

0005

COAL MINING AND RECLAMATION OPERATIONS FOR 1990

(Must be submitted to the Division by March 31, 1991)

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
3 Triad Center, Suite 350
355 West North Temple
Salt Lake City, Utah 84180-1203

(801) 538-5340

Permittee:	Soldier Creek Coal Company
Mine Name:	Banning Loadout
Mailing Address:	P.O. Box I, Price, UT 84501
Company Representative:	Mr. R.W. Olsen, President
Resident Agent:	Mr. R.W. Olsen, President
Permit Number:	ACT/007/034
Date of Initial Permanent Program Permit	October 24, 1988
Date of Permit Renewal:	October 25, 1993
Quantity of Coal Shipped (tonnage) 1990:	1,294,617.69

Attach Updated Mine Sequence Map.

All monitoring activities during the report period must be submitted with this report (including, but not limited to):

- A. Summarized Water Monitoring Data
- B. Precipitation or Other Climatological Data
- C. Subsidence Monitoring Report
- D. Vegetation Data (test plots) or Revegetation Success Monitoring (includes interim and final)
- E. Annual Impoundment Inspection
- F. Permit Stipulation Status, if applicable. Status of Division Orders, if applicable.

Coal Toxicity Testing

In accordance with the approved Mining and Reclamation Plan, coal samples from Banning Loadout are analyzed yearly to determine the potential for toxic contaminants. The coal toxicity testing was performed by Commercial Testing & Engineering Co. The enclosed analysis sheets indicate that the coal stockpiled at Banning Loadout is non-toxic and non-acid forming. The coal has an average acid/base potential which is positive and a low sulfur content. The pH indicates that the material is slightly alkaline as does the results of the acid/base potential. The concentrations of the heavy metal are all within acceptable limits when compared with permissible levels.

Vegetation Monitoring

The vegetation monitoring required at Banning Loadout during 1990 consisted only of a qualitative analysis of the reference area and a cover-by-species and total cover of the test plot (see Exhibit 6.2-1).

Water Monitoring Information

There was no NPDES discharge during 1990 at Banning Loadout. A copy of the appropriate Discharge Monitoring Reports are enclosed. Please note that some ground water was pumped in an effort to lower the water table in and around some existing subsurface facilities. This ground water is discharged directly into the sedimentation pond where it evaporates. The sump (Reclaim Tunnel) was sampled during 1990 and the results are enclosed.

Revegetation Activities

Reclamation of disturbed area resulting from the sub-station installation was completed on February 15, 1990. The area was seeded with the approved seed mixture, covered with straw mulch and crimped to ensure adequate soil stability.

Air Quality

An emissions inventory will not apparently be done for 1990, due to the lack of manpower necessary to accomplish the task. A copy of the letter stating the Division of Environmental Health's position is enclosed.

Banning Loadout
Hydrologic Monitoring Results

Client : Soldier Creek Coal Company
Address : P.O. Box 1
Price, Utah 84501
Attn. : Mr. Dave Spillman
Project :

EC = 4,730 $\mu\text{mhos/cm}$
pH = 7.5
Water T = 57.5°F
Air T = 78°F
} personal communication Dave Spillman 5.2.91

Sample ID: Reclaim-Tunnel Sump
Sample Date Time: 09/14/90 10:00

Lab No. : 90-W1/07069
Date Received: 09/18/90

Parameters

Alkalinity as CaCO3	322.	mg/l
Bicarbonate as CaCO3	322	mg/l
Calcium, dissolved	358.	mg/l
Carbonate as CaCO3	0.	mg/l
Chloride	150.	mg/l
Hardness as CaCO3	2433.	mg/l
Magnesium, dissolved	375.	mg/l
Nitrate as N, dissolved	.15	mg/l
Nitrite as N, dissolved	-.01	mg/l
Oil and Grease	3.	mg/l
Potassium, dissolved	2.	mg/l
Sodium, dissolved	336.	mg/l
Sulfate	2702.	mg/l
Cations (sum)	63.49	meq/l
Anions (sum)	67.38	meq/l
Cation-Anion Balance	-2.97	%
Solids, total dissolved	4376.	mg/l
Solids, total suspended	8.	mg/l
Solids, settleable	-.4	ml/l/hr
Iron, dissolved	-.02	mg/l
Iron, total	.22	mg/l
Manganese, total	-.01	mg/l
Manganese, dissolved	-.01	mg/l

Remarks: Lab Filtration Required On Two Subsamples.

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

Frank E. Polniak, Inorganic Lab Supervisor

Frank E. Polniak

the following are Baseline not operational measurements:

- Al
- As
- Ba
- Bo
- Cd
- Cr
- Cu
- F
- Pb
- Hg
- Mo
- Ni
- N-NH4
- PO4⁻³
- Se
- S⁻ sulfide
- Zn

Soldier Creek Coal Company
 Hydrologic Monitoring Program
 Summarized Results for 1990

Sample Site ID: UPDES 001 (Banning Discharge Point)

Scheduled Sample Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sample Date	No Discharge											

Field Measurements

Flow, gpm
 , units
 Conductivity, us/cm
 Temperature, Water °F
 Temperature, Air °F

Laboratory Analyses, mg/L

Total Dissolved Solids
 Total Suspended Solids
 Total Settleable Solids/hr
 Iron, Dissolved (Fe)
 Iron, Total (Fe)
 Manganese (Mn)
 Oil & Grease
 Nitrate, Dissolved
 Nitrite, Dissolved

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

PLEASE FILE IN FILE #6
 A01/007/034

Soldier Creek Coal Company
Hydrologic Monitoring Program
Summarized Results for 1990

Sample Site ID: UPDES 002 (Banning Sediment Pond)

Scheduled Sample Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sample Date	No Discharge											

Field Measurements

Flow, gpm

pH, units

Conductivity, us/cm

Temperature, Water °F

Temperature, Air °F

Laboratory Analyses, mg/L

Total Dissolved Solids

Total Suspended Solids

Total Settleable Solids/hr

Iron, Dissolved (Fe)

Iron, Total (Fe)

Manganese (Mn)

Oil & Grease

Nitrate, Dissolved

Nitrite, Dissolved

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

Hydronit/

Soldier Creek Coal Co.
 Banning Load out. Reseeding Test Plot.

