FROM:
Soldier Creek Coal Co.

P.O. Box I Price, Utah 84501

SOLDIER CANYON MINE
ACT/007/018

1986 ANNUAL REPORT

SOLDIER CREEK COAL CO.

Telephone (801) 637-6360

P.O. Box I
Price, Utah 84501

July 8, 1987

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JUL 10 1987
DIVISION OF
OIL, GAS & MINING

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

Re: Annual Report for 1986
Soldier Canyon Mine
ACT/007/018

Dear Mr. Braxton:

Enclosed is the 1986 annual report for the Soldier Canyon Mine.

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

Sincerely,

SOLDIER CREEK COAL COMPANY

Dave Spillman

D.G. Spillman
Mine Engineer

DGS:pp
Enclosures

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Soldier Creek Coal Company
Soldier Canyon Mine

1986 Annual Report

July 1987

Introduction

On September 5, 1985, Sunedco Coal Company purchased the Soldier Canyon Mine property. Following this acquisition, it was determined that a more efficient mining plan would result by combining all of the Soldier Canyon Mine property with selected parts of the adjacent Sage Point-Dugout Canyon acreage. Therefore, a new Permit Application Package (PAP) was submitted in March 1986 for approval of the enlarged permit area.

Preparation of a new PAP involved upgrading many sections with information current through 1986. This report is intended to identify those specific sections, as well as submit additional information relevant to Soldier Creek Coal Company's 1986 mining operations.

Company Data

Operator:	Soldier Creek Coal Company
Mine Name:	Soldier Canyon Mine
Mailing Address:	Post Office Box I Price, UT 84501
Company Representative:	Mr. R.W. Olsen, President
Permit Number:	ACT/007/018
Date of Permanent Program Permit:	February 3, 1987
Quantity of Coal Mined 1986:	558,781 Tons
Certificate of Insurance:	Located in correspondence section

Water Monitoring Data

All water monitoring activities during 1986 were conducted in accordance with the May 29, 1985, five year permit. The complete summarized results for each point monitored follows in this section. Sample site location maps are contained in the map section.

During 1986 Soldier Creek Coal Company requested that our in-mine water monitoring program be modified from a baseline to an operational monitoring plan. This request was reviewed and approved by the Division. The December 16, 1986, approval letter is contained in the correspondence section.

The total ground water consumption for 1986, due to mining activities is estimated as follows.

1. Water added to coal produced . . . . . 3,481,000 Gallons

   1986 coal production - 558,781 tons
   Inherent moisture - 4%
   Run-of-Mine moisture - 6.6%

2. Water evaporation. . . . . 8,317,000 Gallons

   Average humidity of intake air - 39%
   Average humidity of exhaust air - 75.9%
   Mine ventilation - 825,000 cfm

3. Water discharged from mine . . . . . .88,397,042 Gallons

   Discharge point 18-1(001) - 23,654,987 gal.
   Discharge point 18-1(003) - 64,742,055 gal.

Total 100,195,042 Gallons
(308 acre-ft)

SOLDIER CREEK COAL COMPANY

Hydrologic Monitoring Program
Summarized Results for 1986

Sample Site ID UG-MN3W Area In-Mine Ground Water

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Sample Date	01/15/86	02/24/86	03/17/86	04/15/86	05/15/86	06/11/86	07/30/86	08/26/86	09/09/86	10/15/86	11/24/86	
Field Measurements												
Flow gpm	2.3	2.4	2.5	1.5	1.7	2.8	1.8	1.2	2.0	2.4	2.0	
pH units	8.79	8.92	9.06	8.98	8.87	8.93	8.79	8.65	8.79	8.74	8.17	
Conductivity us/cm	1293	1326	1364	1379	1357	1418	1372	1491	1343	1404	1377	
Temperature, Water °F	51.9	52.9	54.2	55.0	55.5	57.2	55.6	56.6	55.5	54.4	53.0	
Temperature, Air °F	53.0	54.0	56.0	55.0	57.0	58.4	59.5	57.0	57.0	56.0	55.0	
Dissolved Oxygen ppm												
Laboratory Analyses												
Total Suspended Solids												
Total Dissolved Solids		802	804		800			896	836		780	
Carbonate CaCO3 mg/l		40	52		50			28	60		52	
Bicarbonate CaCO3 mg/l		622	638		645			610	605		594	
Calcium mg/l		14	14		15			17	15		13	
Chloride mg/l		23	34		31			39	32		31	
Iron, Total mg/l		.04	1.36		.02			.08	.05		-.02	
Magnesium mg/l		31	30		34			35	35		31	
Potassium mg/l		23	20		19			21	22		21	
Sodium mg/l		268	270		288			292	295		282	
Sulfate mg/l		39	31		35			121	76		47	
Oil & Grease mg/l			-1						-1			
Cations meq/l		15.63	15.56		16.70			17.11	17.17		16.15	
Anions meq/l		14.70	15.40		15.50			16.39	15.79		14.77	
Cation-Anion Balance %		3.07	.52		3.73			2.15	4.19		4.46	
Acidity CaCO3 mg/l			0									
Alkalinity CaCO3 mg/l		662	690		695			638	665			
Aluminum mg/l			.10						.06		646	
Arsenic mg/l			-.001						.001			
Barium mg/l			1.29						.61			
Boron mg/l			.84						.91			
Cadmium mg/l			.006						-.005			
Chromium mg/l			-.01						-.01			
Copper mg/l			-.02						-.01			
Fluoride mg/l			1.49						1.4			
Iron, Dissolved mg/l			.06						.04			
Hardness CaCO3 mg/l			158		177			186	181		160	
Lead mg/l			-.02						-.02			
Manganese mg/l			.03						-.01			
Mercury mg/l			-.0001						-.0002			
Molybdenum mg/l			-.05						-.05			
Nickel mg/l			-.02						-.02			
Nitrogen, Ammonia mg/l			.08						-.02			
Nitrogen, Nitrate mg/l			.39						.28			
Nitrogen, Nitrite mg/l			-.02						-.02			
Phosphate mg/l			.1						-.1			
Selenium mg/l			-.001						-.001			
Sulfide mg/l			.3						-.2			
Zinc mg/l			-.01						-.01			

Note: Negative sign "-" denotes less than.

SOLDIER CREEK COAL COMPANY

Hydrologic Monitoring Program
Summarized Results for 1986

Sample Site ID UG-3N8E In-Mine Ground Water

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Sample Date	01/15/86	02/24/86	03/17/86	04/15/86	05/16/86	06/11/86	07/30/86	08/25/86	09/09/86	10/14/86	11/24/86	
Field Measurements												
Flow gpm	7.5	12.0	12.0	12.0	10.0	11.5	11.5	13.6	6.5	9.7	8.6	
pH units	7.63	8.11	8.19	8.18	8.20	8.17	8.15	8.03	8.12	8.14	8.06	
Conductivity us/cm	882	982	926	901	934	930	936	979	929	958	960	
Temperature, Water °F	48.9	51.0	51.4	53.2	53.4	56.2	55.8	56.3	56.0	53.2	51.5	
Temperature, Air °F	48.2	49.0	51.0	50.5	52.0	58.9	55.0	57.0	56.0	55.0	53.0	
Dissolved Oxygen ppm												
Laboratory Analyses												
Total Suspended Solids												
Total Dissolved Solids		592	534		534			530	542		550	
Carbonate CaCO3 mg/l		0	0		0			0	0		0	
Bicarbonate CaCO3 mg/l		430	422		430			406	410		410	
Calcium mg/l		38	43		42			41	38		36	
Chloride mg/l		13	9		12			16	16		19	
Iron, Total mg/l		.08	.08		.06			.05	.07		.04	
Magnesium mg/l		44	45		48			46	48		46	
Potassium mg/l		15	12		12			13	14		14	
Sodium mg/l		129	110		120			123	117		118	
Sulfate mg/l		97	74		82			91	93		86	
Oil & Grease mg/l			-1						-1			
Cations meq/l		11.57	10.99		11.63			11.57	11.35		11.13	
Anions meq/l		11.0	10.25		10.66			10.48	10.60		10.54	
Cation-Anion Balance %		2.53	3.48		4.35			4.94	3.42		2.72	
Acidity CaCO3 mg/l			0									
Alkalinity CaCO3 mg/l		430	422		430			406	410		410	
Aluminum mg/l			.05						-.05			
Arsenic mg/l			-.001						-.001			
Barium mg/l			.92						.67			
Boron mg/l			.34						0.33			
Cadmium mg/l			-.005						-.005			
Chromium mg/l			-.01						-.01			
Copper mg/l			-.02						-.01			
Fluoride mg/l			1.30						1.2			
Iron, Dissolved mg/l			.06						-.02			
Hardness CaCO3 mg/l			292		302			291	292		279	
Lead mg/l			-.02						-.02			
Manganese mg/l			-.01						.01			
Mercury mg/l			-.0001						-.0002			
Molybdenum mg/l			-.05						-.05			
Nickel mg/l			.03						-.02			
Nitrogen, Ammonia mg/l			.69						.71			
Nitrogen, Nitrate mg/l			-.02						-.02			
Nitrogen, Nitrite mg/l			-.02						-.02			
Phosphate mg/l			-.1						-.1			
Selenium mg/l			-.001						-.001			
Sulfide mg/l			.5						-.2			
Zinc mg/l			-.01						-.01			

Note: Negative sign "-" denotes less than.

SOLDIER CREEK COAL COMPANY

Hydrologic Monitoring Program
Summarized Results for 1986

Sample Site ID UG-3N Belt In-Mine Ground Water

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Sample Date	01/15/86	02/24/86	03/17/86	04/15/86	05/16/86	06/11/86	07/30/86	08/25/86	09/09/86	10/14/86	11/24/86	
Field Measurements												
Flow gpm	4.8	4.0	3.3	1.9	3.4	3.7	0.6	1.1	1.1	0.8	0.6	
pH units	7.76	7.97	8.01	8.07	8.15	8.06	7.80	7.53	7.76	7.78	7.64	
Conductivity us/cm	1270	1259	1209	1215	1210	1212	1186	1205	1168	1116	1154	
Temperature, Water °F	54.7	55.9	56.0	57.0	57.2	56.8	56.0	56.9	56.7	54.4	52.9	
Temperature, Air °F	50.2	49.0	51.5	56.0	50.5	58.3	54.0	56.0	56.0	51.0	49.0	
Dissolved Oxygen ppm												
Laboratory Analyses												
Total Suspended Solids												
Total Dissolved Solids		710	674		672			654	690		654	
Carbonate CaCO3 mg/l		0	0		0			0	0		0	
Bicarbonate CaCO3 mg/l		636	646		630			616	625		602	
Calcium mg/l		43	45		41			30	25		41	
Chloride mg/l		11	16		15			15	15		15	
Iron, Total mg/l		-.02	.04		.02			-.02	-.02		-.02	
Magnesium mg/l		38	38		40			39	39		36	
Potassium mg/l		17	18		14			15	16		16	
Sodium mg/l		201	205		195			187	195		183	
Sulfate mg/l		16	12		10			21	14		10	
Oil & Grease mg/l			11						-1			
Cations meq/l		14.55	14.85		14.27			13.32	13.44		13.47	
Anions meq/l		13.36	13.62		13.23			13.18	13.21		12.67	
Cation-Anion Balance %		4.26	4.32		3.78			0.53	.86		3.06	
Acidity CaCO3 mg/l			0									
Alkalinity CaCO3 mg/l		636	646		630			616	625		602	
Aluminum mg/l			.10						-.05			
Arsenic mg/l			-.001						.001			
Barium mg/l			4.27						3.93			
Boron mg/l			.47						.46			
Cadmium mg/l			.007						-.005			
Chromium mg/l			-.01						-.01			
Copper mg/l			-.02						-.01			
Fluoride mg/l			1.37						1.2			
Iron, Dissolved mg/l			-.02						-.02			
Hardness CaCO3 mg/l			268		267			235	222		250	
Lead mg/l			-.02						-.02			
Manganese mg/l			-.01						-.01			
Mercury mg/l			-.0002						-.0002			
Molybdenum mg/l			-.05						-.05			
Nickel mg/l			.03						-.02			
Nitrogen, Ammonia mg/l			1.21						1.51			
Nitrogen, Nitrate mg/l			-.02						-.02			
Nitrogen, Nitrite mg/l			-.02						-.02			
Phosphate mg/l			-.1						-.1			
Selenium mg/l			-.001						-.001			
Sulfide mg/l			6.3						4.2			
Zinc mg/l			-.01						.02			

Note: Negative sign "-" denotes less than.

