

ACT/007/018 + ACT/007/034

1992

ANNUAL REPORT

# SC<sup>3</sup>

# SOLDIER CREEK COAL CO.

Telephone (801) 637-6360

P.O. Box 1  
Price, Utah 84501

April 26, 1993

Mr. Lowell P. Braxton  
Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203

RE: 1992 Annual Report  
Soldier Canyon Mine & Banning Loadout  
ACT/007/018 & ACT/007/034

Dear Mr. Braxton:

Enclosed is the 1992 annual report for the Soldier Canyon Mine and Banning Loadout.

Please contact me if you have any questions or comments concerning this submittal.

Sincerely,

SOLDIER CREEK COAL COMPANY



J. T. Paluso  
Chief Engineer

RECEIVED

APR 26 1993

DIVISION OF  
OIL, GAS & MINING

**COAL MINING AND RECLAMATION OPERATIONS FOR 1992  
SOLDIER CREEK COAL COMPANY  
SOLDIER CANYON MINE**

PERMITTEE: Soldier Creek Coal Company

MINE NAME: Soldier Canyon Mine

MAILING ADDRESS: P.O. Box 1, Price, UT 84501

COMPANY REPRESENTATIVE: Mr. R.W. Olsen, President

RESIDENT AGENT: Mr. R.W. Olsen, President

PERMIT NUMBER: ACT/007/018 & ACT/007/034

MSHA ID NUMBER: 42-00077

DATE OF INITIAL PERMANENT PROGRAM PERMIT: June 10, 1985 revised February 3, 1987

DATE OF PERMIT RENEWAL: February 3, 1997

QUANTITY OF COAL MINED (TONNAGE) 1992: 422,345

SUMMARIZED WATER MONITORING DATA:

All water monitoring activities during 1992 were conducted in accordance with the approved Mining and Reclamation Plan. The complete summarized results for each point monitored and sample site location maps are enclosed.

The total ground water consumption for 1992 due to mining activities is estimated as follows:

1. Water added to coal produced .... 1,806,000 Gallons  
1992 coal production - 422,345 tons  
Inherent moisture - 4.40%  
Run-of-mine moisture - 6.18%
2. Water evaporation ..... 8,135,000 Gallons  
Average humidity of intake air - 70%  
Average humidity of exhaust air - 76%  
Mine ventilation - 1,123,000 cfm
3. Water discharged from mine .... 265,061,000 Gallons  
Total ..... 275,002,000 Gallons  
(757 acre-ft)

The areas of active mining and water monitoring points for 1992 are shown on the attached maps. The following table shows the status of the underground water monitoring points.

MONITORING POINT	MONITORED	NOT MONITORED
UG-MN3W	X	
UG-2N		X
UG-2N2E		X
UG-SHAFT		X
UG-3N		X
UG-3N8E		X
UG-3NBELT		X
UG-5E	X	
UG-10E	X	
UG-11E	X	
UG-1N SS SEAM	X	

#### SUBSIDENCE MONITORING DATA:

The 1992 subsidence monitoring was carried out in accordance with the approved Mining and Reclamation Plan. This monitoring involved the resurveying of existing control points, as well as the establishment of additional control points. Visual observations were also made during routine surface activities. These visual checks failed to identify any surface irregularities which could be attributed to subsidence.

The 1992 subsidence monitoring was completed by Barry L. Prettyman utilizing the traverse method of surveying. Individual traverses were extended from existing survey monuments located beyond the expected limits of any subsidence. The horizontal survey control has been oriented to the State Plane Coordinate System, Lambert Projection, Central Zone and all elevations were determined trigonometrically.

Two new subsidence monitoring points were established during 1992. The location of all the monitoring points are shown on the enclosed 1992 Mine Progress Maps. The data on each point is shown on the 1992 Subsidence Monitoring Summary. All surface owners and/or occupants of surface property have been given proper notification prior to mining. This includes the Bureau of Land Management, Utah Division of State Lands and Forestry, Carbon County, Questar Pipeline Company, and Mrs. Bernard Iriart.

VEGETATION DATA:

In 1992 Mr. Bob Thompson evaluated the test plots at the REI topsoil site, sewage lagoon, rock disposal topsoil site and the test plot at Banning. Revegetation success of areas around the East Portals and the County road seeding were also monitored. Mr. George Cook of the Soil Conservation Service evaluated productivity on the Banning reference area and the sewage lagoon test plot. The Banning permit is due for renewal in 1993, therefore, the productivity of the reference area was determined in 1992. The results of these evaluations are in the Vegetation Results section.

ANNUAL IMPOUNDMENT CERTIFICATION:

The sewage lagoon and sediment pond were inspected each quarter in 1992. No significant problems were detected that would have an affect on stability. Enclosed are the 1992 pond inspection reports.

ANNUAL OVERBURDEN, SPOIL, REFUSE, ROOF, FLOOR AND MID-SEAM DATA:

Enclosed are the annual toxicity results for 1992. The values are based on 97,139 tons of coal which were shipped during April, May, and June. Also included is the yearly Banning water analysis.

VISUAL EMISSIONS

Attached are the Visual Emissions reports for the Soldier Canyon Mine and the Banning Loadout. This was conducted by Environmental Industrial Services.

PERMIT STIPULATIONS AND DEFICIENCIES:

Presently, we are working on the Technical Deficiencies Review Permit Renewal dated November 25, 1992. The final response to these deficiencies will be submitted by June 1.

