch Relief Culverts

Three ditch relief culverts are installed to convey runoff from undisturbed areas beneath the haulage road to the natural drainage system. Inlet ends of the culverts are protected with rock headwalls.

R645-301-733 Impoundments

The sediment pond is the only impoundment on the site.

R645-301-733.100 General Plan

Plans for the sediment pond are provided in Section R645-301-732.200, Appendix 7-6 and Exhibits 7-2 and 7-3.

R645-301-733.110

All plans and maps are prepared and certified according to R645-301-512;

R645-301-733.120

Maps and cross sections are provided as described above;

R645-301-733.130

Narratives describing the structure are provided in Section R645-301-732.100, 732.200 and 733.

R645-301-733.140

Surveys are provided in Exhibits 7-1, 7-2 and 7-3;

R645-301-733.150

Assessment of hydrologic impacts are provided in Appendix 7-6 and Section R645-301-732.200;

R645-301-733.160

N/A Structures have been constructed under approved plans.

R645-301-733.200 *Permanent and Temporary Impoundments*

The sediment pond will not be removed and reclaimed during final reclamation.

R645-301-733.210

The sediment pond was designed to comply with applicable regulations and does not meet the size or other criteria of 30 CFR 77-216.

R645-301-733.220 *Permanent*

The sedimentation pond will not be removed during final reclamation.

R645-301-733.221

N/A

R645-301-733.222

N/A

R645-301-733.223

N/A

R645-301-733.224

N/A

R645-301-733.225

N/A

R645-301-733.226

N/A

R645-301-733.230 *Temporary Impoundments*

The sediment pond is not considered temporary.

R645-301-733.240 Notification of Hazard

If any examination or inspection discloses that a potential hazard exists, the person who examined the impoundment will promptly inform the Division as indicated in Section R64-301-515.200.

R645-301-734 Discharge Structures

Discharge structures will be constructed and maintained to comply with R645-301744. Discharge structures are detailed in Appendix 7-6 and an Exhibits 7-2 and 7-3.

R645-301-735 Disposal of Excess Spoil

N/A There are no plans to dispose of excess spoil at this site.

R645-301-736 Coal Mine Waste

N/A There are no plans to dispose of coal mine waste at this site.

R645-301-737 Noncoal Mine Waste

Noncoal mine waste will be stored and disposed of as described in Section R645-301-521 and in compliance with R-645-301-747.

R645-301-738 Temporary Casing and Sealing of Wells

N/A There are no wells at this operation.

R645-301-740 Design Criteria and Plans

R645-301-741 General Requirements

The following sections will outline site-specific plans for the control of drainage from disturbed and undisturbed areas.

R645-301-742 Sediment Control Measures

The haulage road accessing the Banning Loadout from U.S. Highway 6 is

a center-crowned road that sheds water to both sides. Runoff from the road and adjacent areas will meet effluent limitation. In the event effluent limitations are exceeded, the following sediment control will be implemented. Flows will be directed toward straw-bale dikes (Figure 7-1) and/or silt-fence check dams (Figure 7-2) installed in the roadside drainage. These structures will be installed immediately upstream from locations where the roadside drainage is intersected by natural ephemeral stream channels.

The spacing along the haulage road will keep the contributing area for each structure to less than 0.5 acre (as recommended by the U.S. Environment Protection Agency, 1976) and help reduce sediment from flowing off the site.

Where straw-bale dikes are to be installed as shown in (Figure 7-1).

Silt-fence check dams are to be installed as shown in (Figure 7-2).

All straw-bale dikes and silt fences will be inspected routinely for damage and deterioration. Required repairs and replacements will be made as soon as possible.

Three ditch-relief culverts currently exist to convey runoff from undisturbed areas beneath the haulage road to the natural drainage system. These culverts will be inspected at routinely through the life of the loadout facility and repaired as needed.

R645-301-742.100 General Requirements

Alternate Sediment Control Areas

The following areas have been identified as alternate sediment control areas and are identified on Exhibit 7-1.

Area 1.

This area is located adjacent to substation. The area contains 0.08 acres. The runoff is treated by a silt fence.

Area 2.

This area is located in the southern corner of the permit area. The area contains 0.82 acres. The runoff is treated by siltfences. See Appendix 7-9 for runoff calculations.

Area 3.

This area is located in the northeastern corner of the permit and runs west paralleling the haul road. The area contains 0.40 acres. The runoff is treated by silt fences. See Appendix 7-9 for runoff calculations.

Area 4.

This area is located west of Area 3. This area contains 0.05 acres and is treated by a silt fence. See Appendix 7-9 for runoff calculations.

Area 5.

This area is located in the northwestern corner of the permit area and is parallel to the haul road. The area contains 0.16 acres. The runoff is treated with a silt fence. See Appendix 7-9 for runoff calculations.

