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007/018 #6

SC³ SOLDIER CREEK COAL CO.

Telephone (801) 637-6360

P.O. Box 1
Price, Utah 84501

March 26, 1991

RECEIVED

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DIVISION OF
OIL GAS & MINING

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: Annual Report for 1990
Soldier Canyon Mine & Banning Loadout
ACT/007/018 and ACT/007/034

Dear Mr. Braxton:

Enclosed is the 1990 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



Johnny Pappas
Environmental Coordinator

DGS/sm

Enclosure

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: Soldier Canyon Mine

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/007/018

Date of Initial Permanent Program Permit February 3, 1987

Date of Permit Renewal: February 4, 1992

Quantity of Coal Mined (tonnage) 1990: 1,207,432

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.

Water Monitoring Information

All water monitoring activities during 1990 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 1990 due to mining activities is estimated as follows:

1. Water added to coal produced ... 6,599,545 Gallons
1990 coal production - 1,207,432
Inherent moisture - 4%
Run-of-mine moisture - 6.28%
 2. Water evaporation 7,585,602 Gallons
Average humidity of intake air - 46%
Average humidity of exhaust air - 67%
Mine ventilation - 932,000 cfm
 3. Water discharged from mine 241,630,000 Gallons
- 255,815,147 Gallons
(785 acre-ft)

The areas of active mining for 1990 are shown on the enclosed mine progress maps. With the exception of the Eleventh East, Rock Canyon seam development, ground water inflow was not considered significant and typically advanced with the active development.

On November 19, 1990, a fracture zone was encountered in the Eleventh East Rock Canyon seam section. Mining operations were indefinitely suspended in this area due to the high concentration of methane associated with the fracture. Sample site UG-11E was also established in this area to monitor ground water inflow. The initial measurements indicated a ground water inflow of 636 gpm, but by December, this inflow had decreased to 495 gpm.

One additional ground water monitoring well was added to the monitoring schedule in 1990. Drill hole 32-1 was drilled in 1990 under an approved coal exploration program.

Subsidence Monitoring

The 1990 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.

All the 1990 subsidence monitoring was completed by Soldier Creek Coal Company personnel, 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.

No new subsidence monitoring point was established during 1990. The location of each subsidence point is shown on the enclosed 1990 Mine

Progress Map. Also the 1990 Subsidence Monitoring Summary Sheet is enclosed.

Vegetation Monitoring

There was no vegetation monitoring for 1990. The next scheduled vegetation monitoring is as follows:

Sewage Lagoons - 1992
Topsoil Site (Field Trial) - 1992
New Fan Site - 1994

Reclamation and Revegetation Activities

Pursuant to the approved exploration plan (CEP/007/018-89A), drill holes 9-2-89 and 9-3-89 were reclaimed during 1990. On October 30, 1990, the well sites were backfilled with available material. Reseeding was accomplished on November 2, 1990, utilizing the approved permanent seed mixture.

Permit Stipulation Status

On December 21, 1989, Soldier Creek Coal Company received approval for the Mid-Permit Term Review. This approval included one stipulation which reads as follows:

Stipulation UMC 817.71-(1) - JRH

1. At least 120 days prior to proposed development, or by October 3, 1991 at the latest, Soldier Creek Coal Company must submit new detailed designs for development, operation and reclamation of a facility for the permanent disposal of excess spoil and/or underground development waste in accordance with the requirements of this rule.

1990 SUBSIDENCE MONITORING SUMMARY

ORIGINAL ESTABLISHED CONTROL

1990 SURVEY CONTROL

<u>Station</u>	<u>Date</u>	<u>Coordinates</u>					<u>Change In Elevation</u>
	<u>Established</u>	<u>North</u>	<u>East</u>	<u>Elevation</u>	<u>Date Resurveyed</u>	<u>Elevation</u>	
15 SS	1979	499,046.40	2,250,498.62	6,877.08	7-27-90	6877.05	-0.03
36 SS	1979	504,721.47	2,251,483.38	6,999.88	9-26-90	6999.70	-0.18
106 SS	1979	502,400.01	2,251,238.02	6,864.11	7-27-90	6864.01	-0.10
3044	1983	503,050.26	2,251,423.30	6,930.90	7-27-90	6931.09	+0.19
3046	1983	503,896.61	2,254,502.54	8,052.60	9-25-90	8052.63	+0.03
3055	1983	505,967.71	2,248,349.81	8,095.30	(Not Monitored in 1990)		
87-0 SS	1987	500,243.55	2,250,582.43	6,776.05	7-27-90	6776.07	+0.02
87-1 SS	1987	501,367.65	2,251,073.81	6,873.89	7-27-90	6873.89	+0.00
87-2 SS	1987	504,562.64	2,246,925.65	8,238.56	(Not Monitored in 1990)		
87-47 SS	1987	502,184.61	2,254,071.70	7,480.42	9-25-90	7480.02	-0.40
88-1 SS	08/03/88	504,829.39	2,250,202.17	7,289.91	9-26-90	7289.40	-0.51
88-2 SS	08/03/88	505,129.62	2,250,629.44	7,284.27	9-26-90	7283.89	-0.38
88-3 SS	08/03/88	505,379.31	2,251,047.87	7,149.07	9-26-90	7148.82	-0.25
88-4 SS	08/03/88	503,939.35	2,250,566.16	7,253.42	9-26-90	7253.23	-0.19
1001	10/14/89	506,470.79	2,252,015.42	7,007.86	6-15-90	7007.36	-0.50

Soldier Creek Coal Company
Hydrologic Monitoring Program
Summarized Results for 1990

Soldier Creek Coal Company
Hydrologic Monitoring Program
Summarized Results for 1990

Sample Site I.D. G-1 (upper Soldier Creek)