SOLDIER CREEK COAL COMPANY  
HYDROLOGIC MONITORING PROGRAM  
SUMMARIZED RESULTS FOR 1992

NPDES results were submitted to the Division on the following dates:

1st Quarter	April 24, 1992
2nd Quarter	July 24, 1992
3rd Quarter	October 23, 1992
4th Quarter	February 25, 1993

SUBSIDENCE MONITORING DATA

1992 SUBSIDENCE MONITORING SUMMARY

ORIGINAL ESTABLISHED CONTROL

1992 SURVEY CONTROL

<u>Station</u>	<u>Date</u>	<u>Coordinates</u>			<u>Date</u>	<u>Change In Elevation</u>	
	<u>Established</u>	<u>North</u>	<u>East</u>	<u>Elevation</u>	<u>Resurveyed</u>		<u>Elevation</u>
15 SS	1979	499,046.40	2,250,498.62	6,877.08	11-17-92	6877.06	-0.01
36 SS	1979	504,721.47	2,251,483.38	6,999.88	11-17-92	6999.79	-0.20
106 SS	1979	502,400.01	2,251,238.02	6,864.11	11-17-92	6863.99	-0.09
3044	1983	503,050.26	2,251,423.30	6,930.90	11-17-92	6931.18	-0.10
87-0 SS	1987	500,243.55	2,250,582.43	6,776.05	11-17-92	6676.04	+0.01
87-1 SS	1987	501,367.65	2,251,073.81	6,873.89	11-17-92	6873.89	-0.03
1001	10/14/89*	506,470.79	2,252,015.42	7,007.86	11-17-92	7007.50	-0.36
91-1 SS	12/17/91	504,629.65	2,243,590.99	7,841.00	11-17-92	7840.75	-.25
53 SS	12/17/91	505,450.34	2,243,510.125	8,142.59	11-17-92	8142.42	-.17
92-1SS	11/17/92	503,000.198	2,242,553.783	7,816.70			
92-2SS	11/17/92	503,355.440	2,253,811.044	7,802.96			

\*Point destroyed during construction activities. Will be re-established in 1993.

VEGETATION DATA

TOPSOIL STORAGE SITE

The top and gentle slopes of this soil storage site have a fair to good stand of reseeded plant species for the first growing season.

However most of the vegetation present on this soil storage site is weedy annuals; such as Russian Thistle, Kochia, Halogeton and several other common weedy plants. (See list)

PLANT SPECIES PRESENT  
SEEDED PLANTS

AGCR	crested wheatgrass
AGIN	Intermediate wheatgrass
AGSM	Western wheatgrass
MEOF	Yellow sweet clover
MESA	Alfalfa

NATIVE OTHER PLANTS

ORHY	Indian ricegrass
BRTE	Cheatgrass
SIHY	Squirrel tail

CHAL	Goosefoot
HEAL	Yellow sun flower
POAV	Knotweed
KOAM	Kochia
MACA	Desert aster
TRDU	Oyster plant
GRSQ	Gumweed
AMBL	Red root
LEDE	Peeperweed

GUSA	Snakeweed
CHNA	Rabbitbrush
ARTRTR	Big sagebrush

1992 FIELD MONITORING DATA  
TOP SOIL SITE

Summary

<u>Ground cover</u>	<u>%</u>
Bare soil	33.0%
Litter	28.0%
Rock	4.0%
Vegetation	<u>35.0%</u>
	100.0%

Crested wheatgrass	6.0%
Russian wild ryegrass	7.0%
Western wheatgrass	17.0%
Russian thistle	<u>5.0%</u>
Total	35.0%

Shrub density

Rubber rabbit brush      10 plants

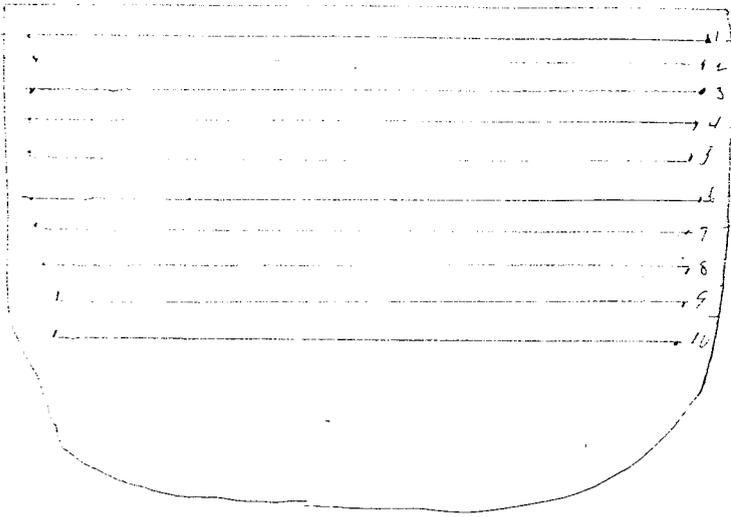
Estimated present forage

Production                      950 lbs./acre



Description of Location:

Top soil site.