SOLDIER CREEK COAL COMPANY

Hydrologic Monitoring Program
Summarized Results for 1986

Sample Site ID UG-3N In-Mine Ground Water

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Sample Date	01/15/86	02/24/86	03/17/86	04/15/86	05/16/86	06/11/86	07/30/86	08/25/86	09/09/86	10/14/86	11/24/86	
Field Measurements												
Flow gpm	0.9	1.0	1.3	0.4	1.0	0.9	0.7	0.5	0.6	0.4	0.4	
pH units	8.21	8.14	8.23	8.06	7.95	8.16	7.78	7.77	7.76	7.92	7.80	
Conductivity us/cm	759	751	766	753	765	762	759	784	770	770	759	
Temperature, Water °F	53.7	54.0	54.6	55.7	55.4	56.0	57.1	56.6	56.2	55.4	54.5	
Temperature, Air °F	50.1	49.0	50.5	51.0	53.0	58.,7	54.0	56.0	55.0	53.0	52.0	
Dissolved Oxygen ppm												
Laboratory Analyses												
Total Suspended Solids												
Total Dissolved Solids		410	394		400			410	426		412	
Carbonate CaCO3 mg/l		0	0		0			0	0		0	
Bicarbonate CaCO3 mg/l		340	370		370			338	340		336	
Calcium mg/l		36	44		48			46	47		44	
Chloride mg/l		3	-1		2			1	3		3	
Iron, Total mg/l		-.02	.06		-.02			-.02	-.02		-.02	
Magnesium mg/l		43	44		47			39	48		44	
Potassium mg/l		12	11		10			10	11		11	
Sodium mg/l		58	59		62			60	61		57	
Sulfate mg/l		68	33		35			70	82		60	
Oil & Grease mg/l									5			
Cations meq/l		8.34	8.64		9.24			8.40	9.26		8.60	
Anions meq/l		8.31	8.07		8.19			8.26	8.61		8.06	
Cation-Anion Balance %		.18	3.70		6.02			.84	3.64		3.24	
Acidity CaCO3 mg/l			0									
Alkalinity CaCO3 mg/l		340	370		370			338	340		336	
Aluminum mg/l			.21						-.05			
Arsenic mg/l			-.001						.004			
Barium mg/l			2.69						1.99			
Boron mg/l			.32						.25			
Cadmium mg/l			-.005						-.005			
Chromium mg/l			-.01						-.01			
Copper mg/l			-.02						-.01			
Fluoride mg/l			1.27						1.2			
Iron, Dissolved mg/l			.02						-.02			
Hardness CaCO3 mg/l			290		313			275	314		290	
Lead mg/l			-.02						-.02			
Manganese mg/l			-.01						.01			
Mercury mg/l			-.0001						-.0002			
Molybdenum mg/l			-.05						-.05			
Nickel mg/l			.04						-.02			
Nitrogen, Ammonia mg/l			.80						.82			
Nitrogen, Nitrate mg/l			-.02						-.02			
Nitrogen, Nitrite mg/l			-.02						-.02			
Phosphate mg/l			-.1						-.1			
Selenium mg/l			-.001						-.001			
Sulfide mg/l			12.4						18.7			
Zinc mg/l			-.01						-.01			

Note: Negative sign "-" denotes less than.

SOLDIER CREEK COAL COMPANY

Hydrologic Monitoring Program
Summarized Results for 1986

Sample Site ID UG-2N2E In-Mine Ground Water

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Sample Date	01/15/86	02/24/86	03/17/86	04/15/86	05/16/86	06/11/86	07/30/86	08/26/86	09/09/86	10/15/86	11/24/86	
Field Measurements												
Flow gpm	1.1	1.1	1.0	1.0	0.9	0.8	0.7	0.7	0.6	0.5	0.5	
pH units	7.36	7.47	7.57	7.50	7.54	7.52	7.29	7.40	7.43	7.38	7.61	
Conductivity us/cm	1111	1111	1106	1094	1090	1102	1086	1039	1038	1033	1054	
Temperature, Water °F	54.3	56.0	56.1	56.8	57.0	57.4	57.6	58.1	57.2	58.7	55.9	
Temperature, Air °F	52.0	54.0	56.0	59.0	58.0	59.3	56.0	52.0	57.0	56.0	56.0	
Dissolved Oxygen ppm												
Laboratory Analyses												
Total Suspended Solids												
Total Dissolved Solids		636	618		610			598	612		596	
Carbonate CaCO3 mg/1		0	0		0			0	0		0	
Bicarbonate CaCO3 mg/1		516	570		545			533	530		528	
Calcium mg/1		48	50		52			50	51		45	
Chloride mg/1		7	9		9			10	10		11	
Iron, Total mg/1		-.02	-.02		-.02			.45	-.02		-.02	
Magnesium mg/1		39	38		42			41	42		39	
Potassium mg/1		15	16		13			13	14		14	
Sodium mg/1		150	155		156			148	155		147	
Sulfate mg/1		60	16		37			51	54		41	
Oil & Grease mg/1			4						-1			
Cations meq/1		12.59	12.85		13.25			12.71	13.18		12.28	
Anions meq/1		11.78	11.99		11.93			12.01	12.01		11.73	
Cation-Anion Balance %		3.32	3.46		5.24			2.83	4.64		2.29	
Acidity CaCO3 mg/1			0									
Alkalinity CaCO3 mg/1		516	570		545			533	530		528	
Aluminum mg/1			.15						-.05			
Arsenic mg/1			-.001						.004			
Barium mg/1			3.97						3.22			
Boron mg/1			.46						.42			
Cadmium mg/1			-.005						-.005			
Chromium mg/1			-.01						-.01			
Copper mg/1			-.02						-.01			
Fluoride mg/1			1.35						1.2			
Iron, Dissolved mg/1			.03						-.02			
Hardness CaCO3 mg/1			281		302			293	300		272	
Lead mg/1			-.02						-.02			
Manganese mg/1			.01						.01			
Mercury mg/1			.0002						.0002			
Molybdenum mg/1			-.05						-.05			
Nickel mg/1			.02						-.02			
Nitrogen, Ammonia mg/1			1.13						1.37			
Nitrogen, Nitrate mg/1			-.02						-.02			
Nitrogen, Nitrite mg/1			-.02						-.02			
Phosphate mg/1			-.1						-.1			
Selenium mg/1			-.001						-.001			
Sulfide mg/1			17.2						5.6			
Zinc mg/1			.01						.07			

Note: Negative sign "-" denotes less than.

SOLDIER CREEK COAL COMPANY

Hydrologic Monitoring Program
Summarized Results for 1986

Sample Site ID UG-2N Area In-Mine Ground Water

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Sample Date	01/15/86	02/24/86	03/17/86	04/15/86	05/16/86	06/11/86	07/30/86	08/26/86	09/09/86	10/15/86	11/24/86	
Field Measurements												
Flow gpm	362	376	308	157	157	157	30.0	33.3	33.3	33.3	37.5	
pH units	7.66	7.71	7.97	7.97	7.99	8.00	7.27	7.45	7.34	6.98	7.26	
Conductivity us/cm	1444	1396	1459	1443	1439	1473	1523	1432	1441	1454	1518	
Temperature, Water °F	57.8	55.7	59.1	59.8	58.9	61.0	61.0	63.0	61.2	61.7	61.3	
Temperature, Air °F	54.0	52.0	58.0	59.0	57.0	59.0	58.0	58.0	57.0	56.0	56.0	
Dissolved Oxygen ppm												
Laboratory Analyses												
Total Suspended Solids												
Total Dissolved Solids		858	830		838			852	862		840	
Carbonate CaCO3 mg/l		0	0		0			0	0		0	
Bicarbonate CaCO3 mg/l		544	640		625			602	610		624	
Calcium mg/l		21	40		46			63	63		74	
Chloride mg/l		43	34		32			33	31		33	
Iron, Total mg/l		.07	.45		.26			1.19	1.67		1.86	
Magnesium mg/l		38	32		40			50	53		50	
Potassium mg/l		22	20		18			21	23		22	
Sodium mg/l		248	238		236			215	211		206	
Sulfate mg/l		156	93		117			156	150		128	
Oil & Grease mg/l			1						-1			
Cations meq/l		15.65	15.62		16.43			17.30	17.38		17.44	
Anions meq/l		15.36	15.70		15.85			16.34	16.22		16.09	
Cation-Anion Balance %		.94	-.26		1.80			3.16	3.45		4.03	
Acidity CaCO3 mg/l			0									
Alkalinity CaCO3 mg/l		544	640		625			602	610		624	
Aluminum mg/l			.18						-.05			
Arsenic mg/l			-.001						.001			
Barium mg/l			.34						.12			
Boron mg/l			.50						.43			
Cadmium mg/l			.008						-.005			
Chromium mg/l			-.01						-.01			
Copper mg/l			-.02						-.01			
Fluoride mg/l			1.84						2			
Iron, Dissolved mg/l			.39						.46			
Hardness CaCO3 mg/l			231		279			363	375		390	
Lead mg/l			-.02						-.02			
Manganese mg/l			.02						.08			
Mercury mg/l			-.0001						-.0002			
Molybdenum mg/l			-.05						-.05			
Nickel mg/l			.02						-.02			
Nitrogen, Ammonia mg/l			.78						1.29			
Nitrogen, Nitrate mg/l			-.02						-.02			
Nitrogen, Nitrite mg/l			-.02						-.02			
Phosphate mg/l			-.1						-.1			
Selenium mg/l			-.001						-.001			
Sulfide mg/l			.2						.2			
Zinc mg/l			-.01						.04			

Note: Negative sign "-" denotes less than.

Note: Flows reported from January thru June are only estimates based on flow meter readings of water pumped from the total area. In July the pumping system was revised and total dewatering of the flooded 2N Area began. Therefore, the actual point of sampling was changed to monitor the single largest, accessible, inflow to the area.

SOLDIER CREEK COAL COMPANY

Hydrologic Monitoring Program
Summarized Results for 1986

Sample Site ID UG-Shaft In-Mine Ground Water

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Sample Date	01/15/86	02/24/86	03/17/86	04/21/86	05/16/86	06/11/86	07/30/86	08/25/86	09/09/86	10/14/86	11/24/86	
Field Measurements												
Flow gpm	4.5	4.8	6.7	6.0	7.5	5.6	4.0	5.7	4.8	4.2	4.2	
pH units	6.98	7.15	7.31	7.26	7.30	7.35	7.08	7.62	7.19	7.00	7.13	
Conductivity us/cm	1236	1256	1263	1279	1402	1261	1304	1412	1405	1312	1302	
Temperature, Water °F	45.3	46.0	47.2	48.1	47.2	48.2	49.1	49.5	49.0	47.1	47.1	
Temperature, Air °F	48.2	44.0	44.0	51.0	46.5	57.2	50.0	53.0	52.0	48.0	44.0	
Dissolved Oxygen ppm												
Laboratory Analyses												
Total Suspended Solids												
Total Dissolved Solids		806	822		948			880	890		848	
Carbonate CaCO3 mg/l		0	0		0			0	0		0	
Bicarbonate CaCO3 mg/l		434	466		480			432	435		424	
Calcium mg/l		112	105		116			119	113		118	
Chloride mg/l		13	15		40			40	30		24	
Iron, Total mg/l		.08	.11		.03			-.02	-.02		-.02	
Magnesium mg/l		76	76		101			91	92		84	
Potassium mg/l		12	11		11			11	11		12	
Sodium mg/l		74	74		85			93	84		85	
Sulfate mg/l		270	261		329			321	317		296	
Oil & Grease mg/l			3						2			
Cations meq/l		15.40	15.02		18.11			17.79	17.18		16.84	
Anions meq/l		14.71	15.22		17.63			16.50	16.20		15.37	
Cation-Anion Balance %		2.29	-.66		1.34			3.76	2.94		4.56	
Acidity CaCO3 mg/l			0									
Alkalinity CaCO3 mg/l		434	466		480			432	435		424	
Aluminum mg/l			.03						-.05			
Arsenic mg/l			-.001						.002			
Barium mg/l			.06						.05			
Boron mg/l			.15						.13			
Cadmium mg/l			-.005						-.005			
Chromium mg/l			.01						-.01			
Copper mg/l			-.02						-.01			
Fluoride mg/l			.73						.6			
Iron, Dissolved mg/l			.03						-.02			
Hardness CaCO3 mg/l			574		704			671	660		639	
Lead mg/l			-.02						-.02			
Manganese mg/l			.03						.03			
Mercury mg/l			-.0001						.0004			
Molybdenum mg/l			-.05						-.05			
Nickel mg/l			-.02						-.02			
Nitrogen, Ammonia mg/l			.56						.72			
Nitrogen, Nitrate mg/l			-.02						-.02			
Nitrogen, Nitrite mg/l			-.02						-.02			
Phosphate mg/l			-.1						-.1			
Selenium mg/l			-.001						-.001			
Sulfide mg/l			7.3						2.3			
Zinc mg/l			-.01						.01			

Note: Negative sign "-" denotes less than.