<u>Scheduled Sample Month</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Date</u>	Site Not Accessible	05/07/90	08/28/90	11/27/90 Frozen
<u>Field Measurements</u>				
Flow, gpm		143	8.98	
pH, units		8.82	9.93	
Conductivity, us/cm		871	987	
Temperature, Water °F		43.8	63.3	
Temperature, Air °F			65	
Dissolved Oxygen, ppm		5.1	5.5	
<u>Laboratory Analyses, mg/l</u>				
Total Dissolved Solids		510	598	
Total Suspended Solids		34	26	
Total Settleable Solids/hr		-0.3	-0.2	
Total Hardness		292	412	
Carbonate (CO ₃ ⁻²)		44	0	
Bicarbonate (HCO ₃ ⁻)		351	444	
Calcium (Ca)		48	99	
Chloride (Cl ⁻¹)		16	22	
Iron-Dissolved (Fe)		0.12	0.13	
Magnesium (Mg)		42	40	
Manganese (Mn)		0.05	.34	
Potassium (k)		2	5.0	
Sodium (Na)		88	71.0	
Sulfate (SO ₄ ⁻²)		76	115	
Oil & Grease		-1	-1.0	
Cations meq/l		9.77	11.48	
Anions meq/l		9.94	11.91	
Cation/Anion Balance (%)		-0.86	-1.84	
Nitrate, Dissolved		-0.02	-.02	
Nitrite, Dissolved		-0.01	-.01	
Alkalinity		395	444	

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

Soldier Creek Coal Company
 Hydrologic Monitoring Program
 Summarized Results for 1990

Sample Site I.D. G-2 (upper Pine Creek)

<u>Scheduled Sample Month</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Date</u>	Site Not Accessible	05/07/90	No flow	11/27/90

Field Measurements

Flow, gpm		7	No flow	No flow
pH, units		8.65		
Conductivity, us/cm		529		
Temperature, Water °F		45.1		
Temperature, Air °F				
Dissolved Oxygen, ppm		5.2		

Laboratory Analyses, mg/l

Total Dissolved Solids	328
Total Suspended Solids	-2
Total Settleable Solids/hr	-0.2
Total Hardness	304
Carbonate (CO ₃ ²⁻)	22
Bicarbonate (HCO ₃ ⁻)	267
Calcium (Ca)	79
Chloride (Cl ⁻)	3
Iron-Dissolved (Fe)	-0.02
Magnesium (Mg)	26
Manganese (Mn)	0.01
Potassium (k)	1
Sodium (Na)	14
Sulfate (SO ₄ ²⁻)	31
Oil & Grease	-1
Cations meq/l	6.72
Anions meq/l	6.52
Cation/Anion Balance (%)	1.51
Nitrate, Dissolved	-0.02
Nitrite, Dissolved	-0.01
Alkalinity	289

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

Soldier Creek Coal Company
Hydrologic Monitoring Program
Summarized Results for 1990

Sample Site I.D. G-5 (lower Soldier Creek)

<u>Scheduled Sample Month</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Date</u>	02/28/90	05/07/90	08/28/90	11/28/90
<u>Field Measurements</u>				
Flow, gpm	335	362	197	359
pH, units	8.90	8.84	8.86	8.84
Conductivity, us/cm	1113	1127	1494	2310
Temperature, Water °F	47.7	49.2	60.2	41.7
Temperature, Air °F	50.0		65	43
Dissolved Oxygen, ppm	5.0	5.1	5.0	5.2
<u>Laboratory Analyses, mg/l</u>				
Total Dissolved Solids	814	816	780	1220
Total Suspended Solids	30	14	18	42
Total Settleable Solids/hr	-0.2	-0.1	-0.2	-0.2
Total Hardness	280	253	311	195
Carbonate (CO ₃ ²⁻)	332	4	0	0
Bicarbonate (HCO ₃ ⁻)	104	479	426	757
Calcium (Ca)	43	34	44	24
Chloride (Cl ⁻¹)	140	83	59	115
Iron-Dissolved (Fe)	0.26	-0.02	-0.2	0.03
Magnesium (Mg)	42	41	49	33
Manganese (Mn)	0.07	-0.01	-0.1	-0.01
Potassium (k)	10	13	2.0	13.0
Sodium (Na)	216	188	124	358
Sulfate (SO ₄ ²⁻)	121	142	122	114
Oil & Grease	1	1	-1.0	1.0
Cations meq/l	15.36	13.67	11.73	20.00
Anions meq/l	15.18	14.97	12.73	20.75
Cation/Anion Balance (%)	0.59	-4.54	-4.09	-1.84
Nitrate, Dissolved	0.23	0.40	-.02	0.28
Nitrite, Dissolved	0.02	0.09	.05	0.05
Alkalinity	436	483	426	757

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

Soldier Creek Coal Company
 Hydrologic Monitoring Program
 Summarized Results for 1990

Sample Site I.D. Spring #3

<u>Scheduled Sample Month</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Date</u>	Site Not Accessible	05/07/90	08/24/90	11/28/90

Field Measurements

Flow, gpm		No flow	No flow	No flow
pH, units				
Conductivity, us/cm				
Temperature, Water °F				
Temperature, Air °F				

Laboratory Analyses, mg/l

Total Dissolved Solids
 Total Hardness
 Carbonate (CO₃⁻²)
 Bicarbonate (HCO₃⁻)
 Calcium (Ca)
 Chloride (Cl⁻)
 Iron-Dissolved (Fe)
 Magnesium (Mg)
 Manganese (Mn)
 Potassium (k)
 Sodium (Na)
 Sulfate (SO₄⁻²)
 Cations meq/l
 Anions meq/l
 Cation/Anion Balance (%)
 Nitrate, Dissolved
 Nitrite, Dissolved

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

Soldier Creek Coal Company
 Hydrologic Monitoring Program
 Summarized Results for 1990

Sample Site I.D. Spring #4

<u>Scheduled Sample Month</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Date</u>	Site Not Accessible	05/07/90	08/24/90	11/27/90

Field Measurements

Flow, gpm		No flow	No flow	No flow
pH, units				
Conductivity, us/cm				
Temperature, Water °F				
Temperature, Air °F				