E Summary of Transect Hits		
Grasses	30	/ / / / /
Forbs	5	
Shrubs	—	
All Plants	35	
Rock		4
Litter		28
Pavement		0
Moss		0
Bare Soil		33
<b>TOTAL</b>		<b>100</b>

F

HITS:

Ground Cover-

Canopy Cover-

Dead Shrubs-

Photo taken: \_\_\_\_\_

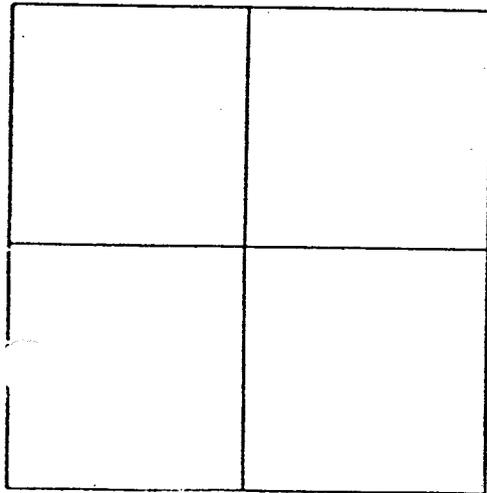
Location 3'x3': \_\_\_\_\_

Location general view: \_\_\_\_\_

Species list: List all species (by symbol and scientific name) found in 100'x150' plot:

1. AGCR = *Agropyron cristatum*
2. AGSM = *Agropyron smithii*
3. ELJU = *Elymus Jun*
4. SATE = *Salsola tenifolia*
- 6.
- 7.
- 8.
9. AGCR = Crested wheat grass
19. AGSM = western wheat grass
11. ELJU = Russian wild Rye grass
12. SATE = Russian thistle
- 13.
- 14.
- 15.

Diagram and numerically identify vegetation observed in the 3'x3' plot. Use reference numbers at right when needed.



Comments:

1992 MONITORING DATA  
Sewage Lagoon Site

Summary

<u>Ground Cover</u>	<u>%</u>
Bare soil	59.0%
Litter	1.0%
Rock	0.0%
Vegetation	40.0%

Crested wheatgrass	37.0%
Russian thistle	1.0%
Halogeton	1.0%
4 wing salt brush	1.0%
	<u>40.0%</u>

SHRUB DENSITY

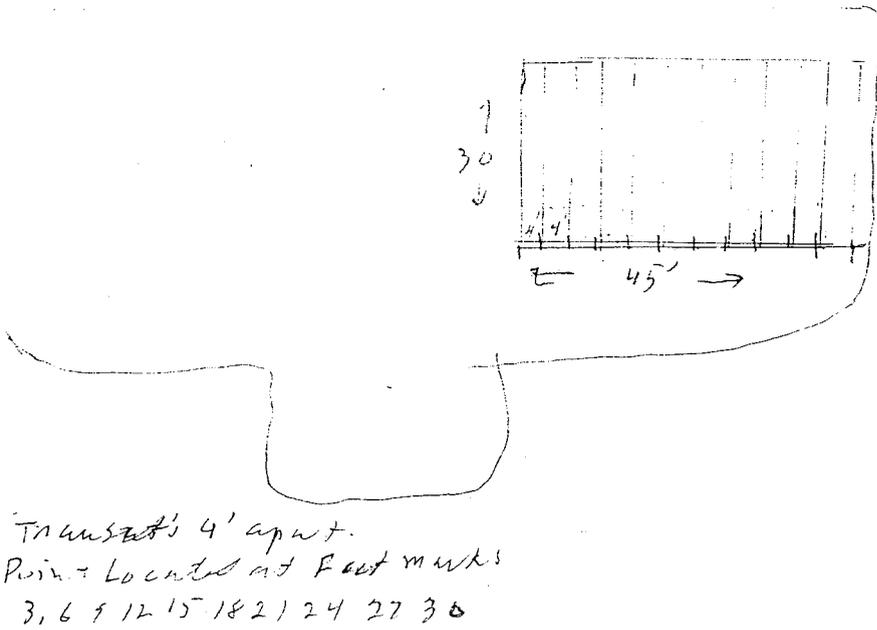
4 Wing salt brush	41 plants
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Estimated Present Forage

Production	450 lbs./ac
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Description of Location:



E		Summary of Transect Hits
Grasses	37	
Forbs	2	
Shrubs	1	
All Plants	40	
Rock	0	
Litter	1	
Pavement	0	
Moss	0	
Bare Soil	59	
<b>TOTAL</b>	<b>100.</b>	

F

HITS:

Ground Cover-

Canopy Cover-

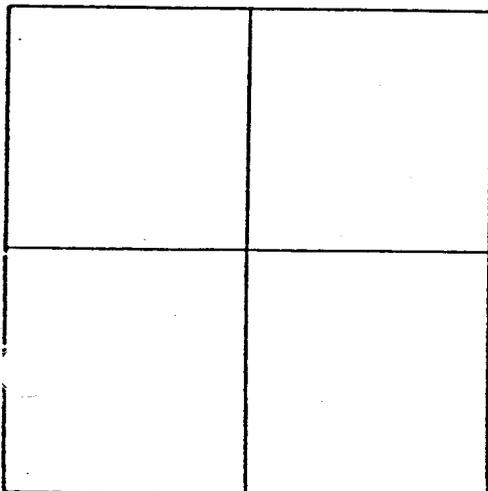
Dead Shrubs-

Photo taken: \_\_\_\_\_

Location 3'x3': \_\_\_\_\_

Location general view: \_\_\_\_\_

Diagram and numerically identify vegetation observed in the 3'x3' plot. Use reference numbers at right when needed.



Species list: List all species (by symbol and scientific name) found in ~~100'x150'~~ plot: 45' X 30':

1. AGCR. Agropyron Cristatum
2. ATCA. Arundo canescens
3. SATE. Salvia tenuifolia
4. HABL. Halogon glomerata
- 5.
- 6.
- 7.
- 8.
- 9.
10. AGCR. Crest wheat grass
11. AEC# 4 wing saltbrush
12. SATE Russian Thistle
13. HABL. Halogon
- 14.
- 15.