R645-301-742.110 Design, Construction and Maintenance

As described in Section R645-301-732 and other applicable sections, appropriate sediment control measures will be designed, constructed and maintained using the best technology currently available to:

R645-301-742.111

Prevent, to the extent possible, additional contributions of sediment to streamflow or to runoff outside the permit area:

R645-301-742.112

Meet the effluent limitations under R645-301-751 (See Section R645-301-751);

R645-301-742.113

Minimize erosion to the extent possible.

R645-301-742.120 *Sediment Control Practices*

The following sediment control methods are used on this site:

R645-301-121

Retaining sediment within disturbed areas; This is accomplished by directing all disturbed area drainage to silt fences or straw bales or to the sediment pond.

R645-301-742.122

Diverting runoff away from disturbed areas; This is accomplished by routing undisturbed drainage through culverts beneath the haul road and then to natural channels, and by the use of berms to prevent intermingling of disturbed and undisturbed drainage;

R645-301-742.123

Diverting runoff using protected channels or pipes so as not to cause additional erosion; The majority of the drainage is directed carried in ditches and culverts at non-erosive velocities to the sediment pond (See Exhibit 7-1);

R645-301-742.124

Using straw dikes, silt fences and vegetative filters to reduce

overland flow velocities, reduce runoff volumes or trap sediment; (See Exhibit 7-1 and Section R645-301-732);

R645-301-742.125

Treating with chemicals; The haul road surface is paved;

R645-301-742.126

N/A

R645-301-742.200 Siltation Structures

The only siltation structure on site is the sediment pond.

R645-301-742.210 General Requirements

Siltation structures are designed, constructed and maintained to meet the following requirements:

R645-301-742.211

Prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids and sediment to streamflow or runoff outside the permit area;

R645-301-742.212

The design drawings are certified.

R645-301-742.213

N/A The siltation structures are not designed to impound water;

R645-301-742.214

N/A There is no water from underground workings.

R645-301-742.220 Sedimentation Ponds

The sedimentation pond details are described in Sections R645-301-732.200, and R645-301-733. Design details are provided in Appendix 7-6

and on Exhibits 7-2 and 7-3.

R645-301-742.221 Additional Criteria

In addition to the above, the sediment pond will meet the following criteria:

R645-301-742.221.1

Be used individually;

R645-301-742.221.2

Is located within the disturbed area and not near any perennial stream;

R645-301-742.221.3

Is designed, constructed and maintained to:

R645-301-742.221.31

Provide adequate sediment storage volume (See Appendix 7-6);

R645-301-742.221.32

Provide adequate detention time to allow the effluent from the pond to meet Utah and federal effluent limitations (See Appendix 7-6);

R645-301-742.221.33

Contain the 10 year, 24-hour precipitation event (See Appendix 7-6);

R645-301-742.221.34

Provide a non-clogging dewatering device (See Appendix 7-6 and Exhibit 7-3);

R645-301-742.221.35

Minimize, to the extent possible, short circuiting (See Exhibits 7-1, 7-2, and 7-3);

R645-301-742.221.36

Provide periodic sediment removal sufficient to maintain adequate volume for the design event (See Section R645-301-732.200);

R645-301-742.221.37

Ensure against excessive settlement (See Section R645-301-732.200);

R645-301-742.221.38

Be free of sod, large roots, frozen soil, and acid or toxic forming coal processing waste (See Section R645-301-732.100);

R645-301-742.221.39

Be compacted properly (See Section R645-301-732.200).

R645-301-742.222 *Ponds Meeting MSHA 30 CFR 77.216(a)*

N/A This pond does not meet the size or other qualifying criteria of MSHA 30 CFR 77.216 (a).

R645-301-742.223 *Ponds not Meeting MSHA 30 CFR 77.216 (a).*

The pond is equipped with a combination principal and emergency spillway that will safely discharge a 25-year, 6-hour precipitation event (See Appendix 7-6 and Exhibits 7-1, 7-2 and 7-3);

R645-301-742.223.1

N/A

R645-301-742.223.2

N/A

R645-301-742.223.4 *Variance from Requirements*

N/A The pond has a combination spillway.

R645-301-742.225 *Exception to R645-301-742.224*

N/A

R645-301-742.225.1

N/A

R645-301-742.225.2

N/A

R645-301-742.230 *Other Treatment Facilities*

None

R645-301-742.231

The treatment facilities are designed to treat the 10 year -24 hour precipitation event from the 0.38 acre drainage

R645-301-742.232

N/A See following section.

R645-301-742.240 *Exemptions*

SAE Area 1. This area is classified as exempt from the requirements of R645-301-742.200, R645-301-763, and other alternate sediment control measures since it drains such a small area. It is located on the south side of the permit area. The area is relatively flat and the hydraulic length is so short that it does not produce any runoff. It covers 0.36 acres, see Appendix 7-9 for runoff calculations.

R645-301-742.300 *Diversions*

Diversion details are described in Section R645-301-732.300 and shown on Exhibit 7-1 and Figure 7-3.

R645-301-742.310 General Requirements

R645-301-742.311

N/A There are no abandoned or reclaimed areas or underground mines at this site.