Vegetative Data Summary

<u>Vegetative Cover</u>		<u>Production</u>
Seeded grasses	<u>1.23</u> % Cover	156 lbs/Ac.
AGCR.	1.0 % Cover	126 lbs/Ac.
ELJU	0.2 % "	24 " "
SPCR.	0.03 % "	6 " "

<u>Woody Plants</u>		
	<u>0.9</u> % Cover	<u>241</u> lbs/Ac
KO AM.	0.39 % Cover	70 lbs/Ac
SA 1B.	0.26 % "	128 lbs/Ac.
HA 6L.	0.25 % "	43 lbs/Ac.

<u>Ground cover</u>	<u>Percent</u>
% Bare Soil	83.0 %
% Rocks.	0.7 %
% Vegetation	2.1 %
% Litter.	<u>14.2</u> %
	100.0

Plant species Found on The Banning Road out Reseeding Test plots

Symbol.	Sci. Name.	Com. Name.
AGCR.	<i>Agropyron cristatum</i>	Crested wheatgrass
SPCR.	<i>Sporobolus cryptandrus</i>	Sawdrip seeds
ELJU.	<i>Elymus Junceus</i>	Russian wildrye.
KOAM	<i>Kochia americana</i>	Gray molly
SAIB	<i>Salsola iberica</i>	Russian Thistle
HA GL.	<i>Halogeton glomeratus.</i>	Halogeton
* ATCA	<i>Atriplex canescens</i>	Four wing salt bush
* CELA	<i>Ceratoides lanata.</i>	White Fat
* SUTO.	<i>Suaeda torreyana.</i>	Seep weed.

* present in test plot.

Allotment Banning Loasout

District

Plant Type Reseeding test plot

Transect Numbers Study Plots - 9.6 sq. ft size $\frac{1}{4}$ acre

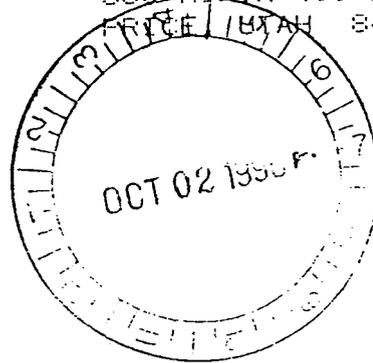
Species	Transect Numbers										Total	Total	%	
	1	2	3	4	5	6	7	8	9	10				Prod.
<u>Grasses</u>														
AGCR			2.0		2.0		1.0	1.0	3.0	1.0	10.0	1.0		46.9
SPCR						0.3					0.3	0.03		7.4
ELJU								2.0			2.0	0.2		9.4
<u>Forbs</u>														
KRAM	0.5	1.0	0.5	0.5	0.1	0.2	0.2	0.4	0.4	0.1	3.9			18.3
SAIB	0.2	0.3	0.2	0.2	0.2	0.1	0.2	0.2		1.0	2.6			12.2
HA6L	0.2	0.5	0.3	0.2	0.4	0.2		0.2	0.4		2.5			11.7
<u>Forage Production</u>														
	1	2	3	4	5	6	7	8	9	10	lbs/A Green	lbs/A Dry wt	c	% Comp.
<u>Grasses</u>														
AGCR	10	50	10	30					50	60	210	460	126	31.7
SPCR							10				10	60	6	1.5
ELJU	30	10									40	60	24	6.1
<u>Forbs</u>														
KRAM	10	10			60	30	15	20	10	20	175	40	70	17.6
SAIB	40	30	40	90	10	10	5	20	10		320	40	128	32.2
HA6L	5					10	2	20	66	10	107	40	43	10.8
<u>Ground Cover</u>														
% Bare Soil	89	68	78	83	87.3	96.2	95.6	85.2	75.2	77.9	836.1	83.0		
% Rocks				1		3	1	1	1		7.0	0.7		
% Vegetation	1	2	2	1	2.7	0.8	1.4	3.8	3.8	2.1	20.4	2.1		
% Litter	10	30	20	15	10	5	2	10	20	20	142	14.2		

* Dry wt Conversion Factor

UNITED STATES
DEPARTMENT OF
AGRICULTURE

SOIL
CONSERVATION
SERVICE

350 NORTH 400 EAST
PRICE, UTAH 84501



Mr. Tony Pappas
Soldier Creek Coal Co.
P.O. Box 1
Price, Utah 84501

Dear Mr. Pappas:

Here is the information on the reference sites. These potential production figures are for a normal year.

<u>Reference Area Name</u>	<u>Ecological Condition</u>	<u>Present Production</u>	<u>Potential Production</u>
Banning Loadout	High Fair	350 <i>lb/acre</i>	700
Big Sage Site	Fair	500	1100

I will complete the others that we talked about and send you the information.

George S. Cook
George S. Cook
Range Conservationist
Soil Conservation Service
Price, Utah