Comments:

## BANNING TEST PLOT STUDY

14 study plots were established and treated according to the revised study plan of 11/1/1991.

Vegetation present on these plots were monitored on August 8, 1992. (The first growing season).

No randomly placed plots were established at this time because there was not enough seeded plants present to make a good sample in any plot. These randomly placed plots will be established at a later date (end of 1993 season).

### Banning Study Plots

#### Plot #1

##### Sawdust + Fertilizer Main

KOAM Kochia

Only plant present in plot. It is very scattered. Most plants less than 6" tall. Less than 5% vegetative cover on plot.

#### Plot #2

##### Control Main

KOAM-Kochia

HAGL-halogeton

ACCR-crested wheatgrass

Halogeton dominated the vegetation in the plot. Crested wheatgrass seedling are very few and in poor condition due to drought. 10% of plot covered with vegetation.

#### Plot #3

##### Fertilizer Main

KOAM-Kochia

HAGL-Halogeton

Make up 60% of the vegetation composition. 8% of plot covered with vegetation.

#### Plot #4

##### Manure Main

KOAM-Kochia

HAGL-Halogeton

Kochia most less than 6" high and make up 95% of the vegetative composition. 7% of plot area covered with vegetation.

#### Plot #5

##### Blank

KOAM-Kochia

HAGL-Halogeton

SATE-Russian Thistle

Kochia makes up 60% of vegetative composition, 5% of plot covered with vegetation.

Plot #6

Sawdust & Fertilizer Supplemental

KOAM-Kochia

HAGL-Halogeton

Kochia makes up 70% of plot composition. Only 3% of plot covered with vegetation.

Plot #7

Fertilizer Supplemental

KOAM-Kochia

HAGL-Halogeton

SATE-Russian thistle

Kochia makes up 95% of the plant composition. 8% of plot covered with vegetation.

Plot #8

Manure Supplement

KOAM-Kochia

HAGL-Halogeton

Kochia makes up 98% of the plant composition. Most plants less than 10" tall. 10% of plot covered with vegetation.

Plot #9

Control Supplement

KOAM-Kochia

HAGL-Halogeton

Kochia makes up to 90% of the plant composition on this plot. 6% of this plot covered with vegetation.

Plot #10

Blank

KOAM-Kochia

HAGL-Halogeton

KOAM makes up 99% of the plant composition. 5% of this plot covered with vegetation.

Plot #11

Control Main

KOAM-Kochia

HAGL-Halogeton

KOAM makes up 99% of the plot composition. 6% of this plot is covered with vegetation.

Plot #12

Sawdust & Fertilizer Main

KOAM-Kochia

HAGL-Halogeton

KOAM makes up 80% of the plant composition. 6% of this plot is covered with vegetation.

Plot #13

Fertilizer Main

KOAM-Kochia

HAGL-Halogeton

Kochia makes up 70% of the plant composition. Plants are over a foot tall. Some are seeding out. 7% of this plot is covered with vegetation.

Plot #14

Manure Main

KOAM-Kochia

HAGL-Halogeton

AGCR-Crested wheatgrass

KOAM makes up 85% of the plant composition, crested wheat grass making up 1% of the plant composition.

Only two of the study plots have seeded plants growing in them at this time. Crested wheatgrass is the only seeded plant found. It was present in plot #2 & #4.

Kochia & Halogeton are present in all plots and dominate the vegetative cover at this time.

Estimated vegetative ground cover was based on the presence of all vegetation at this time. Kochia & Halogeton are annuals and will provide no longtime vegetative cover.

COUNTY ROAD SEEDING

Seeded plants are widely scattered on the disturbed slopes.

It is recommended that these slopes be looked at after two years, and a determination made as to the success of the seeding.

Some soil movement is taking place under the matting and along the north edge.

The matting needs to be restaked in several places. Restaking may help slow some of the soil movement and aid seeding establishment.

Seeded plant species present on the County road seeding site;

Crested wheatgrass  
Intermediate wheatgrass

Agropyron cristatum  
Agropyron intermedium

Yellow sweetclover  
Ladak alfalfa  
Lawn Flax

Melilotus officinal  
Medicago sativa-ladak  
Linium Lewisii

Reclaimed area above the East Portals

The reclaimed site above and to the North of the North two portals has a very poor reseeded plant seedling establishment at this time (July 25,1992). There is less than 1.0% vegetative cover on this site. If a better vegetative cover is not established by the end of the second growing season, some reseeded may be necessary.

The reclaimed sites above the south portal and to the south has a fair to good seeded species establishment and also some native species are present. This site has a 3 to 5% vegetative cover present after the first growing season. There is enough native and seeded plants on this site to provide a fair to good vegetative base that will result in a good plant cover in the next few years. Unless there is a loss of the present plants no reseeded should be necessary.