R645-301-742.312 Design, Location, Construction, Maintenance, Use

As shown on Exhibit 7-1, Figure 7-3 and described in Section R645-301-732.300, all diversions and appurtenant structures are designed, located, constructed, maintained and used to meet the following requirements:

R645-301-742.312.1

Be stable;

R645-301-742.312.2

Provide protection against flooding and resultant damage to life and property;

R645-301-742.312.3

Prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow outside the permit area;

R645-301-742.312.4

Comply with all applicable local, Utah and federal laws and regulations.

R645-301-742.313 Removal

As indicated in the reclamation plan, all diversions are temporary and will be removed when no longer needed or upon final reclamation. The only structures planned to be left on a permanent basis will be a portion of the haul road with 3 existing culverts. This road and

drainage control has been designed in accordance with provisions of the B.L.M. Right-of-Way, and will be left as part of the right-of-way agreement. All other diversions will be removed and the area restored.

R645-301-742.314

Other requirements may be specified by the Division.

R645-301-742.320 *Diversion of Perennial and Intermittent Streams*

N/A There are no perennial or intermittent streams on, or adjacent to, this site.

R645-301-742.321 through R645-301-742.324

N/A

R645-301-742.330 *Diversion of Miscellaneous Flows*

N/A There are no flows such as ground water or ephemeral streams diverted at this site. Culverts are installed to direct runoff collecting along the road to natural drainages below.

R645-301-742.331 through R645-301-742.333

N/A

R645-301-742.400 *Road Drainage*

Roads and road drainage details are provided in Section R645-301-732.400, and shown on Exhibit 7-1 and Figures 7-1 and 7-2. Road design is detailed in Chapter 5.

R645-301-742.410 *All Roads*

All roads on site are considered primary roads, and are designed, constructed and maintained to meet the following criteria:

R645-301-742.411

The design and construction of all roads is appropriate for the type

and size of equipment used, and incorporate appropriate limits for surface drainage control, culvert placement, culvert size, and other design established by the Division (and B.L.M.). See Chapter 5 for road design details and appropriate maps.

R645-301-742.412

Refer to Section R645-301-742.411. The design and construction of all roads is appropriate for the type and size of equipment used, and incorporate appropriate limits for surface drainage control, culvert placement, culvert size, and other design established by the Division (and B.L.M.). See Chapter 5 for road design details and appropriate maps.

R645-301-742.413

Roads are located to minimize downstream sedimentation and flooding (See Exhibit 7-1).

R645-301-742.420 Primary Roads

As indicated, all roads on site are considered primary roads.

R645-301-742.421 Location

All roads are located on the most stable available surfaces.

R645-301-742.422 Stream Fords

N/A There are no stream fords here.

R645-301-742.423 Drainage Control

The primary roads are designed, constructed and maintained to have adequate drainage control using road ditches and culverts. The drainage control systems are capable of handling at least a 10 year - 6 hour precipitation even. The road is constructed to B.L.M. specifications.

R645-301-742.423.2

Culverts are constructed to avoid plugging or collapse and erosion at inlets and outlets per B.L.M. specifications.

R645-301-742.423.3

Drainage ditches are designed to prevent uncontrolled drainage over the road surface and embankments. The road and ditches are designed according to B.L.M. requirements on the Right-of-Way.

R645-301-742.423.4

N/A There is no alteration of natural stream channels.

R645-301-742.423.5

N/A There are no stream channel crossings.

R645-301-743 Impoundments

Impoundments are described under Section R645-301-733 and shown on Exhibit 7-1. Sediment pond design and details are provided in Appendix 7-6 and on Exhibits 7-2 and 7-3.

R645-301-743.100 General Requirements

The following information is provided relevant to the sediment pond:

R645-301-743.110

N/A The pond does not meet the size or other criteria of MSHA 30 CFR 77.216(a).

R645-301-743.120

The pond is designed under the direction of, and certified by, a qualified, registered professional engineer (See Appendix 7-8). Adequate freeboard is provided as shown on Exhibits 7-2 and 7-3 and described in Appendix 7-6.

R645-301-743.130

The pond is equipped with a combination of principal and emergency spillways adequate to safely pass the design precipitation event.

R645-301-743.131 through R645-301-743.132

N/A

R645-301-743.140 Inspections

Impoundments are inspected as described in Section R645-301-514.300.

R645-301-743.200

N/A

R645-301-743.300 Design Event for Spillways

Spillways are designed to safely pass the runoff from a 25-year, 6-hour event (See Appendix 7-6).

R645-301-744 Discharge Structures

R645-301-744.100 Controls

The pond discharge is equipped with a riprap splash apron as shown on Exhibit 7-2 and detailed in Appendix 7-7.

R645-301-744.200 Design

The outlet structure and protection are designed according to standard engineering design procedures as shown in Appendices 7-6 and 7-7.

R645-301-745 Disposal of Excess Spoil

N/A There are no plans to dispose of excess spoil at this site.