SOLDIER CREEK COAL COMPANY

Hydrologic Monitoring Program
Summarized Results for 1986

Sample Site ID 18-2 Soldier Creek Surface Water

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Sample Date		02/24/86		04/18/86	05/16/86	06/11/86	07/31/86	08/27/86		10/14/86		12/17/86
Field Measurements												
Flow gpm		1609		9757	6523	3180	455	184		1870		
pH units		8.68		9.25	8.99	8.93	8.95	8.90		8.90		8.95
Conductivity us/cm		722		607	743	775	740	801		1128		1126
Temperature, Water °F		41.2		45.2	48.3	66.9	66.0	68.7		49.0		43.0
Temperature, Air °F		59.0		53.0	44.0	72.0	74.0	79.0		55.0		51.0
Dissolved Oxygen ppm		5.7		10.2	7.5	6.6	6.5	7.2		9.0		8.5
Laboratory Analyses												
Total Suspended Solids		1178			34	32	60	36		50		16
Total Dissolved Solids		458		328	402	402	416	462		700		688
Carbonate CaCO3 mg/l		0		0	0	0	0	12		0		16
Bicarbonate CaCO3 mg/l		282		270	295	285	298	296		425		430
Calcium mg/l		52		54	49	38	27	37		46		34
Chloride mg/l		39		9	9		17	22		25		24
Iron, Total mg/l		23.1		6.05	.27	.33	.70	.85		.86		.38
Magnesium mg/l		41		34	46	47	49	48		59		51
Potassium mg/l		2		2	3	2	2	3		9		10
Sodium mg/l		78		34	51	58	71	82		128		151
Sulfate mg/l		99		54	76	74	86	95		173		126
Oil & Grease mg/l		1		-1	-1	-1	-1	-1		-1		-1
Cations meq/l		9.45		7.04	8.54	8.36	8.54	9.47		13.00		12.79
Anions meq/l		8.81		6.79	7.75		8.24	8.77		12.83		12.24
Cation-Anion Balance %		3.50		1.81	4.85		1.79	3.84		.66		2.20
Acidity CaCO3 mg/l				0	0	0	0					
Alkalinity CaCO3 mg/l		282		270	295	285	298	308		425		446
Aluminum mg/l				5.90				1.12				
Arsenic mg/l				.004				-.001				
Barium mg/l				.22				.18				
Boron mg/l				.02				.10				
Cadmium mg/l				-.005				-.005				
Chromium mg/l				-.01				.01				
Copper mg/l				-.01		0.36		-.01				
Fluoride mg/l				.37				.4				
Iron, Dissolved mg/l				.09				-.02				
Hardness CaCO3 mg/l				274	311	288	268	289		357		294
Lead mg/l				-.02				-.02				
Manganese mg/l				.15	.03	.02	.03	.07				
Mercury mg/l				-.0002				-.0002				
Molybdenum mg/l				-.05				-.05				
Nickel mg/l				-.02				.02				
Nitrogen, Ammonia mg/l				.04				.07				
Nitrogen, Nitrate mg/l				.02				-.02				
Nitrogen, Nitrite mg/l				.01				-.02				
Phosphate mg/l				.1				-.1				
Selenium mg/l				.001				-.001				
Sulfide mg/l				.2				-.2				
Zinc mg/l				.02				.01				

Note: Negative sign "-" denotes less than.

SOLDIER CREEK COAL COMPANY

Hydrologic Monitoring Program
Summarized Results for 1986

Sample Site ID E-22 Soldier Creek Surface Water

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Sample Date		02/25/86		04/18/86	05/16/86	06/11/86	07/31/86	08/27/86		10/14/86		12/17/86
Field Measurements												
Flow gpm		1515		9568	6649	3298	495	678		3299		
pH units		8.87		9.00	9.06	8.91	8.93	8.97		9.84		8.92
Conductivity us/cm		559		590	632	676	694	788		803		800
Temperature, Water °F		40.0		45.0	50.2	65.7	70.2	65.9		49.5		40.0
Temperature, Air °F		60.0		55.0	54.0	70.0	78.0	78.0		54.0		50.0
Dissolved Oxygen ppm		6.9		10.5	7.2	6.4	7.2	6.8		5.5		6.2
Laboratory Analyses												
Total Suspended Solids		3885			54	26	56	42		242		26
Total Dissolved Solids		385		320	342	366	414	426		522		564
Carbonate CaCO3 mg/l		0		0	10	0	0	0		0		12
Bicarbonate CaCO3 mg/l		263		276	265	290	308	322		385		390
Calcium mg/l		32		61	50	39	34	33		45		50
Chloride mg/l		16		7	5		12	14		20		16
Iron, Total mg/l		53		15	.63	.32	.58	.70		5.30		.57
Magnesium mg/l		28.0		31	40	43	48	47		50		53
Potassium mg/l		1		2	1	1	1	2		2		2
Sodium mg/l		71		35	36	49	72	81		90		100
Sulfate mg/l		49		43			70	74		95		95
Oil & Grease mg/l		-1		-1	-1	-1	-1	1		1		-1
Cations meq/l		7.05		7.18	7.39	7.66	8.83	9.12		10.36		11.30
Anions meq/l		6.74		6.62	6.67		7.97	8.39		10.25		10.48
Cation-Anion Balance %		2.25		4.06	5.12		5.12	4.17		.53		3.76
Acidity CaCO3 mg/l				0		0						
Alkalinity CaCO3 mg/l		263		276	275	290	308	322		385		402
Aluminum mg/l				14.2				1				
Arsenic mg/l				.004				-.001				
Barium mg/l				.34				.21				
Boron mg/l				.02				.09				
Cadmium mg/l				-.005				.006				
Chromium mg/l				-.01				.01				
Copper mg/l				.01				-.01				
Fluoride mg/l				.31				.4				
Iron, Dissolved mg/l				-.02				-.02				
Hardness CaCO3 mg/l				280	289	274		275		318		342
Lead mg/l				-.02				-.02				
Manganese mg/l				.33		.02		.05				
Mercury mg/l				-.0002				-.0002				
Molybdenum mg/l				-.05				-.05				
Nickel mg/l				-.02				.02				
Nitrogen, Ammonia mg/l				.06				.36				
Nitrogen, Nitrate mg/l				.02				-.02				
Nitrogen, Nitrite mg/l				.01				-.02				
Phosphate mg/l				.1				-.1				
Selenium mg/l				.001				-.001				
Sulfide mg/l				.3	49			2				
Zinc mg/l				.05				.02				

Note: Negative sign "-" denotes less than.

SOLDIER CREEK COAL COMPANY

Hydrologic Monitoring Program
Summarized Results for 1986

Sample Site ID G-88 Spring Ground Water

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Sample Date						06/12/86	07/29/86	08/26/86			11/24/86	
Field Measurements												
Flow gpm						13.0	10.0	4.7			4.8	
pH units						8.89	8.77	8.75			8.72	
Conductivity us/cm						590	529	569			579	
Temperature, Water °F						56.9	70.7	59.3			41.1	
Temperature, Air °F						68.0	78.0	67.0			40.0	
Dissolved Oxygen ppm												
Laboratory Analyses												
Total Suspended Solids								4				
Total Dissolved Solids						298		298			274	
Carbonate CaCO3 mg/l						0		0			0	
Bicarbonate CaCO3 mg/l						285		276			280	
Calcium mg/l						36		38			35	
Chloride mg/l						2		-1			3	
Iron, Total mg/l						.20		.61			.03	
Magnesium mg/l						39		38			37	
Potassium mg/l						1		1			1	
Sodium mg/l						36		36			38	
Sulfate mg/l						39		23			23	
Oil & Grease mg/l						-1		-1				
Cations meq/l						6.61		6.63			6.48	
Anions meq/l						6.57		5.98			6.17	
Cation-Anion Balance %						.3		5.15			2.45	
Acidity CaCO3 mg/l						0						
Alkalinity CaCO3 mg/l						285		276			280	
Aluminum mg/l						.24					-.05	
Arsenic mg/l						-.001					-.001	
Barium mg/l						.07					.1	
Boron mg/l						.02					.03	
Cadmium mg/l						-.005					.005	
Chromium mg/l						-.01					-.01	
Copper mg/l						-.01					-.01	
Fluoride mg/l						.4					.4	
Iron, Dissolved mg/l						.12					-.02	
Hardness CaCO3 mg/l						250		251			239	
Lead mg/l						-.02					-.02	
Manganese mg/l						.01					-.01	
Mercury mg/l						-.0002					-.0002	
Molybdenum mg/l						-.05					-.05	
Nickel mg/l						-.02					-.01	
Nitrogen, Ammonia mg/l						-.02					-.02	
Nitrogen, Nitrate mg/l						-.02					.02	
Nitrogen, Nitrite mg/l						-.02					-.02	
Phosphate mg/l						-.1						
Selenium mg/l						.005					.003	
Sulfide mg/l						-.2					-.2	
Zinc mg/l						-.01					-.01	

Note: Negative sign "-" denotes less than.

SOLDIER CREEK COAL COMPANY

Hydrologic Monitoring Program
Summarized Results for 1986

Sample Site ID G-90 Spring Ground Water

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Sample Date						06/12/86	07/29/86	08/26/86				
Field Measurements												
Flow gpm						21.2	7.5	3.8				
pH units						8.47	8.70	8.46				
Conductivity us/cm						628	661	573				
Temperature, Water °F						52.2	55.0	62.5				
Temperature, Air °F						66.0	71.0	68.0				
Dissolved Oxygen ppm												
Laboratory Analyses												
Total Suspended Solids								94				
Total Dissolved Solids						326		334				
Carbonate CaCO3 mg/l						0		0				
Bicarbonate CaCO3 mg/l						315		306				
Calcium mg/l						66		63				
Chloride mg/l						1		-1				
Iron, Total mg/l						.43		1.61				
Magnesium mg/l						37		41				
Potassium mg/l						1		2				
Sodium mg/l						13		15				
Sulfate mg/l						35		33				
Oil & Grease mg/l						-1		1				
Cations meq/l						6.93		7.22				
Anions meq/l						7.06		6.78				
Cation-Anion Balance %						-.93		3.14				
Acidity CaCO3 mg/l						0						
Alkalinity CaCO3 mg/l						315		306				
Aluminum mg/l						.40						
Arsenic mg/l						-.001						
Barium mg/l						.08						
Boron mg/l						-.02						
Cadmium mg/l						-.005						
Chromium mg/l						-.01						
Copper mg/l						-.01						
Fluoride mg/l						.3						
Iron, Dissolved mg/l						.23						
Hardness CaCO3 mg/l						317		326				
Lead mg/l						-.02						
Manganese mg/l						.02						
Mercury mg/l						-.0002						
Molybdenum mg/l						-.05						
Nickel mg/l						-.02						
Nitrogen, Ammonia mg/l						.03						
Nitrogen, Nitrate mg/l						-.02						
Nitrogen, Nitrite mg/l						-.02						
Phosphate mg/l						-.1						
Selenium mg/l						.001						
Sulfide mg/l						-.2						
Zinc mg/l						-.01						

Note: Negative sign "-" denotes less than.

SOLDIER CREEK COAL COMPANY

Hydrologic Monitoring Program
Summarized Results for 1986

Sample Site ID S31-1 Spring Ground Water

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Sample Date						06/12/86	07/30/86	08/26/86				
Field Measurements												
Flow gpm						89.6	30.0	25.0				
pH units						8.62	8.60	8.63				
Conductivity us/cm						599	555	497				
Temperature, Water °F						61.3	52.8	56.0				
Temperature, Air °F						76.0	46.0	55.0				
Dissolved Oxygen ppm												
Laboratory Analyses												
Total Suspended Solids								6				
Total Dissolved Solids						316		278				
Carbonate CaCO3 mg/l						0		0				
Bicarbonate CaCO3 mg/l						270		218				
Calcium mg/l						60		44				
Chloride mg/l						5		4				
Iron, Total mg/l						.34		.23				
Magnesium mg/l						36		36				
Potassium mg/l						1		1				
Sodium mg/l						18		18				
Sulfate mg/l						56		49				
Oil & Grease mg/l						-1		1				
Cations meq/l						6.77		5.97				
Anions meq/l						6.72		5.50				
Cation-Anion Balance %						.37		4.10				
Acidity CaCO3 mg/l						0						
Alkalinity CaCO3 mg/l						270		218				
Aluminum mg/l						.44						
Arsenic mg/l						.011						
Barium mg/l						.17						
Boron mg/l						-.02						
Cadmium mg/l						-.005						
Chromium mg/l						-.01						
Copper mg/l						-.01						
Fluoride mg/l						.3						
Iron, Dissolved mg/l						.12						
Hardness CaCO3 mg/l						298		258				
Lead mg/l						-.02						
Manganese mg/l						.02						
Mercury mg/l						-.0002						
Molybdenum mg/l						-.05						
Nickel mg/l						-.02						
Nitrogen, Ammonia mg/l						.05						
Nitrogen, Nitrate mg/l						-.02						
Nitrogen, Nitrite mg/l						-.02						
Phosphate mg/l						-.1						
Selenium mg/l						.002						
Sulfide mg/l						-.2						
Zinc mg/l						.01						

Note: Negative sign "-" denotes less than.

SOLDIER CREEK COAL COMPANY

Hydrologic Monitoring Program
Summarized Results for 1986

Sample Site ID G-89 Spring Ground Water

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Sample Date						06/12/86	07/29/86					
Field Measurements												
Flow gpm						4.0	1.8					
pH units						7.87	7.82					
Conductivity us/cm						1,032	1,072					
Temperature, Water °F						54.0	51.2					
Temperature, Air °F						76.0	75.0					
Dissolved Oxygen ppm												
Laboratory Analyses												
Total Suspended Solids												
Total Dissolved Solids						568						
Carbonate CaCO3 mg/l						0						
Bicarbonate CaCO3 mg/l						520						
Calcium mg/l						19						
Chloride mg/l						28						
Iron, Total mg/l						.12						
Magnesium mg/l						31						
Potassium mg/l						3						
Sodium mg/l						187						
Sulfate mg/l						52						
Oil & Grease mg/l						-1						
Cations meq/l						11.80						
Anions meq/l						12.28						
Cation-Anion Balance %						-1.99						
Acidity CaCO3 mg/l						0						
Alkalinity CaCO3 mg/l						520						
Aluminum mg/l						.06						
Arsenic mg/l						-.001						
Barium mg/l						.36						
Boron mg/l						.08						
Cadmium mg/l						-.005						
Chromium mg/l						-.01						
Copper mg/l						-.01						
Fluoride mg/l						.2						
Iron, Dissolved mg/l						.10						
Hardness CaCO3 mg/l						175						
Lead mg/l						-.02						
Manganese mg/l						.02						
Mercury mg/l						.0004						
Molybdenum mg/l						-.05						
Nickel mg/l						-.02						
Nitrogen, Ammonia mg/l						.28						
Nitrogen, Nitrate mg/l						.05						
Nitrogen, Nitrite mg/l						-.02						
Phosphate mg/l						-.1						
Selenium mg/l						-.001						
Sulfide mg/l						27.9						
Zinc mg/l						-.01						

Note: Negative sign "-" denotes less than.