Plants species found on the Portal sites

North Portal Site

AGCR	Crested wheatgrass	Very few plants 1-2 1/2 in. tall. No seed stalks produced.
AGCR	Intermediate wheatgrass	Few plants present. No seed stalks
ORHY	Indian ricegrass	Only on plant found.
LILE	Lewis Flax	Very few plants present
ERLA	Winter fat	2 plants found on site
CHNA	Rabbitbrush	4 plants present

South Portal Site

AGCR	Crested wheatgrass	Many plants present, 3 to 6 inches tall Several mature with seed stalks
AGIM	Intermediate wheatgrass	Several mature plants. Seedstalks and seed produced.
ORHY	Indian ricegrass	Several young & mature plants. Some have produced seeds.
MESALA	Alfalfa	Many plants present, some plants 3-6" tall.
LILE	Lewis flax	Many plants. Some have flowers 6-10" tall
ERLA	Winter fat	Many plants present. Some with seed stalks.
ARDR	Herbaceous sage	Several mature plants present. (native not seeded).
SARA	Solom seal	Several plants present. (Native not seeded).
MEOF	Yellow sweet clover	Several plants present

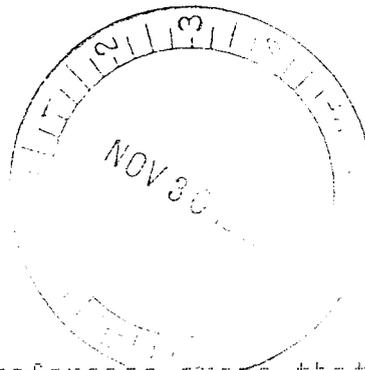
United States  
Department of  
Agruculture

Soil  
Conservation  
Service

350 North 400 East  
Price, UT 84501

November 27, 1992

Mr. Tom Paluso  
Soldier Creek Coal Co.  
P.O. Box 1  
Price, UT 84501



Dear Mr. Paluso:

Here is the information on the two reference areas that you requested.

<u>Reference Area</u>	<u>Present Pro.</u>	<u>Potential Pro.</u>	<u>Condition</u>
Banning Loadout Storage Area	1/ 800 1800	700 1800	Mid Seral (fair) 2/ No Condition Rating
Sewage Lagoon	600	1200	2/ No Condition Rating

1/ Present production is higher because of very good moisture year in this area.

2/ No condition rating given on seeded area.

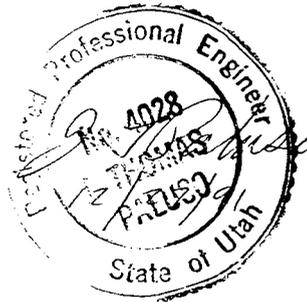
The reference area by sewage lagoon is very low production because of heavy wildlife use.

*George S. Cook*  
GEORGE S. COOK  
Range Conservationist

IMPOUNDMENT CERTIFICATION

INSPECTION CERTIFICATION

I hereby certify that I am experienced in the construction of impoundments; I am qualified and authorized in the state of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been constructed and maintained in accordance with the approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.



YEARLY CERTIFIED POND INSPECTION  
SOLDIER CREEK COAL COMPANY

POND BEING INSPECTED: Mine Sedimentation Pond

DATE OF INSPECTION: November 30, 1992

PERSON(S) MAKING INSPECTION: J. T. Paluso

THIS IMPOUNDMENT HAS BEEN CONSTRUCTED AND MAINTAINED AS DESIGNED AND IN ACCORDANCE WITH THE APPROVED PLAN AND THE R645 RULES. NO MONITORING OR INSTRUMENTATION IS REQUIRED AT THIS TIME.

DEPTH AND ELEVATION OF ANY IMPOUNDED WATER: Approximately 1'

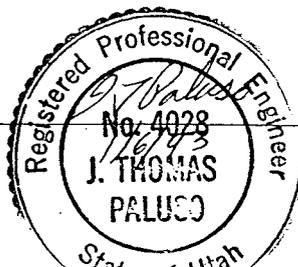
STORAGE CAPACITY: 3.3 Acre-feet

ANY STRUCTURAL WEAKNESS, SIGNS OF INSTABILITY, EROSION AND OTHER HAZARDOUS CONDITIONS NOTED: None observed

ANY ROUTINE MAINTENANCE REQUIRED: None required

COMMENTS: Water elevation was 2' below decant. Elevation of decant is 6649.5'

APPROVAL: J. T. Paluso



DATE: 01/06/93

YEARLY CERTIFIED POND INSPECTION  
SOLDIER CREEK COAL COMPANY

POND BEING INSPECTED: Sewage Lagoon

DATE OF INSPECTION: November 30, 1992

PERSON(S) MAKING INSPECTION: J. T. Paluso

THIS IMPOUNDMENT HAS BEEN CONSTRUCTED AND MAINTAINED AS DESIGNED AND IN ACCORDANCE WITH THE APPROVED PLAN AND THE R645 RULES. NO MONITORING OR INSTRUMENTATION IS REQUIRED AT THIS TIME.

DEPTH AND ELEVATION OF ANY IMPOUNDED WATER: Approximately 3' from top of dike

STORAGE CAPACITY: 2.1 Acre-feet

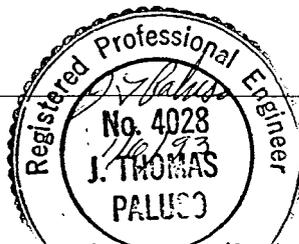
ANY STRUCTURAL WEAKNESS, SIGNS OF INSTABILITY, EROSION AND OTHER HAZARDOUS CONDITIONS NOTED: None observed

ANY ROUTINE MAINTENANCE REQUIRED: Diversion ditches could be cleaned out

COMMENTS: None

APPROVAL: J. T. Paluso

DATE: 01/06/93



YEARLY CERTIFIED POND INSPECTION  
SOLDIER CREEK COAL COMPANY

POND BEING INSPECTED: Banning Sedimentation Pond

DATE OF INSPECTION: November 30, 1992

PERSON(S) MAKING INSPECTION: J. T. Paluso

THIS IMPOUNDMENT HAS BEEN CONSTRUCTED AND MAINTAINED AS DESIGNED AND IN ACCORDANCE WITH THE APPROVED PLAN AND THE R645 RULES. NO MONITORING OR INSTRUMENTATION IS REQUIRED AT THIS TIME.