R645-301-745.100 through R645-301-745.400

N/A

R645-301-746 Coal Mine Waste

The only coal mine waste that will potentially be produced here is coal processing waste. There are no plans to dispose of this material on site.

R645-301-746.100 General Requirements

R645-301-746.110 Disposal

Disposal of coal processing waste is discussed in Section R645-301-513.300 in Chapter 5. There will be no disposal on this site.

R645-301-746.120

N/A There will be no disposal at this site.

R645-301-746.200 Refuse Piles

N/A There are no refuse piles here.

R645-301-746.210 through R645-301-746.222

N/A

R645-301-746.300 Impounding Structures

N/A There are no impounding structures constructed of or impounding coal mine waste.

R645-301-746.310 through R645-301-746.340

N/A

R645-301-746.400 Return of Coal Processing Waste to Abandoned Underground Workings

Methods of disposal for coal processing waste are discussed in Section R645-301-513.300 in Chapter 5. There will be no disposal at this site.

R645-301-746.410

See Section R645-301-513.300.

R645-301-746.420

See Section R645-301-513.300.

R645-301-746.430

See Section R645-301-513.300.

R645-301-747 *Disposal of Noncoal Mine Waste*

Disposal of noncoal mine waste is detailed under Section R645-301-521 of Chapter 5.

R645-301-747.100

Noncoal mine waste will be placed and stored in a controlled manner (i.e. dumpsters, bermed areas) on a temporary basis only until removal and final disposal in the Carbon County Landfill or other state-approved solid waste disposal area.

R645-301-747.200

Placement and storage of noncoal mine waste will be only temporary, and will be in a controlled manner to prevent contamination of surface or ground water from runoff. Dumpsters and/or bermed areas will be used to prevent runoff.

R645-301-747.300

N/A There are no plans to dispose of noncoal mine waste on site.

R645-301-748 *Casing and Sealing of Wells*

N/A There are no wells on this site.

R645-301-750 *Performance Standards*

All mining and reclamation operations will be conducted to minimize

disturbance to the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area and support postmining land uses in accordance with the terms and conditions of the approved permit and the performance standards of R645-301- and R645-302.

R645-301-751 Water Quality Standards and Effluent Limitations

Discharges of water will be made in compliance with all Utah and federal water quality laws and regulations and with effluent limitations for coal mining promulgated by the U.S.E.P.A. set forth in 40 CFR Part 434.

R645-301-752 Sediment Control Measures

Sediment control measures will be located, constructed, maintained and reclaimed as described in Sections R645-301-732, R645-301-742 and R645-301-760,

R645-301-752.100

Siltation Structures and Diversions will be located, maintained, constructed and reclaimed according to plans and designs given under R645-301-732, R645-301-742 and R645-301-763.

R645-301-752.200 Road Drainage

Roads will be located, designed, constructed, reconstructed, used, maintained and reclaimed according to R645-301-732.400 and R645-301-742.400 and R645-301-762 and to achieve the following:

R645-301-752.210

Control or prevent erosion, siltation and the air pollution attendant to erosion by vegetating or otherwise stabilizing all exposed surfaces in accordance with current, prudent engineering practices;

R645-301-752.220

Control or prevent additional contributions of suspended solids to

stream flow or runoff outside the permit area;

R645-301-752.230

Neither cause nor contribute to, directly or indirectly, the violation of effluent standards given under R645-301-751;

R645-301-752.240

Minimize the diminution to or degradation of the quality or quantity of surface- and ground-water systems; and

R645-301-752.250

Refrain from significantly altering the normal flow of water in streambeds or drainage channels.

R645-301-753 *Impoundments and Discharge Structure*

Impoundments and discharge structures will be located, maintained, constructed and reclaimed to comply with R645-301-733, R645-301-734, R-645-301-743, R645-301-745 and R645-301-760.

R645-301-754 *Disposal of Excess Spoil, Coal Mine Waste and Noncoal Mine Waste.*

Disposal areas for excess spoil, coal mine waste and noncoal mine waste will be located, maintained, constructed and reclaimed to comply with R645-301-735, R645-301-736, R645-301-745, R645-301-746, R645-301-747, and R645-301-760.

R645-301-755 *Casing and Sealing of Wells*

N/A There are no wells at this site.

R645-301-760 *Reclamation*

Reclamation of the minesite is detailed in Section R645-301-540 of Chapter 5. Only those reclamation procedures pertinent to hydrology are repeated in this section.

R645-301-761 General Requirements

All drainage controls at Banning will remain intact until the final grading of the site of the postmining surface configuration. After this time, all controls will be removed except for the sedimentation pond and associated outflow structures (Exhibit 5-6). With the exception of the sedimentation pond, all associated outflow structures will be recontoured and revegetated after the quality of the drainage entering the pond meets applicable requirements. Also, once revegetation requirements are met, these drainage controls will be removed from the site.