Laboratory Analyses, mg/l

Total Dissolved Solids
Total Hardness
Carbonate (CO ₃ ⁻²)
Bicarbonate (HCO ₃ ⁻)
Calcium (Ca)
Chloride (Cl ⁻¹)
Iron-Dissolved (Fe)
Magnesium (Mg)
Manganese (Mn)
Potassium (k)
Sodium (Na)
Sulfate (SO ₄ ⁻²)
Cations meq/l
Anions meq/l
Cation/Anion Balance (%)

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

Soldier Creek Coal Company
Hydrologic Monitoring Program
Summarized Results for 1990

Sample Site I.D. Spring #5

<u>Scheduled Sample Month</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Date</u>	Site Not Accessible	05/04/90	08/24/90	11/27/90
<u>Field Measurements</u>				
Flow, gpm		2	No flow	Site not Accessible
pH, units		9.35		
Conductivity, us/cm		538		
Temperature, Water °F		70.5		
Temperature, Air °F		65.0		
<u>Laboratory Analyses, mg/l</u>				
Total Dissolved Solids		344		
Total Hardness		285		
Carbonate (CO ₃ ²⁻)		26		
Bicarbonate (HCO ₃ ⁻)		242		
Calcium (Ca)		63		
Chloride (Cl ⁻)		8		
Iron-Dissolved (Fe)		0.69		
Magnesium (Mg)		31		
Manganese (Mn)		0.24		
Potassium (k)		4		
Sodium (Na)		23		
Sulfate (SO ₄ ²⁻)		58		
Cations meq/l		6.81		
Anions meq/l		6.80		
Cation/Anion Balance (%)		0.07		
Nitrate, Dissolved		-0.02		
Nitrite, Dissolved		0.01		

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

Soldier Creek Coal Company
Hydrologic Monitoring Program
Summarized Results for 1990

Sample Site I.D. Spring #8

<u>Scheduled Sample Month</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Date</u>	Site Not Accessible	05/07/90	08/25/90	11/27/90 Frozen

Field Measurements

Flow, gpm	5	1.0
pH, units	8.68	8.85
Conductivity, us/cm	552	530
Temperature, Water °F	44	72.5
Temperature, Air °F	58	75

Laboratory Analyses, mg/l

Total Dissolved Solids	294	258
Total Hardness	240	208
Carbonate (CO ₃ ²⁻)	26	9.0
Bicarbonate (HCO ₃ ⁻)	246	233
Calcium (Ca)	45	34
Chloride (Cl ⁻)	3	3.0
Iron-Dissolved (Fe)	0.04	-.02
Magnesium (Mg)	31	30
Manganese (Mn)	-0.01	-.01
Potassium (k)	1	-1
Sodium (Na)	33	35
Sulfate (SO ₄ ²⁻)	29	35
Cations meq/l	6.27	5.67
Anions meq/l	6.13	5.66
Cation/Anion Balance (%)	1.13	.09
Nitrate, Dissolved	-0.02	-.02
Nitrite, Dissolved	-0.01	-.01

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

Soldier Creek Coal Company
Hydrologic Monitoring Program
Summarized Results for 1990

Sample Site I.D. Spring #10

<u>Scheduled Sample Month</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Date</u>	Site Not Accessible	05/07/90	08/28/90	11/28/90

Field Measurements

Flow, gpm		3	3	1
pH, units		8.51	8.10	8.40
Conductivity, us/cm		1047	1059	1386
Temperature, Water °F		50.2	61.1	42.1
Temperature, Air °F		55	65	40

Laboratory Analyses, mg/l

Total Dissolved Solids		1236	586	646
Total Hardness		464	175	140
Carbonate (CO ₃ ²⁻)		0	0	0
Bicarbonate (HCO ₃ ⁻)		0	396	437
Calcium (Ca)		92	29	20
Chloride (Cl ⁻)		12	29	9
Iron-Dissolved (Fe)		0.33	-0.02	-0.02
Magnesium (Mg)		57	25	22
Manganese (Mn)		0.04	.02	-0.01
Potassium (k)		80	2	3
Sodium (Na)		241	159	168
Sulfate (SO ₄ ²⁻)		2	109	103
Cations meq/l		21.96	10.55	10.27
Anions meq/l		22.84	11.02	11.16
Cation/Anion Balance (%)		-1.96	-2.18	-4.15
Nitrate, Dissolved		312.05	-0.02	-0.02
Nitrite, Dissolved		-0.05	.01	-0.01

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

Soldier Creek Coal Company
 Hydrologic Monitoring Program
 Summarized Results for 1990

Sample Site I.D. Spring #15

<u>Scheduled Sample Month</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Date</u>	Site Not Accessible	05/07/90	08/24/90	11/28/90

Field Measurements

Flow, gpm		No flow	No flow	No flow
pH, units				
Conductivity, us/cm				
Temperature, Water °F				
Temperature, Air °F				

Laboratory Analyses, mg/l

Total Dissolved Solids
 Total Hardness
 Carbonate (CO₃²⁻)
 Bicarbonate (HCO₃⁻)
 Calcium (Ca)
 Chloride (Cl⁻)
 Iron-Dissolved (Fe)
 Magnesium (Mg)
 Manganese (Mn)
 Potassium (k)
 Sodium (Na)
 Sulfate (SO₄²⁻)
 Cations meq/l
 Anions meq/l
 Cation/Anion Balance (%)
 Nitrate, Dissolved
 Nitrite, Dissolved

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

Soldier Creek Coal Company
Hydrologic Monitoring Program
Summarized Results for 1990

Sample Site I.D. Spring #18

<u>Scheduled Sample Month</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Date</u>	Site Not Accessible	05/07/90	08/24/90	11/28/90

Field Measurements

Flow, gpm		No flow	No flow	No flow
pH, units				
Conductivity, us/cm				
Temperature, Water °F				
Temperature, Air °F				