DEPTH AND ELEVATION OF ANY IMPOUNDED WATER: Approximately 1'

STORAGE CAPACITY: 1.45 Acre -feet

ANY STRUCTURAL WEAKNESS, SIGNS OF INSTABILITY, EROSION AND OTHER HAZARDOUS CONDITIONS NOTED: None observed

ANY ROUTINE MAINTENANCE REQUIRED: Small erosion gullies on west side should be repaired in the spring.

COMMENTS: Water elevation is approximately 9' below spillway. Elevation of spillway is 5495.2'

APPROVAL: J. T. Paluso



DATE: 01/06/93

TOXICITY RESULTS  
AND  
WATER ANALYSIS



# COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (708) 953-9300

SINCE 1908

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:  
P.O. BOX 1020, HUNTINGTON, UT 84528  
TELEPHONE: (801) 653-2311  
FAX: (801) 653-2479

August 18, 1992

▶ SOLDIER CREEK COAL CO.  
P.O. Box I  
Price UT 84501

Sample identification by  
SOLDIER CREEK COAL CO.

Kind of sample Coal  
reported to us

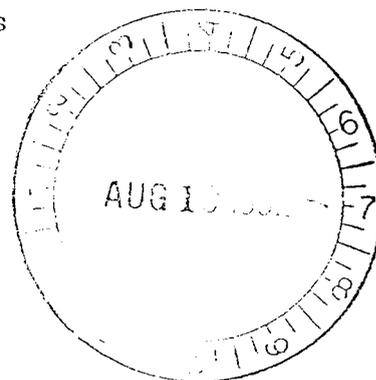
Sample taken at Banning Rail Site

Sample taken by CT&E

Date sampled -----

Date received July 1, 1992

Quarterly Train Composite  
April, May, & June 1992  
97,139.0 Tons  
12.25 lbs.



Analysis report no. 59-149267

## SOIL ANALYSIS

pH	8.0 units
Conductivity	1.0 mmhos/cm
Saturation %	32.0
Sodium Adsorption Ratio	2.83
Nitrate-nitrogen	0.01%
Non-Sulfate Sulfur	0.46%
Total Organic Sulfur	0.41%
Calcium carbonate	1.28%
<b>ACID BASE POTENTIAL</b>	
Neutralization potential	14.2 tons CaCO <sub>3</sub> / 1000 tons
Maximum Acid Potential	14.4 tons CaCO <sub>3</sub> / 1000 tons
Net Acid Base Potential	-0.2 tons CaCO <sub>3</sub> / 1000 tons

Respectfully submitted,  
COMMERCIAL TESTING & ENGINEERING CO.

Manager, Huntington Laboratory



# COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (708) 953-9300

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:  
P.O. BOX 1020, HUNTINGTON, UT 84528  
TELEPHONE: (801) 653-2311  
FAX: (801) 653-2479

August 18, 1992

▶ SOLDIER CREEK COAL CO.  
P.O. Box I  
Price UT 84501

Sample identification by  
SOLDIER CREEK COAL CO.

Kind of sample Coal  
reported to us

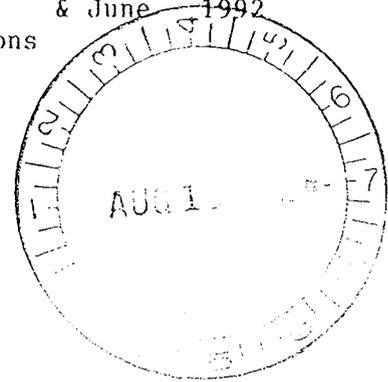
Quarterly Train Composite  
April, May, & June 1992  
97,139.0 Tons  
12.25 lbs.

Sample taken at Banning Rail Site

Sample taken by CT&E

Date sampled -----

Date received July 1, 1992



Analysis report no. 59-149267

## TRACE ELEMENTS, WATER EXTRACTABLE

Arsenic, As	12 ppb (ug/kg)	Lead, Pb	< 5 ppb
Barium, Ba	47 ppb	Mercury, Hg	8 ppb
Boron, B	60.0 ppb	Molybdenum, Mo	<50 ppb
Cadmium, Cd	<5 ppb	Selenium, Se	<2 ppb
Copper, Cu	<10 ppb	Zinc, Zn	<10 ppb

Respectfully submitted,  
COMMERCIAL TESTING & ENGINEERING CO.

Manager, Huntington Laboratory

Client : Soldier Creek Coal Company

Address : P.O. Box 1

Price, Utah 84501

Attn. : Mr. Johnny Pappas

Project :

Sample Matrix:

Sample ID: Banning Reclaim Tunnel

Lab No. : 92-RT/07857

Sample Date Time: 09/24/92 13:30

Date Received: 10/20/92

Parameters

Alkalinity as CaCO3	370.	mg/l
Bicarbonate as CaCO3	370	mg/l
Carbonate as CaCO3	0.	mg/l
Calcium, dissolved	273.	mg/l
Chloride	101.	mg/l
Hardness as CaCO3	2031.	mg/l
Magnesium, dissolved	329.	mg/l
Potassium, dissolved	3.	mg/l
Sodium, dissolved	318.	mg/l
Sulfate	1860.	mg/l
Cation-Anion Balance	5.20	%

Remarks:

Note: Negative sign "-" denotes that the value is less than "<"

Scott Habermehl, Quality Assurance Officer/SH.