The timetable for the removal of all drainage control structure is shown in Section R645-301-540. The sedimentation pond and silt-fence dam and/or straw bale dikes will be controls left on the site until standards are met by drainage at the site. No stream channel diversions will be incorporated in the reclamation plan. Monitoring of water at the site will continue until Phase II Bond Release is obtained.

The water sump will be plugged during the structure removal and site cleanup. There is no acid or toxic forming materials at the site, but if any are found or used during the operation they will be removed and properly disposed of by the Applicant, prior to reclamation of the property.

There are no perennial or intermittent streams within 100 feet of the permit area which contain a biological community.

R645-301-762 Roads

As indicated in Section R645-301-540, a portion of the haul road will be left in place per agreement with the B.L.M. for the Right-of-Way. This road is shown on Exhibit 5-6. All other roads will be removed and reclaimed.

R645-301-762.100

Natural drainage patterns will be restored on the reclaimed site.

R645-301-762.200

The area will be reclaimed to Approximate Original Contour.

R645-301-763 Siltation Structures

Siltation structures are temporary and will be removed when no longer required.

R645-301-763.100

Siltation structures will be maintained until removal is authorized by the Division and the disturbed area has been stabilized and revegetated.

R645-301-763.200

Upon removal, the land on which the structure was located will be regraded and revegetated according to the reclamation plan.

R645-301-764 Structure Removal

A Reclamation Timetable (Table 5-2) is provided in Chapter 5, which includes a schedule for structure removal.

R645-301-765 Permanent Casing and Sealing of Wells

N/A There are no wells at this site.

REFERENCES

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- Hood, J.W. and D.J. Patterson. 1984. Bedrock Aquifers in the Northern San Rafael Swell Area, Utah, With Special Emphasis on the Navajo Sandstone. Technical Publication No. 78. Utah Department of Natural Resources. Salt Lake City, Utah.
- Jobin, D.A. 1962. Relation of the Transmissive Character of the Sedimentary Rocks of the Colorado Plateau to the Distribution of Uranium Deposits. U.S. Geological Survey Bulletin 1124. Washington, D.C.
- Mundorff, J.C. 1972. Reconnaissance of Chemical Quality of Surface Water and Fluvial Sediment in the Price River Basin, Utah. Technical Publication No. 39. Utah Department of Natural Resources. Salt Lake City, Utah.
- U.S. Environmental Protection Agency. 1976. Erosion and Sediment Control Surface Mining in the Eastern U.S. Publication No. EPA 625/3-76-006. Cincinnati, Ohio.
- U.S. Environmental Protection Agency. 1986. Test Methods for Evaluating Solid Waste - Volume 1C: Laboratory Manual, Physical and Chemical Methods. Publication No. SW-846, Third Edition. Washington, D.C.
- Waddell, K.M., P.K. Contratto, C.T. Sumsion, and J.R. Butler. 1981. Hydrologic Reconnaissance of the Wasatch Plateau-Book Cliffs Coal-Fields Area, Utah. U.S. Geological Survey Water-Supply Paper 2068. Washington, D.C.

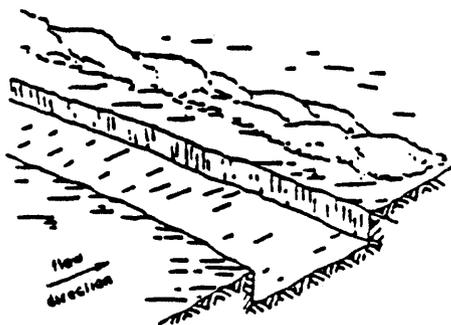


Figure 1
Excavate the trench.

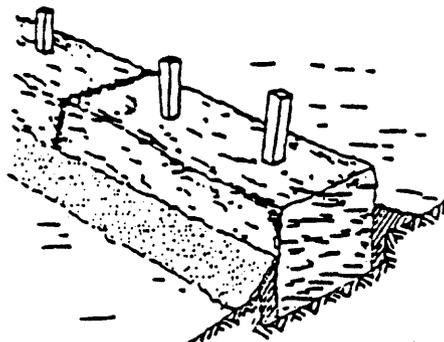


Figure 2
Backfill and compact soil.
(Metal or wooden stakes to be used
when needed.)

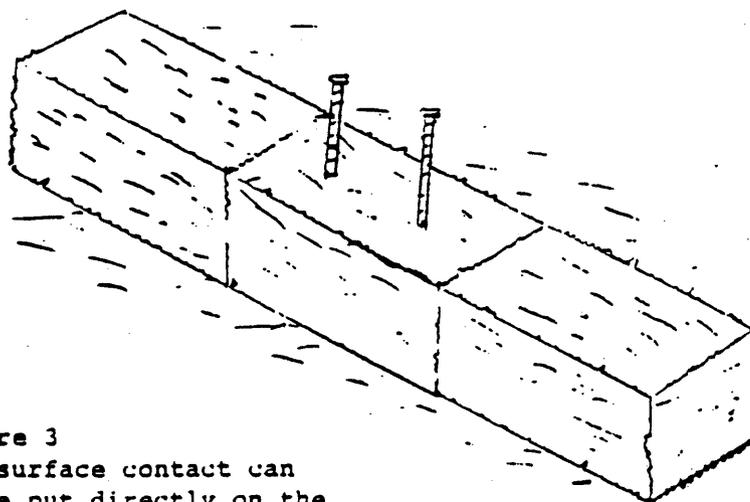


Figure 3
On areas where good surface contact can
be made, bales can be put directly on the
surface making sure ends are butted up tight.
Metal or wooden stakes to be used when needed.