Laboratory Analyses, mg/l

- Total Dissolved Solids
- Total Hardness
- Carbonate (CO₃⁻²)
- Bicarbonate (HCO₃⁻)
- Calcium (Ca)
- Chloride (Cl⁻)
- Iron-Dissolved (Fe)
- Magnesium (Mg)
- Manganese (Mn)
- Potassium (k)
- Sodium (Na)
- Sulfate (SO₄⁻²)
- Cations meq/l
- Anions meq/l
- Cation/Anion Balance (%)
- Nitrate, Dissolved
- Nitrite, Dissolved

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

Soldier Creek Coal Company
Hydrologic Monitoring Program
Summarized Results for 1990

Sample Site I.D. Spring #21

<u>Scheduled Sample Month</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Date</u>	Site Not Accessible	05/07/90	08/24/90	11/27/90

Field Measurements

Flow, gpm		No flow	No flow	No flow
pH, units				
Conductivity, us/cm				
Temperature, Water °F				
Temperature, Air °F				

Laboratory Analyses, mg/l

Total Dissolved Solids
Total Hardness
Carbonate (CO₃⁻²)
Bicarbonate (HCO₃⁻)
Calcium (Ca)
Chloride (Cl⁻)
Iron-Dissolved (Fe)
Magnesium (Mg)
Manganese (Mn)
Potassium (k)
Sodium (Na)
Sulfate (SO₄⁻²)
Cations meq/l
Anions meq/l
Cation/Anion Balance (%)
Nitrate, Dissolved
Nitrite, Dissolved

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

Soldier Creek Coal Company
Hydrologic Monitoring Program
Summarized Results for 1990

Sample Site I.D. UG-1N (In-mine Ground Water)

<u>Scheduled Sample Month</u>	<u>Jan</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Date</u>	01/25/90	02/12/90	05/23/90	08/27/90	11/27/90

Field Measurements

Flow, gpm	NA	NA	NA	NA	NA
pH, units	8.60	8.40	8.27	7.83	8.59
Conductivity, us/cm	1562	1494	1446	1360	1499
Temperature, Water °F	56.4	56.2	59.2	61.5	56.6
Temperature, Air °F	50.0	57.0	57.0	59	56

Laboratory Analyses, mg/l

Total Dissolved Solids	824			724	
Total Hardness	273			238	
Carbonate (CO ₃ ²⁻)	0			0	
Bicarbonate (HCO ₃ ⁻)	666			633	
Calcium (Ca)	47			46	
Chloride (Cl ⁻¹)	80			32	
Iron-Dissolved (Fe)	0.30			.03	
Magnesium (Mg)	38			30	
Manganese (Mn)	0.04			-.01	
Potassium (k)	19			15	
Sodium (Na)	250			176	
Sulfate (SO ₄ ²⁻)	12			23	
Cations meq/l	16.96			12.89	
Anions meq/l	15.81			14.04	
Cation/Anion Balance (%)	3.51			-4.27	
Nitrate, Dissolved	-0.02			-.02	
Nitrite, Dissolved	-0.01			-.01	

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

Soldier Creek Coal Company
Hydrologic Monitoring Program
Summarized Results for 1990

Sample Site I.D. UG-2N (In-mine Ground Water)

<u>Scheduled Sample Month</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Date</u>	Site Not Accessible	Site Not Accessible	Site Not Accessible	Site Not Accessible This sample site has now been discontinued from our monitoring program

Field Measurements

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

Laboratory Analyses, mg/l

Total Dissolved Solids
Total Hardness
Carbonate (CO₃²⁻)
Bicarbonate (HCO₃⁻)
Calcium (Ca)
Chloride (Cl⁻)
Iron-Dissolved (Fe)
Magnesium (Mg)
Manganese (Mn)
Potassium (k)
Sodium (Na)
Sulfate (SO₄²⁻)
Cations meq/l
Anions meq/l
Cation/Anion Balance (%)
Nitrate, Dissolved
Nitrite, Dissolved

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

Hydromon/

Soldier Creek Coal Company
 Hydrologic Monitoring Program
 Summarized Results for 1990

Sample Site I.D. UG-3N8E (In-mine Ground Water)

<u>Scheduled Sample Month</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Date</u>	02/12/90	05/23/90	08/27/90	11/27/90
				This site has now been discontinued from our monitoring program

Field Measurements

Flow, gpm	No flow	No flow	No flow	No flow
pH, units				
Conductivity, us/cm				
Temperature, Water °F				
Temperature, Air °F				

Laboratory Analyses, mg/l

- Total Dissolved Solids
- Total Hardness
- Carbonate (CO₃⁻²)
- Bicarbonate (HCO₃⁻)
- Calcium (Ca)
- Chloride (Cl⁻¹)
- Iron-Dissolved (Fe)
- Magnesium (Mg)
- Manganese (Mn)
- Potassium (k)
- Sodium (Na)
- Sulfate (SO₄⁻²)
- Cations meq/l
- Anions meq/l
- Cation/Anion Balance (%)

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

Soldier Creek Coal Company
Hydrologic Monitoring Program
Summarized Results for 1990

Sample Site I.D. UG-Shaft (In-mine Ground Water)

<u>Scheduled Sample Month</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Date</u>	02/01/90	05/23/90	08/27/90	11/27/90
				This site has now been discontinued from our monitoring program

Field Measurements

Flow, gpm	2.4	10.9	2.2	2.2
pH, units	7.45	7.92	6.83	7.50
Conductivity, us/cm	1428	1728	1638	1701
Temperature, Water °F	44.9	50.5	59.3	52.5
Temperature, Air °F	47.0	52.0	52.0	50

Laboratory Analyses, mg/l

Total Dissolved Solids	1144
Total Hardness	752
Carbonate (CO ₃ ⁻²)	0
Bicarbonate (HCO ₃ ⁻)	428
Calcium (Ca)	158
Chloride (Cl ⁻¹)	20
Iron-Dissolved (Fe)	.04
Magnesium (Mg)	87
Manganese (Mn)	.05
Potassium (k)	9
Sodium (Na)	80
Sulfate (SO ₄ ⁻²)	489
Cations meq/l	18.79
Anions meq/l	19.39
Cation/Anion Balance (%)	-1.57
Nitrate, Dissolved	-.02
Nitrite, Dissolved	-.01