Frank E. Polniak, Inorganic Laboratory Supervisor *[Signature]*

Patient : Soldier Creek Coal Company

Address : P.O. Box 1

Price, Utah 84501

Attn. : Mr. Johnny Pappas

Project :

Sample ID: Banning Reclaim Tunnel

Lab No. : 92-WI/07857

Sample Date Time: 09/24/92 13:30

Date Received: 09/29/92

Parameters

Nitrate/Nitrite as N	0.41	mg/l
Nitrite as N, dissolved	-0.01	mg/l
Nitrate as N, dissolved	.41	mg/l
Oil and Grease	4.	mg/l
Solids, total dissolved	3558.	mg/l
Solids, total suspended	16.	mg/l
Solids, settleable	-.2	ml/l/hr
Iron, dissolved	0.20	mg/l
Iron, total	1.28	mg/l
Manganese, total	0.03	mg/l

Remarks:

Note: Negative sign "-" denotes that the value is less than "<"

Scott Habermehl, Quality Assurance Officer / *RVP for SH*

Frank E. Polniak, Inorganic Laboratory Supervisor / *FP*

VISUAL EMISSIONS



# ENVIRONMENTAL INDUSTRIAL SERVICES

4855 N. Spring Glen Rd., Spring Glen, UT 84526 - Telephone (801) 472-3814 - FAX (801) 472-8780

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March 2, 1993

Mr. Tom Paluso  
Soldier Creek Coal Co.  
P.O. Box 1  
Price, Ut. 84501

Re: Visual Emissions  
Soldier Creek Mine &  
Banning Loadout

Dear Mr. Paluso:

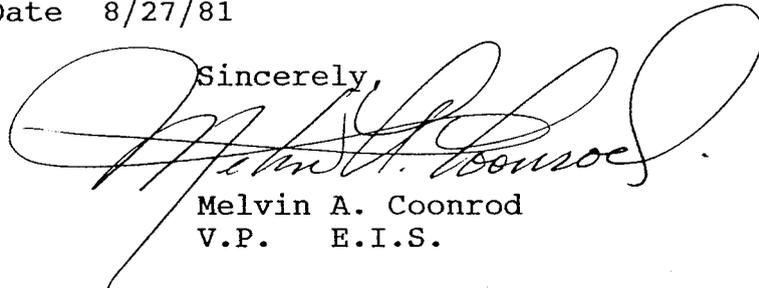
Please find attached my evaluation of each potential source for ambient dust and/or particulate matter associated with the Soldier Creek Mine and Banning Loadout facility.

Based on my evaluation given current weather and loading conditions, I could not identify any potential problems.

If you have any questions or concerns, please call me at (801) 472-3814.

Certification Date 8/27/81

Sincerely,



Melvin A. Coonrod  
V.P. E.I.S.

MC/njc



Calculations

Form 5

Calculations for Truck Hopper, Hopper Belt, Radial Stacker.

$$\text{TSP} - .73 = .74 (.0032) \frac{(8.7/5) 1.3}{(6.3/2) 1.4} (422,345) / 2000$$

$$\text{PM10} - .35 = .35 (.0032) \frac{(8.7/5) 1.3}{(6.3/2) 1.4} (422,345) / 2000$$

Calculations for Crusher.

$$\text{TSP} - .28 = .28 (.0032) \frac{(8.7/5) 1.3}{(6.3/2) 1.4} (422,345) / 2000$$

$$\text{PM10} - .017 = .017 (.0032) \frac{(8.7/5) 1.3}{(6.3/2) 1.4} (422,345) / 2000$$

Calculations for Reclaim Belt, Train Car Load Out Bin.

$$\text{TSP} - .67 = .74 (.0032) \frac{(8.7/5) 1.3}{(6.3/2) 1.4} (422,345) / 2000$$

$$\text{PM10} - .31 = .35 (.0032) \frac{(8.7/5) 1.3}{(6.3/2) 1.4} (422,345) / 2000$$



Form 11

$$\text{TSP} - .084 = .74 (.0032) \frac{(8.7/5) 1.3}{(6.3/2) 1.4} (138,957) / 2000$$

$$\text{PM10} - .04 = .35 (.0032) \frac{(8.7/5) 1.3}{(6.3/2) 1.4} (138,957) / 2000$$

Form 12

Calculations for Front End Loader.

$$\begin{array}{l} \text{CO} \quad \text{HRS} \\ .572 \times 176 / 2000 = .0503 \end{array}$$

$$\begin{array}{l} \text{HC} \\ .25 \times 176 / 2000 = .022 \end{array}$$

$$\begin{array}{l} \text{NO}_x \\ 1.89 \times 176 / 2000 = .1663 \end{array}$$

$$\begin{array}{l} \text{SO}_x \\ .182 \times 176 / 2000 = .0160 \end{array}$$

$$\begin{array}{l} \text{TSP} \\ .172 \times 176 / 2000 = .0151 \end{array}$$

$$\begin{array}{l} \text{PM}_{10} \\ .04 / .55 = .07 \end{array}$$

Calculations For Wheeled Dozer.