SOLDIER CREEK COAL COMPANY

Hydrologic Monitoring Program
Summarized Results for 1986

Sample Site ID 18-1 (003) Mine Water Discharge

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Sample Date					05/16/86	06/11/86	07/31/86	08/28/86	09/09/86	10/14/86	11/24/86	12/17/86
Field Measurements												
Flow gpm												
pH units					8.17	8.03	7.88	7.85	7.81	8.37	8.17	9.20
Conductivity us/cm					1920	1481	1332	1830	1870	1690	1395	1340
Temperature, Water °F					49.0	62.0	59.5	63.2	63.2	54.4	54.4	60.0
Temperature, Air °F					48.6	59.2		72.0	55.0	55.0	34.0	51.0
Dissolved Oxygen ppm												
Laboratory Analyses												
Total Suspended Solids					-2	4	12	2	2	8	2	-2
Total Dissolved Solids					1186	832	908	1174	1216	1040	822	780
Carbonate CaCO3 mg/l					0	0	0	0	0	0	0	24
Bicarbonate CaCO3 mg/l					400	635	426	584	685	620	612	554
Calcium mg/l												
Chloride mg/l												
Iron, Total mg/l					.73	.14	.13	.36	.41	.76	.12	.37
Magnesium mg/l												
Potassium mg/l												
Sodium mg/l												
Sulfate mg/l												
Oil & Grease mg/l					-1	-1	-1	1	-1	-1	-1	-1
Cations meq/l												
Anions meq/l												
Cation-Anion Balance %												
Acidity CaCO3 mg/l					0	0	0	0	0	0	0	0
Alkalinity CaCO3 mg/l					400	635	426	584	685	620	612	578
Aluminum mg/l												
Arsenic mg/l												
Barium mg/l												
Boron mg/l												
Cadmium mg/l												
Chromium mg/l												
Copper mg/l												
Fluoride mg/l												
Iron, Dissolved mg/l												
Hardness CaCO3 mg/l												
Lead mg/l												
Manganese mg/l					.02	.02	.01	.05	.04	.03	.01	.01
Mercury mg/l												
Molybdenum mg/l												
Nickel mg/l												
Nitrogen, Ammonia mg/l												
Nitrogen, Nitrate mg/l												
Nitrogen, Nitrite mg/l												
Phosphate mg/l												
Selenium mg/l												
Sulfide mg/l												
Zinc mg/l												

Note: Negative sign "-" denotes less than.

SOLDIER CREEK COAL COMPANY

Hydrologic Monitoring Program
Summarized Results for 1986

Sample Site ID 18-1 (001) Mine Water Discharge

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Sample Date	01/15/86	02/24/86	03/17/86	04/15/86	05/16/86							
Field Measurements												
Flow gpm	407	413	366	396	349							
pH units	7.60	7.68	7.97	8.03	8.06							
Conductivity us/cm	1438	1406	1461	1438	2110							
Temperature, Water °F	57.8	55.6	59.1	59.9	57.2							
Temperature, Air °F	54.0	52.0	58.0	59.0	50.0							
Dissolved Oxygen ppm												
Laboratory Analyses												
Total Suspended Solids	2	12	10	-2	-2							
Total Dissolved Solids	802	860	912	832	1366							
Carbonate CaCO3 mg/l	0	0	0	0	0							
Bicarbonate CaCO3 mg/l	642	538	640	638	625							
Calcium mg/l												
Chloride mg/l												
Iron, Total mg/l	.46	.05	.43	.28	.35							
Magnesium mg/l												
Potassium mg/l												
Sodium mg/l												
Sulfate mg/l		156										
Oil & Grease mg/l	1	1	18	-1	-1							
Cations meq/l												
Anions meq/l												
Cation-Anion Balance %												
Acidity CaCO3 mg/l	0	0	0	0	0							
Alkalinity CaCO3 mg/l	642	538	640	638	625							
Aluminum mg/l												
Arsenic mg/l												
Barium mg/l												
Boron mg/l												
Cadmium mg/l												
Chromium mg/l												
Copper mg/l												
Fluoride mg/l												
Iron, Dissolved mg/l												
Hardness CaCO3 mg/l												
Lead mg/l												
Manganese mg/l	.02	-.01	.02	.02	.07							
Mercury mg/l												
Molybdenum mg/l												
Nickel mg/l												
Nitrogen, Ammonia mg/l												
Nitrogen, Nitrate mg/l												
Nitrogen, Nitrite mg/l												
Phosphate mg/l												
Selenium mg/l												
Sulfide mg/l												
Zinc mg/l												

Note: Negative sign "-" denotes less than.

FACILITY NAME/ADDRESS (Include Name/Location if different)

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

Discharge Culvert
Carbon County, Utah

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

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

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
UT-0023680	001

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	01	01	TO	86	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) (46-53) QUANTITY OR LOADING (54-61) AVERAGE	MAXIMUM	UNITS	(4 Card Only) (38-45) QUALITY OR CONCENTRATION (46-53) MINIMUM	AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Flow	SAMPLE MEASUREMENT	0.1465	0.2042	MGD	*	*	*	MGD		1/30	Meter
	PERMIT REQUIREMENT	*	*		*	*	*			1/30	Meter
Solids; Total Suspended	SAMPLE MEASUREMENT	*	*	KG/DA	2	8	12	MG/L		1/30	GR
	PERMIT REQUIREMENT	*	*		*	25	70			1/30	GR
Solids; Total Dissolved	SAMPLE MEASUREMENT	*	*	KG/DA	802	858	912	MG/L		1/30	GR
	PERMIT REQUIREMENT	*	*		*	*	1,500			1/30	GR
Iron; Total (as Fe)	SAMPLE MEASUREMENT	*	*	KG/DA	0.05	0.31	0.46	MG/L		1/30	GR
	PERMIT REQUIREMENT	*	*		*	*	2.0			1/30	GR
pH	SAMPLE MEASUREMENT	*	*	SU	7.60	*	8.04	SU		1/30	GR
	PERMIT REQUIREMENT	*	*		6.5	*	9.0			1/30	GR
Oil & Grease	SAMPLE MEASUREMENT	*	*	KG/DA	1	1	1	MG/L		1/30	GR
	PERMIT REQUIREMENT	*	*		*	*	10			1/30	GR
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Christopher P. Allen/
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 $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE AREA CODE	NUMBER	DATE YEAR	MO	DAY
801	637-6360	86	05	21

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

18

TEE NAME ADDRESS (Include Name/Location if different)

Soldier Creek Coal Company

ESS P.O. Box I

Price, UT 84501

ITY Sedimentation Pond

TION Carbon County, Utah

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Approval expires 9-30-86

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
UT-0023680	002

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	01	01	TO	86	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT		NO DISCHARGE								
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

ME/TITLE PRINCIPAL EXECUTIVE OFFICER

ristopher P. Allen/
Mine Engineer

TYPED OR PRINTED

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE AREA CODE	NUMBER	DATE YEAR	MO	DAY
801	637-6360	86	05	21

MENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

19

NAME/ADDRESS (Name/Location if different)

Soldier Creek Coal Company

P.O. Box I

Price, UT 84501

Discharge Pipe

Carbon County, Utah

DISCHARGE MONITORING REPORT (DMR)

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

(2-16) PERMIT NUMBER: UT-0023680

(17-19) DISCHARGE NUMBER: 003

MONITORING PERIOD

FROM YEAR	FROM MO	FROM DAY	TO YEAR	TO MO	TO DAY
86	01	01	86	03	31
(20-21)	(22-23)	(24-25)	(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) (46-53) QUANTITY OR LOADING (54-61) AVERAGE	MAXIMUM	UNITS	(4 Card Only) (38-45) QUALITY OR CONCENTRATION (46-53) MINIMUM	AVERAGE	MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT		NO DISCHARGE								
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Christopher P. Allen/
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 $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 801, NUMBER 637-6360

DATE: YEAR 86, MO 05, DAY 21

ATTACHMENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

ITTEE NAME/ADDRESS (Include Name/Location if different)

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

ITY Banning Siding Loadout
TION Carbon County, Utah

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

Form Approved
OMB No. 2040-0004
Approval expires 9-30-86

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
UT-0023817	001

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	01	01	TO	86	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-64)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT		NO	DISCHARGE							
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

21

ME/TITLE PRINCIPAL EXECUTIVE OFFICER

ristopher P. Allen/
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 $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY
801	637-6360	85	05	21

MENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

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

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

ITTEE NAME/ADDRESS (Include Name/Location if different)
. Soldier Creek Coal Company
ESS P.O. Box I
Price, UT 84501

ITY Discharge Culvert
TION Carbon County, Utah

(2-16) PERMIT NUMBER: UT-0023680

(17-19) DISCHARGE NUMBER: 001

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	04	01	TO	86	06	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Flow	SAMPLE MEASUREMENT	0.1251	0.1901	MGD	*	*	*	MGD		1/30	Meter
	PERMIT REQUIREMENT	*	*		*	*	*			1/30	Meter
Solids; Total Suspended	SAMPLE MEASUREMENT				2	2	2	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	25	70			1/30	GR
Solids; Total Dissolved	SAMPLE MEASUREMENT				832	1,099	1,366	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	*	1,500			1/30	GR
pH	SAMPLE MEASUREMENT				8.02	*	8.12	Su		1/30	GR
	PERMIT REQUIREMENT				6.5	*	9.0			1/30	GR
Oil & Grease	SAMPLE MEASUREMENT				1	1	1	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	*	10			1/30	GR
Iron; Total	SAMPLE MEASUREMENT				0.28	0.32	0.35	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	*	2.0			1/30	GR
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

22

ME/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 $10,000 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	86	07	28
AREA CODE	NUMBER	YEAR	MO	DAY

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

PAGE OF

ITTEE NAME/ADDRESS (Include Name/Location if different)

Soldier Creek Coal Company

ESS P.O. Box I

Price, UT 84501

ILITY Sedimentation Pond

ATION Carbon County, Utah

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

Form Approved
OMB No 2040-0004
Approval expires 9-30-86

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
UT-0023680	002

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	04	01	TO	86	06	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
1	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT		NO	DIS	CHARGE						
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

23

ME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
David G. Spillman Mine Engineer	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 $10,000 and or maximum imprisonment of between 6 months and 5 years.)*	David G. Spillman	801	637-6360	86	07	28
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

MENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

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

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

ITTEE NAME/ADDRESS (Include Name/Location if different)
Soldier Creek Coal Company
ESS P.O. Box I
Price, UT 84501

ITY Discharge Pipe
TION Carbon County, Utah

(2-16) PERMIT NUMBER: UT-0023680

(17-19) DISCHARGE NUMBER: 003

MONITORING PERIOD

FROM YEAR (20-21)	MO (22-23)	DAY (24-25)	TO YEAR (26-27)	MO (28-29)	DAY (30-31)
86	04	01	86	06	30

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
low	SAMPLE MEASUREMENT	0.0625	0.2400	MGD	*	*	*	MGD		1/30	Meter
	PERMIT REQUIREMENT	*	*		*	*	*			1/30	Meter
olids; otal Suspended	SAMPLE MEASUREMENT				2.0	3.0	4.0	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	25	70			1/30	GR
olids; otal Dissolved	SAMPLE MEASUREMENT				832	1,009	1,186	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	*	1,500			1/30	GR
H	SAMPLE MEASUREMENT				8.03	*	8.17	SU		1/30	GR
	PERMIT REQUIREMENT				6.5	*	9.0			1/30	GR
il & Grease	SAMPLE MEASUREMENT				1	1	1	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	*	10			1/30	GR
ron; otal	SAMPLE MEASUREMENT				0.14	0.44	0.73	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	*	2.0			1/30	GR
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

ME/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 $10,000 and or maximum imprisonment of between 6 months and 5 years.)*

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

TELEPHONE: AREA CODE 801, NUMBER 637-6360

DATE: YEAR 86, MO 07, DAY 28

MENT AND EXPLANATION OF ANY VIOLATIONS (*Reference all attachments here*)

24

Form Approved
OMB No. 2040-0004
Approval expires 9-30-86

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

TEE NAME/ADDRESS (Include Name/Location if different)
Soldier Creek Coal Company
SS P.O. Box I
Price, UT 84501
ITY Banning Siding Loadout
TION Carbon County, Utah

(2-16) PERMIT NUMBER: UT-0023817

(17-19) DISCHARGE NUMBER: 001

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	04	01	TO	86	06	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT		NO	DISCHARGE							
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

ME/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 $10,000 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	86	07	28
AREA CODE	NUMBER	YEAR	MO	DAY

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

25

PAGE OF

ITTEE NAME/ADDRESS (Include
(ii) Name/Location if different)