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

Soldier Creek Coal Company
Hydrologic Monitoring Program
Summarized Results for 1990

Sample Site I.D. UG-10E (In-mine Ground Water)

<u>Scheduled Sample Month</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Date</u>	02/12/90	05/23/90	08/17/90	11/27/90

Field Measurements

Flow, gpm	NA	NA	NA	NA
pH, units	9.09	8.55	8.12	8.58
Conductivity, us/cm	1686	1699	1857	1775
Temperature, Water °F	58.5	58.6	61.9	60.3
Temperature, Air °F	57.0	56.0	61.0	60

Laboratory Analyses, mg/l

Total Dissolved Solids	1030
Total Hardness	116
Carbonate (CO ₃ ⁻²)	0
Bicarbonate (HCO ₃ ⁻)	792
Calcium (Ca)	20
Chloride (Cl ⁻¹)	30
Iron-Dissolved (Fe)	-.02
Magnesium (Mg)	16
Manganese (Mn)	-.01
Potassium (k)	12
Sodium (Na)	332
Sulfate (SO ₄ ⁻²)	59
Cations meq/l	17.23
Anions meq/l	17.92
Cation/Anion Balance (%)	-1.96
Nitrate, Dissolved	-.02
Nitrite, Dissolved	-.01

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

Soldier Creek Coal Company
Hydrologic Monitoring Program
Summarized Results for 1990

Sample Site I.D. UG-ME (In-mine Ground Water)

<u>Scheduled Sample Month</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Date</u>	02/12/90	05/23/90	08/27/90	11/27/90
				This site has now been discontinued from our monitoring program

Field Measurements

Flow, gpm	0.9	1.0	No flow	No flow
pH, units	9.10	8.61		
Conductivity, us/cm	997	931		
Temperature, Water °F	51.5	53.0		
Temperature, Air °F	49.0	49.0		

Laboratory Analyses, mg/l

Total Dissolved Solids
Total Hardness
Carbonate (CO ₃ ²⁻)
Bicarbonate (HCO ₃ ⁻)
Calcium (Ca)
Chloride (Cl ⁻¹)
Iron-Dissolved (Fe)
Magnesium (Mg)
Manganese (Mn)
Potassium (k)
Sodium (Na)
Sulfate (SO ₄ ²⁻)
Cations meq/l
Anions meq/l
Cation/Anion Balance (%)

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

Soldier Creek Coal Company
 Hydrologic Monitoring Program
 Summarized Results for 1990

<u>Scheduled Sample Month</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>
<u>Sample Site ID: 5-1 (Well)</u>	Site Not Accessible			
<u>Sample Date</u>		05/07/90	08/24/90	11/27/90
<u>Water Level Measurement, ft.</u>		327.2	329.0	330.7
<u>Sample Site ID: 10-2 (Well)</u>	Site Not Accessible			
<u>Sample Date</u>		05/07/90	08/24/90	11/27/90
<u>Water Level Measurement, ft.</u>		721.3	718.5	719
<u>Sample Site ID: 6-1 (Well)</u>	Site Not Accessible			
<u>Sample Date</u>		05/04/90	08/24/90	11/27/90
<u>Water Level Measurement, ft.</u>		395	404.5	411.2
<u>Sample Site ID: 32-1 (Well)</u>				
<u>Sample Date</u>			08/24/90	11/27/90
<u>Water Level Measurement, ft.</u>			325.1	316.4

Soldier Creek Coal Company
Hydrologic Monitoring Program
Summarized Results for 1990

Sample Site ID: NPDES 001 (MW-1 Mine Water Discharge)

<u>Scheduled Sample Month</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
<u>Sample Date</u>	No Discharge	11/28/90	No Discharge									

Field Measurements

Flow, gpm											300	
pH, units											8.18	
Conductivity, us/cm											2300	
Temperature, Water °F											64.8	
Temperature, Air °F											43	

Laboratory Analyses, mg/l

Total Dissolved Solids											1270	
Total Suspended Solids											8	
Total Settleable Solids/hr											-0.2	
Iron, Dissolved (Fe)											0.06	
Iron, Total (Fe)											0.18	
Manganese (Mn)											-0.01	
Oil & Grease											1.0	
Nitrate, Dissolved											-0.02	
Nitrite, Dissolved											0.03	

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

Hydmonit/

Soldier Creek Coal Company
 Hydrologic Monitoring Program
 Summarized Results for 1990

Sample Site ID: NPDES 004 (MW-3 Mine Water Discharge)

<u>Scheduled Sample Month</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
<u>Sample Date</u>	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.

Hydmonit/

Soldier Creek Coal Company
Hydrologic Monitoring Program
Summarized Results for 1990

Sample Site ID: NPDES 002 (Mine Facilities Sediment Pond)

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

Field Measurements

Flow, gpm

H, 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.

Hydmonit/

Soldier Creek Coal Company
Hydrologic Monitoring Program
Summarized Results for 1990

Sample Site ID: NPDES 003 (MW-2 Mine Water Discharge)

Scheduled Sample Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sample Date	01/24/90	02/28/90	03/20/90	04/18/90	05/08/90	06/12/90	07/24/90	08/28/90	9/18/90	10/23/90	11/17/90	12/12/90

Field Measurements

Flow, gpm	300	300	300	550	550	510	570	340	350	630	300	720
pH, units	8.20	8.51	8.40	8.61	8.68	7.96	7.68	8.10	7.80	8.04	8.12	8.38
Conductivity, us/cm	1320	1273	1960	1555	1520	1259	1368	1546	1604	1539	1515	2060
Temperature, Water °F	62.3	53.2	59.1	62.0	56.7	65.2	65.4	61.0	62.5	64.1	63.5	64.5
Temperature, Air °F	40.0	-	-	-	50.0	-	-	65.0	-	-	-	38