 Soldier Creek Coal Company		
SOLDIER CANYON MINE		
TITLE:		
STRAW-BALE DIKE DETAILS		
DRAWING NO.		
FIGURE 7-1		
REVISIONS		
NO.	DATE	BY
1		
2		
3		

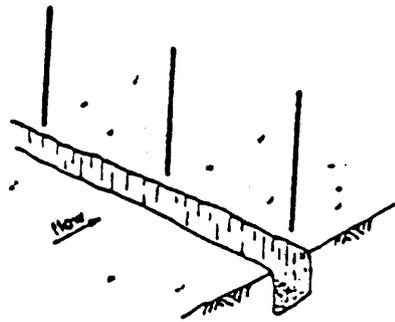


Figure 1
Set posts and excavate trench.

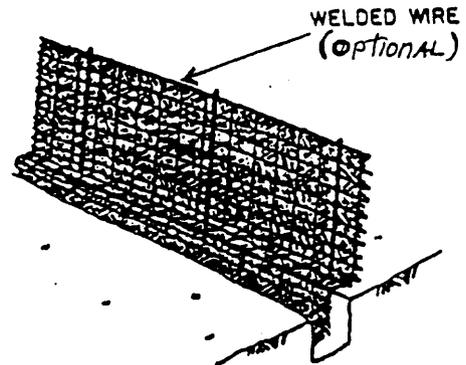


Figure 2
Attach filter fabric to posts with extension into trench as shown.

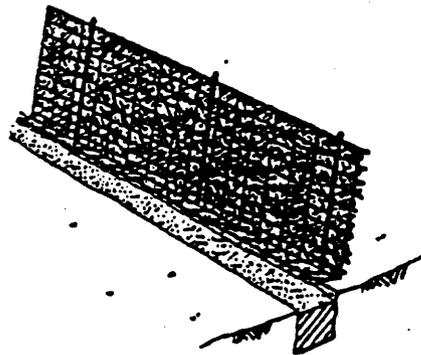
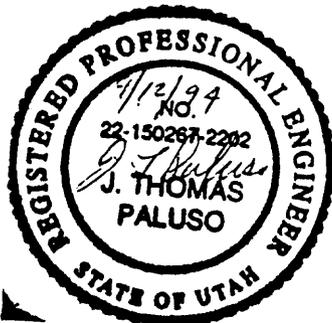
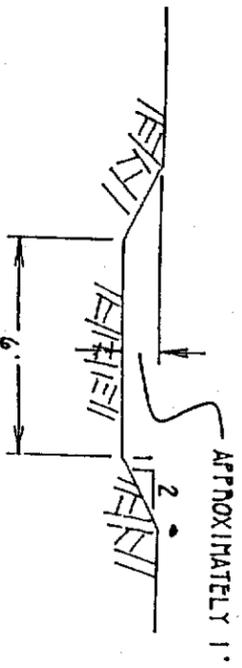


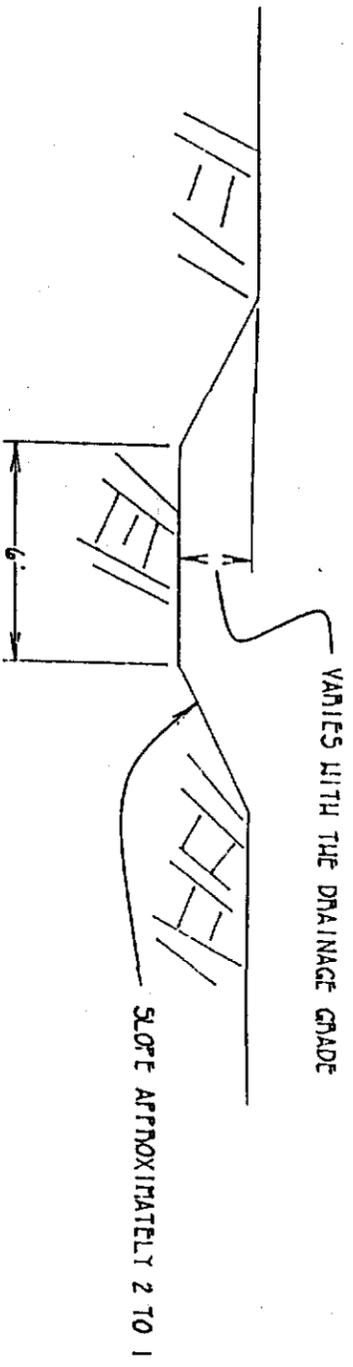
Figure 3
Backfill and compact excavated soil.