E Soldier Creek Coal Company
RESS P.O. Box I
Price, UT 84501

ILITY Discharge Culvert
ATION Carbon County, Utah

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

Form Approved
OMB No. 2040-0004
Approval expires 9-30-8

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
UT-0023680	001

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	07	01	TO	86	09	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) (46-53) QUANTITY OR LOADING (54-61) AVERAGE	MAXIMUM	UNITS	(4 Card Only) (38-45) QUALITY OR CONCENTRATION (46-53) MINIMUM	AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT		NO DISCHARGE								
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
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	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

ME/TITLE PRINCIPAL EXECUTIVE OFFICER

David G. Spillman
Mine Engineer

TYPED OR PRINTED

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

TELEPHONE AREA CODE	NUMBER	DATE YEAR	MO	DAY
801	637-6360	86	10	10

MENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

26

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

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

FACILITY NAME/ADDRESS (Include Name/Location if different)
Soldier Creek Coal Company
P.O. Box I
Price, UT 84501

COUNTY Sedimentation Pond
LOCATION Carbon County, Utah

(2-16) PERMIT NUMBER: UT-0023680

(17-19) DISCHARGE NUMBER: 002

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	07	01	TO	86	09	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT		NO	DISCHARGE							
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
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	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
David G. Spillman
Mine Engineer
TYPED OR PRINTED

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

TELEPHONE		DATE		
801	637-6360	86	10	10
AREA CODE	NUMBER	YEAR	MO	DAY

MENT AND EXPLANA N OF ANY VIOLATIONS *(Reference all attachments here)*

27

Form Approved
OMB No. 2040-0004
Approval expires 9-30-86

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

ITEE NAME/ADDRESS (Include Name/Location if different)
. Soldier Creek Coal Company
ss P.O. Box I
Price, UT 84501

ITY Discharge Pipe
ION Carbon County, Utah

(2-16) PERMIT NUMBER: UT-0023680

(17-19) DISCHARGE NUMBER: 003

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	07	01	TO	86	09	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read Instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Flow	SAMPLE MEASUREMENT	0.404	0.548	MGD	*	*	*	MGD		1/30	Meter
	PERMIT REQUIREMENT	*	*		*	*	*			1/30	Meter
Solids; Total Suspended	SAMPLE MEASUREMENT				2.0	5.3	12.0	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	25	70			1/30	GR
Solids; Total Dissolved	SAMPLE MEASUREMENT				908	1,099	1,216	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	*	1,500			1/30	GR
pH	SAMPLE MEASUREMENT				7.81	*	7.88	SU		1/30	GR
	PERMIT REQUIREMENT				6.5	*	9.0			1/30	GR
Oil & Grease	SAMPLE MEASUREMENT				1	1	1	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	*	10			1/30	GR
Iron; Total	SAMPLE MEASUREMENT				0.13	0.30	0.41	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	*	2.0			1/30	GR
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

28

ME/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 $10,000 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	86	10	10
AREA CODE	NUMBER	YEAR	MO	DAY

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

PAGE OF

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

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

MITTEE NAME/ADDRESS (Include City, State, Zip Code, Facility Name/Location if different)
Soldier Creek Coal Company
P.O. Box I
Price, UT 84501

ILITY Discharge Pipe
ATION Carbon County, Utah

(2-16) PERMIT NUMBER: UT-0023680

(17-19) DISCHARGE NUMBER: 003

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	07	01	TO	86	09	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Flow	SAMPLE MEASUREMENT	0.404	0.548	MGD	*	*	*	MGD		1/30	Meter
	PERMIT REQUIREMENT	*	*		*	*	*			1/30	Meter
Solids; Total Suspended	SAMPLE MEASUREMENT				2.0	5.3	12.0	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	25	70			1/30	GR
Solids; Total Dissolved	SAMPLE MEASUREMENT				908	1,099	1,216	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	*	1,500			1/30	GR
pH	SAMPLE MEASUREMENT				7.81	*	7.88	SU		1/30	GR
	PERMIT REQUIREMENT				6.5	*	9.0			1/30	GR
Oil & Grease	SAMPLE MEASUREMENT				1	1	1	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	*	10			1/30	GR
Iron; Total	SAMPLE MEASUREMENT				0.13	0.30	0.41	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	*	2.0			1/30	GR
	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 $10,000 and or maximum imprisonment of between 6 months and 5 years)

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

TELEPHONE: AREA CODE 801 NUMBER 637-6360

DATE: YEAR 86 MO 11 DAY 12

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
The limitation of one ton per day of total dissolved solids was exceeded during the monitoring period due to simultaneously dewatering two separate areas of the mine. Corrective Action Taken - Dewatering of one area was indefinitely suspended thus

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

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

TTEE NAME/ADDRESS (Include Name/Location if different)
Soldier Creek Coal Company
ESS P.O. Box I
Price, UT 84501

LITY Banning Siding Loadout
TION Carbon County, Utah

(2-16) PERMIT NUMBER: UT-0023817

(17-19) DISCHARGE NUMBER: 001

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86 (20-21)	07 (22-23)	01 (24-25)	TO	86 (26-27)	09 (28-29)	30 (30-31)

NOTE: Read Instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT		NO	DISCHARGE							
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
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	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

30

ME/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 $10,000 and/or maximum imprisonment of between 6 months and 5 years.)*

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

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY
801	637-6360	86	10	10

MMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

PAGE OF

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

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

FACILITY NAME/ADDRESS (Include name/location if different)
Soldier Creek Coal Company
P.O. Box I
Price, UT 84501

Discharge Pipe
Carbon County, Utah

(2-16) PERMIT NUMBER: UT-0023680

(17-19) DISCHARGE NUMBER: 003

MONITORING PERIOD

FROM YEAR	MO	DAY	TO YEAR	MO	DAY
86	10	01	86	12	31
(20-21)	(22-23)	(24-25)	(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	QUALITY OR CONCENTRATION (4 Card Only) (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Flow	SAMPLE MEASUREMENT	0.238*	0.180**	MGD	*	*	*	MGD		1/30	Meter
	PERMIT REQUIREMENT	*	*		*	*	*			1/30	Meter
Solids; Total Suspended	SAMPLE MEASUREMENT				2.0	4.0	8.0	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	25	70			1/30	GR
Solids; Total Dissolved	SAMPLE MEASUREMENT				780	881	1,040	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	*	1,500			1/30	GR
pH	SAMPLE MEASUREMENT				8.17	*	8.37	SU		1/30	GR
	PERMIT REQUIREMENT				6.5	*	9.0			1/30	GR
Oil & Grease	SAMPLE MEASUREMENT				1	1	1	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	*	10			1/30	GR
Iron; Total	SAMPLE MEASUREMENT				0.12	0.42	0.76	MG/L		1/30	GR
	PERMIT REQUIREMENT				*	*	2.0			1/30	GR
	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 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.)

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

TELEPHONE AREA CODE	NUMBER	DATE YEAR	MO	DAY
801	637-6360	87	01	19

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
*Average daily discharge for monitoring period based on the number of gallon totalized at flow meter.
**Highest value recorded during actual sampling.

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

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

TEE NAME/ADDRESS (Include Name/Location if different)
Soldier Creek Coal Company
S P.O. Box I
Price, UT 84501

TY Discharge Culvert
ION Carbon County, Utah

(2-16) PERMIT NUMBER: UT-0023680

(17-19) DISCHARGE NUMBER: 001

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	10	01	TO	86	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read Instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT		NO DISCHARGE								
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
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	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

IE/TITLE PRINCIPAL EXECUTIVE OFFICER
David G. Spillman
Mine Engineer
TYPED OR PRINTED

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

TELEPHONE: AREA CODE 801 NUMBER 637-6360

DATE: YEAR 87 MO 01 DAY 19

MENT AND EXPLAN N OF ANY VIOLATIONS (Reference all attachments here)

32

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

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

ITEE NAME/ADDRESS (Include Name/Location if different)
Soldier Creek Coal Company
P.O. Box I
Price, UT 84501

ITY Sedimentation Pond
TION Carbon County, Utah

(2-16) PERMIT NUMBER: UT-0023680

(17-19) DISCHARGE NUMBER: 002

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	10	01	TO	86	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read Instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT		NO DISCHARGE								
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
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	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

ME/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 $10,000 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	87	01	19
AREA CODE	NUMBER	YEAR	MO	DAY

MMENT AND EXPLAN ON OF ANY VIOLATIONS *(Reference all attachments here)*

33

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

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

FACILITY NAME/ADDRESS (Include Name/Location if different)
Soldier Creek Coal Company
P.O. Box I
Price, UT 84501

CITY Banning Siding Loadout
COUNTY Carbon County, Utah

(2-16) PERMIT NUMBER: UT-0023817

(17-19) DISCHARGE NUMBER: 001

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	86	10	01	TO	86	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read Instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT		NO DISCHARGE								
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
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	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	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 $10,000 and/or maximum imprisonment of between 6 months and 5 years.)

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

TELEPHONE: AREA CODE 801, NUMBER 637-6360

DATE: YEAR 87, MO 01, DAY 19

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

34

Subsidence Monitoring

On February 25, 1986, the Division granted approval to delay subsidence monitoring for 1986. A copy of the approval letter is contained in the correspondence section. This delay was granted in order to allow for the development of a comprehensive monitoring plan to include the enlarged permit area proposed in the new PAP. This comprehensive plan has subsequently been approved by the Division (PAP, Section 4.4.1) and is scheduled to be implemented in 1987.

Actual subsidence monitoring performed in 1986 was limited to visual observation made during surface water monitoring activities. These visual checks failed to identify any surface irregularities which could be attributed to subsidence.

Vegetation Data

The vegetation study and floral characteristics described in the new PAP were derived from two previously approved permit documents, Sage Point-Dugout Canyon (ACT/007/009) and Soldier Canyon (ACT/007/018), and new information collected in the summer of 1986. A detailed description of the baseline vegetation data and reference area methodology is contained in section 3.7 of the PAP. Also monitoring information of the existing revegetation field trial study sites is presented in section 5.6.12.

Specific vegetation monitoring activities which occurred during 1986 include:

1. The shrub-grass-juniper community in and around the proposed waste rock disposal area was sampled and documented;

2. A new reference area was established near the proposed waste rock disposal area;

3. The existing mountain brush and deciduous streambank reference areas were monitored;

4. The sewage lagoon, topsoil storage, and new fan field trial study sites were monitored.

Range condition of the reference area and productivity of the field trial study sites was verified by Soil Conservation Service. Their letters dated July 23, 1986, and October 22, 1986 are presented in the correspondence section. All other monitoring data are summarized in the following tables.

TABLE 3.7 - 8

SAMPLED VARIABLES IN THE SHRUB-GRASS-JUNIPER COMMUNITY IN THE WASTE ROCK DISPOSAL AREA (1986)

CATEGORY SPECIES	GROUND COVER (%)	CURRENT ANNUAL PRODUCTIVITY (g/m^2)	WOODY PLANT DENSITY ($STEMS/m^2$)
BARE GROUND	39.53		
LITTER	12.33		
ROCK	23.40		
TREES*			
Juos	0.87		0.024
Pied	0.53		0.007
SHRUBS			
Arno	2.26	2.64	0.427
Artr	0.07		0.010
Atco	3.87	45.31	0.210
Chna			0.004
Eriogonum	0.67	1.92	0.054
Gusa	0.07		0.014
Pamy			0.017
Epvi		0.18	
GRASSES			
Elsa	14.40	69.94	
Hija	1.13	0.09	
Orhy	0.07		
FORBS			
Antennaria	0.13		
Asco		9.71	
Lase	0.13	3.17	
Leer	0.07		
Spco	0.07	0.06	
Stpi	0.13	0.55	
Unknown	0.27	1.36	
TOTALS	100.00	134.93	0.767
Sampling stats: n =	15	17	15
$\bar{X}$ =	24.733	134.924	15.267
s^2 =	9.067	1331.998	7.924
10/80 =	2.4	12.0	5.6

*Shrubs and tree cover was included to a height of 1.5 meters

Revised 8/8/86

TABLE 3.7 - 12

SAMPLED VARIABLES IN THE SHRUB-GRASS-JUNIPER REFERENCE AREA (1986)

CATEGORY SPECIES	GROUND COVER (%)	CURRENT ANNUAL PRODUCTIVITY (g/m^2)	WOODY PLANT DENSITY ($STEMS/m^2$)
BARE GROUND	42.53		
LITTER	17.07		
ROCK	15.27		
TREES*			
Juos	1.13		0.024
Pied	1.07		0.010
SHRUBS			
Arno	4.67	8.29	0.540
Artr	0.73	0.87	0.037
Atco	1.93	44.50	0.134
Chna			0.027
Eriogonum		0.37	0.020
Gusa	0.53	0.46	0.137
Pamy			0.024
GRASSES			
Elsa	10.80	118.16	
Hija	0.07	0.03	
Orhy	1.33	1.48	
FORBS			
Antennaria	0.20		
Asco	1.87	11.35	
Lase	0.53	2.44	
Moss	0.27		
Unknown		0.53	
TOTALS	100.00	188.48	0.953
Sampling stats: n =	15	15	15
$\bar{x}$ =	25.130	188.473	19.000
s^2 =	19.267	2830.185	20.714
10/80 =	5.0	13.1	9.4