Laboratory Analyses, mg/l

Total Dissolved Solids	778	1112	704	912	914	844	862	852	884	850	894	1116
Total Suspended Solids	40	8	34	4	6	2	-2.0	30	12	4	34	22
Total Settleable Solids/hr	-0.1	-0.2	-0.1	-0.1	-0.1	-0.2	-0.4	-0.2	-0.4	-0.4	-0.4	-0.4
Iron, Dissolved (Fe)	0.1	0.16	0.31	0.12	-0.2	-0.2	0.07	-0.02	-0.2	-0.02	-0.02	0.05
Iron, Total (Fe)	0.3	0.16	0.61	0.63	0.20	0.26	0.15	.33	.26	0.27	0.56	0.32
Manganese (Mn)	0.02	0.03	0.02	0.02	-	0.02	0.01	0.01	0.01	0.02	-0.01	-0.01
Oil & Grease	1	1	-1	-1	-1	-1	-1.0	1.0	1.0	-1.0	-1.0	9.0
Strontium, Dissolved	0.06	0.03	-0.02	0.90	0.42	0.18	0.07	-0.02	.88	0.06	0.13	-0.02
Nitrite, Dissolved	0.04	0.04	0.05	0.25	0.54	0.11	0.02	0.01	.11	0.03	0.04	0.02

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

/dmonit/

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

NAME Soldier Creek Coal Company
 ADDRESS P.O. Box I
Price, UT 84501

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)

(2-16)

(17-19)

UT-0023680
 PERMIT NUMBER

003
 DISCHARGE NUMBER

Form Approved
 OMB No. 2040-0004
 Approval expires 9-30-85

FACILITY Soldier Canyon Mine
 LOCATION Discharge Pipe (MW-2)

MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	90	01	01		90	03	21
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT / PERMIT REQUIREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)			UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				
Flow	SAMPLE MEASUREMENT	0.509	0.546		*	*	*	MGD	3	1/30	Meter
	PERMIT REQUIREMENT				*	*	*			"	
Solids Total Suspended	SAMPLE MEASUREMENT				8	27	40	MG/L	0	"	
	PERMIT REQUIREMENT				*	25	70			"	
Solids Total Dissolved	SAMPLE MEASUREMENT				704	865	1112	MG/L	0	"	
	PERMIT REQUIREMENT				*	*	1500			"	
pH	SAMPLE MEASUREMENT				8.20	8.37	8.51	SU	0	"	
	PERMIT REQUIREMENT				6.5	*	9.0			"	
Oil & Grease	SAMPLE MEASUREMENT				1	1	1	MG/L	0	"	
	PERMIT REQUIREMENT				*	*	10			"	
Iron Total	SAMPLE MEASUREMENT				0.16	0.36	0.61	MG/L	0	"	
	PERMIT REQUIREMENT				*	*	2.0			"	

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

David G. Spillman
 Mine Engineer

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC 1103 AND 33 USC 1319. Penalties under these statutes may include fines up to \$100,000 and/or maximum imprisonment of between 6 months and 5 years.

David G. Spillman
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE DATE

801 637-6360 90 04 13
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) There was no discharge from point source 001, 002 & 004. The limitation of one ton per day of total dissolved solids was consistently exceeded during the monitoring period. Soldier Creek Coal Company has requested an increased limitation for discharge of TDS under the Colorado River Salinity standards. This request is presently being reviewed by the EPA.

PERMITTEE NAME/ADDRESS (Include activity Name/Location if different)

NAME Soldier Creek Coal Company

ADDRESS P.O. Box 1

Price, UT 84501

ACTIVITY Soldier Canyon Mine

LOCATION Discharge Pipe (MW-2)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

(17-19)

UT-0023680

PERMIT NUMBER

003

DISCHARGE NUMBER

MONITORING PERIOD

FROM			TO		
YEAR	MO	DAY	YEAR	MO	DAY
90	04	01	90	06	30
<small>(20-21) (22-23) (24-25)</small>			<small>(26-27) (28-29) (30-31)</small>		

NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT PERMIT REQUIREMENT	(J Card Only) QUANTITY OR LOADING (46-51)			(I Card Only) QUALITY OR CONCENTRATION (54-61)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Flow	SAMPLE MEASUREMENT	0.749	0.812		*	*	*	MGD	3	1/30	Meter
	PERMIT REQUIREMENT				*	*	*				
Solids Total Suspended	SAMPLE MEASUREMENT				2	4	6	MG/L	0	"	
	PERMIT REQUIREMENT				*	25	70				
Solids Total Dissolved	SAMPLE MEASUREMENT				844	890	914	MG/L	0	"	
	PERMIT REQUIREMENT				*	*	1500				
pH	SAMPLE MEASUREMENT				7.96	8.42	8.68	SU	0	"	
	PERMIT REQUIREMENT				6.5	*	9.0				
Oil & Grease	SAMPLE MEASUREMENT				1	1	1	MG/L	0	"	
	PERMIT REQUIREMENT				*	*	10				
Iron Total	SAMPLE MEASUREMENT				0.20	0.36	0.63	MG/L	0	"	
	PERMIT REQUIREMENT				*	*	2.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

David G. Spillman
Mine Engineer

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC 1001 AND 33 USC 1319. (Penalties under these statutes may include fines up to \$100,000 and/or maximum imprisonment of between 6 months and 5 years.)

David G. Spillman
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE
801 637-6360
DATE
90 07 24

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) There was no discharge from point source 001, 002 & 004. The limitation of one ton per day of total dissolved solids was consistently exceeded during the monitoring period. Soldier Creek Coal Company has requested an increased limitation for discharge of TDS under the Colorado River Salinity standards. This request is presently being reviewed by the EPA.