$$\begin{array}{l} \text{CO} \\ 1.79 \times 88 / 2000 = .0788 \end{array}$$

$$\begin{array}{l} \text{HC} \\ .192 \times 88 / 2000 = .0084 \end{array}$$

$$\begin{array}{l} \text{NO}_x \\ 4.166 \times 88 / 2000 = .1833 \end{array}$$

$$\begin{array}{l} \text{SO}_x \\ .348 \times 88 / 2000 = .0153 \end{array}$$

$$\begin{array}{l} \text{TSP} \\ .165 \times 88 / 2000 = .0073 \end{array}$$

$$\begin{array}{l} \text{PM}_{10} \\ .02 / .55 = .04 \end{array}$$

Calculations For Bulldozer (Track Type).

$$\text{CO} \\ .675 \times 88 / 2000 = .02$$

$$\text{HC} \\ .152 \times 88 / 2000 = .0067$$

$$\text{NO}_x \\ 1.691 \times 88 / 2000 = .0744$$

$$\text{SO}_x \\ .143 \times 88 / 2000 = .0063$$

$$\text{TSP} \\ .139 \times 88 / 2000 = .0061$$

$$\text{PM}_{10} \\ .02 / 55 = .04$$

VISUAL EMISSIONS FIELD SHEET

Property Dannony Date 10/29/92  
Location Adj 506 Hwy - 12 miles  
Source Train Car Lead out Bin  
Background Description Craps by - train cars.

Weather Conditions:

Wind Speed 2-3 mph Wind Direction W-NW  
Ambiant Temp. 61 Rel. Humidity 90+  
Change in Weather Sprinkler - Lt. Rain  
Angle of the Sun W - Overcast

Observed Reading None  
(>10 to 100%) 710

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Inspector [Signature]  
Certification Date 8/17/91

VISUAL EMISSIONS FIELD SHEET

Property Banning L.O. Date 10/29/92  
Location Old Hwy 50° 6  
Source Pusher -  
Background Description Cozy Sky

Weather Conditions:

Wind Speed 5-6 7 Wind Direction N-NW  
Ambiant Temp. 61 Rel. Humidity 90+  
Change in Weather Rain - light  
Angle of the Sun W - Overcast

Observed Reading 14 -  
(>10 to 100%) 14% CB

Comments Pusher started to run test - otherwise inactive during inspection

Inspector [Signature]  
Certification Date 8/27/91

VISUAL EMISSIONS FIELD SHEET

Property Lawrence V. L. Co Date 10/29/92  
Location Highway 50-6  
Source Hopewell Det.  
Background Description level - large - Gray Sky

Weather Conditions:

Wind Speed 5 to 7 mph Wind Direction N-NW  
Ambiant Temp. 51 Rel. Humidity 90+  
Change in Weather Rain -  
Angle of the Sun UK - Overcast

Observed Reading 210  
(>10 to 100%) \_\_\_\_\_

Comments light Rain - no visible dust escaping from Det.

Inspector [Signature]  
Certification Date 8/27/91

VISUAL EMISSIONS FIELD SHEET

Property Spanning L.O Date 10/29/92  
Location Adj - 50-6 Hwy  
Source Truck Hopper  
Background Description Relatively level -  
Page - Greenwood

Weather Conditions:

Wind Speed Var - 24/9 Wind Direction N-NW  
Ambiant Temp. 49° Rel. Humidity 90+%  
Change in Weather \_\_\_\_\_  
Angle of the Sun 46 - Heavy Overcast.

Observed Reading 710  
(>10 to 100%) \_\_\_\_\_

Comments Light Rain

Inspector [Signature]  
Certification Date 8/27/91







VISUAL EMISSIONS FIELD SHEET

Property Silver Peak Mine Date 10/29/92  
Location Mine Yard 7 mile Canyon  
Source Load out Bin  
Background Description High wall - long Bank.

Weather Conditions:

Wind Speed 0 Wind Direction UK  
Ambiant Temp. 47. Rel. Humidity 99+  
Change in Weather Rain  
Angle of the Sun UK - Overcast.

Observed Reading Minor (on Dip)  
(>10 to 100%) >10

Comments No dust - present except when  
drop of truck beds.

Inspector [Signature]  
Certification Date 8/27/91

VISUAL EMISSIONS FIELD SHEET

Property Silver Peak Mine Date 10/22/92

Location Mine Yard - Pine Canyon.

Source # Conveyor Belt - (uncovered.)

Background Description Gray Sky - Sandstone ledges -

Weather Conditions:

Wind Speed 0 Wind Direction N/A

Ambiant Temp. 47° Rel. Humidity 99+

Change in Weather Heavy Rain -

Angle of the Sun UNK

Observed Reading 0

(>10 to 100%) 710

Comments No dust in evidence even at close point.

Inspector [Signature]

Certification Date 8/27/81

VISUAL EMISSIONS FIELD SHEET

Property Saunders Creek Mine Date 10/29/92  
Location Saunders Creek Mine Above Yards  
Source # Conveyor Belt  
Background Description Sandstone ledge - P-T Cover

Weather Conditions:

Wind Speed 72 mph Wind Direction variable  
Ambiant Temp. 47 Rel. Humidity 98+  
Change in Weather RAIN  
Angle of the Sun UK

Observed Reading None  
(>10 to 100%) >10%

Comments Belt run intermediate - No observed dust.

Inspector [Signature]  
Certification Date 8/27/81

Utah State  
Division of Environmental Health

Awards This Certificate To

M. H. COONROD

For Successfully Completing The

**Visible Emissions Evaluation Course**

Conducted By

*The Bureau of Air Quality*

*Alvin E. Pickers*

Director, Division of Environmental Health

*Robert E. Ford*

Director, Bureau of Air Quality

August 27, 1981

Date