Range Condition = GOOD

*Shrub and tree cover was included to a height of 1.5 m

Revised 8/8/86

TABLE 3.7 - 10

SAMPLED VARIABLES IN THE MOUNTAIN BRUSH REFERENCE AREA (1986)

CATEGORY SPECIES	GROUND COVER (%)	WOODY PLANT DENSITY (STEMS/m^2)
BARE GROUND	18.12	
LITTER	27.59	
ROCK	15.40	
TREES*		
Pied	2.67	0.014
SHRUBS		
Amal	14.00	0.400
Arfr	0.14	0.017
Artr	0.33	0.037
Chna		0.020
Epvi	1.67	0.040
Gusa	0.20	0.007
Quga	0.53	0.024
Syor	1.07	0.060
GRASSES		
Agsp	0.07	
Elsa	12.00	
Orhy	0.27	
FORBS		
Arlu	0.07	
Asco	5.00	
Erpu	0.60	
Lase	0.27	
TOTALS	100.00	0.619
Sampling stats: n =	15	15
$\bar{x}$ =	38.870	12.333
s^2 =	55.695	9.667
10/80 =	6.1	10.5

Range Condition = GOOD

*Shrub and tree cover was included to a height of 1.5 m

Revised: 10/24/86

TABLE 3.7 - 11

SAMPLED VARIABLES IN THE DECIDUOUS STREAMBANK REFERENCE AREA (1986)

CATEGORY SPECIES	GROUND COVER (%)	WOODY PLANT DENSITY (STEMS/m^2)
BARE GROUND	5.60	
LITTER	29.06	
ROCK	7.87	
TREES*		
Acgl	1.40	0.044
Acne	3.40	0.084
Juos	0.33	0.007
Pied	0.20	0.010
Poan	13.20	0.464
SHRUBS		
Amal		0.007
Arfr		
Artr	0.07	0.007
Cele		0.004
Cemo	0.60	0.030
Chna	0.07	0.007
Chvi	0.13	0.004
Epvi		
Eriogonum sp	0.07	
Gusa	0.20	0.054
Ilex sp	0.60	0.040
Juco		0.004
Prvi	0.80	0.030
Quga	0.27	0.010
Rhtr	0.60	0.027
Salix sp	0.13	
Syor	1.13	0.027
GRASSES		
Agcr	1.47	
Agsm	0.13	
Bromus sp	0.07	
Brte	0.73	
Hija	0.07	
Orhy	0.73	
Popr	12.86	
Spcr	0.07	
FORBS		
Arlu	1.27	
Cirsium sp	0.60	
Clli	7.00	
Basa	1.60	
Lare	2.33	
Lase	0.33	
Giag	0.07	
Penstemon sp	0.80	
Moss	0.07	
Lupinus sp	1.93	
Meof	0.27	
FORBS (continued)		
Vicia sp	0.20	
Acmi	0.13	
Taof	0.07	
Unknown forbs	1.47	
TOTALS	100.00	0.860
Sampling stats: n =	15	15
$\bar{X}$ =	57.467	17.067
s^2 =	25.410	24.781
10/80 =	1.3	14.0

Range Condition = FAIR

*Shrub and tree cover was included to a height of 1.5 m

Revised 8/8/86

TABLE 5.6-2

FIELD TRIAL MONITORING DATA FROM 1986 INVESTIGATIONS

Sewage Lagoon Trial Site

Ground Cover

Bare Ground Exposure	57.5%	
Litter	16.8%	
Rock	1.0%	
	75.3%	Percent Relative Composition
Crested Wheatgrass	13.8%	55.88%
Ranger Alfalfa	4.6%	18.62%
Yellow Sweetclover	3.5%	14.17%
Fourwing Saltbush	2.5%	10.12%
Western Wheatgrass	0.2%	0.81%
Curlycup gumweed	0.1%	0.40%
Total Plant Cover	24.7%	100.00%

Covering Sampling Statistics

n	= 10
mean	= 24.7
variance	= 25.344
10/90 min n	= 11.3

Estimated Productivity (Applicant)

Shrubs	135 lbs/ac
Grasses	200 lbs/ac
Forbs	200 lbs/ac
	535 lbs/ac

Shrub Density (35' x 45' area)
Fourwing Saltbush - 41 stems

Range Condition (Applicant)
FAIR to GOOD

Estimated Productivity (SCS)

Entire Site 500-600 lbs/ac

Revised 8/8/86

TABLE 5.6-2 (continued)

FIELD TRIAL MONITORING DATA FROM 1986 INVESTIGATIONS

Topsoil Storage Field Trial Site

Ground Cover

Bare Ground Exposure	5.1%	
Litter	52.5%	
Rock	1.1%	
	58.7%	Percent Relative Composition
Intermediate Wheatgrass	36.8%	89.10%
Ranger Alfalfa	2.5%	6.05%
Crested Wheatgrass	1.7%	4.12%
Curlycup gumweed	0.3%	0.73%
Total Plant Cover	41.3%	100.00%

Cover Sampling Statistics

n = 10
mean = 41.3
variance = 78.456
10/90 min n = 12.5

Estimated Productivity (Applicant)

Shrubs	0 lbs/ac
Grasses	1500 lbs/ac
Forbs	100 lbs/ac
	1600 lbs/ac*

Shrub Density (entire area)
Rubber Rabbitbrush - 1 stem
Fringed Sagebrush - 1 stem

Range Condition (Applicant)
GOOD

*Note: Significant grazing had occurred prior to sampling

Estimated Productivity (SCS)

Entire Site 1700-1900 lbs/ac

Revised 8/8/86

SC/E/5

TABLE 5.6-2 (continued)

FIELD TRIAL MONITORING DATA FROM 1986 INVESTIGATIONS

New Fan Field Trial Site

Ground Cover

Bare Ground Exposure	28.1%	
Litter	26.4%	
Rock	3.1%	
	57.6%	Percent Relative Composition
Ladak Alfalfa	33.6%	79.24%
Crested Wheatgrass	2.6%	6.12%
Curlycup gumweed	2.0%	4.72%
Rubber Rabbitbrush	1.3%	3.07%
Bluebunch Wheatgrass	0.9%	2.12%
Lewis Flax	0.7%	1.65%
Cheatgrass	0.3%	0.71%
Poverty sumpweed	0.3%	0.71%
Squirreltail	0.2%	0.47%
Kochia	0.2%	0.47%
Small Burnet	0.1%	0.24%
Dandelion	0.1%	0.24%
Buckwheat	0.1%	0.24%
Total Plant Cover	42.4%	100.00%

Cover Sampling Statistics

n = 10
mean = 42.4
variance = 50.489
10/90 min n = 7.6

Estimated Productivity (Applicant)

Shrubs	0 lbs/ac
Grasses	200 lbs/ac
Forbs	1200 lbs/ac
	1400 lbs/ac

Shrub Density (entire area)
Rubber Rabbitbrush - 5 stems

Range Condition (Applicant)
GOOD

Estimated Productivity (SCS)

Entire Site 1600-1700 lbs/ac

Revised 8/8/86

SC/E/5

Permit Status

On February 3, 1987, the Division of Oil, Gas and Mining approved a new five year permit, with stipulations. This new permit completely supersedes the previous permit. A copy of the permit approval is located in the correspondence section.

Soldier Creek Coal Company has responded to the permit stipulations UMC 817.42-(1)-DC, UMC 817.113-(1)-LK, UMC 817.160-.166-(1)-JRH, UMC 817.46-(2)-DC and UMC 817.116-(1)-LK. This information has been reviewed and approved by the Division. A response to the remaining stipulations, UMC 817.43-(1-2)-DC and UMC 817.46-(1)-DC, will be submitted to the Division, for approval, by August 3, 1987.

Correspondence

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ACORD® CERTIFICATE OF INSURANCE

ISSUE 3-10-86

PRODUCER

Alexander & Alexander, Inc.
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Baltimore, Maryland 21202

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED

*Including Soldier Creek Coal Company
Sun Company, Inc., its
affiliates and subsidiaries*
1801 Market Street
Philadelphia, Pennsylvania 19103

COMPANIES AFFORDING COVERAGE

COMPANY LETTER A	Travelers Indemnity Company
COMPANY LETTER B	
COMPANY LETTER C	
COMPANY LETTER D	
COMPANY LETTER E	

COVERAGES

THIS IS TO CERTIFY THAT POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS, AND CONDITIONS OF SUCH POLICIES.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIABILITY LIMITS IN THOUSANDS	EACH OCCURRENCE	AGGREGATE
A	GENERAL LIABILITY COMPREHENSIVE FORM PREMISES/OPERATIONS UNDERGROUND EXPLOSION & COLLAPSE HAZARD PRODUCTS/COMPLETED OPERATIONS CONTRACTUAL INDEPENDENT CONTRACTORS BROAD FORM PROPERTY DAMAGE PERSONAL INJURY	TSLG-186T908-A-85	1-1-85	Until Cancelled	BODILY INJURY	$	$
					PROPERTY DAMAGE	$	$
					BI & PD COMBINED	$3,000	$3,000
					PERSONAL INJURY		$
A	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS (PRIV. PASS.) ALL OWNED AUTOS (OTHER THAN PRIV. PASS.) HIRED AUTOS NON-OWNED AUTOS GARAGE LIABILITY	T-CAP-186T901-7-85	1-1-85	Until Cancelled	BODILY INJURY (PER PERSON)	$	
					BODILY INJURY (PER ACCIDENT)	$	
					PROPERTY DAMAGE	$	
					BI & PD COMBINED	$	
	EXCESS LIABILITY UMBRELLA FORM OTHER THAN UMBRELLA FORM	TDHE-UB-186T894-8-85	1-1-85	Until Cancelled	BI & PD COMBINED	$	$
A	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY				STATUTORY		
					$	(EACH ACCIDENT)	
					$	(DISEASE-POLICY LIMIT)	
					$	(DISEASE-EACH EMPLOYEE)	
A	OTHER Cargo Liability	T-M-186T900-5-85	1-1-85	Until Cancelled			

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

Soldier Canyon Mine
Carbon County, Utah

CERTIFICATE HOLDER

Utah Division of Oil Gas & Mining
355 West North Temple
3 Tri Aid Center
Suite 350
Salt Lake City, Utah 84180

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE Richard C. Barbieri

© IRMACORD CORPORATION 19

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

5 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

December 16, 1986

Mr. David Spillman
Mine Engineer
Soldier Creek Coal Company
P. O. Box I
Price, Utah 84501

Dear Mr. Spillman:

Re: Final Approval MRP Amendment, Request To Change In-mine Ground Water Monitoring Frequency, Soldier Creek Coal Company, Soldier Canyon Mine, ACT/007/018-86B, Folder #4 & 9, Carbon County, Utah

The Division has completed the review of Soldier Creek Coal Company's (SCCC) request to amend the approved in-mine ground water monitoring program for the Soldier Canyon Mine. A technical review of the proposal has been performed by David Darby, Geologist. Mr. Darby met with you at the minesite on November 21, 1986 to discuss the proposed changes to the in-mine monitoring program. The results of that meeting and the agreed upon changes are contained in the attached technical memo to file.

The operator's request to change monitoring frequency from baseline to an operational mode is hereby approved. The specific detail of the in-mine ground water monitoring changes are as outlined in the technical memo. The Division requests a written acceptance from Soldier Creek Coal Company if the specific requirements are as agreed upon during the November 21, 1986 onsite meeting. Please provide an acceptance letter by January 10, 1987.

Thank you for your cooperation and patience in completing this permitting activity. Should questions remain, please contact me or Dave Darby of the technical staff.

Sincerely,

D. Wayne Hedberg

D. Wayne Hedberg
Permit Supervisor/
Reclamation Hydrologist

RECEIVED
DEC 22 1986
SG3

jvb
cc: C. Durrett
M. L. Schilling
M. Maxell
L. Braxton
S. Linner
D. Darby
H. Shepherd
8992R-88

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

December 16, 1986

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Mine Engineer
Soldier Creek Coal Company
P. O. Box I
Price, Utah 84501

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Re: Final Approval MRP Amendment, Request To Change In-mine Ground Water Monitoring Frequency, Soldier Creek Coal Company, Soldier Canyon Mine, ACT/007/018-86B, Folder #4 & 9, Carbon County, Utah

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The operator's request to change monitoring frequency from baseline to an operational mode is hereby approved. The specific detail of the in-mine ground water monitoring changes are as outlined in the technical memo. The Division requests a written acceptance from Soldier Creek Coal Company if the specific requirements are as agreed upon during the November 21, 1986 onsite meeting. Please provide an acceptance letter by January 10, 1987.

Thank you for your cooperation and patience in completing this permitting activity. Should questions remain, please contact me or Dave Darby of the technical staff.

Sincerely,

D. Wayne Hedberg

D. Wayne Hedberg
Permit Supervisor/
Reclamation Hydrologist

jvb
cc: C. Durrett
M. L. Schilling
M. Maxell
L. Braxton
S. Linner
D. Darby
H. Shepherd
8992R-88

December 8, 1986

TO: File

FROM: David W. Darby, Geologist DWD

RE: In-mine Water Monitoring Plan, Soldier Canyon Mine, Soldier Creek Coal Company, ACT/007/018, Folders 2, 3 and 4, Carbon County, Utah,

Summary

On November 21, 1986 I met with Dave Spillman, Mine Engineer for Soldier Creek Coal Company (SCCC) to discuss modifications to their in-mine water monitoring plan and the transition from their baseline operating procedures to an operational mode.