NAME Soldier Creek Coal Company
 ADDRESS P.O. Box 1
Price, UT 84501

UT-0023680
 PERMIT NUMBER

003
 DISCHARGE NUMBER

FACILITY Soldier Canyon Mine
 LOCATION Discharge Pipe (MW-2)

MONITORING PERIOD					
FROM			TO		
YEAR	MO	DAY	YEAR	MO	DAY
90	07	01	90	09	30
(20-21)	(22-23)	(24-25)	(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (J2-J7)	SAMPLE MEASUREMENT / PERMIT REQUIREMENT	QUANTITY OR LOADING (I Card Only) (46-53)			QUALITY OR CONCENTRATION (I Card Only) (46-53)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)	
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS
Flow	SAMPLE MEASUREMENT	0.605	0.821		*	*	*	MGD	3	1/30	Meter
	PERMIT REQUIREMENT				*	*	*				
Solids Total Suspended	SAMPLE MEASUREMENT				-2	13	30	MG/L	0	"	
	PERMIT REQUIREMENT				*	25	70				
Solids Total Dissolved	SAMPLE MEASUREMENT				852	866	884	MG/L	0	"	
	PERMIT REQUIREMENT				*	*	1500				
pH	SAMPLE MEASUREMENT				7.68	7.86	8.10	SU	0	"	
	PERMIT REQUIREMENT				6.5	*	9.0				
Oil & Grease	SAMPLE MEASUREMENT				-1	1	1	MG/L	0	"	
	PERMIT REQUIREMENT				*	*	10				
Iron Total	SAMPLE MEASUREMENT				.15	.25	.33	MG/L	0	"	
	PERMIT REQUIREMENT				*	*	2.0				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
 Johnny Pappas
 Environmental Coordinator
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT 518 USC 1101 AND 33 USC 1319. Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 3 years.

Johnny Pappas
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY
801	637-6360	90	10	16

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
 There was no discharge from point sources 001, 002 & 004. The limitation of one ton per day of total dissolved solids was consistently exceeded during the monitoring period. Soldier Creek Coal Company has requested an increased limitation for discharge of TDS under the Colorado Salinity Standards. This request is presently being reviewed by the EPA.

NAME Soldier Creek Coal Company
 ADDRESS P.O. BOX I
Price, UT 84501

UT-0023680
 PERMIT NUMBER

003
 DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
90	10	01		90	12	31
<small>(20-21)</small>	<small>(22-24)</small>	<small>(24-25)</small>		<small>(26-27)</small>	<small>(28-29)</small>	<small>(30-31)</small>

FACILITY Soldier Canyon Mine
 LOCATION Discharge Pipe (MW-2)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT / PERMIT REQUIREMENT	(J Card Only) QUANTITY OR LOADING (46-53)			(J Card Only) QUALITY OR CONCENTRATION (46-53)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Flow	SAMPLE MEASUREMENT	.785	1.015		*	*	*	MGD	3	1/30	Meter
	PERMIT REQUIREMENT				*	*	*			"	
Solids Total Suspended	SAMPLE MEASUREMENT				4	20	34	MG/L	0	"	
	PERMIT REQUIREMENT				*	25	70			"	
Solids Total Dissolved	SAMPLE MEASUREMENT				850	953	1116	MG/L	0	"	
	PERMIT REQUIREMENT				*	*	1500			"	
pH	SAMPLE MEASUREMENT				8.04	8.18	8.38	MG/L	0	"	
	PERMIT REQUIREMENT				6.5	*	9.0			"	
Oil & Grease	SAMPLE MEASUREMENT				-1.0	2.33	9.0	MG/L	0	"	
	PERMIT REQUIREMENT				*	*	10			"	
Iron Total	SAMPLE MEASUREMENT				-0.02	0.29	0.56	MG/L	0	"	
	PERMIT REQUIREMENT				*	*	2.0			"	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
 Johnny Pappas
 Environmental Coordinator
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)

Johnny Pappas
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: 801 637-6360
 DATE: 91 1 16
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
 There was no discharge from point sources 002 & 004. The limitations of one ton per day of total dissolved solids was consistently exceeded during the monitoring period. Soldier Creek Coal Company has requested an increased limitation for discharge of TDS under the Colorado Salinity Standards. This request is presently being reviewed by the EPA.

NAME Soldier Creek Coal Company
 ADDRESS P.O. Box I
Price, UT 84501

UT-0023680
 PERMIT NUMBER

001
 DISCHARGE NUMBER

FACILITY Soldier Canyon Mine
 LOCATION Discharge Pipe (MW-1)

MONITORING PERIOD					
FROM			TO		
YEAR	MO	DAY	YEAR	MO	DAY
90	10	1	90	12	31
(20-21)	(22-23)	(24-25)	(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT / PERMIT REQUIREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (46-53)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Flow	SAMPLE MEASUREMENT	.288	.288		*	*	*	MGD	1	1/30	
	PERMIT REQUIREMENT				*	*	*				
Solids Total Suspended	SAMPLE MEASUREMENT				8.0	8.0	8.0	MG/L	0	"	
	PERMIT REQUIREMENT				*	25	70			"	
Solids Total Dissolved	SAMPLE MEASUREMENT				1270	1270	1270	MG/L	0	"	
	PERMIT REQUIREMENT				*	*	1500			"	
pH	SAMPLE MEASUREMENT				8.18	8.18	8.18	MG/L	0	"	
	PERMIT REQUIREMENT				6.5	*	9.0			"	
Oil & Grease	SAMPLE MEASUREMENT				1.0	1.0	1.0	MG/L	0	"	
	PERMIT REQUIREMENT				*	*	10			"	
Iron Total	SAMPLE MEASUREMENT				0.18	0.18	0.18	MG/L	0	"	
	PERMIT REQUIREMENT				*	*	2.0			"	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
 Johnny Pappas
 Environmental Coordinator
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT 5 U.S.C. § 1001 AND 33 U.S.C. § 1319. Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.

Johnny Pappas
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: 801 637-6360
 DATE: 91 1 16
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Inspection Results
Surface Facility Sediment Pond
and Sewage Lagoon



SOLDIER CREEK COAL CO.

Telephone (801) 637-6360

P.O. Box 1
Price, Utah 84501

QUARTERLY POND INSPECTION

Pond Being Inspected: Surface Facility Sediment Pond & Sewage Lagoon

Date of Inspection: March 13, 1990 & March 30, 1990 Respectively

Person(s) Making Inspection: D.G. Spillman *DGS*

Any Structural Weakness, Erosion and Other Hazardous Conditions Noted: None

Any Routine Maintenance Required: None

Comments: Both ponds appeared to be in satisfactory condition with no potential problems noted during the inspection.

APPROVAL: _____

DATE: _____



SOLDIER CREEK COAL CO.

Telephone (801) 637-6360

P.O. Box 1
Price, Utah 84501

QUARTERLY POND INSPECTION

Pond Being Inspected: Surface Facility Sediment Pond & Sewage Lagoon

Date of Inspection: June 27, 1990 and June 26, 1990 Respectively

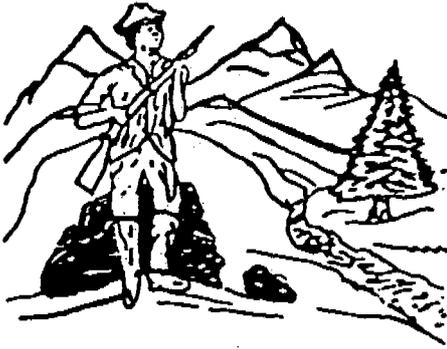
Person(s) Making Inspection: D.G. Spillman *DGS*

Any Structural Weakness, Erosion and Other Hazardous Conditions Noted: None

Any Routine Maintenance Required: None

Comments: Both ponds appeared to be in satisfactory condition with no potential problems noted during the inspection.

APPROVAL: _____ DATE: _____



SOLDIER CREEK COAL CO.

Telephone (801) 637-6360

P.O. Box I
Price, Utah 84501

QUARTERLY POND INSPECTION

Pond Being Inspected: Sewage Lagoons and Surface Facility Sediment Pond

Date of Inspection: September 26, 1990

Person(s) Making Inspection: Johnny Pappas J.P.

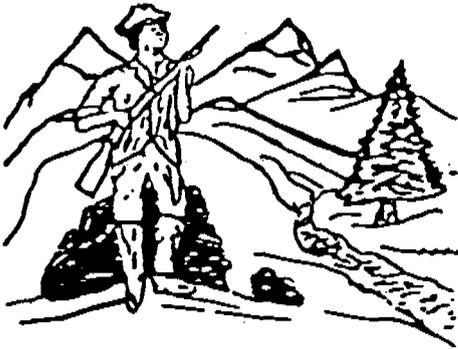
Any Structural Weakness, Erosion and Other Hazardous Conditions Noted: None

Any Routine Maintenance Required: None

Comments: Both ponds appear to be in good condition with no problems noted.

APPROVAL: _____

DATE: _____



SOLDIER CREEK COAL CO.

Telephone (801) 637-6360

P.O. Box 1
Price, Utah 84501

QUARTERLY POND INSPECTION

Pond Being Inspected: Sewage Lagoons and Surface Facility Sediment Pond

Date of Inspection: November 27, 1990

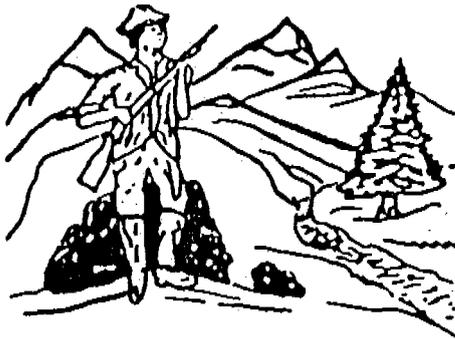
Person(s) Making Inspection: Johnny Pappas J.P.

Any Structural Weakness, Erosion and Other Hazardous Conditions Noted: None

Any Routine Maintenance Required: None

Comments: Both ponds appear to be in good condition with no problems noted.

APPROVAL: _____ DATE: _____



SOLDIER CREEK COAL CO.

Telephone (801) 637-6360

*
P.O. Box 1
Price, Utah 84501

QUARTERLY POND INSPECTION

Pond Being Inspected: Mine Sedimentation Pond

Date of Inspection: 12/11/90

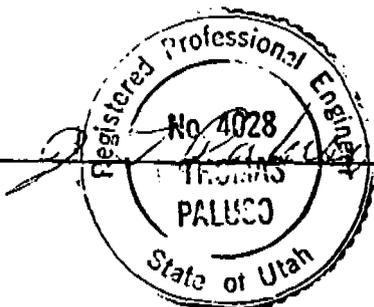
Person(s) Making Inspection: J.T. Paluso

Any Structural Weakness, Erosion and Other Hazardous Conditions Noted: None

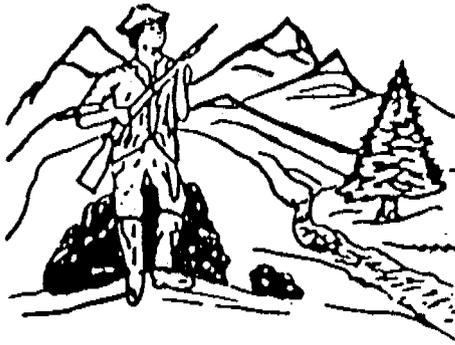
Any Routine Maintenance Required: None

Comments: Outlet gate works. Stream rip-rap looks good. We need to keep a
lookout for rip-rap movement.

APPROVAL: _____



DATE: 12/26/90



SOLDIER CREEK COAL CO.

Telephone (801) 637-6360

P.O. Box 1
Price, Utah 84501

QUARTERLY POND INSPECTION

Pond Being Inspected: Sewage Lagoon

Date of Inspection: 12/11/90

Person(s) Making Inspection: J.T. Paluso

Any Structural Weakness, Erosion and Other Hazardous Conditions Noted: None

Any Routine Maintenance Required: None

Comments: Weed control is good. Water level is approximately 18 inches from top of cell.

APPROVAL:



DATE: 12/26/90