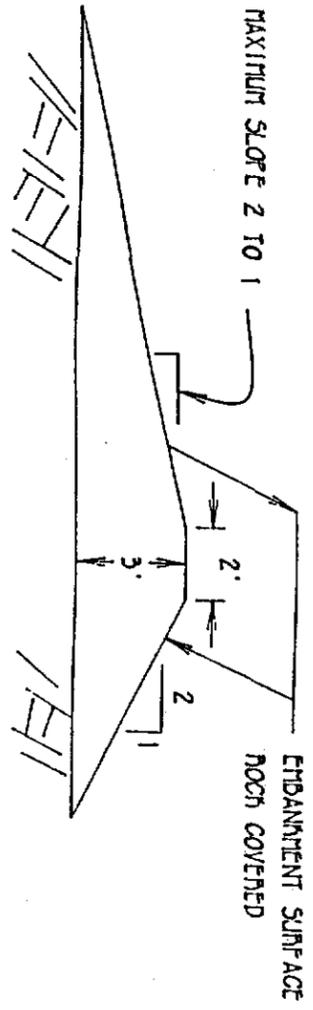
 Soldier Creek Coal Company		
SOLDIER CANYON MINE		
TITLE:		
SILT-FENCE CHECK DAM DETAILS		
DRAWING NO.		
FIGURE 7-2		
REVISIONS		
NO.	DATE	BY
1		
2		
3		