The meeting was established to discuss the potential for SCCC converting to an operational mode for their in-mine monitoring plan. We discussed the present sources of water within the mine and developed the scenerio for its occurance in relationship to the geology and mine structure. We also discussed the water balance within the mine and the parameters that had been monitored and those that need to be analysed during operational monitoring.

After reviewing SCCC's baseline monitoring plan and the status of the in-mine water balance I determined that SCCC had collected sufficient baseline data and could be allowed to implement an operational in-mine monitoring plan.

A site specific operational plan was developed that would not place a burden on the operator in obtaining costly and excessive water samples, yet provide a guide to obtaining sufficient data to describe ground water movement and quality characteristics adjacent to the mine. The plan is intended to be dynamic in nature and will allow the operator flexability in monitoring. As mining progresses the operator will monitor sites that sustain a measurable flow over a 30 day period. Areas where mining has been discontinued will not need to be monitored if data has been presented that shows the water characteristics for that area.

Conclusion

SCCC will be required to submit an annual report to the Division that summarizes the balance and quality of ground water contacted throughout the year. A map will be submitted that illustrates the source areas of sustained flow and the areas mined during the year. The geologic nature of all sustained and anomaly flows will be calculated by the operator. The Division will review the annual report for details and make any necessary comments.

Baseline monitoring will be modified for the operational mode. SCCC will submit a complete suite of parameters listed on Table 3. of the Hydrologic Monitoring Guidelines for all new monitoring sites. A modified suite of paramaters listed on Table 3. will be submitted on an annual basis for previously monitored sites. Field measurements will be required on a quarterly basis for all monitoring sites.

Wet areas in the mine that accumulate and produce a measurable flow in the mine will be measured for flow. A represenative annual sample and quarterly field samples will be taken from one of the sources.

Recommendations

A review of the current monitoring plan revealed that some monitoring sites yielding low flows could be eliminated from the in-mine monitoring plan. Those sites are UG-3W, UG-2N2E, UG-3N, UG-3N belt, SC-1 and SC-8.

jvb
cc: Charles Durrett
Dave Cline
Wayne Hedberg
Sue Linner
1033R

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

February 25, 1986

CERTIFIED RETURN RECEIPT REQUESTED
P-592-429-533

Mr. J. T. Paluso, Chief Engineer
Soldier Creek Coal Company
P. O. Box 1
Price, Utah 84501

Dear Mr. Paluso;

Re: Approval of Request to Suspend Subsidence Monitoring, Soldier Canyon Mine, ACT/007/008, Folder No. 3, 4 and 10, Carbon County, Utah

The Division has reviewed your January 10, 1986 request to temporarily suspend the yearly subsidence survey.

In recognition of the current situation, the Division grants approval to delay subsidence monitoring for the 1985-86 season. This approval will remain in effect until the new subsidence monitoring plan, which incorporates the Soldier Creek Mine property and Dugout Creek Mine property, is reviewed and approved by the Division.

It is understood that the revised mine plan containing the new subsidence proposal for the above mentioned properties will be submitted in March. The Division will review the proposed subsidence monitoring plans at that time.

Soldier Creek Coal Company will be required to resurvey the original subsidence markers to determine if subsidence has occurred when weather permits. The company should then correlate the existing subsidence monitoring plan with the new subsidence monitoring plans.

Thank you for your cooperation in completing this permitting activity. Should questions remain, please contact me or Dave Darby of the technical staff.

Sincerely,

D. Wayne Hedberg
Permit Supervisor/
Reclamation Hydrologist

DWD:jvb
cc: A. Klein
L. Braxton
D. Darby
J. Helfrich
S. Linner
0005R-7

United States
Department of
Agriculture

Soil
Conservation
Service

350 North 4th East
Price, Utah 84501

July 23, 1986

Steven R. Viert
P. O. Box 9557
Fort Collins, CO 80525

Dear Mr. Viert:

The production on the area by the lower evaporation pond is between 500 and 600 pounds per acre.

The production on the area below the fenced-in storage area south of the mine is 1,700 to 1,900 pounds per acre.

The production on the area above the upper fan is 1,600 to 1,700 pounds per acre.

These three sites are seeded and the Soil Conservation Service does not give a condition rating for seeded sites.

The riparian area by the pumping station is producing between 3,000 and 4,000 pounds of total herbage. The condition is high fair or low good. The site has been disturbed in the past, but the site is native vegetation and is recovering very well.

George S. Cook
Range Conservationist

United States
Department of
Agriculture

Soil
Conservation
Service

350 North 4th East
Price, Utah 84501

October 22, 1986

Mr. Charlie W. Durrett
Soldier Creek Coal Company
P. O. Box 35B
Lakewood, CO 80235

Dear Mr. Durrett:

The mountain brush reference area just west of the mine is in good range condition in a static apparent trend.

The shrub-grass-Juniper reference area west of the sewage lagoon sites is in good range condition in a static apparent trend.

Sincerely,

Scott E. Ferguson

Scott E. Ferguson
Range Conservationist, SCS, Price, Utah

cc: Keith E. Beardall, DC, SCS, Price,UT

RECEIVED
OCT 24 1986
EXTERNAL AFFAIRS

The Soil Conservation Service
is an agency of the
Department of Agriculture

Revised: 10/24/86

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
(801) 538-5340

This permit, ACT/007/018, which incorporates the Office of Surface Mining Reclamation and Enforcement (OSMRE) Permit UT-0023, is issued for the state of Utah by the Utah Division of Oil, Gas and Mining (DOGM) to:

Soldier Creek Coal Company
P. O. Box I
Price, Utah 84501
(801) 637-6360

for the Soldier Canyon Mine. Soldier Creek Coal Company is the lessee of federal coal leases SL-051279-063188, U-50722, and the lessee of state coal leases ML-22675, ML-21994, ML-42648, and ML-42649. A performance bond is filed with the DOGM in the amount of $522,592.00, payable to the state of Utah, Division of Oil, Gas and Mining and OSMRE. DOGM must receive a copy of this permit signed and dated by the permittee.

Sec. 1 STATUTES AND REGULATIONS - This permit is issued pursuant to the Utah Coal Mining and Reclamation Act of 1979 , Utah Code Annotated (UCA) 40-10-1 et seq, hereafter referred to as the Act.

Sec. 2 PERMIT AREA - The permittee is authorized to conduct surface coal mining and reclamation operations on the following described lands (as shown on the map appended as Attachment B) within the permit area at the Soldier Canyon Mine situated in the state of Utah, Carbon County, and located:

Township 13 South, Range 12 East, SLBM

Section 4: All
Section 5: E1/2
Section 7: All
Section 8: All
Section 9: W1/2, NE1/4, N1/2SE1/4

Section 17: N1/2
Section 18: N1/2 N1/2, SE1/4 NE1/4, S1/2 NW1/4, NW1/4 NE1/4 SW1/4 NE1/4, NW1/4 SW1/4 NE1/4 SW1/4 NE1/4, NE1/4 SE1/4 NW1/4 SW1/4 NE1/4
Section 19: Portion of SW1/4 SW1/4

Township 12 South, Range 12 East, SLBM

Section 32: NW1/4, SW1/4 NE1/4, E1/2 NE1/4, S1/2

Township 13 South, Range 11 East, SLBM

Section 12: E1/2, E1/2 NW1/4, E1/2 SW1/4
Section 13: N1/2 NE1/4, NE1/4 NW1/4, SE1/4 NE1/4, NE1/4 SE1/4
Section 24: S1/2 S1/2 SW1/4 SE1/4, Portion of SE1/4 SE1/4
Section 25: N1/2 NW1/4 NE1/4

This legal description is for the permit area (as shown on Attachment B) of the Soldier Canyon Mine. The permittee is authorized to conduct surface and reclamation operations connected with mining on the foregoing described property subject to the conditions of the leases, the approved mining plan, and OSMRE permit UT-0023, including all conditions and all other applicable conditions, laws and regulations.

Sec. 3 PERMIT TERM - This permit expires on February 3, 1992.

Sec. 4 ASSIGNMENT OF PERMIT RIGHTS - The permit rights may not be transferred, assigned or sold without the approval of the Director, DOGM. Transfer, assignment or sale of permit rights must be done in accordance with applicable regulations, including but not limited to 30 CFR 740.13(e) and UMC 788.17-.19.

Sec. 5 RIGHT OF ENTRY - The permittee shall allow the authorized representative of the DOGM, including but not limited to inspectors, and representatives of the OSMRE, without advance notice or a search warrant, upon presentation of appropriate credentials, and without delay to:

A. have the rights of entry provided for in 30 CFR 840.12, UMC 840.12, 30 CFR 842.13 and UMC 842.13; and,

B. be accompanied by private persons for the purpose of conducting an inspection in accordance with UMC 842.12 and 30 CFR 842, when the inspection is in response to an alleged violation reported by the private person.

Sec. 6 SCOPE OF OPERATIONS - The permittee shall conduct surface coal mining and reclamation operations only on those lands specifically designated as within the permit area on the maps submitted in the mining and reclamation plan and permit application and approved for the term of the permit and which are subject to the performance bond.

Sec. 7 ENVIRONMENTAL IMPACTS - The permittee shall minimize any adverse impact to the environment or public health and safety through but not limited to:

A. accelerated monitoring to determine the nature and extent of noncompliance and the results of the noncompliance;

B. immediate implementation of measures necessary to comply; and

C. warning, as soon as possible after learning of such noncompliance, any person whose health and safety is in imminent danger due to the noncompliance.

Sec. 8 DISPOSAL OF POLLUTANTS - The permittee shall dispose of solids, sludge, filter backwash or pollutants in the course of treatment or control of waters or emissions to the air in the manner required by the approved Utah State Program and the Federal Lands Program which prevents violation of any applicable state or federal law.

Sec. 9 CONDUCT OF OPERATIONS - The permittee shall conduct its operations:

A. in accordance with the terms of the permit to prevent significant, imminent environmental harm to the health and safety of the public; and

B. utilizing methods specified as conditions of the permit by DOGM and OSMRE in approving alternative methods of compliance with the performance standards of the Act, the approved Utah State Program and the Federal Lands Program.

Sec. 10 AUTHORIZED AGENT - The permittee shall provide the names, addresses and telephone numbers of persons responsible for operations under the permit to whom notices and orders are to be delivered.

Sec. 11 COMPLIANCE WITH OTHER LAWS - The permittee shall comply with the provisions of the Water Pollution Control Act (33 USC 1151 et seq,) and the Clean Air Act (42 USC 7401 et seq), UCA 26-11-1 et seq, and UCA 26-13-1 et seq.

Sec. 12 PERMIT RENEWAL - Upon expiration, this permit may be renewed for areas within the boundaries of the existing permit in accordance with the Act, the approved Utah State Program and the Federal Lands Program.

Sec. 13 CULTURAL RESOURCES - If during the course of mining operations, previously unidentified cultural resources are discovered, the permittee shall ensure that the site(s) is not disturbed and shall notify DOGM. DOGM, after coordination with OSMRE, shall inform the permittee of necessary actions required. The permittee shall implement the mitigation measures required by DOGM within the time frame specified by DOGM.

Sec. 14 APPEALS - The permittee shall have the right to appeal as provided for under UMC 787.

Sec. 15 SPECIAL CONDITIONS - In addition to the general obligations and of performance set out in the leases, OSMRE permit UT-0023 and this permit, the permittee shall comply with the special conditions of OSMRE permit UT-0023 and the conditions appended hereto as Attachment A.

The above conditions (Secs. 1-15) are also imposed upon the permittee's agents and employees. The failure or refusal of any of these persons to comply with these conditions shall be deemed a failure of the permittee to comply with the terms of this permit and the lease. The permittee shall require his agents, contractors and subcontractors involved in activities concerning this permit to include these conditions in the contracts between and among them. These conditions may be revised or amended, in writing, by the mutual consent of DOGM and the permittee at any time to adjust to changed conditions or to correct an oversight. DOGM may amend these conditions at any time without the consent of the permittee in order to make them consistent with any new federal or state statutes and any new regulations.

THE STATE OF UTAH

By: Dianne R Nielson

Date: 2-4-87

I certify that I have read and understand the requirements of this permit and any special conditions attached.

R W Osborn

Authorized Representative of the Permittee

Date: 2/16/87

APPROVED AS TO FORM:

By: Barbara W Roberts
Assistant Attorney General

Date: 2-6-87

1110R

Attachment A

Special Permit Conditions

Stipulation UMC 817.42-(1)-DC

1. The applicant must submit the following information on the two disturbed areas that do not have runoff reporting to the sedimentation pond within 60 days from the date of permit issuance.

   a. The exact size of each area in acres;

   b. The volume of expected runoff from the design precipitation event (i.e. 10-yr, 24-hr);

   c. The alternative sediment control method with a demonstration that the method has potential to treat drainage to meet limitations;

   d. The location of and depiction of the alternative sediment control method on a map;

   e. Maintenance methods and schedule and a monitoring plan to demonstrate compliance with limitation standards.

Stipulation 817.43-(1-2)-DC

1. The applicant must demonstrate that the diversions comply with the design events of the proposed DOGM regulations. Specifically the applicant must demonstrate that the diversions are capable of safely passing the peak flow from a 10-year, 6-hour precipitation event. If the proposed regulations have not been adopted by the Mid Permit Term Review the applicant must comply with the regulations that are in effect at that time.

2. The applicant must submit designs for the disturbed diversions that demonstrate they are in compliance with this regulation within 60 days from the date of permit issuance. Specifically, the applicant must submit designs that show the diversions have been sized to convey the 10-year, 6-hour precipitation event runoff with at least 0.3 foot free board. Additionally, the applicant must submit calculations showing the maximum expected velocity in each diversion and a demonstration of channel stability at the design velocities for each diversion.

Stipulation UMC 817.46-(1-2)-DC

1. Within 60 days from the date of permit issuance the applicant must demonstrate that the sediment pond complies with the design events as specified in the TA section UMC 817.46 to satisfy this regulation. Division review will be performed using the proposed regulations which is contingent upon these proposed regulations being adopted. If the proposed regulations have not been adopted by the Mid Permit Term Review the applicant must comply with the regulations that are in effect at that time.

2. Detailed designs for the rock waste disposal sediment pond must be submitted to the Division 120 days prior to construction. All applicable permits and approvals from federal, state, and local agencies must be obtained prior to construction.

Stipulation: UMC 817.113-(1)-LK

1. Within 60 days of permit issuance the applicant will revise the fall revegetation schedule (page 5-48) to show that seeding will not begin prior to October 1, and clarify that cutting and seedling planting is the April after seeding has been completed.

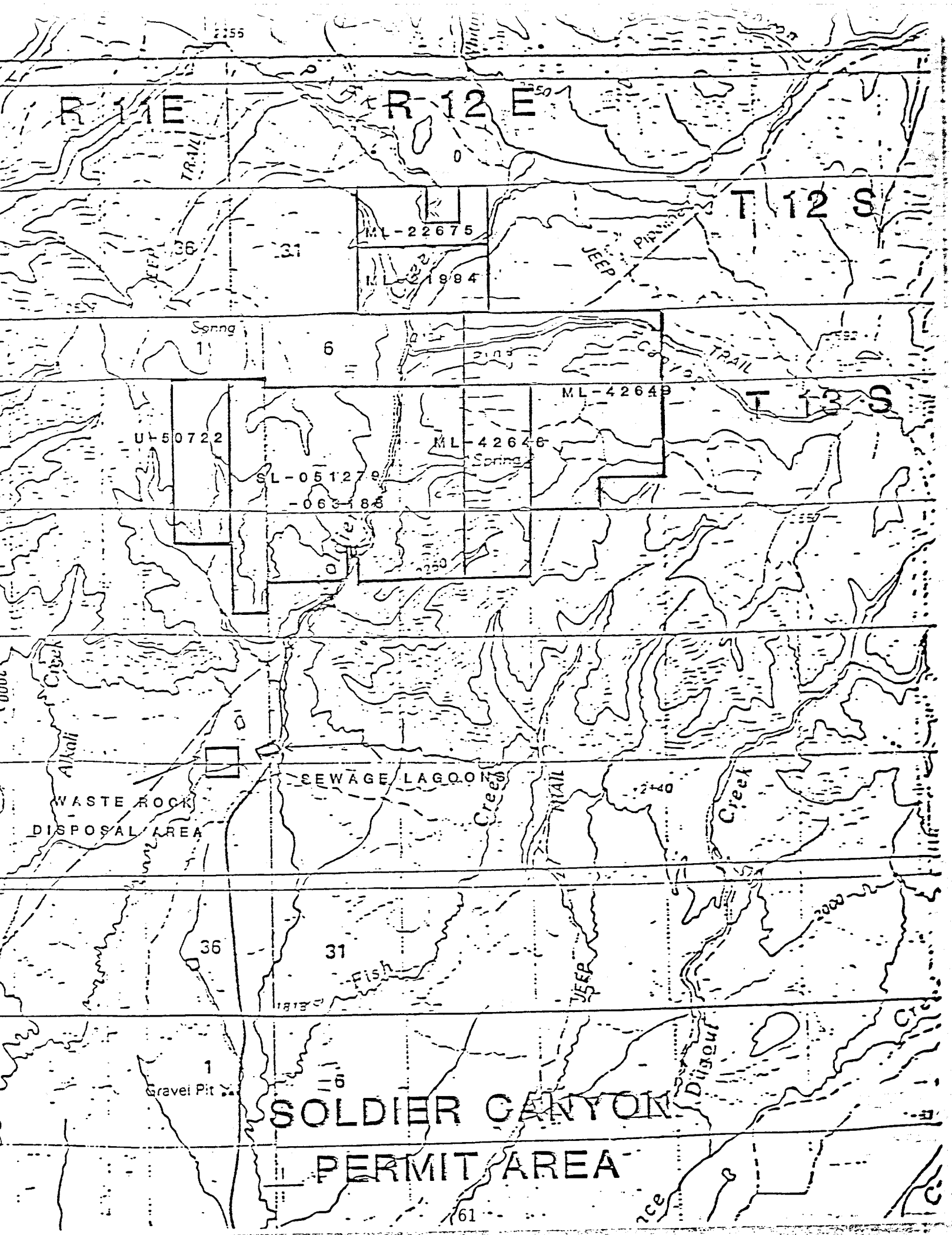
Stipulation UMC 817.116-(1)-LK

1. The applicant will have a competent range biologist evaluate the range condition of all reference areas to assure that they are in fair or better range condition. This evaluation is to be done during the field season prior to submitting the permit application for the next permit term.

Stipulations UMC 817.160-.166-(1)-JRH

1. The applicant shall provide specific plans and details of the access road to Exhaust Fan No. 1 within 60 days from the date of permit issuance, demonstrating compliance with these regulations.

1090R


R 11 E
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ML-22675
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ML-42649
ML-42646
UL-50722
SL-051279
-063-185
Spring
JEEP TRAIL
Pipeline
Canyon
Alkali Creek
SEWAGE LAGOON
WASTE ROCK DISPOSAL AREA
Fish Creek
Dugout Creek
Gravel Pit
SOLDIER CANYON
PERMIT AREA

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

35 . North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

May 5, 1987

Mr. Tom Paluso
Soldier Creek Coal Company
P. O. Box I
Price, Utah 84501

Dear Mr. Tom Paluso:

Re: Review of April 6, 1987 Response to Five Year Permit Conditions, Soldier Canyon Mine, Soldier Creek Coal Company, ACT/007/018, Folder No. 2 and 4, Carbon County, Utah

The Division has reviewed information submitted by Soldier Creek on April 6, 1987 in response to the February 4, 1987 conditional permit approval. Soldier Creek's reponse to stipulations UMC 817.42-(1)-DC, UMC 817.113-(1)-LK, and UMC 817.160-.166-(1)-JRH have been reviewed and found to be adequately addressed. Soldier Creek has accepted stipulations UMC 817.46-(2)-DC and UMC 817.116-(1)-LK.

The Division approves the 60 day extension for a response to UMC 817.43-(1-2)-DC and UMC 817.46-(1-2)-DC. The operator has sufficiently justified a variance from the requirements of UMC 817.160-.166 and has adequately supplied the information for the R.E.I. Storage Area and the No. 2 Exhaust Fan Site. The attached review document discusses the stipulation review for further clarification.

Thank you for your cooperation. Please contact me or Susan Linner if you have any questions.

Sincerely,

Lowell

Lowell Braxton
Administrator
Mineral Resource Development
and Reclamation Program

RECEIVED
MAY 13 1987
DGM

jvb
cc: P. Rutledge
S. Linner
B. Team
0534R-90

April 14, 1987

TO: File

FROM: Lynn Kunzler, Reclamation Biologist

RE: Review of April 3, 1987 Response to Permit Conditions, Soldier Canyon Mine, Soldier Creek Coal Company, ACT/007/018, Folder #2, Carbon County, Utah

Soldier Creek Coal Company's response to permit conditions submitted April 3, 1987 was reviewed and found to adequately address condition UMC 817.113-(1)-LK .

0463R/63
cc: J. Leatherwood

April 16, 1987

TO: Technical File

FROM: Dave Cline, Reclamation Hydrologist DJC

RE: Response to Stipulation UMC 817.42-(1)-DC, Five Year Permit, Soldier Creek Coal Company, Soldier Canyon Mine, ACT/007/018, Carbon County, Utah

On February 4, 1987 Soldier Creek Coal Company (SCCC) was granted a Five Year Permit by the Division. The permit also included several conditions that SCCC must comply with. On April 6, 1987 SCCC submitted their response to several of the conditions. The response to stipulation UMC 817.42-(1)-DC has been reviewed and found to be acceptable.

Stipulation UMC 817.42-(1)-DC required that SCCC submit additional information on the two small area exemptions. Specifically, this stipulation required that SCCC submit the following information for the R.E.I. Storage Area and the No. 2 Exhaust Fan Site:

a. The exact size of each area in acres;

b. The volume of expected runoff from the design precipitation event;

c. The alternative sediment control method with a demonstration that the method has potential to treat drainage to meet effluent limitations;

d. The location of and depiction of the alternative sediment control method on a map;

e. Maintenance methods and schedule and a monitoring plan to demonstrate compliance with limitation standards.

SCCC has included the above information for both areas in the April 6, 1987 submittal. Additionally, the Division has found the information to be adequate to satisfy the stipulation.

jvb
cc: Sue Linner
James Leatherwood
Rick Summers
7000R-56

James

April 24, 1987

TO: Technical File

FROM: Randy Harden, Reclamation Engineer

RE: Special Permit Conditions, Five Year Permit, Soldier Canyon Mine, Soldier Creek Coal Company, ACT/007/018, Carbon County Utah

In a response sent to the Division dated April 3, 1987, and received by the Division on April 6, 1987, the operator has adequately addressed stipulation UMC 817.160-166-(1)-JRH. Comments regarding the submittal are as follows:

UMC 817.160-166 Roads: Class II - JRH

Existing Environment and Applicant's Proposal

The operator has addressed this section of the regulation in part 4.2 of the mining and reclamation plan. Revised pages of the plan, which are dated April 3, 1987, have been received by the Division and replaced in the plan.

The applicant states that the No. 1 exhaust fan, two ventilation slopes, water tank, and access road are located directly northwest of the main mine facilities as reference to Exhibit 4.1.1. These facilities, including the access road, were constructed in 1975-1976 and are incorporated into the operator's existing mining and reclamation plan.

Initial construction of the access road did not comply with the regulations pertaining to the design and construction of of a Class II road as specified in this section of the regulations. The operator considers the access road to be adequate for the following reasons:

1. All runoff from the road is conveyed directly to the central facilities sedimentation pond. This sedimentation pond provides the best available runoff treatment to prevent additional contributions of suspended solids to the natural drainage.

2. Adequate drainage and erosion controls have been constructed and maintained by the Applicant (Section 4.2.8).

3. The horizontal and vertical alignment of the road has provided acceptable access while minimizing the area disturbed. Alternative alignments were very limited due to the extreme rugged terrain of the area.

4. Road cuts and embankments constructed in 1975-1976 have demonstrated adequate stability.

5. Final reclamation for the site has been addressed and approved (see PAP, Part 5, Reclamation).

Compliance

The operator is considered to be in compliance with the requirements of this section. The operator has taken into consideration the performance requirements under Subchapter K of the regulations. Due to the location and orientation of the road, the Division concurs with the operator that modification to the road in order to comply with the horizontal and vertical alignment requirements of the regulations would require significant additional surface disturbance. Figure 4.2-1a indicates the orientation and the location of the access road. Due to the tight canyon in which the facilities are located, the existing configuration of the road appears to be prudent with accepted design standards. Traffic on the access road is limited to mine personnel only and is primarily used for the inspection of the ventilation fan.

Drainage for the access road has been incorporated into the disturbed area reporting to the sediment pond. This drainage control and sediment control is more stringent than the standards and requirements for these section of the regulations.

Road cuts and embankments of the access road are and have been maintained by the operator to minimize erosion and prevent failure. Minor slope failure that have occurred in the past along the road have been dressed and so as to minimize further potential failure.

The operator is considered to be in compliance with the requirements of this section and has sufficiently justified a variance from the requirements of this section and has sufficiently addressed the requirements of this stipulation.

cc: S. Linner
1010R - 106

S. Kinney
R. Sommers
T. Paluso, Soldier Ck

SOLDIER CREEK COAL CO.

Telephone (801) 637-6360

P.O. Box I
Price, Utah 84501

June 2, 1987

RECEIVED
JUN 05 1987
DIVISION OF
OIL, GAS & MINING

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

Re: Special Permit Conditions
Five Year Permit
Soldier Canyon Mine
ACT/007/018

Dear Mr. LOWELL Braxton:

Pursuant to today's telephone conversation, Soldier Creek Coal Company will need additional time to complete our total response to the new five year permit stipulations. The additional time is required to complete UMC 817.43-(1-2)-DC and UMC 817.46-(1)-DC. The final response will be completed by July 4, 1987.

Thank you for your cooperation on this matter.

Sincerely,

SOLDIER CREEK COAL COMPANY

Tom

J.T. Paluso
Chief Engineer

JTP:pp

6/15/87
LPB, as discussed last lots more to Aug 3, 1987

JUN 03 1987

Tom Paluso: Soldier Ck Coal Co.
Per our telephone conversation 6/15, please submit your above referenced information by Aug 3, '87. Thanx
Lowell

Maps

Surface Water Monitoring Locations

Underground Water Monitoring Locations

Mine Progress Map, 1986 Mine Development