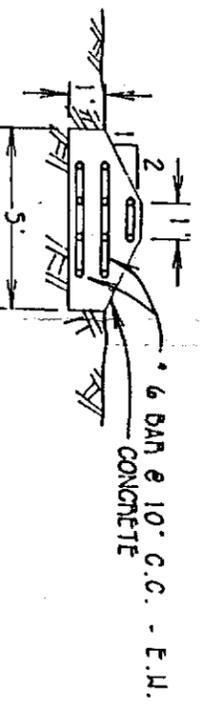
EMERGENCY SPILLWAY



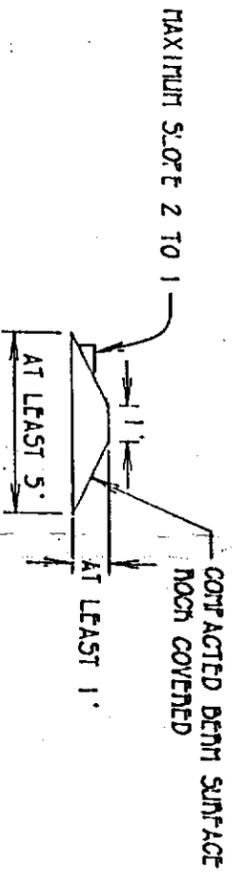
DRAINAGE CHANNEL



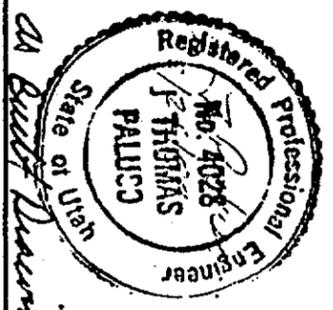
EMBANKMENT



DRIVE-THROUGH



COMPACT BERM



DA Burt Dunning

SC³ Soldier Creek Coal Company

BANNING LOADOUT

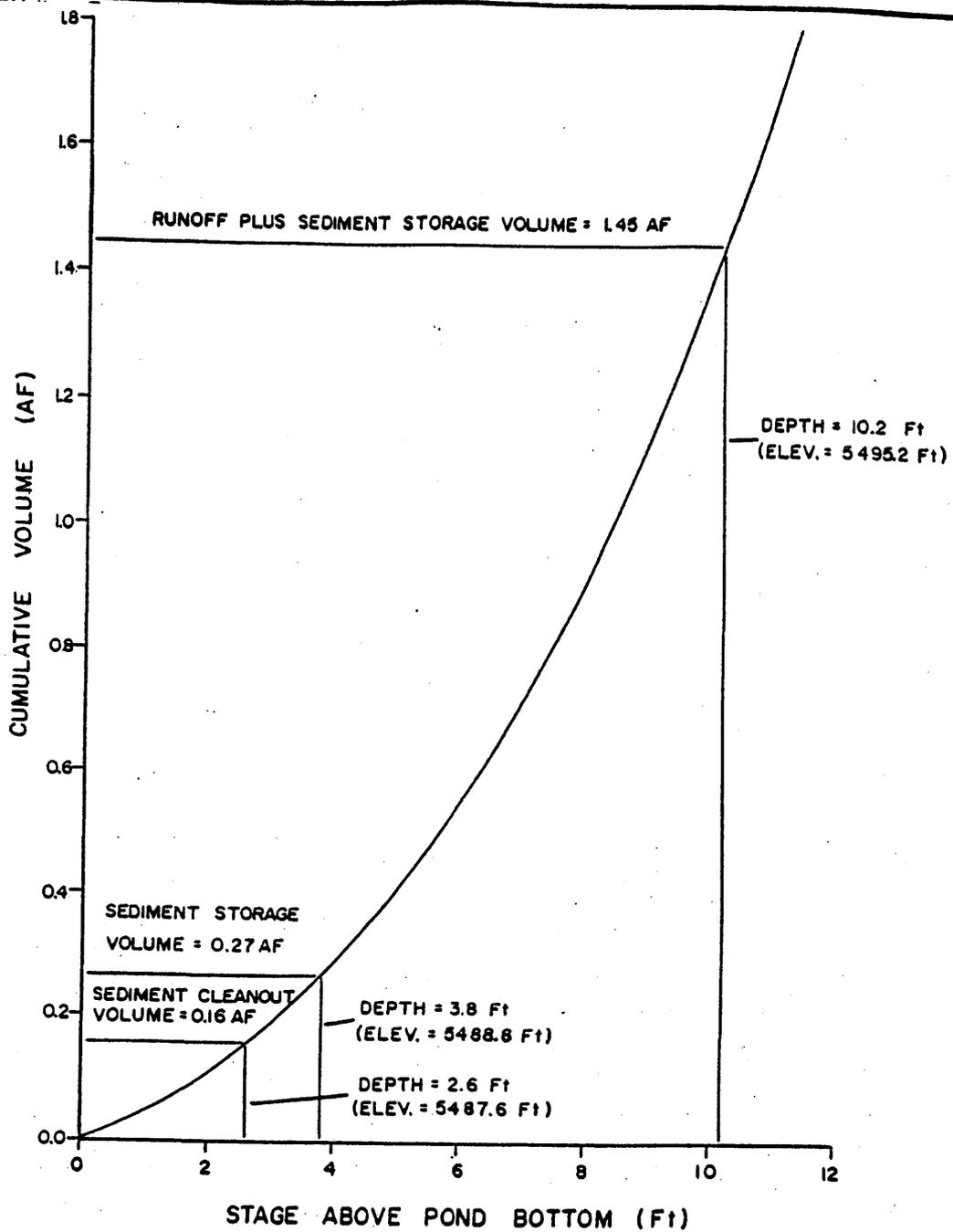
DRAINAGE CONTROLS - CROSS SECTIONS

FIGURE 7-3

REVISIONS		
NO	DATE	BY
1	2-21-09	H. TEM
2		
3		

SCALE: 1" = 5'

DRAWN BY	CHECKED	DATE	DATE
CPA		10-12-00	



Soldier Creek Coal Company

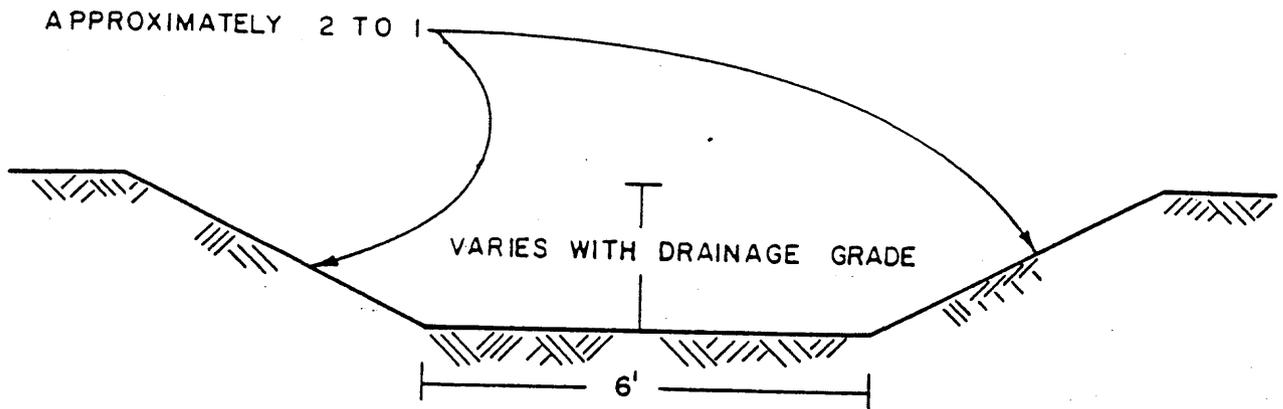
SOLDIER CANYON MINE

TITLE: SEDIMENTATION POND
STAGE-CAPACITY CURVE

DRAWING NO: FIGURE 7-4

REVISIONS		
NO	DATE	BY
1	2-27-89	K.TEW
2		
3		

Eddy Franco Nov. 87



 Soldier Creek Coal Company		
SOLDIER CANYON MINE		
TITLE: INLET CHANNEL SECTION		
DRAWING NO. FIGURE 7-5		
REVISIONS		
NO.	DATE	BY
1	2-27-89	KTEW
2		
3		
DRAWN BY: Eddy Franco Nov 97		SCALE: